Knowledge Creation without Deliberate Knowledge Management: A Case Study in an Innovative Firm

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Abstract

For decades, the current literature and some experts have claimed that knowledge management is essential for creating and managing knowledge and therefore also for the future success of an organisation. Many organisations are still trying to implement knowledge management systems with the overall aim to improve their knowledge base and in the hope of generating innovation. Due to the complexity of knowledge and the content of current literature, organisations still misinterpret the essence of knowledge and try to objectify everything so that it becomes manageable. This effort leads to ineffective and cost-intensive knowledge management attempts, which mostly ends in a special development in information technology.

However, very successful and innovative organisations with knowledge-intensive products without any knowledge management do exist. In order to understand the reason behind the success and innovation of organisations which do not use knowledge management, a single case study in an organisation with knowledge-intensive products has been undertaken.

Hermeneutic-phenomenology with the Gadamer-based approach has been used not only to elucidate the environment and structure, but also to understand the behaviour of the employees and the organisation. Five general patterns on a macro- and several other elements and patterns on a micro level have been revealed. As a result, this research provides new insights into knowledge creation without deliberate management and serves as a management guide, which explains the essential elements that an organisation should focus on from the outset. Their impact and relations are most pertinent for sharing new ideas, insights, and triggering innovation, and thereby devising a new approach to manage the invisible and the intangible.

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4. General Introduction

4.1 Background of the Research

Due to the increasing interest in knowledge management (KM) and knowledge creation from the business field in the last few decades, much literature has been written on them. This is elucidated in the analysis by Despres and Chauvel (2000), which shows an increase in the usage of the term KM by more than 232 times (from 3 to 698) in articles published between 1988 to 1998.

Statements like ‘There is an increasing interest in the area of KM within organizations and academia’ (McAdam & McCreedy, 1999, p. 91), ‘knowledge creation is a source of competitive advantage’ (von Krogh, Ichijo, & Nonaka, 2000, p. 3), or ‘business must learn to manage knowledge’ (Stewart, 1997, p. xxii) are only three of the many instances which perfectly exemplify that knowledge has gradually become an essential part of management sciences and economy research in the twenty-first century.

In this regard, organisations, such as Siemens (Davenport & Probst, 2002), Chaparral Steel (Wiig, 1997), Nokia, and Dow Chemical (von Krogh et al., 2000), to name just a few, have invested a lot of money and resources to implement and improve KM. IBM even went one step further and founded the ‘IBM institute for Knowledge Management (IKM)’ (Lesser & Prusak, 2004, p. 4). These organisations as well as many others certainly respect the essence of KM, which is knowledge as *the* key-factor for long-term (Bhatt, 2001) competitive advantage (Alwis & Hartmann, 2008; Awad & Ghaziri, 2010; Bhatt, 2001; Chakravarthy, McEvily, Doz, & Rau, 2005; Davenport & Prusak, 2000; Vashisth, Kumar, & Chandra, 2010). Thus, KM is often linked with research and development (R&D) (Vashisth et al., 2010), higher productivity (Mårtensson, 2000) and is considered the most important factor for business excellence (Alazami & Zairi, 2003). Additionally, KM is also respected as an asset that enhances innovation (Corso, Martini, Pellegrini, & Paolucci, 2003) within an organisation, which is critical to maintain a sustainable competitive advantage. In the same vein, Wiig (1997) claimed, ‘Making people knowledgeable brings innovation and continued ability to create and deliver products and services of the highest quality’ (p. 8). Similarly, Davenport and Prusak (2000) stated that knowledge advantage ‘generates increasing returns and continuing advantages’ (p. 17).

However, this brief introduction is only a short note on how knowledge management and creation is respected in today’s business world. Reflecting on and interpreting the above-mentioned statements lead to the understanding that knowledge and its management have come to be considered an essential element within many organisations to effect sustainable competitive advantage. This is the starting point for this research, which automatically leads to the following section of research motivation.

4.2 Purpose and Motivation of Research

Intriguingly, there are many successful and innovative organisations and market leaders in knowledge-intensive areas, which lack any traditional KM or deliberate KM. The meaning of deliberate KM is explained in section 13.1.3, “The awkward term ‘Deliberate Knowledge Management’”.

Though knowledge is essential for such organisations, they do not function in accordance with the above-mentioned arguments that claim there is an increasing need and interest in KM. Against this backdrop, some experts *causally* explain that ‘sooner or later, any organization ends up creating new knowledge’ (Nonaka & Takeuchi, 1995, p. 125) or that a sort of ‘non-deliberate’ KM (NDKM) already exists within an organisation (Schachner, 2009). Naturally, these statements are always associated with the inefficient and non-systematic creation of knowledge, which can also be seen in the traditional view of organisational learning.

However, the essence of those *causally* mentioned statements, which indicate that knowledge within organisations is created without KM as well, reflects that successful and innovative organisations without KM do exist. This may represent KM as another management fad or raise questions like ‘How does an innovative organization create knowledge without deliberate KM? Is KM really necessary to successfully create new knowledge within an organization?’

My curiosity regarding whether or not such a phenomenon had been explored led to the preliminary literature review, which showed that most of the previous investigations were about KM methods, the supposed success factors, or about *the* key supporting elements for KM success. However, there exists little or no research on knowledge creation without deliberate KM.

This insight was the impetus and motivation for my research. It confirmed that my academic contribution and research aim would not replicate a strategy or existing KM literature, but rather explore and contribute to practice by showing how the structure and the situation of an organisation without a deliberate KM system manage their knowledge capture, transfer, and creation processes. A further contribution to the body of knowledge will be a re-appraisal of the concept of success in KM deployment.

To profoundly investigate such a phenomenon, an organisation that does not use deliberate KM was sought out. This was successfully achieved by the choice of an international market leader located in a knowledge-intensive area because of its products. Nevertheless, it should be mentioned that the company engineers innovative testing and diagnostic instruments by developing, assembling, and testing the required hardware and software elements.

The reason to undertake research within this organisation is not only their extensive reputation and location in a knowledge-intensive area, but also their deliberate uninterest in implementing a KM department or any traditional KM strategy because of the unforeseeable effects on their existing structure and environment. This along with the organisation's uniqueness in developing their environment and workplace have underpinned my choice of deeming this organisation as highly appropriate for exploring the above-mentioned phenomenon. In this section, the introduction of the organisation under scrutiny is short because the research contains a holistic analysis of the organisation representing it in-depth. Additionally, terms such as deliberate KM that might raise questions are introduced later in this research.

However, fully elucidating such a phenomenon is complex, as the spring of knowledge draws on human beings and their social interactions. Therefore, it was essential to use hermeneutic phenomenology, a qualitative research approach, which allows one to understand the phenomenon as a whole drawn on different findings. Against this backdrop, semi-structured interviews and participant observation were used to analyse and interpret the phenomenon through different perspectives.

The purpose and the contribution of this research to the praxis is to reveal the elements and triggers that can guide the reader to create an organisation, where high-level knowledge can emerge more easily without implementing a traditional KM system. In this manner, a new thinking about KM may emerge.

4.3 Research Questions and Objectives

It is vital to define the research questions and objectives first because they have an important impact on the whole research process and on the choice of methodology (Saunders, Lewis, & Thornhill, 2009). Moustakas (1994) says, a research 'question grows out of an intense interest in a particular problem or topic' (p. 104). However, the interest in this investigation draws on the often-claimed and already mentioned statement that KM is a significant element for success and competitive advancement within organisations, and despite this, organisations that do not invest in any deliberate KM do exist.

However, substantively relevant, clear, and specific (Robson, 2002) research questions are defined (see Table 1) to generate new insights (Saunders et al., 2009) on how to create and manage knowledge.

Table 1

Research Questions

Number	Research question
1	What does the theory of knowledge management imply in terms of the deliberate management of the capture, transfer and creation processes of knowledge?
2	How do the processes of non-deliberate knowledge management manifest themselves in a knowledge-intensive firm?
3	What could be an emergent theory of non-deliberate knowledge management?

As Table 1 displays, this research is based on three research questions, which allow for an in-depth examination of the phenomenon under scrutiny. As mentioned above, the core focus of this research is on knowledge creation and KM in an organisational context, which contains essential elements like knowledge capture, transfer, and dissemination. However, knowledge creation is always influenced by different elements (von Krogh et al., 2000). Therefore, the first research question delves into these elements and reviews the current literature to create a generally accepted view on deliberate KM. This research question needs to be asked, because only by understanding the essence of deliberate KM can the phenomenon under scrutiny be revealed thoroughly.

The second research question is in the same vein, investigating the NDKM in an innovative business context. Answering this question automatically uncovers the phenomenon under scrutiny, which contains new insights on creating and managing knowledge.

The findings of this research are essential not only in answering the research questions, but also in postulating a new theory on how knowledge creation could take place without using deliberate KM. This new theory may lead to the paradox that it is a new way to manage knowledge (KM). As KM contains methods, tools, strategies, processes, and so forth, the new theory created in this research gives a holistic picture about how knowledge creation can take place within an organisation without implementing and using the above-mentioned KM elements.

Of the same significance as the research question, although not often mentioned in the research literature, are the research objectives. For this research, the objectives are considered as important because they lead to a greater specificity of the outcome than the research questions and show a ‘clear sense of purpose and direction’ (Saunders et al., 2009, p. 34). Therefore, the following research objectives are defined:

Table 2

Research Objectives

Number	Research objectives
1	To critically evaluate the current knowledge management theory in terms of its emphasis on prescriptive solutions.
2	To explicate organisational knowledge in relation to deliberate and non-deliberate knowledge management practices using a single case study.
3	To provide a richer understanding of the employment of business knowledge within knowledge-intensive firms.

The defined research objectives (see Table 2) provide, as mentioned, a better insight into the research activities and intended outcomes. Additionally, it may raise questions about the methods to be employed for research, as well as the processes that should be used to explore this phenomenon. Therefore, before delving into the literature review to obtain a deeper insight and understanding into the current concepts and methods of KM, the research framework is introduced as a guide for this study.

4.4 Process of Research

This section briefly discusses the process of research to provide clarity regarding the framework used for this research and a clear guideline about the whole exploration undertaken (Myers, 2010). Therefore, a process chart is drawn, outlining the process from the beginning till the conclusion, which is important for quality aspects, such as the *chain of evidence* (Yin, 2009), as discussed in the section 7.3, 'Quality of Research'.

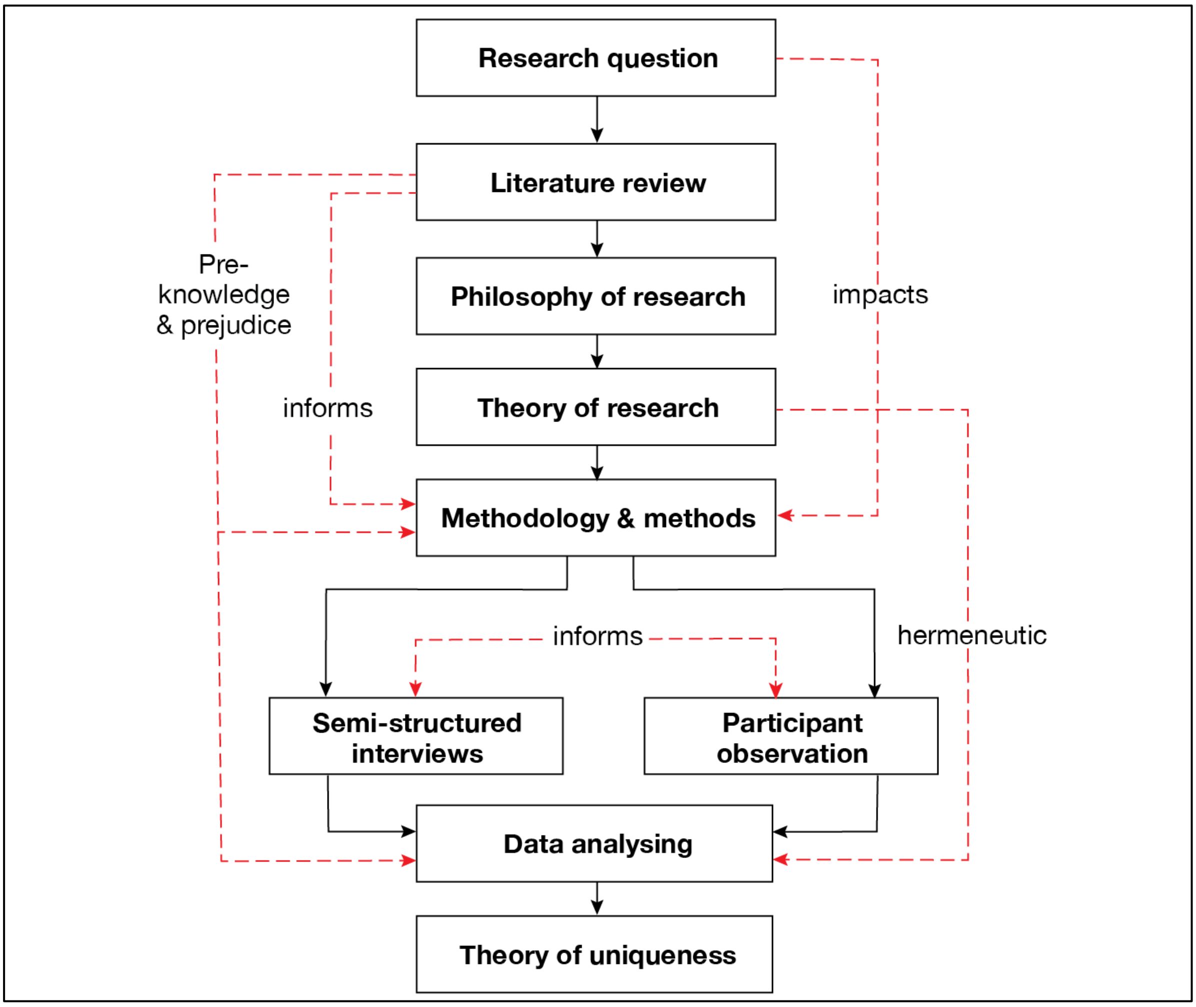

Figure 1. Research process overview

Before proceeding to examine the theoretical basis and the actual research process, the literature review must be addressed. The findings of this review are essential because they are used for the data analysis method and to answer the first research question. Thus, the literature review is a core element of this research.

5. Literature Review

Literature preserves the spoken word, and hence, represents the existing knowledge of others (Gadamer, 2010). A literature review is considered as one of the ‘most important parts’ (Steane, 2004, p. 124) of a research project, as it represents what has been already studied (Dunford, 2004). In this regard, the often-cited motto of ‘reinventing the wheel’ (Polit & Beck, 2008; Marks & Yardley, 2004) is not necessary and this aptly highlights the importance of using existing knowledge and emphasises that a start from the scratch is *unproductive* and leads to wastage of time (Polit & Beck, 2008). Therefore, the aim of this research is to build on the existing literature in this field.

Furthermore, the literature review of this research is not only important for building on existing knowledge, but also for answering the first research question and for *informing* the data gathering process (Eyles & Williams, 2008). Additionally, the literature review triggers prejudice, an essential element of Gadamer’s phenomenology hermeneutics, and therefore, also for this research, as it is introduced in the section 6.2, ‘Gadamer’s Phenomenology Hermeneutics’.

Therefore, the literature review is vital for this research, as it affects and is used for several elements in this research. The compilation of a literature review that serves as a base for several tasks calls for a comprehensive review with different perspectives and roots. The complexity of this task demands an unorthodox approach that gives rise to a twofold strategy, as shown in Figure 2. Literature review process.

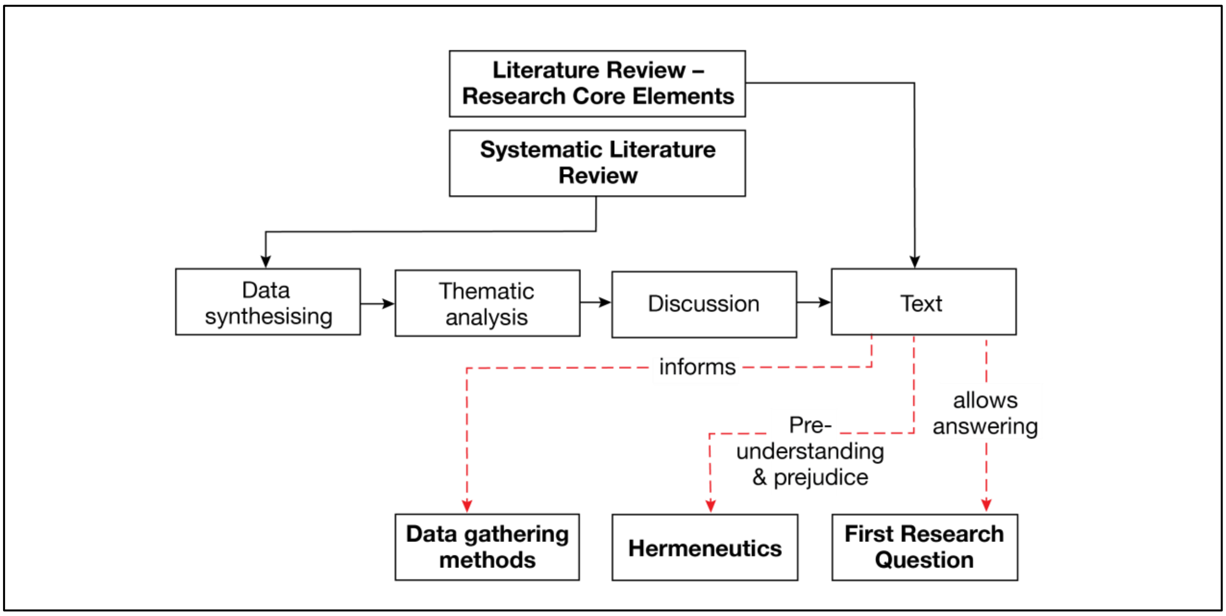

Figure 2. Literature review process

The first strategy, namely *Literature Review – Research Core Elements*, is not guided by a strict process, but rather a dynamic one. It is a review about the *core elements* of this research to rigorously discuss the very nature, or rather, the philosophy of the defined elements. The heading of this research is used as a guide to define the core elements that lead to the four components (or aspects or factors or facets). As the research is about knowledge, it is important to introduce the first core element as *the essence of the meaning knowledge*, and to discuss the different perspectives on knowledge in a philosophical light. Drawing on this insight, the second core element explains *the difficulty of defining organizational knowledge*. Knowledge creation without deliberate knowledge management can be best explained by understanding the meaning of deliberate KM first, the meaning of which is defined as the third core element. Finally, in the fourth core element, organisational knowledge creation is discussed.

While the past literature is used to derive valuable insights on the roots of the fundamental research elements to get a complete picture, the current literature is also used to reflect on past thoughts and bring in *modern* thoughts and perspectives. Because of the amount of data, the entire discussion is put into the appendix (see section 13.1, 'Literature Review − Research Core Elements').

In contrast, the second strategy, namely *Systematic Literature Review* (see Figure 2), uses a more *rigid process* to achieve a deep and prevailing understanding on what is considered vital regarding knowledge creation and KM by different experts. The field of KM and knowledge creation is not new, and many experts have invested a lot of time in investigating both. Hence, the process aims, as the name indicates, to reveal themes by the dint of thematic analyses. The identified themes are used to generate a profound discussion with different types of current and past literature.

Taking into account that thematic patterns are used to *inform* the data gathering process, one may claim that this research draws on a deductive approach because the themes that are used might be verified during the data gathering, and this possible claim is worth clarifying. The root of the idea to *inform* the data gathering methods stems from Gadamer (2010), who emphasised the importance of prejudice and pre-understanding to achieve understanding. The thematic analysis, used in this literature review, not only allows for an extended pre-understanding, but also for setting the focus on *ideas and meanings* as it concentrates on the very aim of this research. Hence, the aim is not to verify the themes, but rather to trigger and stimulate the cognitive ability and to widen the perspective of the researcher. This process does not hinder the revealing of new ideas or elements, but it is rather believed that a better *latent-understanding* or pre-understanding emerges besides the deep understanding of KM. Although pre-understanding normally contains a negative character, in this research pre-understanding is derived from Gadamer, who drew on a more *technical character* from his theory of understanding.

Therefore, this research is characterised as an *exploratory-descriptive* study (inductive approach). An *exploratory* study or an *inductive* approach (Saunders et al., 2009) is used to explore data first, followed by clarifying the understanding of a problem (Yin, 2009) by obtaining new insights to evaluate a phenomenon or problem in a new light and to generate ideas and hypotheses (Robson, 2002). The *descriptive* part may be seen as an extension of the exploratory research (Saunders et al., 2009) because it describes a phenomenon, event, or situation (Robson, 2002). Hence, it is important to first receive 'extensive previous knowledge of the situation' (Robson, 2002, p. 59). This is achieved through the exploratory study.

However, though the above-mentioned expression *rigid process* may entail a pejorative character, in this research such a process is treated as an essential first step in managing vast studies and papers. It is acknowledged that many valuable studies about KM and its creation process do exist, but for the second review strategy, only a few of them are necessary to be worked with. Hence, to select the most valuable papers, a four-step process is defined in Figure 2.

The first step of the systematic literature review is to systematically synthesise the current literature. Popay et al. (2006) explained that a synthesis is 'a summary of the current state of knowledge in relation to a particular review question' (p. 6).

In this regard, the *exclusion and inclusion criteria* are defined (see appendix Table 12). These criteria not only reduce the vast existing number of research studies (Aveyard, 2010; Bettany-Saltikov, 2012; Saunders et al., 2009), but also make the synthesising process replicable (for reliability) while reducing bias and allowing for an assessment of the validity of identified literature (Aveyard, 2010; Bryman & Bell, 2007). Furthermore, the exclusion and inclusion criteria are important elements to show 'a replicable, scientific and transparent process' (Bryman & Bell, 2007, p. 99).

Because of the fast-paced changes in the KM field, only peer-reviewed academic journals and case studies published in the last 10 years were analysed. Research studies and papers are generally considered to be ‘more up-to-date than books’ (Cronin, Ryan, & Coughlan, 2008, p. 40), and additionally, they are valuable because they are ‘evaluated by academic peers’ (Saunders et al., 2009, p. 70) and mostly written by experts in the field with ‘rigorous attention to detail; and verification of information’ (Saunders et al., 2009, p. 70).

It is worth highlighting that despite these arguments, the revealed thematic patterns are also reflected in different popular current and past literatures. Though research papers are considered more up-to-date, in this research it is essential to incorporate the current and past formative works of different management and KM gurus to profoundly discuss the thematic patterns. This process allows for an extension of the literature review discussion by incorporating different perspectives and drawing on both the past and the present, which are highly valuable and especially true for the hermeneutic analysis of data introduced later.

The research papers were selected from the databases, namely EBSCOhost and Emerald, which enable the search for peer-reviewed papers. EBSCOhost and Emerald are online information and research databases containing a vast number of journals and studies. The language of the publications searched for was English. With those parameters, two different *search-trials* were undertaken by using the *Boolean operator* to minimise the search hits. Additionally, EBSCOhost provides the option to specify the search area, such as business, psychology, or management. The chosen database for this literature review is summarised and briefly explained in the appendix (see Table 13).

After synthesising the literature, a *search outline* was undertaken. All headings and abstracts of the selected studies (first and second search) were analysed again to exclude those which were replicates or had similar content. If the number of papers were still too high, the studies were skimmed to exclude the ones with similar content. In doing so, this search process led to the narrowing down of only actual studies dealing with knowledge creation or KM in an organisational context.

For this purpose, two search trials were undertaken, which yielded 397 papers in total. They were narrowed down to 218 papers by selecting papers only from the past 10 years. The number of peer-reviewed papers was 110, which were further reduced to 102 by removing the duplicates within each search trial. All the 102 titles and abstracts were read to exclude those that did not fit the aim of this research and also to remove duplicates among the EBSCOhost and Emerald search trials, which finally led to 32 papers.

The identified 32 studies were first documented with respect to author, theme, and publication date. Before starting the reading process, which is not usual for the thematic analysis process, a *reading question* was defined. This idea is copied from critical reading and allows for the hidden elements within a text to be revealed (Jesson & Lacey, 2006; Wallace & Wray, 2011). The reading question is also considered valuable because it helps to focus on the aim of the review and to pursue the right elements (Polit & Beck, 2008), as the question automatically defines which latent or manifest meanings are the most important. Drawing on the essence of this research, which is about NDKM, the reading question was defined as follows: 'What influences or what has a positive effect on knowledge creation within an organization?'

The question also helps decide the number of studies to be read for this literature review, when 'there are diminishing returns from reading' (Steane, 2004, p. 135). In other words, if the identified meanings start to recur or when there are no new insights, a diminishing return of reading occurs, where further reading is not constructive.

During the reading process, the thematic analysis strategy was used because it 'provides a means of organizing and summarizing' (Pope, Mays, & Popay, 2007, p. 97) and allows for identifying, grouping, and summarising the most important issues or themes regarding the review questions (Pope et al., 2007). Therefore, thematic analysis is an empirical approach (Joffe, 2012). Joffe and Yardley (2004) explained that a theme is 'a specific pattern found in the data' (p. 57) and is referred to with the terms 'manifest' or 'latent' meaning. Manifest meanings are those which are identifiable as a word or word-group, whereas latent meanings *hide* the meaning, for instance through an explanation (Joffe & Yardley, 2004). For this research, both manifest and latent meanings are considered.

After the selected 32 papers were read and analysed, 270 latent and manifest meanings were identified. Following the data export from the Atlas-ti software, which is used to guarantee quality, validity, and reproducibility, to an Excel file, all meanings were analysed and extended with a thematic pattern. The purpose of a thematic pattern is to reduce the plethora of themes into *areas* like *communication and language* or *human resource management*. The defined thematic patterns with their latent and manifest meanings were transferred into an Excel matrix for a better overview, as shown in Figure 3.

Thematic pattern	**Latent and Manifest meanings**			
Communication and language	Asking the right question	Common language	Reflective communication	Expert language
Human resource management	Academics – well-educated - smart people	Level of education	Motivation-Incentives-Reward Systems	Method: competency modelling
Research & Development	Product development	Product–concept model	Number of products or services	Exploration

Figure 3. Excerpt of the knowledge creation levers matrix

The assignment of a theme to a pattern is a subjective undertaking that draws on the researcher's experience and knowledge. Additionally, some identified themes can be assigned to more than one pattern or also be a part of another thematic pattern. The aim is not to synthesise and catalogue all identified themes ad infinitum. In this case, the identified latent and manifest meanings led to the formulation of 14 thematic patterns.

However, considering the vast amount of data, it is impossible to separately discuss each identified latent or manifest meaning. Therefore, each thematic pattern was discussed only with respect to knowledge creation. Table 3 (Knowledge creation levers) outlines the above-mentioned 14 defined thematic patterns. They are titled as *Knowledge creation levers* because they have an important impact on knowledge creation with respect to the analysed literature.

Table 3

Knowledge Creation Levers

The levers of knowledge creation	
1. Communication and Language	8. Information Technology
2. Human Resource Management	9. Knowledge Assets
3. Research & Development	10. Knowledge Community
4. Environment	11. Relationships/types of relationships
5. Learning Organisation	12. Culture
6. Organisation basics	13. Leadership and Management
7. Process	14. Knowledge creation supporting elements

It should be noted that some of the identified themes and defined thematic patterns have already been mentioned by different experts in the current literature and are often titled as *knowledge creation conditions* or *knowledge creation enablers* (Allee, 1997; Nonaka & Takeuchi, 1995; Tiwana, 2000; von Krogh et al., 2000).

This section, like the first literature review strategy, is included in the appendix (see section 13.2, ‘Systematic Literature Review’) because of the extensive discussion of the knowledge creation levers (i.e. identified thematic patterns).

5.1 First Research Question Answered

As a reminder, the first research question is as follows: ‘What does the theory of knowledge management imply in terms of the deliberate management of the capture, transfer and creation processes of knowledge?’

The comprehensive systematic literature review and the literature review about the core elements of the research, fully presented in the appendix (see 13.1, ‘Literature Review -

Research Core Elements' and 13.2, 'Systematic Literature Review'), answers the first research question, but is worth mentioning and summarising.

Knowledge has been recognised as an essential resource for any organisation for decades. Despite this, experts still discuss the best ways to manage and create new knowledge within an organisation even today. In the past years, there has been a change in the understanding of the meaning of KM, and valuable new insights have been added on what really is important for the generation of new knowledge. Given that the issue of KM, and therefore, knowledge creation is not so new (first mentioned by Penrose, 1959/2009), there are several *basic rules* and *fundamental insights* that are important in enhancing knowledge creation within an organisation. Especially in the last decades, many discussions about knowledge and KM have emerged, leading to understandable and well-established explications regarding data, information, and knowledge (explicit and tacit). These explications are important for recognising how knowledge can be captured, transferred, and generated. In short, explicit knowledge can be easily captured, managed, and disseminated by the dint of information technology; but tacit knowledge, which is considered very valuable for innovation, needs social interaction to be transferred because of its elusiveness.

The literature review reveals through the discussion of the thematic patterns, such as relationship or culture, that social interactions and relationships are among the other important elements essential for knowledge creation. Its importance is underpinned by the fact that knowledge assimilation through communication takes place up to 80% of the time, whereas knowledge assimilation through explicit knowledge, for instance, by reading a book or memo, only takes place 20% of the time. Although social interactions are essential, it would be a mistake to underestimate the role of communication and information technology, which supports knowledge creation on different levels. It is pivotal to understand that computer data is regarded as data or maximum information, but never as knowledge because knowledge has an interpretive character.

Though many knowledge creation processes and theories exist, one of the most cited and used processes in the current literature was developed by Nonaka and Takeuchi (1995). It is an easily understandable process explaining the transformation of knowledge from tacit to explicit, followed by the internalisation of the extracted knowledge into the organisation. However, the literature review indicates that this process is not correct because tacit knowledge can never be made explicit.

Valuable insights on the essential elements for knowledge transfer and knowledge creation are revealed through the systematic literature review. As discussed above, the 14 thematic patterns are considered to be essential for effective knowledge creation by the current literature. The literature review reveals that some of the thematic patterns are logical, but they are not always easy to implement in an organisation because of the existing culture, different characteristics of employees, and the history of an organisation, which highly influence the degree to which what can be implemented and how.

The summary of what has been found in this literature review is ‘that knowledge cannot be managed, only enabled’ (von Krogh et al., 2000, p. vii). Nevertheless, the themes revealed through the literature review are always represented as isolated issues, such as environment and the concept of ‘ba’, culture, processes, communication, or leadership to name a few. They strongly focus on the question ‘what is essential for employees to generate, or rather, to *force* knowledge sharing and knowledge creation?’

This section shows how the understanding of knowledge has developed in the existing literature and is carried forward to the data analysis.

6. Philosophy in Research

Research philosophy ‘relates to the development of knowledge and the nature of that knowledge’ (Saunders et al., 2009, p. 107). Barnacle (2005) further claimed that philosophy of research concerns ‘an action or movement: the orientation of one’s desire toward wisdom’ (p. 182).

Researchers have to understand that their chosen position influences the process of thinking as well as the decision-making in the research undertaken. Irrespective of the researcher’s chosen position, there is no question of a better or worse stance; however, it is important that the researcher be well-aware of their ontological and epistemological stance, as it ultimately leads to a more aware philosophical stance (Saunders et al., 2009). These elements are strongly connected to each other. The different possible ontological assumptions are a prelude to the process of research, so they may possibly require different research designs and data gathering methods (Bryman & Bell, 2007).

The *ontology* to be chosen is one of the important decisions to be made regarding research philosophy, and it depends on one’s beliefs about how the world works (Ponterotto, 2005; Saunders et al., 2009). Holloway and Wheeler (2002) explained that ‘The ontological question is concerned with the nature of reality and our knowledge about it, ‘how things really are’ (p. 171). Therefore, at this stage, a researcher has to determine their point of view regarding reality or more specifically ‘what is the form and nature of reality’ (Ponterotto, 2005, p. 130), which can be roughly categorised as *objectivism* and *subjectivism*. This decision has a significant impact on what researchers seek to achieve, how they observe and explain things as well as their reasoning process during the research (Mingers & Willcocks, 2004). *Objectivism* takes the view that social phenomena exist in a reality external to or independent of social actors (human beings) (Bryman & Bell, 2007; Saunders et al., 2009). On the other hand, *subjectivism* takes the view that social phenomena are created through the 'perception and consequent actions of the social actors' (Saunders et al., 2009, p. 111). The social phenomena change because of the consequent social interaction (Bryman & Bell, 2007; Saunders et al., 2009).

In this research, the *subjectivist* view is chosen because a salient reality is created by the social interaction of the employees in the organisation under scrutiny. This is where knowledge creation exhibits the *action of social actors*.

It is to be noted that, because of the incorrect understanding of the difference between data, information, and knowledge, some consider knowledge to be stored in computers while for others it is stored in the heads of human beings. In this respect, I align my research with the latter understanding, which is in line with the profound explanations pertaining to knowledge in the section 13.1, 'Literature Review - Research Core Elements' and the section 13.2, 'Systematic Literature Review'. This is because organised data produces information (Bhatt, 2001), and knowledge is created through the information anchored on the commitment and belief of an individual (Nonaka, 1994). Therefore, the knowledge creation process is undertaken by humans through their social interactions (Gadamer, 2010; Kikoski & Kikoski, 2004; von Krogh et al., 2000).

Epistemology, the other important choice relating to research philosophy, is as significant as *ontology* because it contains the 'theory of knowledge' (Holloway & Wheeler, 2002, p. 3), and it is about knowing or to be more exact 'the question of what is (or should be) regarded as acceptable knowledge in a discipline' (Bryman & Bell, 2007, p. 16) or in an area of study (Saunders et al., 2009). For Mingers and Willcocks (2004), the term *theory* (theory of knowledge), often used in this context, is inappropriate because of its complex nature. Hence, they defined epistemology 'as a broad and high-level outline of the reasoning process by which a school of thought performs its empirical and logical work' (Mingers & Willcocks, 2004, p. 6). Research not only raises questions and issues about knowledge**,** but also deals with the relationship between the knower (participant) and the would-be knower (researcher) (Coll & Taylor, 2001; Ponterotto, 2005). This insight on epistemology underpins Myer's (2010) statement that it is essential for a researcher to understand the foundation of their knowledge as well as the limit of that knowledge.

Drawn against this backdrop, epistemology can be roughly divided into two groups: one which considers objects as reality *(positivists)* and the other which considers feelings and beliefs as reality *(interpretivist)* for knowledge (Bryman & Bell, 2007; Holloway & Wheeler, 2002).

The researcher recognises the *former view of knowledge*, which considers objects like machines or computers (Saunders et al., 2009) as reality. The researcher tries to create knowledge, which exists beyond the human mind, or as Weber (2004) said, the 'human experience of the world reflects an objective, independent reality and that this reality provides the foundation for human knowledge' (p. vi). By using such a view of knowledge as reality, the researcher's epistemology accommodates the collection and analysis of facts and findings, which are far less open to bias and therefore more objective (Ponterotto, 2005; Saunders et al., 2009). Bryman and Bell (2017) stated that 'Knowledge is arrived at through the gathering of facts that provide the basis for laws' (p. 16). This statement emphasises on subjective/objective dualism, which considers the researcher independent of their research or research participant (Ponterotto, 2005). This view of developing knowledge is called the positivist philosophy.

According to Holloway and Wheeler (2002), in the *latter view of knowledge* 'human beings differ from the material world' (p. 4); therefore, it cannot be modified or measured. However, this view represents the particular goal, culture, education, and lived experience of the researcher built through the social construction of the world (Weber, 2004). As a result, based on the ontological stance, the researcher is of the *latter view of knowledge* and adopts the interpretivist philosophy (Bryman & Bell, 2007; Saunders et al., 2009).

Based on this view, it is also important to clarify that the origin of knowledge has an important impact on how the researcher sees the creation of knowledge, which is particularly relevant to this research. Concerning this, the different types of origin of knowledge are constructivism, social constructivism, and constructionism (Talja, Tuominen, & Savolainen, 2005).

In summary, regarding my research questions, it is my belief that this investigation is best addressed with an interpretative social constructivism (collectivism) stance because reality is socially constructed (Gadamer, 2010; Kikoski & Kikoski, 2004; Lytras & Pouloudi, 2006). My choice is also supported by the meaning and definition of knowledge. For a constructivist, knowledge is built by social constructions (Alvesson & Sköldberg, 2009). Knowledge cannot be developed in a vacuum or only by an individual; rather, it needs a social system (Johannessen, Olaisen, & Olsen, 2002), which highlights the importance of its relation to other people. Additionally, as Wheatley (1991) explained (as cited in Coll & Taylor, 2001), the meaning of ideas and thoughts cannot be transferred to words and be sent like a package to another person who unpacks it and knows exactly what the sender means; thus, reality needs social construction for communication and interaction.

However, Weber (2004) explained that even positivists understand that culture, history, experience, and so forth have an impact on their research; therefore, they have also accepted the socially constructed world.

Although positivists try to undertake value-free research, Weber’s statement is certainly underpinned by this type of research philosophy because ‘values are naturally reflected in the selection of a study topic’ (Ponterotto, 2005, p. 131). The sole decision to research one topic over another shows that the researcher sees the chosen topic through, for instance, their experience, education, hopes, feelings, or expectations, as more important than the other (Ponterotto, 2005; Saunders et al., 2009). Moreover, the choices regarding philosophical stances or planned data gathering methods reveal the values of a researcher. Therefore, the values of a researcher have an important impact on all stages of the research process and are of significance in achieving a credible outcome (Saunders et al., 2009). When researchers choose an interpretative social constructivism stance, they cannot ignore their values and lived experiences (Ponterotto, 2005) because they recognise all the information with their own sensory perceptions and interpret the findings with their experiences and views of the world (Franken, 2010) leading to new understandings.

As mentioned above, social constructivism focusses on how social interaction generates social relationships and knowledge (Guzzini, 2000). This is because it sees reality not as a naturally given (Alvesson & Sköldberg, 2009), but rather as being socially constructed (Saunders et al., 2009). As there is no sure way to test reality from any philosophical view, Weber (2004) explained that research ‘is a continuous journey to find improved ways to understand this reality’ (p. vi). This is further explained by means of the theory of research, which is introduced in the following section.

6.1 Theory of Research – Phenomenological Hermeneutics

Along the lines of the above discussion, the chosen epistemological stance of *social constructivism* is used in the introduction of this section. As this philosophical stance considers reality and knowledge to be socially constructed (Berger & Luckmann, 1966), *sociology* became important. Berger and Luckmann (1966) explain that a sociologist is concerned with the question of what constitutes *reality* and *knowledge* because the reality for a monk may differ from the reality of a manager, just as the knowledge of an inventor may differ from the knowledge of a machine operator. Applying this explanation of reality and knowledge to an organisation clearly shows that a plethora of different realities and knowledge in a social situation (phenomenon) may emerge because of the many different employees working within an organisation (Berger & Luckmann, 1966).

The sociology of knowledge not only aims at analysing the relationship between the various realities and layers of knowledge regarding the social situation, but also the process of how realities *appear* in the human society (Berger & Luckmann, 1966). Berger and Luckmann (1966) states that ‘the sociology of knowledge is concerned with the analysis of the social construction of reality’ (p. 3). In this regard, the expression *everyday life* is significant and is explained as an interpreted reality, whose meaning is subjective to the interpreter. A sociologist uses this subjective interpretation to further analyse reality (Berger & Luckmann, 1966).

This introduction clarifies the importance of the sociology of knowledge for this research because it is not only considered an extension of the epistemological stance of social constructivism, but also owing to the complexity existing in this research. Knowledge creation is affected by many factors as revealed in the literature review. The very nature of this research is that it investigates the complex social reality because of its ineffability, intangibility, and emotional character. At the beginning of this section, it was explained that a vast number of realities, regarding the social situation, exist within an organisation because of the employees working in the organisation under scrutiny. This situation naturally leads to the question of how the complex social world of the phenomenon under scrutiny can be entered to decipher the phenomenon.

Before exploring this situation, as Alfred Schutz explained it is vital to understand that our understanding and thereby our interpretation of data is influenced by our background, thoughts, and already existing knowledge (Johnson, 2008). Thus, any understanding is cumulative and retroactive.

However, Berger and Luckmann (1966) explained that to analyse how something appears or rather to analyse a subjective experience, it is best to address it by means of phenomenology. Spiegelberg (1981) perfectly summarised the most important ingredients of Husserl's phenomenology in this regard, which provides a possible answer to the question of how the social world of this phenomenon should be entered. Phenomenology allows interpreting the phenomena through the lens of the world in which we live (i.e. lived experience), which is also called '*Lebenswelt*' (Spiegelberg, 1981, p. 51). This is unique, limited, and shaped by experiences, education, and everyday situations, as our world 'is based largely on the formative influence of our social environment' (Johnson, 2008, p. 138).

Phenomenology has a long history. The term and its different approaches can be confusing because it is used as a methodology, a method, or a philosophy (Goulding, 2005; Introna & Ilharco, 2004; Palmer, 1969). Therefore, the term and its origin are explained in section 13.3, 'Phenomenological Hermeneutics'.

6.2 Gadamer's Phenomenological Hermeneutics

Gadamer (2010) explained that human science *(Geisteswissenschaften)* was largely devised from natural science *(Naturwissenschaften)*. Gadamer (2010), in his book *Truth and Method* (1960), had already challenged the view that empirical knowledge (experience) of the social-historical world *(gesellschaftlich-geschichtlichen Welt)* cannot be gathered through the inductive process of natural science. He emphasised that using an *event* or *situation* to identify the laws that render the prediction of a phenomenon possible is not the aim of human science. Rather, it is important to *understand* human social life in its uniqueness and historical context (Gadamer, 2010). Gadamer (2010) (translated from German to English) considered it important to understand 'how could it happen that it is so' (p. 10). Palmer (1969) interpreted Gadamer's view and explained that in understanding a phenomenon he was primarily concerned with the fundamental question, ‘How is understanding possible, not only in the humanities but in the whole of man’s experience of the world?’ (p. 164).

In Gadamer’s magnus opum, *Truth and Method*, he elucidated and discussed many concepts and elements to show the chain of logic and the foundation of his understanding. The discussion in this section focusses on the concepts, language, history, and the fusion of horizons because they are essential not only to grasp his way of understanding (Che Mahzan, 2009; Dobrosavljev, 2002; Gadamer, 2010; Grondin, 2002; Palmer, 1969), but also to represent how the understanding emerges for the phenomenon discussed in this research.

Language was a crucial consideration for Gadamer because it ‘sets up the world, articulates and makes things show up for us’ (Che Mahzan, 2009, p. 36). Gadamer considered language to be essential because it is a precondition for his concept of fusion of horizons, which is introduced later in this section. It has also been observed that language ‘bridges past and present, interpreter and text’ (Arnold & Fischer, 1994, p. 58).

Gadamer (2010) explained that persons are influenced by the world in which they live, (historicity) and hence possesses a certain *vocabulary and language*. In this case, the world represents a medium of understanding that is rendered possible by language (Gadamer, 2010) because ‘it creates the world within which everything may be disclosed’ (Palmer, 1969, p. 207). Gadamer (2010) highlights that it is important to understand that language is not only a tool that man uses to inform or illustrate differences to others, but it also already exists because of the *being (Dasein)* in this world.

A word is the basic brick of language construction and it has a reference to the whole – the whole of language and the whole of the lived world, which are also affected by the present and the unsaid *(das ungesagte)* (Gadamer, 2010). Language, therefore, expresses the lived experience of the one who speaks, and it thus linguistically reveals our lived world. Accordingly, Zuckert (2002) perfectly mentioned that men ‘do not merely talk about things;

they also express themselves' (p. 203), which shows the link between the thing that appears and the being *(Dasein)*, or as Heidegger named it, thoroughness. This discussion emphasises the possibility of a word that can be used to disclose thoughts and meanings. Simultaneously, it also explains why a word conceals a vast amount of meanings, which include what is not expressed (Gadamer, 2010).

It is worth emphasising the difficulty of recording spoken words, for instance, in an interview. Although recorded words preserve the spoken words (foundation of history), written words lose some power of expression, and therefore, change the sense of the thoughts and meanings behind them. The difficulty of grabbing and recording the essence of the thoughts and meanings of men is the reason behind the inevitable loss of the power of words (Palmer, 1969).

However, another important element linked to language that is essential for this research is speculation *(spekulativ)*, which is discussed in depth towards the end of the magnum opus *Truth and Method* (Gadamer, 2010, pp. 460–478). He explained two interesting roots of speculation. On the one hand, speculation is the reflection of what appears as a picture on the mirror or on water, where what appears is the picture per se but is also not so, because it is a reflection seen by an individual. On the other hand, speculation is also about not taking the *given* or the *factual* that is seen at the first glance, but rather reflecting on it; therefore, it is the opposite of the daily experience of dogmatism (Original quote, 'Spekulativ bedeutet nämlich den Gegensatz zum Dogmatismus der alltäglichen Erfahrung') (Gadamer, 2010, p. 470).

Gadamer's thoughts show that speculation or reflection is essentially about interpretation, which is expressed by linguistics. His analysis of the term 'word' revealed the importance of reflection and interpretation because of the vast number of facets of the term 'word'. A word, as previously mentioned, always has one defined meaning and many other meanings at the same time, which confirms that what appears to one simultaneously contains the *not said (das ungesagte)* (Gadamer, 2010), as is discussed further later in this section. The importance of speculation and reflection for this research is perfectly summarised in his insight that the persons who speak are already speculative (reflecting and interpreting) because they do not paint the reality (Original quote, ‘als seine Worte nicht seinendes abbilden’) (Gadamer, 2010, p. 473). It is also the representation of one’s unique horizon.

Heidegger’s concepts of revealing and concealing also echo Gadamer’s concept of speculation. Malpas (2006) summarised and interpreted Heidegger’s concepts and explained that ‘although disclosedness is always a disclosure of things *as what they are,* it is never a disclosure of things as *all that they are*’ (p. 193). This explains that when a subject is interpreted as something (i.e. revealed), it also inevitably conceals other ways of disclosure (Malpas, 2006; Palmer, 1969).

The explanation above shows that a transcribed interview represents recorded thoughts or meanings, which is disclosed to us only in one way, thereby concealing the other possibilities. What appears to us as an event or situation is shown by way of words, which highlights that there are other ways in which a thing that may appear to us can be concealed. Hermeneutics allows one, through the hermeneutic circle (explained in the section ‘Step 2 – data analysing’) to shed new light on a recorded text to reveal hidden meanings or to disclose a new appearance and a new or better understanding.

However, linguistics also involves asking questions that are essential for the hermeneutic process, as ‘the question refers to the possible answer and the answer refers back to the question’ (Figal, 2002, p. 111). This quote not only emphasises the importance of linguistics, but also shows the dialectical character of Gadamer’s hermeneutics. With respect to this, Palmer similarly (1969) explained as follows: ‘In method the inquiring subject leads and controls and manipulates; in dialectic the matter encountered poses the question to which he responds' (p. 165).

Essentially, Gadamer (2010) elucidated that dialectic is the art 'of questioning and searching for the truth' (Original quote, 'die Kunst des Fragens und des Suchens der Warheit') (p. 372). As Gadamer (2010) demonstrated in his extensive discussions, this kind of art is complex because it involves 'the art of thinking' (Original quote, 'die Kunst des Denkens') (p.372), which aims to strengthen doubts until the truth is revealed. This explains that it is not the arguments which make a situation or issue weak or strong, but it is the questions which allow the unfolding of the different possible meanings regarding an issue and questioning reveals the hidden (Gadamer, 2010).

Nevertheless, understanding and expressing or rather interpreting also contain the question of its correctness. The essence of this *problem* lies in the possibilities of understanding – every understanding that occurs in the mind is disclosed through language built by words (Gadamer, 2010). In other words, each understanding is an application and each application is disclosed through language (Gadamer, 2010). Therefore, it is worth emphasising that the word is not the bearer of truth, but logos is. The single word *(Onoma)* has only a *referring character* and has an impact on the interpreter of the word (Gadamer, 2010). 'Logos', not to be confused with the term *logos* (to appear), discussed and explained at the beginning of section 13.3, 'Phenomenological Hermeneutics', is the phonetic sensualisation of thoughts, otherwise known as speaking (Gadamer, 2010). Truth lies in speaking, which contains the meaning of a thing or rather the interpretation of a subject. Gadamer (2010) explained that truth or untruth is not the sole appearance of being by the dint of a word, but being, which has been attributed and allotted to something (Original quote, 'ihm *etwas* zuerkennt und zuspricht') (p. 416). In this regard, Zuckert (2002) claimed that truth is achieved 'when we come to an agreement about what we see disclosed' (p. 203), although sometimes what is disclosed to us may not be the truth, as will be discussed in section 13.1.1, ‘The philosophy of knowledge’ (Gettier case); this contradiction emphasises the complex nature of truth and knowledge.

However, reading Gadamer shows that the element of *time*, indicated and shown by way of different discussions, such as history, historicity, horizon (Gadamer, 2010), space–time (Pan, 2009), to name but a few, is omnipresent and therefore, essential to him. By way of the distance of time (space–time) or history, a new understanding can emerge (Gadamer, 2010), as can be seen in the following discussion.

In this regard, it is ideal to start the discussion with the explanation of Gadamer’s understanding of horizon. For Gadamer (2010) horizon *(Gesichtskreis)* contains everything that a human being can *see* at a specified point of time (p.307). With reference to a human being, this includes one’s circumference of consciousness, experience, and understanding, which relates to temporality and historicity (Gadamer, 2010). Or as Ataman (2008) explained by interpreting Kuhn’s (1968) insights ‘every horizon (range of vision) has its limits since it is considered to be the ultimate circumference within which all things, real and imaginable, are bound to appear’ (p.33).

For instance, a text represents the past horizon regarding an issue, whereas readers represent the present horizon in which they live (Pan, 2009). For an even better understanding regarding the concept of horizons, it is important to briefly emphasise the difference between the views of Heidegger and Gadamer and then to explain the relevance of the meaning of Gadamer’s horizons regarding this research.

For both Heidegger and Gadamer, horizon is an essential concept, but it leads to different outcomes for each. Heidegger considered ‘man’s historical being-in-the-world’ (Palmer, 1969, p. 125) vital. He believed that a text is shaped by history (author’s horizon) and is temporally fixed, therefore, the author’s understanding draws on a re-experience of his own mental process (Palmer, 1969). Heidegger also separated the text (object) from the reader (subject-interpretation) (Prasad, 2002). On the other hand, Gadamer refuted Heidegger's thinking in this regard and explained that the past does not provide the facts to understand, for instance, a text. It is rather the concept of temporal–distance that allows understanding. It is worth noting in this regard that the result of what is produced in space–time influences not only the reader (or interpreter), but also the thing (text) (Pillay, 2002), which is contrary to Heidegger's idea.

Gadamer followed the basic ideas of Husserl, but instead of claiming that a horizon makes the view on an object meaningful, Gadamer highlighted that horizons make propositions meaningful (Vessey, 2009). Applying this to a text explains that a horizon is a 'set of beliefs' (Vessey, 2009, p. 530), which allow an interpreter to understand a text – not only the essence and meaning but also the context of the text. It is worth noting that the above-mentioned *set of beliefs* represent one's background and forms one's horizon. For instance, in order to fully understand Aristotle's claim that the highest end in life is happiness, one has to first know something about Aristotle's views (past horizon), what the highest end in life might be, and something about *eudaimonia* (happiness, welfare) (2009). These details lead to the emergence of certain beliefs and perspectives, which affect one's horizon and allow the understanding as well as the interpretation of the essence of Aristotle's ideas and their context.

However, a strong connection to history has the element of prejudice or pre-understanding. Gadamer followed the Heidegger's ideas instead of Husserl's regarding prejudice and insisted that prejudices cannot be dispensed with because 'they are the basis of our being able to understand history at all' (Palmer, 1969, p. 182). It is our 'condition of understanding' (Grondin, 2002, p. 44) or as Caputo (1987) perfectly explained 'We can understand only if we already pre-understand' (p. 61). These quotes, which are interpretations of Gadamer's thoughts pertaining to understanding, reveal that prejudice or pre-understanding is a central element of his hermeneutic concept (Dowling, 2004).

However, the term 'prejudice' *(Vorurteil)* (Gadamer, 2010) has a negative connotation because it is the first understanding of a person before all elements (e.g. of a text) are completely acquired about the matter at hand (Che Mahzan, 2009). Yet, prejudice is a significant element because it draws on past experiences and displays a link to the importance of history because our understanding (prejudice) of an issue is reflected by our past experiences (2009). This is evident in our daily lives and in fact performed daily. For instance, if we see an unknown man in a suit, we tend to prejudge or make assumptions about the person based on our related past experiences.

Nevertheless, Gadamer's notion of prejudice or pre-understanding should be questioned and scrutinised (Hekman, 1983) before accepting and using them. Therefore, it is in this context that the concept of temporal–distance gains importance because it elucidates the real truth of an issue. Each new element makes an unclear issue clearer like in a puzzle – the more the time available, the more accurate the prejudice regarding an issue becomes (Gadamer, 2010). Therefore, the temporal–distance concept allows one to separate out the inessential pre-understanding and focus on those that remain to contribute to a true understanding of the concealing and the revealing aspects of the phenomenon under scrutiny (Debesay, Nåden, & Slettebø, 2008; Gadamer, 2010; Palmer, 1969). It is to be noted that this process may lead to the problem of suppression of better and innovative ideas (prejudices) from emerging (Gadamer, 2010; Grondin, 2002). Hence, one's prejudices (pre-understanding) have to be checked before one approaches a text (Gadamer, 2010; Warnke, 2011).

This leads to another essential concept called the *fusion of horizons* by Gadamer (2010), which will be highlighted many times in the subsequent sections of this research. The fusion of horizons (past and present) allows the reader to have a greater understanding or better explanation, as the understanding emerges from the fusion of the two horizons (Gadamer, 2010; Palmer, 1969; Pan, 2009). In this regard, the importance of the past horizon is to be noted. Gadamer explained in '*Truth and Method'* that without the past horizon, there can be no present horizon; therefore, no understanding is possible in the absence of the past horizon (Gadamer, 2010; Palmer, 1969). However, the simple focus on the past in analysing what is different in the present does not expand our horizon, as how the past can be combined with or affect our present understanding must be considered (Zuckert, 2002). In a similar vein, Professor Fry from Harvard University stated (2009) during an interview (2009) that the fusion of horizon means to be taught 'by the past-ness or otherness'. The hermeneutic task of a researcher is then to understand the meaning of a text that finally leads to a new understanding (i.e. fusion of horizons) (Gadamer, 2010). Such a situation challenges the assumptions of the interpreter, shows new experience, and leads to *self-transformation* (i.e. new knowledge) (Graaff, 2004). Departing from these conceptual introductions and explanations, the following summary of Gadamer's phenomenological and existential hermeneutics (see Table 4) focusses on its relevance/appropriateness in this investigation.

Table 4

Summary of Gadamer's Phenomenological Hermeneutics and Basic Concepts

Concept	Description, Content	Use in the research
Language	Preserves the spoken word *(onoma)*, foundation of history, inseparable regarding hermeneutics *(need of question)*, all humans possess their own world and language *(link to history, tradition)*, medium of understanding	Allows interpretation of textual data through speculation (reflection). Dialectic (Dialektik) the expression of reflection leads to disclosedness, truth *(aletheia)*, allowing the fusion of horizons fundament of the epistemological stance (social-constructivism)
History	Experience and pre-understanding draws on history, linked to Heidegger's thoroughness	Allows to reflect by the dint of lived-experience and pre-understanding, space-time allows revealing the truth, fundament of the epistemology stance (social-constructivism)
Fusion of horizons	A horizon is the visual field *(Gesichtsfeld)* of one's understanding	Allows fusion of past and present horizons, leads to thought by the *pastness* or *otherness*
Phenomenological Hermeneutics	Existential and ontological, dialectical character, shine different light on a phenomenon, event, or thing	Allows for exploring a situation, the reason for its emergence drawn on experience, allows approaching knowledge through what is being understood of itself (knowledge is not opposed by the interpreter), allows revealing hidden & disclosing a new *appearance* of the thing

The elements in Table 4 form the foundation of this research and therefore have a crucial impact on the outcome of the research. As explained earlier, the phenomenon under scrutiny is of a very complex nature owing to its essence, knowledge, which has a highly subjective, intangible, and emotional character. Additionally, various elements like society, action, environment, and relationships have a significant effect on knowledge creation and dissemination.

The phenomenon under scrutiny in this research pertains to how knowledge within an organisation can be created without using deliberate KM. As the extensive discussion about knowledge (see appendix) reveals, the creation of knowledge is a highly subjective process due to the relationships between people and the environment. This, in turn, leads to a constant change in both in a dialectical process.

As many realities relating to the phenomenon under scrutiny exists, there is a certain difficulty in grasping the complex whole and analysing it. Gadamer's phenomenological hermeneutics not only allows an opportunity to do this, but also is considered very suitable for organisational research because it acknowledges the important role of the researcher's prejudice, suppositions, and (working) experience that can open new practical insights regarding the phenomenon. As Kikoski and Kikoski (2004) explained 'Hermeneutics and social constructivism open the door for different assumptions that are likely to produce different and more fitting solutions to the specific task at hand' (p. 50).

The transcribed data represent different interpretations (reflections) drawn on employees' experiences or prejudices relating to the phenomenon, which are encompassed by history and time. They form the *starting-point of analysis,* where Gadamer's concepts are fully employed. His concept of language allows reflection and speculation by means of a dialectical process to reveal the *truth* or rather a new or better understanding. As mentioned earlier, Gadamer's concept of the fusion of horizons enables us to *grasp* the essence of the different interpretations (i.e. past) and learn from it (i.e. fusion).

The importance of a clear understanding and definition of the theory used in this research is discussed in the next chapter.

7. Research Design

Drawing on the philosophical approach for this research (interpretative-social constructivism), an appropriate methodology and different methods were chosen. The meaning of the terms method and methodology is often misunderstood and used interchangeably. For the sake of clarity, '*Methodology* refers to the principles and ideas on which researchers base their procedures and strategies *(methods)*' (Holloway & Wheeler, 2002, p. 4).

Method refers to techniques and procedures used for data collection or data analysis. *Methodology*, on the other hand, is about how a research project must be undertaken in relation to its aim, research questions, and objectives (Burton & Steane, 2004; Robson, 2002; Saunders et al., 2009).

7.1 Single Case Study Research

Using the case study methodology allows a researcher to obtain an in-depth understanding (Bryman & Bell, 2007) about how and why (Hartley, 2006; Saunders et al., 2009) an organisation works the way it does (Myers, 2010). Yin (2009) highlighted the possibility of conducting research into 'a contemporary phenomenon within its real-life context' (p. 18). These characteristics correspond to Gadamer's approach to understanding, which focusses on new or additional understanding that has emerged through real life (lived) experiences.

In this research, a single case study was undertaken. The chosen organisation for the case study, with its knowledge-intensive products (such as software products), particular environment, organisational context, and negative approach to KM, makes the phenomenon under scrutiny rare, if not unique. Moreover, the possibility of gaining access to undertake an in-depth study in a modern and innovative organisation is difficult, so the advantage of such an opportunity must be acknowledged.

The research questions and research aims primarily seek to understand how and why this phenomenon (knowledge creation without deliberate knowledge management) exists or rather how an organisation must be structured and which elements must exist within an organisation, so that it positively influences knowledge creation without using deliberate KM.

Finally, an important issue relating to the case study research is the generalisation of the findings. Although generalisations from a single case study are often questioned (Yin, 2009), analytical generalisation provides the answer to this issue. Analytical generalisation is not about populations but about theoretical propositions (Hartley, 2006; Yin, 2009), as the foundation for it is 'the existence of particular processes, which may influence behaviours and actions in the organization' (Hartley, 2006, p. 331).

In the subsequent sections, the different methods used in this single case study methodology are explained.

7.2 Process of research methods used

As already mentioned, the chosen theoretical approach of this research (i.e. Gadamer's concept) strongly influences the methods and certainly its outcome because of the fusion of the present and past horizons, which lead to a new and *better* understanding of the phenomenon under scrutiny. Hence, it is important not only to explain the process, but also to emphasise its conjunctions with Gadamer's phenomenological hermeneutics.

Figure 4 provides an overview of the different steps that are explained in detail in the following section.

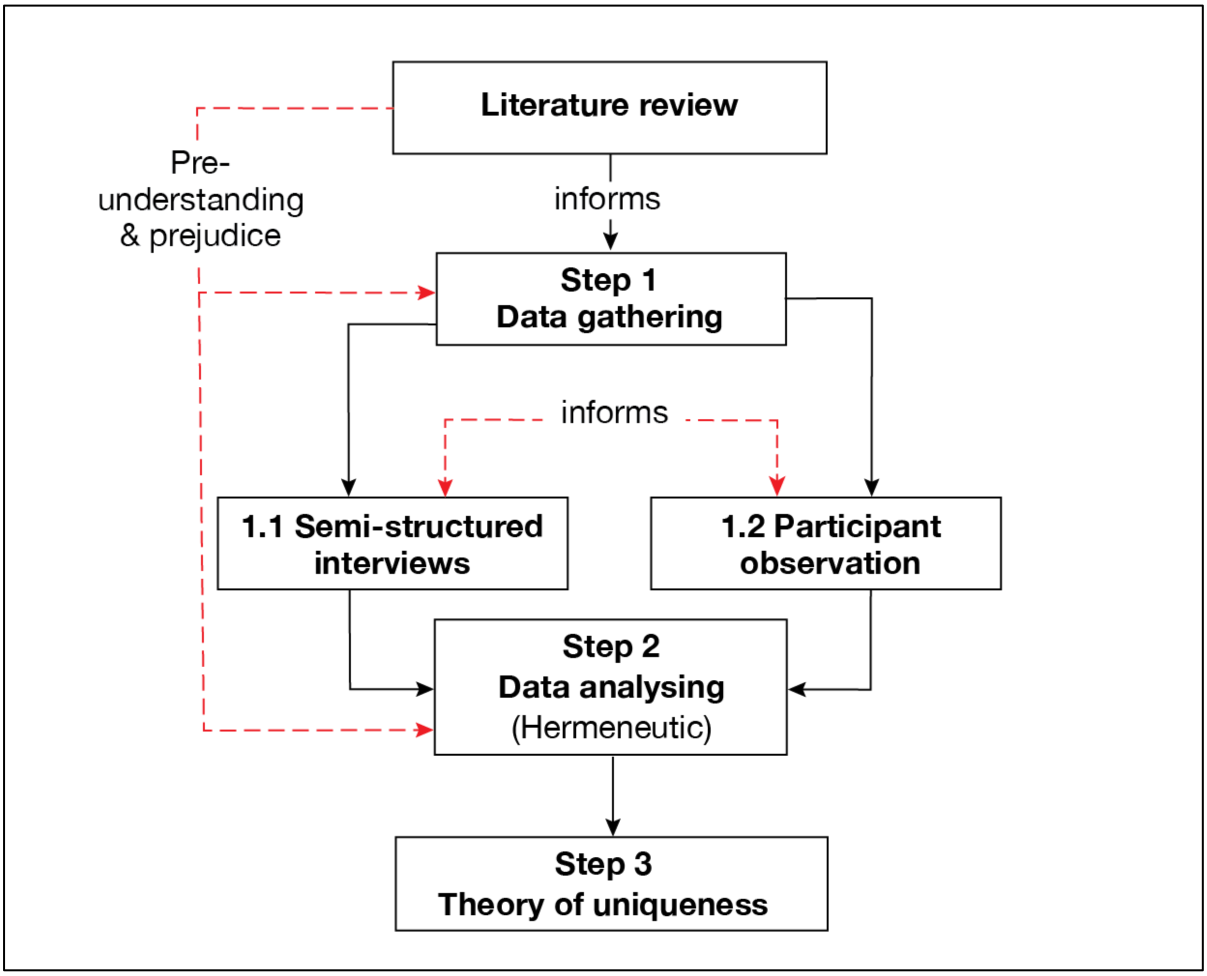

Figure 4. Process of research methods

7.2.1 Step 1 – data gathering.

The type of data gathering methods used in an inquiry has an important effect on the outcome and therefore must be considered as the core of the research, which in this inquiry is ‘knowledge creation’. It is to be noted that knowledge creation can only emerge in relation to its correlatives, such as knowledge transfer, knowledge gathering, or knowledge dissemination, to name but a few.

To better understand the choice of data gathering methods used in this research, it is important to highlight certain significant statements regarding knowledge creation. Beginning with von Krogh, Ichijō, and Nonaka (2000), they stated that the two barriers to knowledge creation are either individually or organisationally rooted. Kikoski and Kikoski (2004) showed that knowledge creation is a social process and needs a special environment in which new knowledge can emerge; this social process can be interpreted as an echo of Gadamer's (2010) concept of 'fusion of horizons'.

As both the above-mentioned statements relate to the environment of an organisation with respect to knowledge creation, the employees of the organisation are obviously an inseparable part as well. Hence, qualitative data gathering methods were sought out, which allowed the analysis and understanding of the organisation and its employees. The data gathering methods used in this research are semi-structured interviews and participant observation.

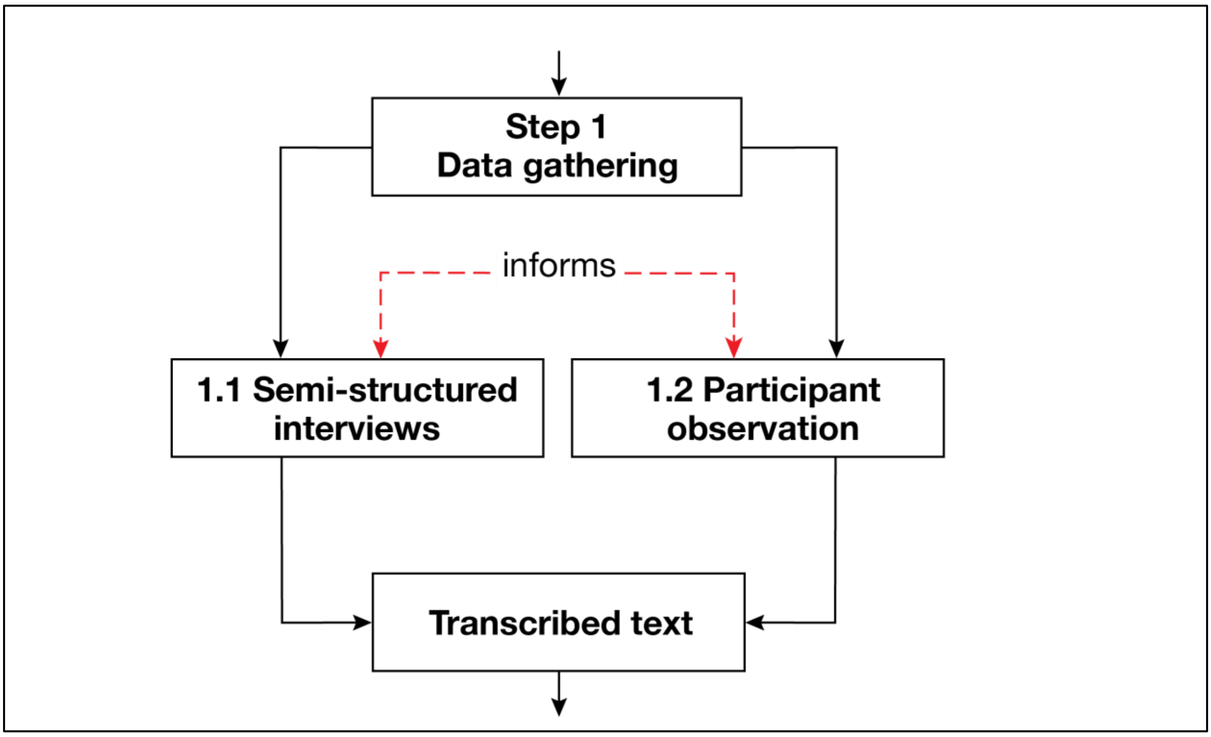

Figure 5. Step 1 - process of the data gathering methods

Different data gathering methods are used in this research, as they allow triangulation (Kyburz-Graber, 2004) and because a 'complex phenomena may be best approached through several methods' (Hartley, 2006, p. 324). The chosen methods represent a *part of the whole* and therefore are essential to enhance the quality of the interpretation of the phenomenon under scrutiny, and thereby also its validity.

7.2.1.1 Semi-structured interviews.

The first step of the data gathering process in this research is semi-structured interviews, which 'gather valid and reliable data' (Saunders et al., 2009, p. 318) regarding the defined research questions and objectives (Saunders, 2009). Moreover, it 'is a flexible and adaptable way of finding things out' (Robson, 2002, p. 272). It is to be noted that semi-structured interviews are qualitative unlike structured interviews, which are quantitative (Robson, 2002).

For this case study research, interviews are highly appropriate because they not only answer the *what* and *how* questions, but also reveal *why* something works (or not) like it does (Saunders et al., 2009). Additionally, interviews provide the possibility to reflect and interpret a phenomenon from the interviewees' *point of view* (Bergen & While, 2000) or how something appears within one's horizon (Gadamer, 2009).

Hence, 29 semi-structured interviews (non-standardised, face-to-face) of employees from different departments of the chosen organisation for an approximate duration of one and a half hours each were undertaken for this research. Additionally, two speed-interviews (non-standardised, face-to-face) of employees of the chosen organisation and an interview with a 'Googler', who is a former employee of the organisation under scrutiny, were undertaken. Speed-interviews are interviews where an employee outside the planned interviewee list is also asked to participate in the research; this type of interview is shorter and is approximately 30 minutes long. This enabled the collection of 32 different and unique perspectives on the same phenomenon.

In many situations, qualitative interviews are generally considered advantageous. In this research, it is advantageous for the following two reasons. First, the questions asked are drawn from the research on the existing knowledge enabled by the comprehensive literature review. Secondly, a qualitative interview provides an opportunity to the interviewees to reflect on the situations relating to their experiences (Saunders et al., 2009). Therefore, they may be able to provide in-depth details about a topic, especially if they are interested in the interview topic or find it important (Saunders et al., 2009), which is very valuable for the research. Additionally, the face-to-face approach allows the researcher to follow up on interesting responses with other questions, which may also result in rich and highly valuable data for the research (Myers, 2010; Robson, 2002; Saunders et al., 2009).

The importance of asking questions has been shown in the section 6.2, ‘Gadamer’s Phenomenological Hermeneutics’. To recapitulate, Gadamer (2010) explained that dialectic is the art ‘of questioning and searching of truth’ (p. 372), which illustrates that the essence of the philosophy of this research is in line with the method used to elucidate the phenomenon. Kikoski and Kikoksi (2004) also discussed the matter of ‘asking questions’ in depth and similarly stated that we ask questions ‘to orient ourselves to a situation that is new for us’ (p. 134). In our attempt to understand and to make sense of new situations, this response regarding a question can refine our understanding and change our perspective and thinking. A question can change not only the view of the person (researcher) who is asking it, but also the one who is being questioned and the others who participate (listeners) in it. Therefore, another function of questions and asking questions is to orient others’ perspectives to prompt ‘thinking’ and ‘open up listeners and invite them to become participants in a conversation or dialogue’ respectively (Kikoski & Kikoksi, 2004, p. 134). Therefore, the semi-structured interviews reflect Gadamer’s dialectic process, as the researcher’s questions have an impact on the response of the interviewee and vice versa, which can reveal hidden but vital insights regarding the phenomenon under scrutiny.

However, it is to be noted that only open-ended questions are appropriate for this research, because the open-ended questions allow the interviewee to ‘define and describe a situation or event’ (Saunders et al., 2009, p. 337). In this regard, it is useful to introduce the three different types of systemic questions presented by Kikoski and Kikoski (2004), which are also used for the interviews to reveal the phenomenon of this research. The three types of *questions* are namely, *hypothetical, reflexive,* and *circular*.

Hypothetical questions, also called future questions, try to connect the future with the present. This type of questions is useful for this research because sometimes one may feel caught up and overrun by the different and current problems that may arise while encountering a situation, which may in turn hinder or prevent the finding of solutions. Questions directed towards the future (hypothesis) help situate one in a new context, which makes it possible to find new ways and directions out of the problem. *Reflexive questions* provoke the interviewees' lived experiences, which are used for reflection on the issue. This type of question supports self-discovery and can lead to the development of new meanings upon reflection (Kikoski & Kikoski, 2004). With *circular questions,* the questioner (researcher) uses information from the previous outcome (answer) to create the next question. Therefore, the researcher can delve deeper into an interesting issue because it can 'widen the scope and deepen the perspectives of both questioner and questioned' (Kikoski & Kikoski, 2004, p. 135). This type of question supports and reinforces the above-mentioned positive characteristics of semi-structured interviews and therefore is considered very useful.

It is worth emphasising that a mix of different types instead of a specific type of questions is used for the semi-structured interviews, as the type of question is aligned with the situation and response of the interviewee. The foundation of the questions itself draws on the data gathering methods undertaken. Hence, the process of data gathering is defined, as presented in Figure 6.

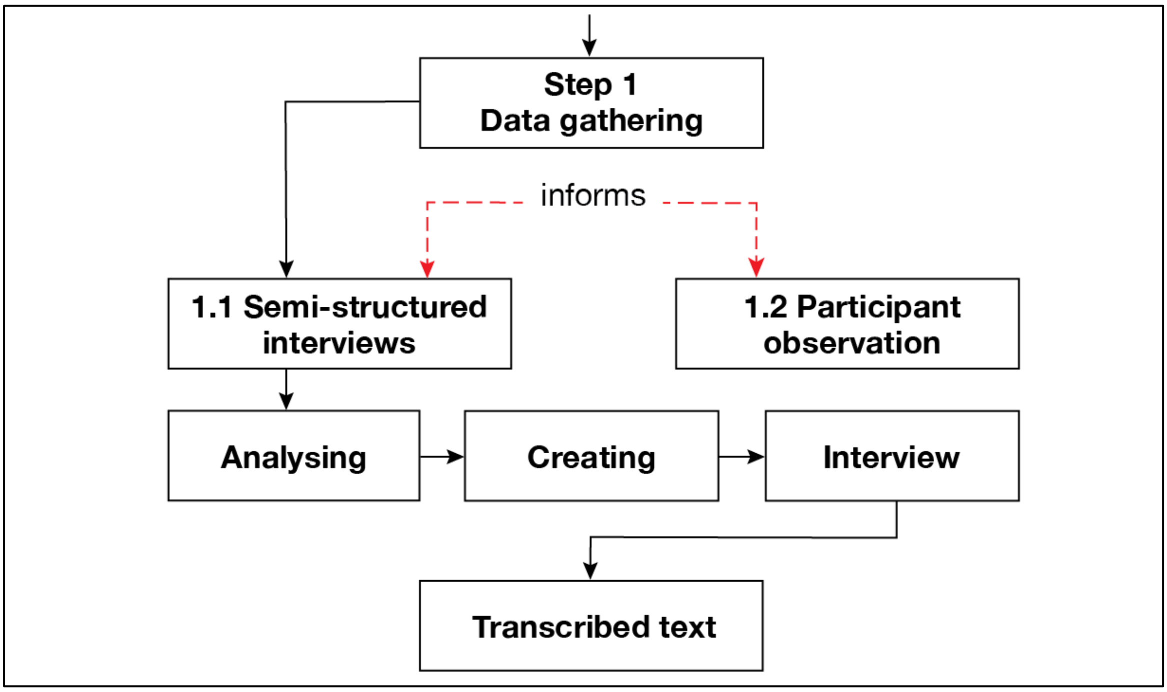

Figure 6. Semi-structured interview process

The first step in this process is *analysing* the literature review, which in turn *inform*s the creation process of the interview questions. The advantage of this step is that due to the prejudice and pre-understanding arising from the comprehensive literature review of the research and the lived experiences of the researcher, the interview questions will not only contain well-known elements in traditional KM, such as sharing, distribution, or search for knowledge or information, but also those useful for knowledge creation and those often used in the literature but not directly linked to the support of knowledge creation or NDKM.

In the second step, the interview is created. Although semi-structured interviews draw on a flexible design (Robson, 2002), it still requires a guiding structure (Bryman & Bell, 2007). Therefore, the interview is structured with enough questions linked to ‘different topics’ (Robson, 2002, p. 278) so that the interview *flows* without interruption (Bryman & Bell, 2007). Such preparation is important so that the interview appears professional and interesting, which might also have a positive effect on the interviewee. It is important to understand that a guiding structure does not reduce flexibility because if an interviewee shows new insights, it is the researcher’s task to follow this direction and try to elucidate the phenomenon using the different types of questions introduced before.

The participants in the interview were volunteers arranged through the contacts of the researcher in the organisation under scrutiny. Due to their workload, time played an important role in the interview process (Saunders et al., 2009). Hence, an attempt was made to finish the interview within one hour, but as the interviewees were interested in the research and shared a lot of information the interviews lasted around one and half hours each. The appointments were made according to the interviewees’ convenience, as it reduced the stress and barriers between the interviewees and the researcher from the outset enabling more effective information sharing.

The selected interviewees were informed about the aim of the interview and research (Saunders et al., 2009). As pre-knowledge and prejudice are important for this research, it was also considered important to give the interviewees room to *think* about the topic. This allowed them to reflect about different situations and to answer more profoundly.

In interviews, the interviewer’s appearance and the ‘entry to the stage is important’ (Myers, 2010, p. 131) because first-impressions, wittingly or unwittingly, have an impact on the interviewee and could affect the interview process (Myers, 2010). Moreover, elements, such as the commonly used dress code within the organisation and the behaviour and the interactions of the employees, were observed during the preparation for this research and adapted to accordingly by the researcher. This helped develop a better interviewee-researcher relationship.

In addition, to enhance the interviewee-researcher relationship, the interview sequence is vital and contains four points (Robson, 2002). The first point states that the aim of the research is to be briefly introduced to the interviewees. In addition, permission to record the entire interview was sought. With respect to this, the researcher signed a disclosure agreement with the guarantee of not handing over the recorded or transcribed original data to third parties without the explicit approval of the compliance manager. The compliance manager, who drew up the disclosure agreement, first approached the possible interview partners to ensure maximum compliance and to avoid any *disturbance* that could emerge if another person, such as the researcher, would do this. However, despite the researcher's offer to send the transcribed data to all interviewees to review what had been transcribed as well as the part of the research where original quotes were used, they refused this offer arguing that the compliance manager had approved the research before it was submitted. Therefore, it was not necessary for them. The *second point* pertains to warm-up questions. This leads to the *third point*, which is the main body of questions of the interview that draws on the previously introduced type of questions. The *last point* represents the closure of the interview where the researcher thanked the interviewee for their time and interesting insights (Robson, 2002).

Robson (2002) also made two recommendations for researchers conducting interviews in his book 'Real World Research' as follows: researchers should listen more than they speak, and it is important to show interest in what an interviewee is saying for the interviewee to 'enjoy it' (p. 274). If not, it might negatively affect the interviewee's willingness to reveal and share their ideas and knowledge with the researcher.

Data recording is vital in the interview process and was undertaken by means of tape recordings and notes. Notes allow for organising interesting information, which can trigger new questions to obtain deeper insights into an issue. This helps the researcher to remember important elements and new questions, which is sometimes difficult, especially if a researcher attentively listens the interviewee. Moreover, using a recorder allows the researchers to portray themselves to be interested in the interviewee's responses, which will in turn have a positive effect on the interview process itself. In this regard, a recorder is highly appropriate for the documentation and transcription of the data later. The data obtained from the interviews was transcribed as it was, without changing the words used or the context to achieve a grammatically correct sentence.

‘Source criticism’ (Alvesson & Sköldberg, 2009; Osborne, 2006; Thiselton, 2009) is important in this research, as the interviews represent the main body and lived experience of the employees. Alvesson and Sköldberg (2009) profoundly interpreted and summarised this matter and showed several elements regarding criticism. For this research, criticism of bias and distance are relevant.

Criticism of bias pertains to ‘the interest (conscious or not) of the informant in skewing information’ (Alvesson & Sköldberg, 2009, p. 111). Criticism of bias is important in consideration of Gadamer’s (2010) understanding, which deemed prejudice as a precondition. In this regard, it is relevant to state that the propensity among managers is, mostly, to deflect the truth to enhance their work reputation or to show their department in a better light. However, the effect of this tendency can be neutralised with types of questions unrelated to personal or department merit, as they automatically reduce the possibility of bias (Alvesson & Sköldberg, 2009). Moreover, the researcher believes that employees keen to improve their organisation, do not tend to invent falsehoods.

Criticism of distance (Alvesson & Sköldberg, 2009) is about the time–space gap between the data recording and transcribing. Alvesson and Sköldberg (2009) explained that the more the time between recording and transcribing, the less value the source has. To avert this situation, all the gathered data was recorded with a tape recorder and transcribed later.

In this regard, it is also important to note Gadamer’s (2010) view that written words lose some power in comparison to spoken words due to their inability to capture the interviewee’s emphasises in their statements or answers. Such emphasis expressed in a verbal interview cannot be captured in the text form. To mitigate this problem, the transcribed text contains *special emphasized statements and elements*, such as exclamation marks, to emphasise a statement. Notes, such as ‘loud laugh’ when an employee laughs, are also used. This allows for a better assessment of the statements or themes.

Only two transcribed interviews are shown as examples in the appendix owing to the vast amount of data exceeding 280,000 words spanning more than 900 pages (see Table 23: List of Interviewees & Position) and the non-disclosure agreement regarding the promised anonymity of the findings. Written permission has been secured for the publication of the two above-mentioned interviews.

7.2.1.2 Participant observation.

The *second step* in this data gathering process is a participant observation activity, as it allows for ‘observing behaviour, listening to what is said in conversation and asking questions’ (Bryman & Bell, 2007, p. 442).

For this research, observation is used to get an insight into the *real working* of the organisation. It is worth emphasising that the aim of the observation is not merely to meticulously document every step of the participants. On the contrary, this research focusses on the special social behaviour of the participants exhibited during interactions, such as how they approach each other if there is a question to answer or a problem to solve, the use of language, rituals, and so forth. This allows for a special or different interpretation with respect to the researcher’s working and lived experiences.

The connection between the semi-structured interviews and the participant observation is worth emphasising, and it is indicated with a red line in Figure 6 and Figure 7. Both data gathering methods inform each other and allow the use of new insights (prejudice and pre-understanding). The elements mentioned by the interviewees could be closely analysed during the observation, and the elements could be questioned during the interviews.

Moreover, ethical issues are important in participant observation and therefore is introduced in the following the section ‘Ethics’.

In this research, the observation of the organisation was allowed for a period of three days (two days in the headquarters and one day in a subsidiary engineering centre). This was possible because of the good personal relationship of the researcher with one of the employees, who was also a volunteer and subject of this participant observation. As this participant was a part of the organisation's development team, he had considerable daily contact with the other employees. This was vital for this research because the participant could explain and compare different situations from the observed events. As such an observation also affects the other employees who approach the participant who had a good relationship with the researcher of this observation, they are considered to be 'short-term participants'. Bias and distortion might emerge in short-term participants' behaviour, but this possibility is classified to be of minimal danger. The existing trust and relationship to the participant of this observation and the reflection about situations and events minimised bias and distortion. Because of the close relationship of the researcher to the observed person, his normal behaviour and reactions to different situations, in private as well as in business, were well-known. This helped in identifying bias and distortion in behaviour, which were then reflected upon, analysed, and transcribed to use as a finding for this research; this process positively affected the validity (i.e. correctness) of data collected.

The researcher was introduced to the short-term participants as a *student* who was writing a dissertation about this organisation, and permission was sought from each participant for the researchers to observe them. Students who write their dissertation or diploma about this organisation are common and therefore, accepted by the employees with confidence. The organisation's culture also supports minimising bias and distortion because it is well known for 'open communication', which is highlighted in its logo with double quotes and points (i.e. "…[company name]…"). Hence, open communication and no anxiety are essential values of the organisation, which lead to the situation of the employees not having any *problems* to discuss in the presence of a student. Hence, bias and distortion is classified to be of a minimal danger. Even if the 'short-term participants' change their normal 'collegial-vocabulary', their social interactions, support, answers, or discussions still remain the same.

However, before undertaking an observation, the *role of the researcher as an observer* must be defined because it shows their degree of involvement in an organisation during the observation (Bryman & Bell, 2007). Hence, researchers choose the role of observers as non-participants when they observe 'without taking part in the activities' (Saunders et al., 2009, p. 294). Holloway and Wheeler (2002) emphasised in this role the possibility of asking 'questions and being accepted as a colleague and researcher' (p. 102), which underpins my choice to be a non-participant observer. Particularly, the possibility of asking questions is very valuable, yet that does not mean that the observer permanently interrupts with questions during a conversation; rather, it is quite the contrary. After conversations or meetings, there is time for small talk when the researcher might ask questions to gain more insight about the different situations and behaviour.

The participant observations also provided an important insight into the *emotional setting*, i.e. the *feeling* of being part of and working within such an organisation. It revealed elements such as how personable or keen the workers are. In any case, participant observation is a very flexible undertaking (Holloway & Wheeler, 2002), but to enhance reliability and validity the process of this observation is also shown in Figure 7.

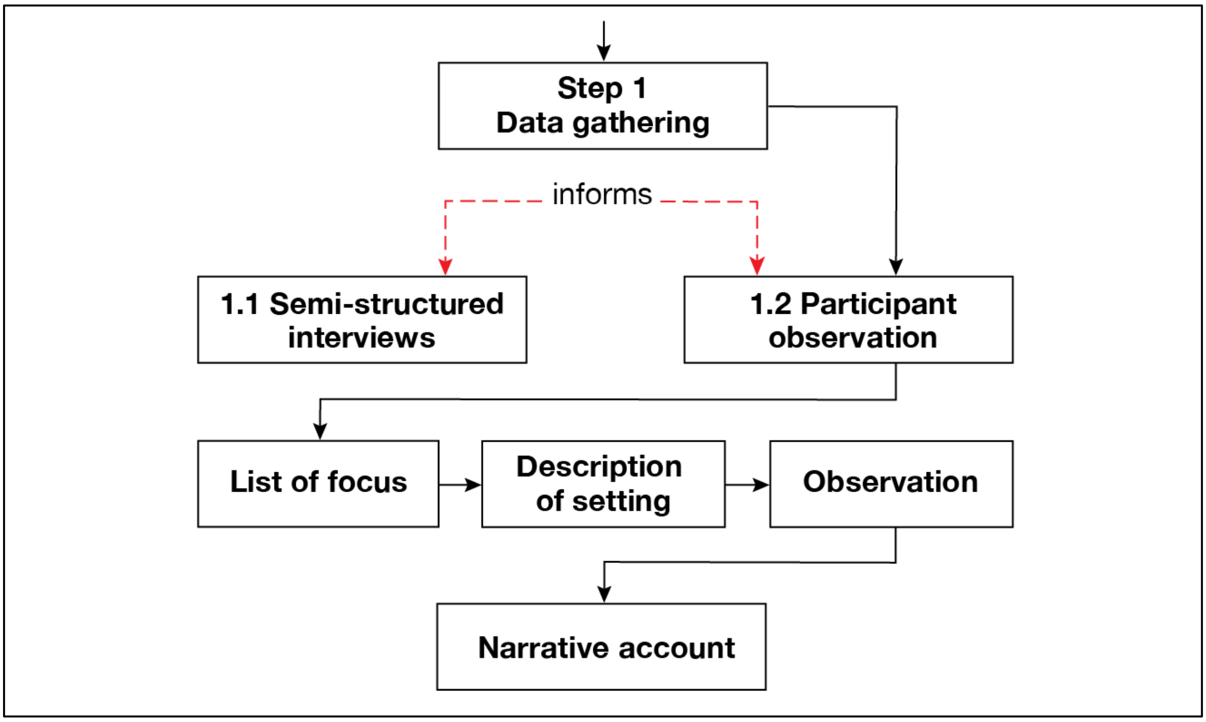

Figure 7. Participant observation process

The observation is a three-step progress. Before beginning the observation, the setting is described (Bryman & Bell, 2007), which is known as ‘descriptive observation’ (Robson, 2002, p. 320). In this case, the setting is the organisational environment. As communications and social interactions are important for knowledge creation, the environment in which these communications take place is also important because it might influence the employees performance, behaviour, and creativity process. Hence, the organisational structure and more specifically the places, offices, and facilities were *observed* and described first. Spradley (1980) often cited this in the current literature (Holloway & Wheeler, 2002; Robson, 2002) and is also taken into consideration for this research. Robson (2002) borrowed different points from Spadley (1980), which should be focussed on when one describes a setting. The most important points taken into account for this research are shown in Table 5.

Table 5

Dimension of Descriptive Observation

Number	Dimension	Descriptive observation
1	Space	layout of the physical setting: rooms, outdoor spaces, etc.
2	Objects	physical elements: furniture etc.
3	Feelings	emotions in particular contexts

Note. Adapted from Robson (2002, p. 320).

Describing the setting is regarded as a part of the pre-knowledge and prejudice. It is believed that only through *understanding and feeling* (emotional) can the places and facilities be understood as a whole.

During the observation, recording data is vital, as it is for the interviewees. The golden rule of recording data is that it ‘must take place on the same day as the fieldwork in order that you not forget valuable data’ (Saunders et al., 2009, p. 297). Field notes include data about what happens during the observation and they also include what the researcher thinks and feels during the observation (Bryman & Bell, 2007; Myers, 2010) All of these points were noted and data was recorded accordingly.

Notes were made in the written form during the day and also recorded with a tape recorder after the observation or during the breaks. Notes were made during the observation to remember the key elements. During the breaks or after the observation, these notes were used and recorded with a tape recorder. It has to be noted that the recorded data was filled with impression, thoughts, questions, prejudice, and so forth regarding the observed situations.

As the content of a dialogue is not as important as how it takes place and its process, the focus is on behavioural attributes like hectic, friendly, formal, and so forth. Finally, a narrative account was also written daily.

However, in addition to this narrative, different situations and impressions in the organisation gathered beyond the official observation process were also noted in an extra narrative, as they are vital for this research.

To recapitulate, the data gathering was not undertaken to gather a vast amount of data, but to get a deeper understanding of what it means to work in such an organisation (quality, not quantity), how the social interactions really are, the behaviour of employees in different social interactions and situations, the behaviour of employees within the hierarchical structure, and the reactions and actions of the employees in different situations. Therefore, these findings are considered to be the *reality component* of the research study. In this regard, it is also worth noting that the different conversations, which happened during breaks or while staying in the organisation, were documented and used to get a clearer picture of the organisational reality.

7.2.2 Step 2 – data analysing.

Hermeneutics is an appropriate analysing method for qualitative data in management and business to understand what people say and how and why they behave the way they do (Myers, 2010). Gadamer’s hermeneutical approach was chosen for this purpose. Although Gadamer’s hermeneutics does not contain a methodology or technology on how to undertake hermeneutics (Grondin, 2002), a systematic process is essential for obtaining a deep insight into a text (Flerning, Gaidys, & Robb, 2003). Therefore, Figure 8 displays an overview of the important elements used for this analysing process.

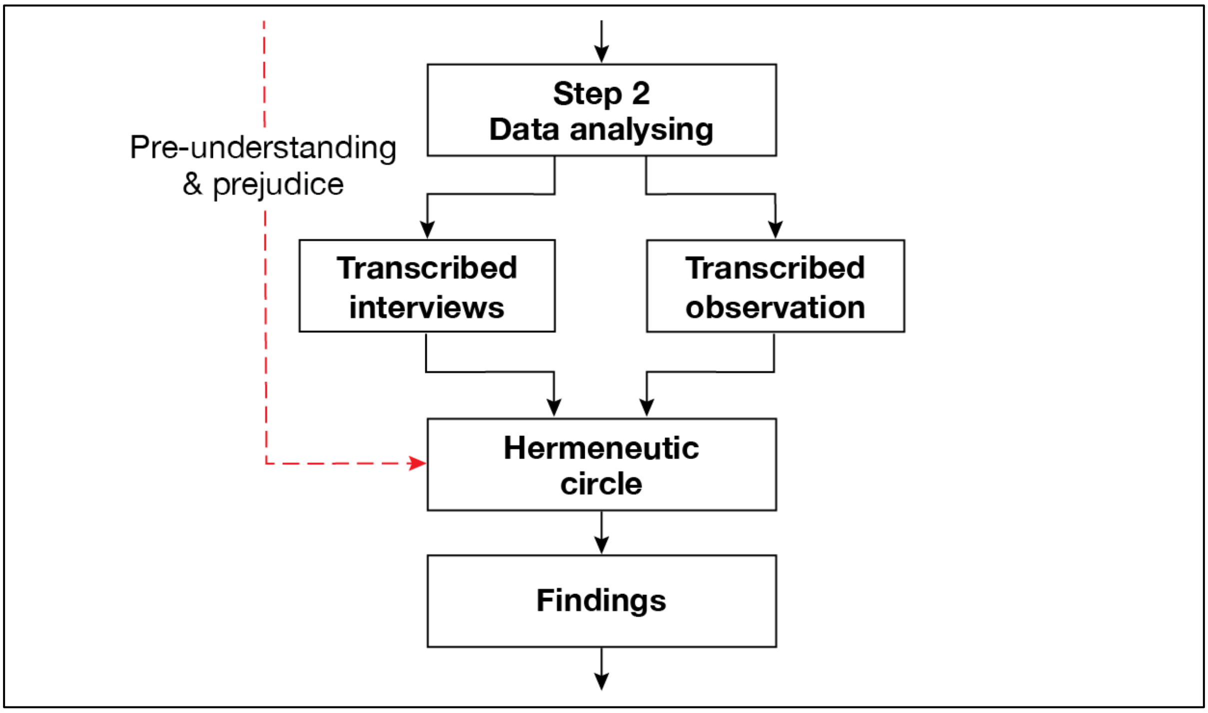

Figure 8. Step 2 – data analysing

The transcribed interviews and participant observations were analysed by the dint of the hermeneutic circle. As a reminder, the main concern of Gadamer and other philosophers regarding hermeneutics was to find out how understanding emerges (Gadamer, 2010; Palmer, 1969; Wang & Xu, 2009). Regarding the process of understanding, it has to be noted that the trademark of philosophical hermeneutics (i.e. Gadamer's approach) is the researcher's receptivity or ability to 'listen with openness' (Thiselton, 2009, p. 7). Thiselton (2009) linked *listening with openness* to *understanding* contrary to the more traditional hermeneutics, where the researcher draws on rationality and criticality to explain the text as an object, as a text is an active subject (active text) that *influences* the reader.

To recapitulate, Gadamer's aim was not to understand the author, but the text (Palmer, 1969), with its historical meaning (past horizon) to the meaning of the interpreter (present horizon) (Gadamer, 2010). The emergence of this understanding is presented through the often mentioned and most important concept related to hermeneutics called the hermeneutic circle (Alvesson & Sköldberg, 2009; Gadamer, 2010; Myers, 2010), which is also regarded as an important standard technique for hermeneutics.

However, the term *circle* in *hermeneutic circle* is not appropriately used. Osborne (2006) explained that the term ‘spiral’ is more suitable because it shows the true process of hermeneutics, which is to move ‘from the horizon of the text to the horizon of the reader’ (p. 22). A circle is a closed element, whereas a spiral shows that a researcher is able to get closer to the *truth* of a text with each round. Thiselton (2009) interpreted Osborne’s insights and described a spiral as the move ‘from earlier pre-understanding to fuller understanding’ (p. 14). The reason for this *spiral-movement* is the dialectic process used in hermeneutics, which was already introduced in the section 6.2, ‘Gadamer’s Phenomenological Hermeneutics’. Although Gadamer’s way of understanding and his concept of the fusion of horizons have been previously discussed and introduced, obtaining a deeper insight into his dialectical process is vital because not only is it essential for hermeneutics, but also important for a better understanding of the spiral movement and the concept of the whole and its parts.

In this regard, it is worth starting with his concept of ‘negative experience’ (Gadamer, 2010). Experience can generally be divided into old and new experience. Old experience can only be affirmed because we already possess it and because of a situation that we already know. On the other hand, new experience emerges through a new situation. The new experience is something that we do not expect and is named ‘negative experience’ by Gadamer (Original quote, ‘Negativität an Erfahrung’) (Gadamer, 2010, p. 359). Though the adjective *negative* is used, this kind of experience is vital and always *productive* (new experience). Gadamer (2010) explained that it is not a simplistic experience of a thing or situation, rather more of a new experience, which improves one’s overall knowledge with regard to the meaning of a situation. Each negative (new and unexpected) experience changes one’s complete knowledge regarding a thing or situation and leads to a new horizon, as one knows ‘more and better’ (Original quote, ‘Man weiß es nun anders und besser’) (Gadamer, 2010, p. 360). However, the negative experience is named by Gadamer (2010) as ‘dialectic’ (p. 359).

Building experience (negativity of experience) automatically contains a question about what truth is or what it is not; or to be more precise, if the new experience is correct or is it an experience we already had. Gadamer used this insight to show the essentiality of questioning new knowledge (i.e. new experience). The importance of questions for the dialectic process has already been outlined in section 6.2, ‘Gadamer’s Phenomenology Hermeneutics’, where dialectic is described as the art ‘of questioning and searching for truth’ (Original quote, ‘die Kunst des Fragens und des Suchens der Warheit’) (Gadamer, 2010, p. 372).

Therefore, a person can possess knowledge only if the person also has questions (Original quote, ‘Wissen kann nur haben, wer Fragen hat’) (Gadamer, 2010, p. 371). In this regard, Gadamer (2010) especially used Socrates that ‘not to know’ *(Nichtwissen)* is an essential precondition to what we ‘would know’ *(Wissenwollen)* because ‘not to know’ leads to defined questions that should answer what one ‘wants to know’ (p. 371).

The answers to a question or rather a new (negative) experience can lead to different and unforeseen expectations (Gadamer, 2010) according to Figal’s (2002) interpretation of Gadamer, which explains that ‘the question refers to the possible answer and the answer refers back to the question’ (p. 111). The term ‘possible’ explains what Gadamer named the ‘openness of a question’ *(Die Offenheit des Gefragten),* which finally leads to unexpected or undefined answers (Gadamer, 2010, p. 369).

Therefore, this discussion showed that Gadamer defines the term ‘dialectic’ as ‘negative experience’ (i.e. new experience or new knowledge) and includes the art of conducting a dialogue, the art of asking questions, the art of asking further questions, and the art of seeking truth, which also presupposes the art of thinking (Gadamer, 2010).

In this research, questions are asked about a text through dialogue with the text, which leads to answers and further questions or rather new (negative) experiences. The answers one receives, which draw on a different horizon (author of a text), are merged with the existing knowledge (existing horizon) of the researcher. This fusion of different horizons draws on the 'dialectic of answer and question' (Palmer, 1969, p. 201). This fusion might be the reason why Osborn (2006) stated that the term 'circle' is not appropriate for the hermeneutic process because an answer leads us to a different 'point of knowledge' than before, and we keep moving up in the spiral until truth is revealed.

Against this backdrop, it can be stated that this might also be the reason why the well-known knowledge creation circle (Nonaka & Takeuchi, 1995) is often described as the knowledge creation spiral today, as a person never starts from the same 'point of knowledge' as before.

The following sentence translated and interpreted by the researcher perfectly explains this disguised *spiral movement*: 'It is always the speaker, who is taken to task, till the truth of the subject-matter is revealed' (Original quote, 'Immer ist es der Redende selbst, der zur Rede gestellt wird, bis die Wahrheit dessen, wovon die Rede ist, schließlich heraustritt') (Gadamer, 2010, p. 373). The *speaker* in the above-mentioned statement is the author of a text. This speaker is confronted with questions from the reader (researcher), whose aim is to seek the truth; this represents the 'fusion of horizons' (Gadamer, 2010).

Gadamer as well as the other philosophers of hermeneutics (Alvesson & Sköldberg, 2009) have not defined a unique process to undertake hermeneutics. Hence, different approaches are possible because the hermeneutic process (spiral and circle) can be modified with different elements to interpret and finally understand a phenomenon.

For this research, the hermeneutic process presented by Alvesson and Sköldberg (2009), drawn on Gadamer's phenomenological hermeneutics and his key-concepts, is adapted and modified (see Figure 9).

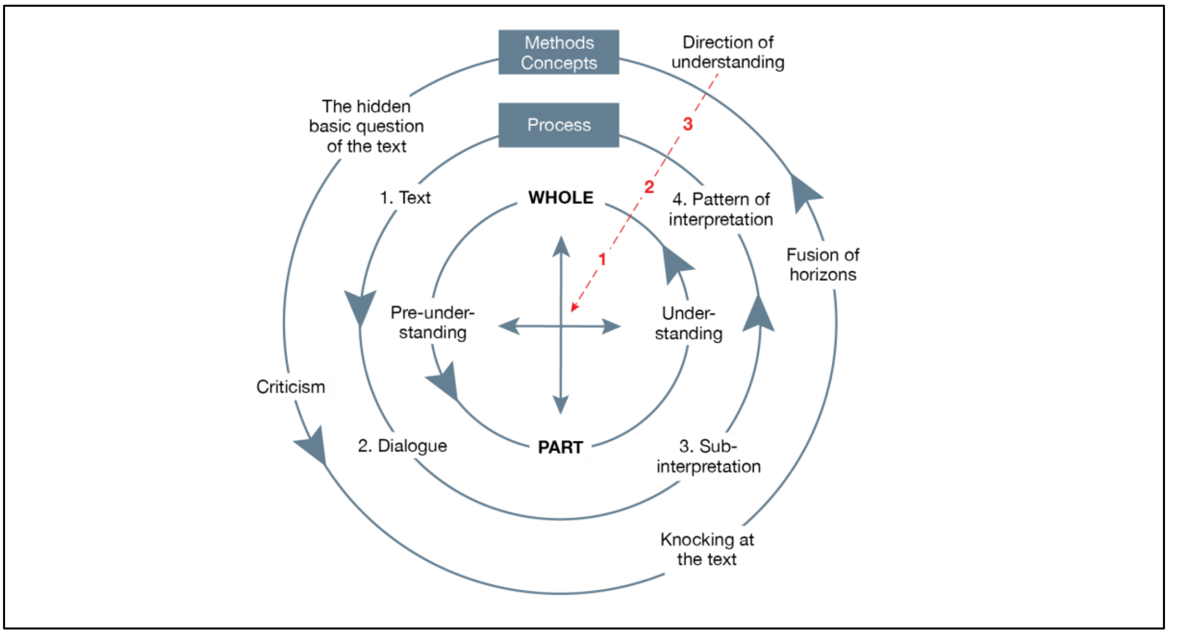

Figure 9. Elements of understanding – adaptation of the hermeneutic circle

Adapted from Alvesson and Sköldberg (2009, p. 134).

The inner or rather the *first circle* shown in Figure 9 describes how understanding emerges and represents the two main approaches of hermeneutics, namely 'objectivist' (whole and part) and 'alethic' (pre-understanding and understanding) hermeneutics (Alvesson & Sköldberg, 2009). This displays two different but fundamental ways of understanding, which is also linked to Gadamer's view of understanding, as already explained in section 6.2, 'Gadamer's Phenomenological Hermeneutics'.

Objective hermeneutics is the traditional form of understanding (Alvesson & Sköldberg, 2009), which leads to an 'understanding of underlying meaning' (p. 91). In this regard, understanding is the conjunction between subject and object; for instance, the author's (subject) meaning in their text (object). The text has a 'fixed, enduring, object status' (Palmer, 1969, p. 121), which certainly also contains a historical character. Due to history, objective hermeneutics is a ‘re-enactment of the meanings’ *(Nacherleben)* (Alvesson & Sköldberg, 2009, p. 91) from an author to their text (Gadamer, 2010; Palmer, 1969). Howsoever, for objective hermeneutics, the concept of the whole and part is important because the whole determines the function and meaning of the parts (Palmer, 1969), where meaning is grabbed and recorded at the time when it was thought and written. Obviously, then the whole is also historically defined.

Alethic hermeneutics, on the other hand, resolves the subject–object relationship and uses the twin concepts of pre-understanding and understanding. This concept is linked to the existential–ontological concept of ‘Being in the world’ of Heidegger, also used by Gadamer and Ricoeur, which explains that understanding ‘is a basic way of existing’ (Alvesson & Sköldberg, 2009, p .95). This explains that a text, the starting-point for analysis in hermeneutics, is always approached through pre-understanding (Alvesson & Sköldberg, 2009).

However, alethic and objective hermeneutics should not be considered separate, but complementary (Alvesson & Sköldberg, 2009). Thiselton (2009) clearly exemplified why the combination of objective and alethic hermeneutics is suitable in the following excerpt:

> We hold a puzzle piece in our hands and surmise that the colour blue may represent sky or perhaps sea. We try it here and there. Another piece has a dark line that is shaped in such a way that it might represent the leg of an animal; but it might be something else. Piece by piece we begin to build a picture as some initial guesses or judgments are proved wrong and others retained as promising and probably right. To progress at all, we must entertain some working assumption about what the piece might represent and how it fits into the larger picture. But in the end, it is only as the larger picture emerges that we can be sure about where the piece belongs and what it signifies. (p. 13)

This example highlights the importance of understanding and pre-understanding (alethic hermeneutics) and shows the close connection to the whole and the part (objective hermeneutics); hence, the hermeneutic circle has been presented. The dialogue between pre-understanding and understanding leads initially to the examination of the puzzle pieces (or parts), which we combine with the picture (or the whole). To pin this down, only by the examination of the parts, we are able to understand the whole, which has a historically fixed enduring object status, but the whole is also needed to understand why the part is needed (for instance, the position of the puzzle piece) (Cohen, Kahn, & Steeves, 2000; Osborne, 2006; Thiselton, 2009).

With the insight into hermeneutic understanding from the above discussion, it is possible to move and to introduce the *second circle*, which explains the basic hermeneutic process and to the *third circle*, which represents the used methods for this process and this research.

In this regard, hermeneutics is divided into three levels, namely *understanding, interpretation,* and *application* (Dobrosavljev, 2002; Gadamer, 2010; Osborne, 2006). Osborn (2006) explained, for better understanding, the meanings of the three levels by the dint of three questions shown in Table 6.

Table 6

Levels of the Hermeneutic Spiral

Level	Type	Question
1	Understanding (subtilitas intelligendi)	What does it mean?
2	Interpretation (subtilitas explicandi)	What does it mean to me?
3	Application (subtilitas applicandi)	How can I share with you what it means to me?

Note. Adapted from Osborne (2006, p. 22) and Gadamer (2010, p. 312).

Level 1 and *level 2* represents the explained inner circle. Level 1 (what does it mean?) highlights objective hermeneutics and creates the understanding for the authors (what will they transfer?); whereas the level 2 (what it means for me?) dissolves the subjective–objective dichotomy (Alvesson & Sköldberg, 2009), which allows for interpretation regarding our pre-knowledge and prejudice (Gadamer, 2010). It is vital that all three levels be inseparable and necessary for understanding (Dobrosavljev, 2002).

7.2.2.1 Level 1 – understanding.

Level 1 should answer the question *What does it mean?*, which is a 'third-person approach' (Osborne, 2006, p. 22) and can be achieved by using the basic process from Alvesson and Sköldberg (2009) that is the second hermeneutic circle (see Figure 9). The second circle contains the elements' text, which displays the objective experience of the interviewee, dialogue, sub-interpretation, and pattern of interpretation. It is worth emphasising that phenomenological hermeneutics begins with a text, and the researcher has to recognize the *multi-functionality* of it; it can be used as a whole and its passage as parts, but the text is also a part of the phenomenon (whole) (Alvesson & Sköldberg, 2009; Osborne, 2006). Therefore, for this research, the interview is considered as a whole, which is composed of different questions and answers (parts), but these questions are also a whole of their parts (identified meanings). Similarly, for the participant observation the observation is the whole and the different observed situations are its parts.

As mentioned above, in *level 1* the aim is to understand what is meant by the author of the text. It is obvious that without a text, no dialogue is possible. The dialogue resonates with Gadamer's dialectical process *(knocking at the text)*, which was fully explained at the beginning of the last section. It is a *dialogue with the text* (transcribed interviews, participant observation) and is important so that *sub-interpretation* can emerge (Alvesson & Sköldberg, 2009), which finally allows for developing *thematic patterns* (Cohen et al., 2000; van Manen, 1990). Streubert and Carpenter (2011) named the first step in *level 1* as 'naïve reading' (p.85) and explained it as immersing oneself into the general meaning of the text.

Before dealing with 'naïve reading', it is vital to explain the *meaning of a theme* and *how to identify a theme*. To do this, van Manen's (1990) book, 'Researching lived experience', provides an in-depth description of the nature, meaning, and identification process of a theme. He explained that a theme might be understood 'as the *structure of experience'* (van Manen,1990, p. 79) because we try to seek meaning in the text, which lies before us, in order 'to grasp the essential meaning of something' (van Manen,1990, p. 77).

For the sake of clarity, it is also important to emphasise that the essence of those thematic patterns is different from those which were developed in the *literature review*. Although both are similarly named, there is a difference between them; hence, there is also a difference in the outcome as introduced below. The thematic patterns developed in the *literature review* identify elements of knowledge creation, which might be hidden (or not) through the construction of the text is contrarily linked to the *structure of experience*.

To identify the themes 'the selective or highlighting approach' (van Manen, 1990, p. 93) is used to reveal statements, sentences, or experiences, which might be important for the phenomenon under examination. This identification is undertaken by the dialectic process, where questions are asked about the text and the answers allows us to identify themes (van Manen, 1990).

Gadamer (2010) emphasised, as already introduced, the importance of questions and answers. Using questions for a dialogue is important because a question contains a subject issue and might lead 'in unforeseen directions' (Palmer, 1969, p. 199), which means that the researchers are guided by the question that in turn allows them to obtain new insights about the subject through the question asked. Only by aiming a question onto the text, can the text be understood (Gadamer, 2010) and the question emerges out of our pre-understanding.

This means that first the transcribed data for this research was read several times *as a whole* (Osborne, 2006; Streubert & Carpenter, 2011) to *immerse into the text* (Cohen et al., 2000). Then, the different parts were analysed. During the participant observation, the observed events were considered as a *part*. In the interview, a *part* was the text of a question.

The question *what does it mean* was addressed to these *parts* regarding the author and the identified themes were marked for further use. This was undertaken by first using the software Atlas-Ti to analyse and then, a matrix to synthesise the structure of meanings and reflections. Both these techniques allowed the researcher to manage and analyse a vast amount of data effectively.

An example is conducive to improve clarity. To do this, a possible question and answer of the interview was used, which was ‘How do you solve problems?’ The open question allowed the interviewee to reflect their experience where the answer might be

‘we really have **great and open-minded guys** within the organisation who are **always keen and free** for a short **discussion about a problem or to answer a question**; does not matter if have a lot of workload or not’.

In this example, the interview was read as a whole first (naïve reading) (Streubert & Carpenter, 2011). Through this reading, the answer or rather the experience of an interviewee in response to a question, the ‘hidden basic question’ (Gadamer, 2010) to the text becomes important. Hence, a question, for instance, ‘What supports knowledge creation or NDKM?’ was asked to the interviewee’s answer. Drawing on this question, elements were identified (meanings), which were then marked using the software Atlas-ti.

The last and the most important step is the *reflection on the meanings*. This reflection is about the identified meanings of the phenomenon and puts the meanings in their ‘own thematic context’ (van Manen, 1990, p. 87). This allows getting a ‘better fix’ (van Manen, 1990, p. 87) on the identified meaning and bears the researcher’s pre-knowledge or rather their experience. To be more precise, the identified meanings (i.e. statement or passage of a text) are labelled with appropriate thematic patterns (e.g. culture, communication, etc.), which allow for getting a *bigger picture* of the meaning.

It is rather obvious that a meaning can be put to more than one pattern, yet the definition process of the thematic pattern is drawn on the researcher's pre-knowledge and prejudice, which is highly valuable according to Gadamer's way of understanding. In this process, there are no wrong or bad decisions, because it is *right* in the sense of how it *appears* to the researcher. This is also a very creative process, which allows going forward and backward in the text to change or add new experience and shows the dynamic character of this analysing process.

In this process, the concept of 'fusion of horizons' bridges the different understandings (i.e. pre-knowledge and new experience of the researcher – author) and allows 'being taught something by the pastness or otherness' (Fry, 2009).

In this regard, it is important to introduce Polanyi (1966/2009) because his insights explain not only the spiral movement but also the dynamic process, which is often used in this analysing process. Polanyi (1966/2009) stated that 'The growing mind recreates the whole conceptual framework and all the rules of reasoning' (pp. 45–46). Polanyi (2009) demonstrated this with the example of a child's reasoning improving through the new understanding achieved through their relationships with others. Applying this to this research leads to the understanding that a researcher starts with a 'scanty repertoire of innate mental connections' (Polanyi, 2009, p. 45). The researcher's involvement in the research results in the growth of their mind, which in turn improves their power of decision-making. This is applicable not only to a new or young researcher, but also to an advanced one. As mentioned at the beginning of this research, the social phenomenon of this research is in a constant state of revision because of the social interaction of the text interpreter (Bryman & Bell, 2007;

Saunders et al., 2009), which also underpins the suitability of the chosen philosophy of research.

This short introduction explains that although a *reflection process* is defined for this research, there are no *real* boundaries, as the researcher can go forward and backward within the different patterns or the whole research to recreate or rewrite elements of the research depending on the growth of their mind. This does not result in an *endless process*, where the researcher is lost in a *vicious spiral* of permanent creation and recreation. However, there is a possibility of doing this and is desirable but not necessary, as Gadamer's phenomenological hermeneutics is a creative and dynamic approach and not a fixed one.

7.2.2.2 Level 2 – interpretation.

Level 2 is a 'first-person approach' (Osborne, 2006, p. 22), which relates to the interpretation by the reader and draws on the hermeneutics on writing or rather rewriting. van Manen (1990) emphasised that 'Writing and re-writing is the thing' because writing creates 'signifying relations' (p. 132). Though writing is seldom considered an element of the research process, it is always used to transcribe the findings to explain it to others. However, during the writing process, the aim is to achieve a text that is 'oriented, strong, rich and deep' (van Manen, 1990, p. 151).

Because of the vast number of thematic patterns and meanings identified in the transcribed participant observation and interview, it was vital to first re-read the thematic patterns and their meanings and to analyse possible relationships and similarities between them. Therefore, similar isolated statements and meanings were identified in order to get a better understanding of them. This allowed the researcher to use similar meanings together or to delete identical meanings to make the data more manageable. Five patterns were defined that outlined the essence of the defined thematic patterns from the above-mentioned process, which draws on interpretation. It was also useful to think and interpret about the connections and the ranking of the patterns to get a *better fix*. This process was always guided by the lived experiences of the researcher, participant observation (reality of the organisation), and the prejudice of the researcher as well as the question about what is needed to enhance knowledge creation. The interpretation of the meanings also contains several resources, which have been used as triggers for reflection and discussion (see Figure 10).

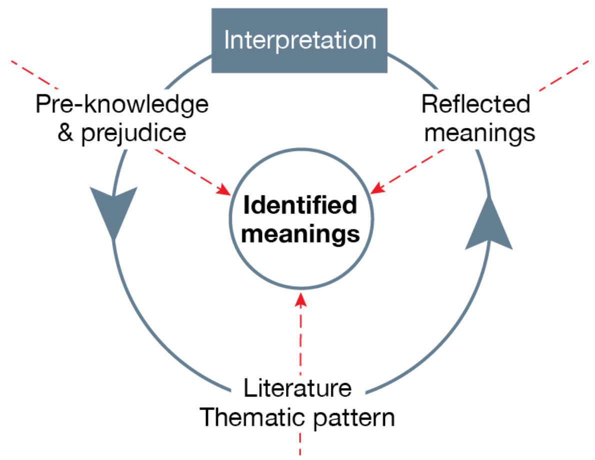

Figure 10. Interpretation

As mentioned earlier, the interpretation process is a creative one because Gadamer's phenomenological hermeneutics is less of an exact step-by-step process than a philosophical approach to explain how understanding should emerge (Gadamer, 2010; Hekman, 1983). It is a back and forth process filled with perspective changes, which lead to the re-writing of the above-mentioned elements and so forth. This progress highlights why the hermeneutic circle is also named 'hermeneutic spiral' because with each *part* of reflection and interpretation, a bigger understanding of the phenomenon emerges.

Due to the undertaking of the reading and analysing process in *level 1* (What does it mean?) and the interpretation process in *level 2*, *hidden* or *neglected* experiences and understandings of the author might arise. On the one hand, this reflects Gadamer's (2010) concept of historicity and distance and on the other hand, Polanyi's concept 'of the growing mind' as explained in the previous section. It shows a continuous *change* in understanding because of its relationships to others, which are the different texts (authors) in this research. This *change* in pre-knowledge is positive but can also be classified as a *danger*, as the *old* experience can *disappear* or be supplanted by the new experience when the new experience *pops up*; this is also why the recording of the reflected meanings is important. It fixes the understanding of a meaning to a specific time and allows reflecting between the *past* and the *present*.

Therefore, in this research and for the hermeneutic process, not only is time and historicity considered vital, but also the process is essential. It allows for the maturation of this research and assimilation of new perspectives, which can lead to profound and deep discussions and reflections.

Additionally, the literature allows for the building a foundation of basic knowledge of the defined thematic patterns and answering questions, which might emerge through the interpretation process. It also positively affects pre-knowledge and prejudice. This new and *theory based knowledge* in combination with the researcher's pre-knowledge and the reflected meanings is used to reflect on and interpret the identified meanings.

7.2.2.3 Level 3 – application.

The application (How can I share with you what it means to me?) of the 'second-person approach' (Osborne, 2006, p. 22) of the hermeneutic process of understanding is best understood through Gadamer's explanation in his book, *Truth and Method*. Gadamer explained that application is not an extension of the understanding of a situation. He emphasised that understanding always contains an application (Original quote, 'Verstehen ist immer Auslegung') (Gadamer, 2010, p. 312). This means that the transfer of understanding achieved from a text is always in relation to the present situation of the interpreter (Gadamer, 2010). In this regard, Palmer (1969) interpreted Gadamer and stated that 'Understanding always includes application to the present' (p.191).

The importance of application is clearly exemplified and explained by the dint of law or bible passages (Gadamer, 2010; Palmer, 1969). Laws are written (text) and fixed through historicity. Their aim is not only to be understood, but also to be applied to different current situations in which they are concretised (Gadamer, 2010). This is also applied to biblical texts, where not only the historical meaning of the text should be understood, but also has to be *applied to different situations in the present*. This happens mostly in a church when a pastor interprets (application) a bible passage to relate it to a current situation (Gadamer, 2010). This explains that the understanding achieved through a text needs application for *real* understanding. In this regard, it is vital that a text be understood in each concrete situation differently (Gadamer, 2010).

In this research, the aforementioned *situation in the present* is given through the research question. Therefore, *application to the present* means to use the understanding that is drawn on the analysed textual findings developed through level 1 (understanding) and level 2 (interpreting) to answer the second research question by way of interpretation and a *thick description* of the findings. This shows clearly that for another concrete and present situation (e.g. different research question), a text must be understood differently.

This introduction underpins Gadamer's claim, already presented in section 6.2, 'Gadamer's Phenomenology Hermeneutics', that human science cannot draw on natural science methods, which produce law like findings such as those found in mathematics. Understanding in human science must be concretised for each new situation, which explains why each situation has to be understood differently.

7.2.3 Step 3 – theory of uniqueness.

The title of this research introduces the aim of this research, which is to study the phenomenon that arises when a knowledge-based organisation is able to handle knowledge creation without using deliberate KM. Although research based on qualitative study was considered as too subjective and hence weak (Alvesson & Sköldberg, 2009; Bryman & Bell, 2007), it was valuable to this study.

A common question is how a single case study can be a representative of all the other cases (Bryman & Bell, 2007; Yin, 2009). In this regard, Yin (2009) explained that research is seldom based on a single data gathering method or single experiment. In multiple case studies, a generalisation (theory development) is undertaken by the dint of using different cases; similarly, a single case study can be generalised by the dint of using different data gathering methods (Yin, 2009). This generalisation is applied ‘to theoretical proposition and not to populations or universe’ (Yin, 2009, p. 15).

Triangulation is possible with the use of different data gathering methods and is undertaken through the hermeneutic reflection process (Saunders et al., 2009; Yin, 2009). As more than one data gathering method was used to conduct the study, the value of the validity and the findings of this research were enhanced (Yin, 2009).

As already mentioned, the semi-structured interviews are highly subjective (existential) because they explain or interpret human experience in relation to different questions. Similarly, the participant observation was used by way of a subjective lens to interpret the existent reality in the organisation under scrutiny. It is believed that because of the qualitative character of the data gathering methods, the value of the findings and the theory of this research were increased.

The hermeneutic analytic process provides extensive data regarding the phenomenon under scrutiny and is the theoretical foundation for this research. Hence, the theory of research is developed as follows:

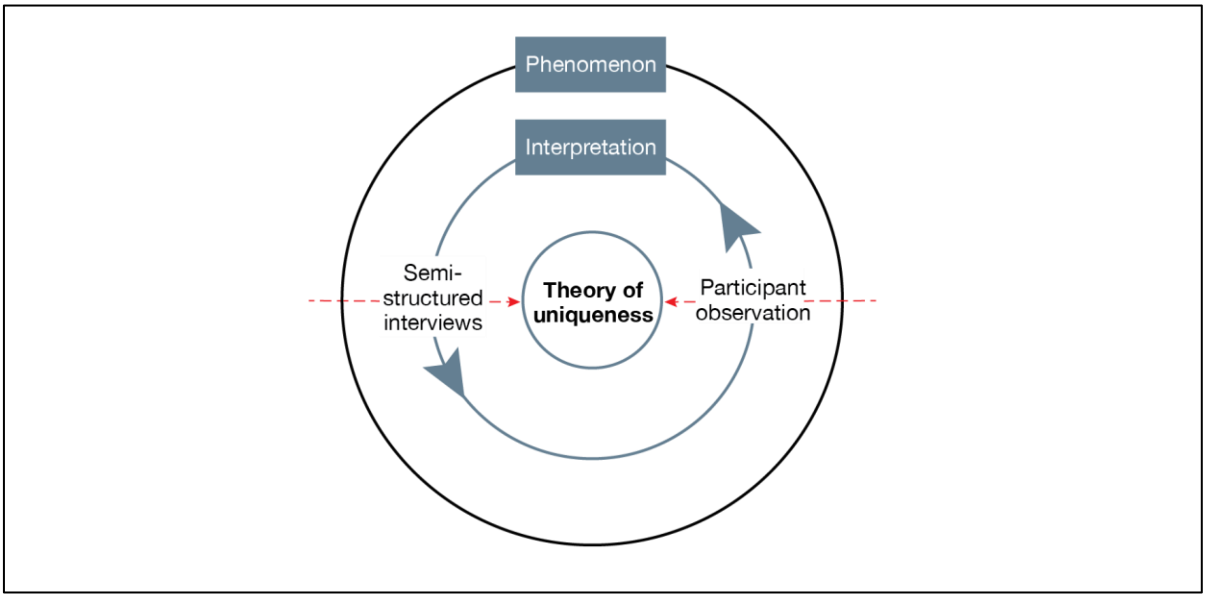

Figure 11. Theory of uniqueness

Hermeneutic phenomenology is about understanding the phenomenon as a whole (Torraco, 2005) and not generalisation. Hence, the elements of the research cannot be extracted and identified as *unique* to this phenomenon, as explained in Figure 11. This concurs with van Manen's (1990) notion that writing in phenomenological research means creating 'signifying relations' (p. 132) between patterns and can called theory. He also highlighted that writing and re-writing means 'to write myself' (p. 132) (i.e. interpretation), and it is not about generalisation because of the unique lived experience used for the analysing and interpretation processes (phenomenological hermeneutics) (van Manen,1990). In other words, the researcher's bias, lived experience, cultural background, education, and so forth, which makes the person unique as an individual also makes the analysing and interpretation of the findings unique. Through the researcher's subjective and unique perspective, the interpretation becomes unique; hence, appropriately named the 'theory of uniqueness' (van Manen, 1990).

In this regard, the text is created to summarise the key elements of the findings mentioned, and brief explanations are added so as not to dissolve the important relations between the research findings and is therefore called the 'theory of uniqueness'.

7.3 Quality of Research

The qualitative aspects of reliability and validity are legitimately mentioned in much of the research literature. Yet, experts and authors still discuss whether the quality criteria of quantitative research should be adopted or re-created (Bryman & Bell, 2007). Because of this ambiguity and for the sake of clarity, the qualitative aspects used for quantitative research are introduced first followed by an alternative approach, which became more popular for qualitative research.

The qualitative aspects in quantitative research are generally divided into *reliability* and *validity*.

Reliability refers to the reproducibility of findings by using the same research methods and context (Bryman & Bell, 2007; Holloway & Wheeler, 2002; Robson, 2002). Clearly, this is easier for a quantitative study than for a qualitative one because the pre-knowledge and prejudice used to interpret the data is unique for each researcher (Holloway & Wheeler, 2002), which is why quantitative studies are considered more reliable than qualitative (Holloway & Wheeler, 2002).

Validity is defined as one of the most important research criteria (Bryman & Bell, 2007) and is about ‘being accurate, or correct, or true’ (Robson, 2002, p.170). It depends on the chosen tools and methods and whether they really allow for data gathering regarding the planned outcome (Holloway & Wheeler, 2002).

On the other hand, the *alternative* criteria for qualitative research are often considered vital in the current literature (Bryman & Bell, 2007; Daymon & Holloway, 2011; Holloway & Wheeler, 2002). The alternative criteria, divided into *trustworthiness* (Holloway & Wheeler, 2002) and *authenticity* (Bryman & Bell, 2007; Daymon & Holloway, 2011), should replace validity and reliability because the social world and the highly subjective *truth* regarding a phenomenon cannot be proved with the same qualitative aspects used for quantitative study (Bryman & Bell, 2007).

The first aspect of the *alternative quality* approach, *trustworthiness*, contains the following four sub-criteria: *credibility*, *transferability*, *dependability,* and *confirmability* (Bryman & Bell, 2007; Daymon & Holloway, 2011). The aim of *credibility* resonates very strongly with the essence of *validity*, which ensures that the meaning of the social world under scrutiny is understood in a correct manner (Bryman & Bell, 2007). A participant should be able to relate their experience to the research findings (Daymon & Holloway, 2011). *Transferability* is, as the term indicates, about how the findings are *transferable* (Bryman & Bell, 2007; Daymon & Holloway, 2011). A possible way to achieve transferability is to 'provide a narrative that is sufficiently descriptive ('thick' description)' (Daymon & Holloway, 2011, p. 85). This allows the reader to understand the *whole research situation (social-world)* and connect the findings with their own experience (Daymon & Holloway, 2011) or rather refer the findings to their organisation. *Dependability* indicates the *reliability character* and should ensure that the reader is able to prove the findings about the description of the analysis and *decision-making process* (Daymon & Holloway, 2011, p. 86), which includes elements like rigorous data recording (whole research), research notes, interview data, decision making, research problems, and so forth (Bryman & Bell, 2007). An audit process is used to achieve dependability (Bryman & Bell, 2007; Daymon & Holloway, 2011). However, difficulty in undertaking this process may be the reason why this criterion is seldom used, as the plethora of data, which mostly emerges through quality research, makes such an audit extremely difficult (Bryman & Bell, 2007). *Confirmability* shows clarity about how the research findings emerged. Hence, it is essential to represent the link between the raw data and final findings of the research. A reader is then able to establish if and how the findings draw on the raw data or if those are *constructed* based only on the researchers' personal beliefs (Bryman & Bell, 2007; Daymon & Holloway, 2011).

Authenticity, the second qualitative aspect is about the 'careful documentation of the process of research and the decisions made along the way' (Daymon & Holloway, 2011, p. 84). It also contains strategies, which not only guarantees that the revealed ideas and insights are recorded as they are meant by the research participants and not deflected, but also that the research is a fair process, which allows to understand the participant and the reader of the research in their social setting (world) better so that they can improve it (Daymon & Holloway, 2011; Holloway & Wheeler, 2002).

The foundation of quality assurance in this research draws on the two core principles of transparency and systematicity discussed by Meyrick (2006). He summarised the myriad of research quality criteria necessary to be followed during the different research steps and drew on the two core principles to be applied to the different research methods and elements to achieve good quality research. Essentially, transparency refers to clarity and explains the importance of a clear and transparent documentation and explanation of the research process, which contains elements, such as why the research is undertaken, details of the samples, why the questions are asked, and why changes are made. Systematicity, on the other hand, refers to the description of used methods, data collection, and analytic process. (Meyrick, 2006; Tappen, 2011).

In this regard, to ensure high quality in research, the following quality methods are chosen for this research: *chain of evidence, triangulation, database (Yin, 2009), and thick description (Holloway & Wheeler, 2002).*

The *chain of evidence* allows others to follow the research process from the research question to the theory until the end (Yin, 2009), as already been presented in section 4.4, 'Process of Research'. Because of the complexity of this research, the process of each method was specified precisely in each section to ensure systematicity and transparency.

The *principle of triangulation* (Yin, 2009) is also used, as already introduced through the hermeneutic circle. Yin (2009) explained that case studies which use multiple sources are rated higher in quality because the same phenomenon is measured from different perspectives, and it leads to a more extensive picture. Hence, the gathered data through the interviews and participant observation allows the understanding of the same phenomenon from different perspectives. The transcribed findings are analysed and reflected by the dint of the hermeneutic process. Each data gathering method represents a part of the whole (phenomenon). The different types of findings enable a better understanding of the phenomenon.

Databases to manage and record gathered data (Yin, 2009) are an important part of dependability and transparency. Additionally, a database is not only suitable to record or manage data, but it also allows tracing back meanings and arguments for an 'independent inspection' (Yin, 2009, p. 119). Due to this, an appropriate software is used that records and opens data as a project. With respect to reliability, this is vital because it allows marking each meaning in a document with a quote number. The quote numbers are combined with a document number (i.e. interviewee number), for instance, '(I11/Q32.3)', or a document name, such as 'Observation', 'Memo', 'Interview_transcribed', or 'Observation/Q25.2', as a reference to create a distinctive link between the interpreted text and the findings established. However, it is important to emphasise that an interviewee cannot be identified through the number assigned because it displays only the number of the transcribed document. This was explained to each interviewee to show how anonymity is fully guaranteed.

The following Table 7 summarises the tools and methods used in this research.

Table 7

Database: Used Methods and Tools

Method	**Raw data recorded via**	**Software support**	**Data: raw & transcribed saved as /in**
Participant observation	tape recorder, notes	Atlas.ti	File/data base
Semi-structured interviews	tape recorder, notes	Atlas.ti	File/data base

Thick description in qualitative research allows for transferability, which goes hand in hand with generalizability in quantitative research. That is, a study is most useful if it is generalizable and if a researcher can then transfer these generalizations to different contexts or different studies. If the reader cannot follow or ‘transfer the insights gained from the research to the other settings’ (Holloway & Wheeler, 2002, p. 262), then the research might be considered weak or not useful. Hence, a detailed and rich (thick) description of the research process, the methods, how and why the findings emerged, the decision-making process, and how the participants see the phenomenon of this research should allow the reader to understand the findings in their context and enhance its transferability to other situations (Holloway & Wheeler, 2002).

Against this backdrop, *member checking* (Robson, 2002), also known as *member validation* (Holloway & Wheeler, 2002), is relevant. Member checking relates to the control of raw data, which is essential but also a very time consuming and difficult undertaking. As shown in the section 7.2.1.1, ‘Semi-structured interviews’, although this option was offered to the interviewees, they refused and found it unnecessary because of the interpretive nature of the research context and use of data and the presence of the compliance manager in the background, who accompanied the researcher throughout his research to ensure that no sensitive data was published.

Ethical considerations are of similar importance to the qualitative aspects of this research and will be introduced in the next section.

7.4 Ethics

Ethical principles are considered an essential element in social research and is also very important in this research; however, it puts a researcher in a difficult position, as ethical considerations demand that illegal situations be reported to the police, which may in turn hinder the research (Robson, 2002).

In this research, the golden rule of ethics, ‘Do unto others as you would have them do unto you’ (Zikmund, Babin, Carr, & Griffin, 2013, p. 88), which stems from the Bible (see Luke 6:31 or Matthew 7:12), is used. In this regard, Jackson (1987) explained (as cited in Myers, 2010) that if researchers are unsure whether their actions are in line with the ethics of their research, then they should put themselves in the position of the observed persons (Myers, 2010). Hence, they can feel how it is to take notes on or collect information about the activities or behaviour of the observed person (Myers, 2010).

Drawing on the University of Gloucestershire’s handbook of research ethics, it is important to highlight the importance of ethics to this research. Hence, the following steps are defined to assure ethical agreement, drawing on the ‘general responsibilities towards research participants’, as mentioned in the *Handbook of Research Ethics: A Handbook of Principles and Procedures* provided by the University of Gloucestershire (University of Gloucestershire, 2008).

Table 8

Ethical Steps of Data Gathering Methods

Data gathering method	Research is presented	Data using permission	Personal data	Data about	Raw data verified by
Observation Analysis	To participant: yes To others: yes	yes	anony-mous	action, behaviour	verified and signed by compliance manager
Semi-structured interviews	beforehand via mail	yes	anony-mous	lived ex-perience	verified and signed by compliance manager

The ethical responsibility of the researcher includes ensuring that ‘the physical, social and psychological well-being’ (University of Gloucestershire, 2008, p. 4) of participants is not negatively affected by the research. Hence, the research steps are chosen by considering the organisational precondition in order to not disturb the participants during their daily work.

Before undertaking the participant observation, the researcher explained the aim of the observation and research to the participants. The introduction contained, for instance, which kind of data will be observed (behaviour and action) and that data, such as position or department will be noted, but personal data like name will be omitted. If during the observation an employee approached, the researcher is introduced as a researcher for a project and then asked the employee for consent to observe. The participant is a volunteer and is the contact person in this organisation; this relationship is a unique possibility and very useful in obtaining a deeper insight. However, the participant is asked for permission to record and use the data. Regarding this point, the interviewees and the participant were asked if they wanted to verify and sign the date. All of them denied this and explained that due to the research topic, the process shown, and due to the compliance manager of the organisation under scrutiny, who would control the final outcome, this would not be necessary.

The interviewees for the semi-structured interviews were volunteers, who were selected and approached first through the compliance manager. The researcher then contacted the interviewees directly to set an appointment to provide a brief introduction to the research, if they wished. At the appointment and before starting the interview, the researcher went through everything to clarify the questions of the interviewees, if there were any. He also highlighted that no names would be recorded and that the interviewees would be anonymous. To ensure that the *main questions* or the areas of interest were in line with the ethics, they were, as already shown through the process, tested by others. These questions and areas were also discussed with the compliance manager for the approval that the questions are in line with the ethical understanding of the organisation. Finally, after transcribing the data, the transcripts were given to the interviewees to verify the content, which they then affirmed and signed for further use in this research.

8. Findings Exercises – Second Research Question Answered

A manager mentioned during a break that ‘What we do is not new, and what we do is not always right, but we try to do everything on a very high-level’ (Observation Notes, p. 3). This sentence is the perfect segue into this chapter because it contains the important phrases ‘we try’ and ‘on a very high-level’. *Trying* or *to try* are synonyms, which can be linked to negative attributes, like indecisiveness, hesitancy, or weakness, but in this research context, *trying* is linked to positive connotations, such as power, daringness, experiments, or to the powerful word *passion*. The word *powerful* is used because, as is seen later in this research, it is one of the main reasons that knowledge creation without deliberate KM takes place. The other phrase ‘doing everything on a very high level’ allows creating an environment vital for knowledge creation, especially by the dint of elements like culture or founder’s values, philosophy, and so forth, because it minimises interpersonal barriers, a key element for explicit knowledge and information sharing.

Howsoever, the findings presented in this chapter might lead one to the conclusion that the organisation discussed in this research might be another fancy blue-chip company like Google. Unfortunately, statements about Google like the ones written by the New York Times and quoted by Dennis Schrag (2013) that the ‘so forehead-slappingly obvious — so, well, duh — it’s hard to believe that it took the mighty Google so long to figure them out’ (p. 2) could be linked to the quote at the beginning of this chapter, ‘what we do is not new’. This could lead the readers of this research to misconstrue that the organisation featured in this research to be another fancy organisation like Google. Then, the argument might be that because of Google’s setting, knowledge creation would take place on such a high-level.

Against this backdrop, it is worth highlighting a quote by a current ‘Googler’ and a former employee of the organisation studied in this research, as he is in a perfect position to reflect on both organisations considering his experience with them. When asked the question if there are differences between the organisations, he immediately stated that ‘there are differences’ such as the size of an organisation. He went on further and explained that in the first glance it may seem that many elements, especially the environment, places, or behaviour, are the same or similar in both organisations, but in fact there are distinctions in the intensity of these elements, and these distinctions are the possible reasons why knowledge creation without deliberate KM within an organisation can take place on a high or low level. However, the researcher shall not highlight the differences at this stage and pre-empt the result of this research because the discussions of the next few sections elucidate the phenomenon.

Before starting with the discussions, it is important to examine how the employees in the organisation under scrutiny understand ‘knowledge’. This not only elucidates common problems in practice in understanding this highly complex issue, but also shows possible ways to solve these problems, well-known to KM academics and experts.

8.1 Revisiting Knowledge in the Light of the Findings

The aim of this section is not to rediscuss and redefine knowledge, which would be an ‘unproductive discussion’ (Davenport and Probst, 2002, p. 27); instead the aim is to understand how knowledge is understood by the employees of the organisation under scrutiny, which is necessary to grasp the reasoning and arguments presented by way of the findings and results of this research. Additionally, drawing on the revealed findings, it is also vital to highlight Gadamer’s (2010) concept of ‘fusion of horizons’ in this section, which was previously discussed in-depth at the beginning of this research. Gadamer’s concept is not only a philosophical approach about how understanding can emerge, but also encompasses the whole research and has different points of contact with the findings of this research; it also has an impact on the creation of explicit and tacit knowledge.

In chapter 5, ‘Literature review’, the essence of knowledge and myriad definitions of knowledge were discussed, proving that knowledge is not only a complex but also a highly personal issue. The phrase, *highly personal issue*, is deliberately used, although it contradicts the understanding of knowledge in this research, which is as a social construct. *Personal issue* indicates that though the creation of new knowledge draws on social interaction, the self must allow this process. As we will see later in this research, knowledge creation presupposes sharing and transferring of explicit knowledge and lived experience or information, which is highly tied to emotional and interpersonal barriers. Therefore, new knowledge creation, although socially created, is also highly personal.

However, it is important not only to pin down the complexity of knowledge so that it becomes understandable and manageable, but also to understand the meaning of data, information, and knowledge as well as the most prominent types of knowledge.

In this regard, the findings revealed that those who have not studied the issue of knowledge creation or KM in depth, consider knowledge differently, which can be compared to the slogan ‘keep it simple, stupid’. In the organisation under scrutiny, the classifications and distinctions made in the literature among data, information, and knowledge do not exist, or employees only recognise a distinction between knowledge and data, whereby knowledge and information are used at the same time, interchangeably.

Although this incorrectly resonates with the recommendation to pin down the complexity of knowledge, it shows what has already been mentioned by authors such as Nonaka (1994) or Bassi and van Buren (2002). They claimed that employees and managers wrongly and interchangeably use the term ‘information’ with ‘knowledge’ (Nonaka, 1994; Sveiby, 2002). This finding and statement does not imply that information and knowledge are the same, but explains how knowledge is viewed in the organisation under scrutiny.

A possible answer to why knowledge and information are used interchangeably can be demonstrated by the dint of Allee's (1997) and Davenport's and Prusak's (2000) insights. Allee (1997) explained that 'one person's knowledge is another person's information' (p. 180), and Davenport and Prusak (2000) claimed that information is a message normally transferred through written or spoken words and is data, which has an impact on the 'judgement or behaviour' (p. 3) of the receiver. Inspired by these two quotes, the following discussion shows how close the character of knowledge and information can be.

Allee's insights were mentioned in certain forms during the interviews, for instance, when engineers explained that they *informed* their colleagues about a solution (i.e. sharing new explicit knowledge) to a problem. However, just because a solution to a problem is new knowledge for the person who created the solution (sender), it may not necessarily be so for the receiver. From the perspective of a sender, it is explicit knowledge, but from the perspective of the receiver, the message only *informs*. Drawing on the obtained *information*, the receivers re-organise or re-interpret their own world, or in other words, what they know, and this process may lead to new insights and ideas (i.e. new knowledge). An example is the use of a patent, which presents documented explicit knowledge. A person can read and study a patent and become informed about how a machine works. It informs the reader, which may lead to an upgrade because the reader re-interprets or re-connects the assimilated information with their lived experience and skills. Or simply put, a driving instructor *informs* the learner how the car works and what is to be done so that the car moves. When a person (sender) shows (informs) another person (receiver) how something works, the receiver does not create knowledge instead only assimilates information. But with time and through driving of the car (lived experience), the driver can create new knowledge through different situations connected to the traits of the car, for instance, how to drive safely on a rainy day. Therefore, using information in a new context or for a new situation can lead to the creation of additional information (i.e. knowledge creation).

The insight of Davenport and Prusak (2000) that information has an 'impact on the judgement or behaviour' (p. 3) not only applies to information, but also to explicit knowledge. Analysed market data (i.e. information) can affect someone's judgment or behaviour as well as an invented product (explicit knowledge). Again, only a receiver can decide if information or explicit knowledge, which can be summed up as information (receiver's point of view), has any impact on their judgment or behaviour. If a receiver already possesses a certain kind of information (or explicit knowledge), the newly received information is not *valuable* or *interesting* to the receiver; the information (or explicit knowledge) that is not important at the moment can become very important at a later point in time. In such a case, the receiver assimilates the information and *stores* or forgets it. With time and through different fragments of other information or lived experience, the previously incomplete *puzzle* becomes complete and a new idea or solution is born. In this regard, time is an essential element, which has been repeatedly mentioned by the interviewees and is considered as another important element for the phenomenon of this research and therefore is discussed later.

This discussion does not claim or recommend to seeing information the same as knowledge, but illuminates the general problem and the reason why the employees in the organisation undertaken for this research consider both the terms to be the same. To summarise, in practice only a distinction between data and knowledge, which is equated with information, exists.

Although there are many definitions regarding the different knowledge types in the current literature, the organisation under scrutiny obviously reduced them to only one type, which is in line with Skyrme's (2002) idea that different definitions of data, information, and the different types of knowledge, mostly made by authors and academics are ‘peripheral’ (p. 70) for business practice.

In this regard, an anonymous employee asked the pertinent question, ‘Ah, knowledge creation… you are talking about storytelling and so on…right?’ during an observation break. This question as well as the findings from the interviews and the previous discussions revealed that knowledge for the employees is connected to everything that can be objectified, expressed, shared, or read like ideas, experience, information, books, documentation, stories, and so forth; therefore, any kind of explicit knowledge. It resounds Polanyi’s (1962/2013) idea that humans are only able to express the explicit part of their knowledge. The findings also correspond with Kikoski and Kikoski’s (2004) observation that explicit knowledge constitutes the most commonly used type of knowledge in our life.

It is correct that explicit knowledge certainly plays an important role for any organisation and is considered to be the sole type of knowledge in the organisation under scrutiny, it is *worthless* if the receiver cannot assimilate and use it. Defining knowledge as something that can be grabbed, described, or objectified, such as a resource, might be the other reason why employees and managers still defend their idea that by way of a fancy IT system KM is installed and knowledge creation will take place.

The main characteristic of the other prominent type of knowledge, namely tacit knowledge, is perfectly described by Senge’s (2002) as the ‘capacity for effective action’ and as follows:

> Capacity for effective action is not a thing […] you cannot transfer it – one person cannot get it and give it to another. It is not physical. If you know how to walk and I do not, can you ‘give walking’ to me? (p. 56)

Examples for Senge’s ‘capacity for (effective) action’ are, as already explained, reading a text, cross-analysing, algebra, reading a construction plan, understanding technical or legal vocabulary, and so forth. Without this capacity, assimilating or using explicit knowledge or information would be extremely difficult. A case in point is reading a map. A map is a kind of explicit knowledge drawn on a paper. If people get access to this kind of explicit knowledge, but is not able to locate themselves on a map or cannot read the different signs on a map, it would be impossible for them to find their way (Polanyi, 1962/2013), which simply explains why the ‘capacity for effective action’ is important. It is about understanding and having the ability to use explicit knowledge.

For instance, if employees receive the solution for a problem as a sketch, but they are unable to read the sketch properly due to the lack of the needed tacit knowledge, then the employees are also not able to use the explicit knowledge; therefore, ‘Knowledge is both explicit and tacit’ (von Krogh et al., 2000, p. 6). It is worth emphasising that despite having a certain capacity for effective action from the outset, in business or at work, we need an additional or improved form of capacity for effective action.

Nevertheless, tacit knowledge per se has never been directly mentioned during the interviews, although it is, as shown, omnipresent, which represents the insight that because of its intangibility and ineffability managers cannot objectify it and therefore also do not see it as useful (von Krogh et al., 2000) such that they cannot use it.

This research does not bring the different types of knowledge into question, but in business, it seems that only the two above-mentioned most famous types of knowledge (i.e. explicit and tacit knowledge) are useful for consideration. Explicit knowledge is essential because it bears employees with solutions, thoughts, ideas, and tacit knowledge or the ‘capacity for effective action’. This is considered vital by the organisation, and hence, supported, taught, and trained through their philosophy, setting, and programs.

However, the findings revealed that the organisation under scrutiny uses the underlying idea of Gadamer’s concept of ‘fusion of horizons’ to enhance explicit and tacit knowledge. The term horizon *(Gesichtskreis)*, already introduced and often used in phenomenology by philosophers such as Heidegger or Husserl, is for Gadamer the scope of one's experience, understanding, and consciousness linked to history and time. In short, it is about lived experiences. Each human being has not only different strengths and weaknesses, but also a different horizon drawn upon a different background, which includes family, culture, friends, hobbies, interests, education, existent fads and trends, beliefs, fears, and so forth. Hence, each person perceives the same world differently and, additionally, a horizon is also created through life situations. As Berger and Luckmann (1966) explained, 'What is "real" to the Tibetan monk may not be "real" to an American businessman' (p.3). This quote explains that different realities (life situations) also have an impact on one's horizon, which is not only draws on a *unique* connection to time and space (1966), but also on a *unique* connection to a certain type of society (i.e. family, friends, and environment). Therefore, each horizon contains a unique combination and construction of experiences (knowledge), which leads to different understandings or perspectives among, in this case, employees on the same issue, and this difference is quite valuable.

However, the above-mentioned fusion of horizons explains a process where one horizon gets *enlarged* by another horizon. By the dint of the fusion of horizons (past and present), the person gets a broader understanding, or 'the reader obtains a broader one, or […] is elevated to a horizon with greater generality' (Pan, 2009, p.423).

In an organisation, not only does each employee contain and represent a horizon, but also does every book, document, or paper (explicit knowledge). A horizon is the circumference of consciousness, experience, and understanding (Gadamer, 2010). A book, for instance, represents the horizon of an author regarding a certain issue, which is connected to time and space. The 'fusion' can be compared with 'socialising & externalisation'. The knowledge creation spiral (Nonaka & Takeuchi, 1995) presents that socialising and externalisation is a coming together from people by means of a dialogue about an issue that perfectly echoes the definition of knowledge creation used for this research. To recapitulate, knowledge in this research is socially constructed.

However, it is worth highlighting that it is also possible to have a dialogue with a book. Certainly, the dialogue with a text or book is different compared to a dialogue with a person because a text defines the path of the dialogue, and a text does not respond to new questions immediately. Nevertheless, it is an important form of dialogue because it allows the assimilation of different kinds of explicit knowledge. Such knowledge usually cannot be approached because, for instance, the author might have already died or the author may be inaccessible.

However, the fusion of horizons of employees does not only have an impact on explicit knowledge, but also on tacit knowledge because, wittingly or unwittingly, we permanently observe the surroundings we live in and improve our skills or capacity for effective action (tacit knowledge) when we are ready for it. As already explained, each horizon is a complex construction of the different unique elements and explains why each human being is unique. Our recognised world and each decision we make are crafted by our unique horizon. The fact that a horizon (person) is unique also explains why each horizon has different strengths, weaknesses, desires, anxieties, and so forth. Understanding the complexity of a horizon makes it clear that each horizon needs different elements or settings so that a fusion can take place. As is further discussed in this research, this understanding is essential for NDKM, which is linked to discussions such as the *recognition of individualism*, *personal barriers*, or *positive emotional relationships*. It is worth emphasizing at this point that elements such as knowledge transfer, knowledge creation, or the NDKM draw not on the sole transfer of explicit knowledge or information, but rather on a true fusion of horizons. It is only when an employee allows the '*fusioning*' of their horizon, which takes place by way of the above-mentioned discussions, that a high frequency of knowledge creation and its non-deliberate management can emerge.

As mentioned earlier, the capacity of effective action or tacit knowledge can also be linked to Piaget (1965), a well-known developmental psychologist and philosopher, and his concept of schemata. Cook and Cook (2005) discussed Piaget's insights in depth in their book *Child Development – Principles and Perspectives*, as follows:

> scheme is an organized pattern of action or thought. It is a broad concept and can refer to organized patterns of physical action (such as an infant reaching to grasp an object), or mental action (such as a high school student thinking about how to solve an algebra problem). (p. 174)

Therefore, a scheme can be interpreted as a learned and self-developed cognitive construction, shaped by the environment, which is used to identify and interpret situations, information, or experience (Cook & Cook, 2005). It allows us to understand and behave without *thinking*, and it resonates with the meaning of tacit knowledge or subsidiary particulars.

Like Gadamer, Piaget did not separate the subject and object, rather he showed that knowledge and experience are also tied to the environment and situation (Cook & Cook, 2005), which resonates with Gadamer's insight that a horizon is tied to time and history. This plainly explains again why each human mind is distinct.

Piaget explained that different schemata exist (Cook & Cook, 2005), and the sum of all schemata must display the full horizon of a person. Hence, Gadamer's horizon can be understood as the *overall topic* of Piaget's concept of schemata (i.e. subtopics or different layers).

It is to be noted that Piaget's concept is not static, but rather flexible and dynamic. Piaget shows that we interact with our environment, and therefore, our existing organised schemata gets permanently re-organized with each new experience we have or each new piece of information we acquire, which is also in line with the concept of the fusion of horizons. In this research, Gadamer's concept of the fusion of horizons is not considered as the sole and deliberate fusion of knowledge relating to a matter, but rather the witting or unwitting observation and assimilation of other ways of action, which is guided by one's horizon. Hence, it is omnipresent and dynamic, and it improves our skills, capacity for effective action, and tacit knowledge, or in Piaget's words, 'schemata'.

Interestingly, the organisation under scrutiny, wittingly or unwittingly, understood not only how important explicit knowledge is owing to its great 'potential for value creation because of its replicability potential' (Grant, 2000, p. 33), but also that explicit knowledge alone is 'worthless and vain' if other elements like the 'capacity for effective action' (tacit knowledge) are non-existent. The organisation takes great pride in elements that improve and enhance skills or the capacity of effective action such as autonomous working, which allows employees to improve their tacit knowledge on a high-level. Autonomous working is not only required by the employees, but also by the youngsters and interns in the organisation. The findings showed that by way of this process, young employees in particular 'assimilate and adapt' (Piaget, 1965) the essential elements very quickly not only for their personal development and career but also for the NDKM.

Drawing on the findings of this research, the researcher of this study undertook a similar test in the company he is working and demanded from a recently employed apprentice, the same amount of work as from a normal employee, which requires a high degree of autonomous working. The apprentice was given intense training on the different important elements relevant for the position to be undertaken for the first three months, followed by a four-month period of intense support and control. After the seventh month, the apprentice was able to do 80% of the work necessary in this position. For the sake of clarity, the trainee was not abandoned or left alone but rather consulted and supported, and the controlling and supporting function still remained with the supervisor. After 17 months, 95% of the work was autonomously done by the apprentice. The beginning was not easy for the apprentice because working autonomously from scratch is not everyone's taste and is not normal in such a position. However, the learning curve was astonishing and the apprentice's *fun at work* factor was higher compared to others.

Additionally, by comparing the result with that of former and current apprentices, it showed that *autonomous work training* allows an apprentice to learn quicker and faster by gaining experience, support, and consultation. It not only enhances fun and passion for work, but also helps a young member train their tacit and explicit knowledge faster.

Through this process and test, the apprentice is able to autonomously decide and bring in interesting and valuable ideas for the organisation and therefore become very vital for the organisation before finishing the official education and training for the position, which would be finished after a period of three years.

Although the organisation does not have the same understanding of the correct definitions of data, information, and knowledge as that of an academic or an expert or an author, the organisation under scrutiny understood that creating innovation or new knowledge is more than merely sharing documents, information, or explicit knowledge. In this regard, interviewee 24 explained that knowledge is created 'through many little elements that exist within this company' (I24/Q30.12). The phrase 'many little elements' not only relates to objectified elements, like places, documents (explicit knowledge), or tools, but also to intangible elements, which have their origin in the so-called 'subsidiary awareness' (Polanyi, 1962/2013, p. 55) (tacit knowledge, capacity for effective action, schemata) existing in one's background. The latter, especially, has a strong impact on soft skills, such as social interaction – one's way of speaking, approaching a person, and so forth – which are predominant elements before explicit issues can be shared or transferred or a ‘fusion’ can take place.

Although this research investigates NDKM in the organisation under scrutiny, where it works on a very high-level, it is worth emphasising that, as different conversations with participants of this research have shown, explaining the basic definitions and problems discussed in this section would help generate awareness about the issue of knowledge and knowledge creation. This would also lead their ideas towards knowledge creation and its NDKM in a better direction that would finally propel its efficiency.

8.2 Five General Patterns Found

Five general patterns have been identified to enable a high level of organisational knowledge creation and its NDKM. These elements are namely, DNA (the founder’s philosophy), enabler (the basic setting), collective (support, feedback, and consulting), communication (catalyser for communication – the binder and the bridge), and passion (management of knowledge) (see Figure 12: The connection among the five general patterns) and are in a defined order. Despite this defined order, the elements do not stand by themselves because there is no beginning or end in knowledge creation or its management; rather the elements can be considered as a net connected and interwoven with each other. Against this background, the graphic representation of DNA or a molecule is used to display the complex structure of this research.

The sketch (see Figure 12) shows a general breakdown or rather a top-level diagram of the main components, and the presented lines among the elements and sub-elements symbolise the connectivity and interwovenness. It is worth emphasising that it was impossible to represent each component in the main framework (see Figure 12) because of the vast number of the revealed findings. Therefore, for each of the five core elements, a more detailed diagrammatic representation is presented at the beginning of each discussion (section). The deeper and more detailed the discussion, the more detailed the graphic representation, which is similar to a DNA or molecule. There is a general structure with its components, but a deeper look reveals new ingredients and their connectivity.

With the focus on how knowledge is managed and created without using traditional KM, the elements of founder's philosophy (DNA), basic setting (enabler), and 'passion' (convertor) play key roles. Though these elements play a key role, the other elements cannot be ignored or abandoned because without them the creation and management of knowledge would be impossible.

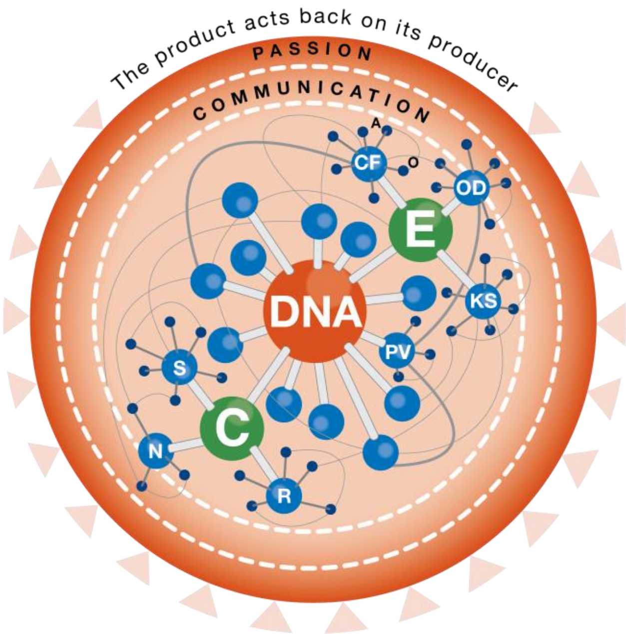

Figure 12. The connection among the five general patterns

DNA (The founder's philosophy), E = Enabler (The basic setting), and the C = Connector (Structure, Relationship & Network) not only impact Communication (Communication – the binder & the Bridge) and Passion (Management of knowledge; convertor), but also are finally embedded in them. Everything (the actors within a society, i.e. organisation) acts back on the organisation and employee Subgroups: CF = Culture Framework, A = Atmosphere, O = Organisation, OD = Organisational Development, KS = Knowledge Strategy, PV = Positive Values, P = Power, N = Network, S = Structure, R = Relationship.

8.2.1 DNA – the founder's philosophy.

The pattern 'founder's philosophy' consists of the organisational 'DNA', and it is the bearer of the organisational genetic information, which shapes the identity and behaviour of the organisation (see Figure 13).

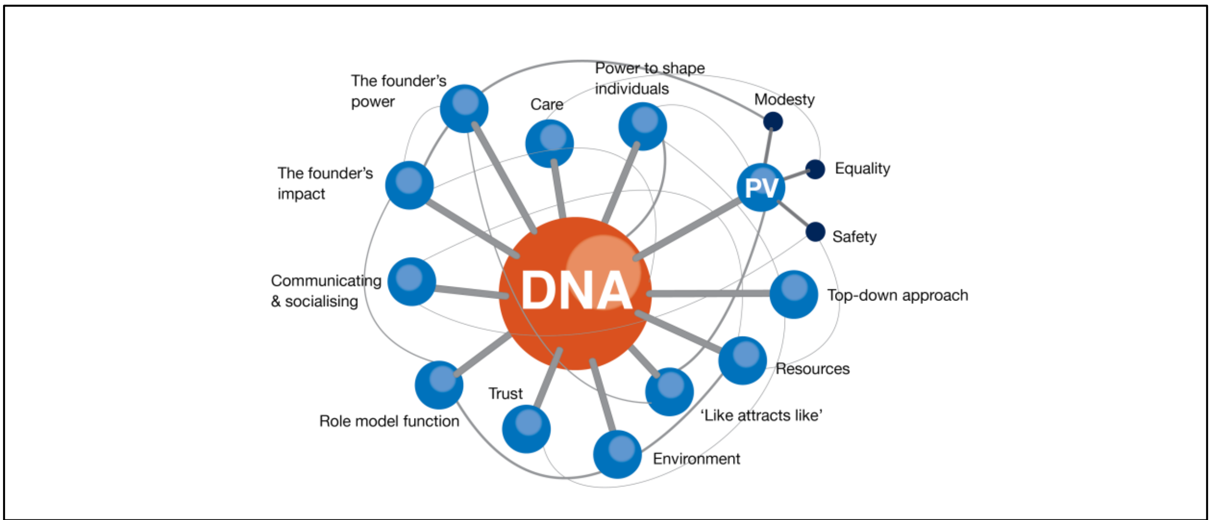

Figure 13. DNA

DNA (The founder's philosophy) contains several sub-elements that are interwoven among themselves. PV = Positive Values.

The term DNA is deliberately used because DNA defines the structure of an organism and also enables the intergenerational transmission of elements. In this research, an organisation is similarly understood as a socially constructed, dynamic, and active living entity, which transfers elements important to the organisation over time (i.e. generation). In this regard, the term DNA, also used by Schein (2010) in his book *Culture and Leadership*, is considered suitable for highlighting and emphasising the importance of the elements introduced in this section because the founder's philosophy is the origin of this phenomenon, which in turn has an impact on employees' behaviour. Moreover, it allows the transfer of the fundamental fingerprints of the founder's philosophy, like values, spirit, visions, and so forth, from the past to the present among all employees.

8.2.1.1 The founder's impact.

Berger and Luckmann's (1966) work, *The Social-Construction of Reality,* is especially relevant in this section because their concept of 'objectified reality & institutions' allows the understanding of the importance of the founder for phenomenon under scrutiny better. Essentially, the work of Berger and Luckmann (1966) is an extensive discussion on how the society emerges and how others are integrated into a certain society. It is also about the roles of different actors in a society, the knowledge linked to it, and how it impacts other actors of a society. For the sake of clarity, the introduction in this section is an *overview* of their work and does not discuss issues such as the meaning of primary and secondary socialisation in detail.

The very essence of Berger and Luckmann's (1966) work is that the society is a human product and the human is produced by the society, who draws on a dialectical process through the elements of externalisation, objectification, and internalisation. It is a dialectical process because a human produces a social world, which 'acts back' on the human, who again produces the social world; in other words, the 'product acts back upon the producer' (Berger & Luckmann, 1966, p. 61).

The authors clearly show in their work that people cannot develop themselves in isolation, but rather externalise themselves by drawing on the on-going actions in a social environment. If 'habits and routines' (Alvesson & Sköldberg, 2009, p. 26) or 'habitualization' (Berger & Luckmann, 1966, p. 53), well known in daily life as, for instance, rituals, specific type of word usage, morning coffee, and so forth (i.e. for a second person objective reality), are reciprocally typified, they are named institutions. An institution is defined as an objective reality, knowledge, or action used by a specified actor for a specific situation (Alvesson & Sköldberg, 2009). Berger and Luckmann (1966) demonstrated through the example of parents and a child (third party), how an institution abandons its subjective connection and becomes an objective reality available to all.

An organisation per se can be considered as an entity filled with objective realities. If a person creates an organisation (i.e. the founder), the person also socially interacts with the external environment such as customers and suppliers. The first employed person (as a third party) will recognise the habits and routines of the founder as the objectified reality (i.e. the founder's world) and undertake '"taking over" the world' (Berger & Luckmann, 1966, p. 130) in which the founder lives or in other words the employees immerse themselves into the founder's social world. This process is described as internalisation, which takes place through social interaction. However, it is important to understand that the objective reality 'has power to shape the individual' (Berger & Luckmann, 1966, p. 67). This is often indicated in this research because the objective realities pertain to the founder's philosophy.

In this regard, the statement 'developing human being not only interrelates with a particular natural environment, but with a specific cultural and social order, which is mediated to him by the significant others how have charge of him' (Berger & Luckmann, 1966, p. 48) is interesting for this discussion. Berger and Luckmann (1966) made this statement to Mead (1925), who had already discussed the connection of a person to the 'environment' and the 'the significant others who have charge of him' (Berger & Luckmann, 1966, p. 48) or as Mead (1925) named it in his work *The Genesis of the Self and Social Control* the 'stimuli' (p.265) from others for the social act of others.

The above-mentioned environment as well as the 'stimuli' is given by the founder and shows how important a founder is to implement a phenomenon as studied in this research because the founder with their habits and routines shapes the organisational society (i.e. founder social world). The employee starts to understand and participate in the social world of the founder and a society (i.e. organisational society) that emerges through this process. As discussed earlier in this section, the different DNA elements (i.e. routines and habits) are the core elements for the phenomenon under scrutiny because they have an impact on the employees and shape their identity. Even if many other habits and routines, drawn on time and growth, are implemented by other actors of the organisational society, they are in line with the founder’s DNA elements.

For the sake of clarity, it is also worth highlighting the Grainer’s curve, first published in 1972, that describes the different phases that not only an organisation but also a founder undergoes during an organisation’s life. This concept does not fit into this research because in the Grainer’s curve, it is explained, among others, that the growth and crises of an organisation as well as the challenges faced by a founder in the different periods will change with time (Trompenaars & Coebergh, 2014). Yet, the practices introduced by the founder’s philosophy relate to the elements, whose core do not change and is still preserved over time in the organisation of this research.

However, in the current literature, there are many discussions about how and on what a founder of an organisation has influence; for instance, many authors and experts show vital connections of the founder’s values, philosophy, and sprit to the organisational or corporate culture (Melewar & Karaosmanoglu, 2006; Schein, 1989). Additionally, the founder was never mentioned regarding KM or knowledge creation in the extensive literature review, although almost every traditional or start-up company is shaped by their founder. The findings prove that a founder plays a key role for successful NDKM.

In this regard, Schein (1989) in his paper *The role of the founder in creating an organisational culture* explained that the founder has an impact ‘on how the group solves its external survival and internal integration problems’ (p. 282), and that the solutions of the problems draw on the founder’s idea of how to run their business, experienced values, and their cultural setting. The quote plainly shows that an organisation is the ‘founder’s world’ in which the founder's ideas and philosophy rules the organisation, especially in the beginning. This statement shows a plain connection to the previous discussion of Berger and Luckmann (1966), where it has been introduced that the objective reality of 'the significant other in charge' (i.e. the founder) impacts individuals (i.e. employees in this context).

A founder's world also draws on their unique horizon, and in fact, this is why the founder of an organisation plays a key role in NDKM. The connection from the founder to the NDKM is given through the above-mentioned 'solutions for internal problems and external survival'. Each solution constitutes the creation of knowledge as well as the management of information and/or explicit knowledge in many different forms, which makes the importance of founder's philosophy intelligible. The founder's philosophy builds the organisation (i.e. employed actors) from day one through their own 'world' and horizon and may lead to a unique way of handling (i.e. objective reality) information and/or explicit knowledge as well as the creation of solutions for internal problems and external survival.

8.2.1.2 The founder's power.

The multi-functionality of a founder is seldom mentioned. In the organisation under scrutiny, as well as in many others, a founder is not only someone who has founded an organisation, but is also a leader and a manager. Such a combination of different positions makes it much easier to implement and execute what is important to the founder. Although there has been no direct mention of the founder in the literature review of this research, many experts have glorified the importance of the role of positions of leadership or managers for KM or knowledge creation success. For instance, Nonaka, von Krogh, and Voelpel (2006) showed through their discussion the vitality of a leader for knowledge creation. Similarly, Allee (1997) highlighted the importance of a leader for knowledge sharing, and many other experts and authors have followed them and explained it similarly.

The combination of different positions like that of a founder, leader, and manager leads to an atypical combination of possibilities and responsibilities, which exist in a unique form in an organisation. In this research, the focus is only on the possibilities of such a combination of positions. However, the term ‘atypical’ is not used because this combination of different positions created is new. In fact, such a combination could be compared with the position of the so-called ‘generalist’. The difference between a generalist and the above-mentioned combination of different positions is the ‘freedom’ (no apology) or the ‘power’ a founder has in his work or the decisions he makes. There are situations in which the founders never have to justify their actions or decisions. Certainly, the bigger an organisation gets, the more people become responsible for different situations and departments, and in such a setting, the founder might have to justify their decisions. Nevertheless, the word of a founder holds great weight in an organisation.

In this regard, the term ‘power’, which is often used in this section, is worth consideration. Essentially, each actor within an organisation has a certain power. A leader has power because of his position (position power), while employees have power because of their experience or knowledge (expert power). Although equality is omnipresent, as we will see later in this research, the concept of ‘power’ which is important to the organisation of this research (Handy, 1999) is given and is used to emphasise the influence and possibility a founder could have.

Some founders are not *aware* of the power and influence they have on their employees (i.e. role-model function) or they have just forgotten it, which in this case may be similar to the Grainer’s curve. As mentioned earlier, the Grainer’s curve shows the different challenges a founder faces during the different phases of growth of an organisation, which can lead to the founder forgetting ‘many little things’ owing to the lack of time to deal with new challenging tasks and problems (I24/Q30.12). This has a vital impact on employees, as these many little things are a vital trigger for the possibility of this phenomenon.

As we see in this research, in a growing organisation, this can automatically take place if a founder implements tools, aims (strategies), or delegates tasks so that the important elements can be shared and preserved over time and without his direct presence. Berger and Luckmann (1966) perfectly exemplified this in their statement that ‘The children must be “taught to behave” and, once taught, must be “kept in line”. So of course, must the adults’ (p.62).

It is not a problem to be deliberately unaware of this power because if a founder embodies leadership and management skills, everything else exists to establish the founder’s ideas and thoughts. Knowing that such a power exists certainly may help because one can deliberately use it then. What is problematic is a founder with a dearth of leadership and management skills because then it is impossible to deploy the full power such a combination can provide, as discussed later in this section. This statement might indicate that a leadership position is more vital than the founder’s position or vice versa, which is not discussed in this research. It is clear that without a founder and their possibilities and resources, no organisation would exist. For the phenomenon of this research and to establish NDKM, a founder must also have some leadership and management skills so that the very essential elements, thoughts, and behaviour of the founder, which are valuable for an organisation, can be transferred to the employees. Although some founders have character traits that allow them unwittingly to do the right thing, trained leadership skills enhance efficiency and change to transfer the elements. Additionally, trained leadership skills allow deliberate transfer of some habits into the essential objective realities available for the employees in the present as well as in the future.

One may claim that a leader of an organisation who is not a founder has the same possibilities as a founder with leadership and management skills. Although this might be correct, it is the researcher's strong belief that a founder who bears the above-mentioned combination of positions has much more influence on employees and can build a better and stronger organisation than a leader without the 'founder function'. This phenomenon is experienced not only through this research, but also through the researcher's working experience in multinationals and midsized and small companies. It has been observed that there is always a recognized difference in the attendance among the employees when a founder with leadership and management skills uttered something in comparison to a person with sole leadership or managerial functions.

8.2.1.3 Implementing DNA.

The findings revealed the following three main ingredients, important to this phenomenon, to successfully implement the DNA elements, namely: top–down approach, role model function, and resources.

Table 9

Founder with Leader and Manager Function and its Fundamental Possibilities

Ingredient and Tool	Remark
Top–Down-Approach	Important to successfully establish strategies, thoughts, ideas, and values with passion important to the founder
Role model function *Tool: extended storytelling (content and time), positive elements and values*	Influence on behaviour through socialising and communication, trust on the employee and trust in the company enhanced through positive values (safety, equality, modesty)
Resources *(Requisite: power)*	Allows for allocating resources based on what is important to the founder

Admittedly, the three displayed ingredients have been often used in history. Negative examples like Hitler and other dictators show that such kind of power has been used many times, though negatively. This is not a concern of this research, but the findings illuminate how important these ingredients are to form an organisational society appropriate for knowledge creation with NDKM, when positively used.

8.2.1.3.1 Top-down approach.

In the first possibility, a founder automatically has the total and unavoidable top–down ‘effect’. As already explained, it is the ‘founder’s world’ where their values and philosophy of how to run the business rules the whole organisation or in simple words ‘what the boss says counts’. This is understandable, but it is not as easy as it sounds. This essentially means that habits and routines (i.e. objectified elements) of the founder are assimilated by the actors of a society (i.e. employees) (Berger & Luckmann, 1966). Although Berger and Luckmann (1966) indicated that an emotional part is necessary to learn and to assimilate objective realities, their insight failed to explain that because of a given horizon that each adult (employee) has, which is filled with a certain ideology, education, and experience, the objective elements must have an (positive) origin or core in line with the horizon of the actor, so that the objectives become assimilated. For instance, with the negative use of the top–down approach, a person is able to *force*, in this case, an employee to share knowledge or information, which will end in an unsuccessful story. Some might argue that the revolutionary torture methods allowed for the gleaning of issues and information, but in fact, the required resources would be immense and the reproducibility of the information as well as the recreation of new knowledge would be near to zero and therefore, not economical and useful. Such a method will result in losing the most valuable thing in an organisation, which is the employee with their thoughts and ideas.

The use of a positive path which stimulates employees by the dint of different human and positive elements will result in the sharing of explicit knowledge or information on one’s own volition, which will in turn lead to a better transfer of inner thoughts, ideas, pros, and cons regarding different topics. Although the organisation under scrutiny uses an interesting ‘bottom-up management approach’ (explained in section 8.2.3.1, ‘Structure’), it was the founder’s ‘top–down approach’ that finally gave the essential fingerprint to establish the still existent NDKM roots. Additionally, this research shows that the term ‘top–down approach’ is mostly used in a negative management context; however, it cannot be skipped just because of that, as it is vital for establishing NDKM. Strategies and concepts, which should be ‘lived’ and executed from the whole organisation, must be a part of the core strategy of an organisation. In this regard, the phrase ‘founder’s world’ will gain value because everything a founder with leadership and management functions establishes is automatically a part of the core strategy and will be executed with the passion, motivation, and love as strongly as the founder considers it.

However, an analysis of the findings revealed that in almost every quote relating to the founder, ‘top–down-approach’ was found. Interviewee 16 perfectly explained in this regard that the founder seeded his philosophy and spirit by the dint of different activities or elements that have been valuable to him and that he took great care of (Original quote, ‘er hat unsere Kultur gesät, gepflegt, herausgebracht […] Es ist von ihm herausgekommen. Er war der Erfinder unserer Kultur’) (I16/ Q18.45).

In other words, he lived his philosophy or way of thinking (i.e. founder’s reality) and took great care in what he showed and *taught* the world. This finding reflects the essence of the aforementioned statement by Berger and Luckmann (1966) that ‘The children must be “taught to behave” and, once taught, must be “kept in line”. So of course, must the adults’ (p. 62).

It is automatically a top–down approach because it emanates from the founder and leader. Therefore, the founder’s code of behaviour unwittingly becomes a key-part of the organisational strategy. The term ‘unwittingly’ is used because in the organisation under scrutiny, this kind of strategy is not written down; rather it takes place through teaching and showing employees the elements of the founder's philosophy. The answer of the interviewees on the question about how the organisation affects their personality was interesting. Many of them answered that they became more 'mature'. The founder's unwritten but lived code of behaviour opened not only new ways to approach different situations, colleagues, and problems, but also new perspectives on what might be important in life.

8.2.1.3.2 Role model function.

The founder's role model function has a vital impact on social interaction, attentive listening, anxiety, communication, the intensity of trust, and so forth of the employees. The position of a leader or manager also contains the function of a 'role model' because they (should) represent the 'values and wished behaviour' of the organisation. As an organisation represents the founder's 'world', their values and wished behaviour are automatically present by the dint of his presence (i.e. objectified reality). Additionally, employees recognise the values and wishes presented by the founder himself to be more important than if they were presented by a sole leader or manager. This phenomenon is easily explained and demonstrated through a short poll among the employees of the organisation under scrutiny. The poll enquired the effect of someone saying 'this has to be done' *versus* 'the founder said this has to be done'. The employees found the latter to be more important, which highlights that a founder, through his role within an organisation, has more 'power' to steer the organisation in a certain direction.

In such a case, the content of the message as well as the founder's reaction, action, or behaviour to different situations are important. This is in line with the thinking of Paul Watzlawick (2016), a late Austrian philosopher, psychotherapist, sociologist, and author, who stated that 'One cannot *not* communicate' (Original quote, '*Man kann nicht kommunizieren*') (p. 15). This sentence simply explains that it is impossible not to communicate for humans. This is essential to this research because it explains that there is something different about communication, and it is also important for a role-model function. However, even when we do not speak we communicate through our reactions, actions, or body language. In this regard, the founder is often noted not only for what he says, but also for how he acts and behaves in different situations. For instance, when the founder takes the time to listen to the employees' problems or concerns, this act sends the message that 'you are important to us' (i.e. appreciation), as taking time also sends a message (communication) to others. Another example, as will be seen later in this discussion, is social interaction. Social interaction is essential to the founder. A person can tell or order others to interact socially or the person can just show and teach or inspire them to socially interact (i.e. objectified reality). The later form does not need any explanation (message) regarding social interaction; rather it is a demonstration (teaching) from which the participant can observe, learn, and assimilate.

The later form is also introduced in Berger and Luckmann's (1966) work. Although the founder's behavioural code, or more precisely, the founder's philosophy and spirit have not been written down, employees of the organisation under scrutiny assimilated the founder's philosophy by the dint of observation (reactions, habits, actions, and behaviour regarding different situations). Wittingly or unwittingly, men carefully observe the world with all their senses and follows what is important to them every day, which also takes place within an organisation. The different observed actions and decisions, especially of the founder, have a massive effect on the receiver (employees) every day at work. It teaches employees, both the negative and positive aspects, because they assimilate action and reaction. To gain valuable insights about the impact of the founder's behaviour or actions in the organisation, extended narratives were used, not only extended in telling and content, but also extended over time; thus, 'language is the house of being' (Heidegger, 1976/1999, p. 239).

A good example to explain the founder's role model function and its impact on the employees is that of a mistaken investment. After a malinvestment happened, many employees approached the founder and complained about the incident and wanted the person at fault to be cautioned or reprimanded. Interestingly in response, the founder stated (the quote is analogously reproduced and translated from German to English) as follows:

> Yes, I will do something. I will use this incident as an example and tell everyone what happened and that this is ok. In this organisation, no one must be afraid to make a decision when someone has to take one, if the person did not deliberately harm this organisation. Given that this is not the case I believe he tried to do the best. It would be worse if he would not have made a decision. (Observation 40/23)

Through the above-mentioned quote, the founder showed (role-model function) that no employee must be afraid to make decisions and fail (i.e. vital lived experience). It is a statement made not only to the top management, but also to all employees. It accords a feeling of safety and reveals an uncommon and a very human way to deal with such problems (role model function). The incident happened many years ago, but still is preserved and shared and has a vast impact on employee behaviour.

In this regard, it is important to introduce the term 'infected', which was used, may be even wrongly, by an interviewee during the discussion of positive values. The interviewee explained that the employees became infected by the founder's trust and values because he *lived* and showed his understanding to everyone (role-model function) (I27 /Q33.3). It seemed that the term 'infected' was used to denote a 'viral assimilation' because employees assimilated or adopted behaviour and elements important to the founder. The combination of positive values like trust in the founder as well as his role model function could be a reason why every new employee became 'infected' with the founder's philosophy, which again reveals the importance of the 'role model function'.

8.2.1.3.3 Resource.

The ingredient ‘resource’ is important because it boosts the role model effect of the founder. Additionally, it allows establishing programs, structures, and events to replace the founder’s direct presence, which is very important as an organisation gets bigger.

At the very beginning, the founder of the organisation under scrutiny seeded the DNA elements, like socialising and communication, trust or other positive values, though not only his behaviour and personality, but also his direct presence (role model function). This was achieved through instances such as gathering his staff outside to enjoy the sun, discuss, build and strengthen relationships. At this time, the company was a small start-up and few financial resources were available, but they had enough resources in the form of time, which was allocated and provided by the founder. In fact, at this point of time, the financial resources were not so essential to establish and present (teach) a philosophy and to find the time to share and live this philosophy through the role model function.

Certainly, the growth of the company into an international company made it impossible for the founder to spend the same amount of time with all the employees like before. Now the allocation of time as well as financial resources became essential to keep the founder’s philosophy and values like socialising and communication alive in the organisation.

In this regard, the organisation invests a lot of time and money to enhance communication and teamwork. For instance, kick-off meetings are organised in nice cabins (environment) for some days just to establish good relationships among all employees and to define or mention some rules about communication and preparation, so they can work together more efficiently. Money is not a consideration when it comes to these investments in comparison to other multinationals where this is not often supported or considered as important, or as interviewee 16 stated ‘there are not many organisations, which would do the same; and here in this organisation this is self-evident!’ (I16/Q18.45).

The same interviewee highlighted and compared this with his working experience in other multinational companies and explained that especially because of such events or investments, the cooperation and interlinking among the participants, not only within groups, but also because of doing it for more than two decades, in the whole organisation is much higher (I16/Q18.45).

In this regard, the high occurrence of interpersonal problems in an organisation is one of the most dangerous barriers for the transfer and creation of knowledge. Practices (allocating resources for kick-off meetings in nice cabins to provide a positive environment) that make the employees feel well, respected, and professional are vital for the phenomenon of this research. Such professional gatherings support relationship building, finally leading to reduced barriers; it serves as a place to enable socialising and establish relationships among those who have to solve problems (i.e. creating knowledge). Instead of the founder's role-model function, the professional organising and environment carries the message of how important socialising and communication is for the founder and the organisation. It is an investment *on the employee*, which shows that socialising and communication is not only a slogan, but rather a truly lived philosophy. Additionally, it strengthens the employees' trust in the organisation.

The discourse about the three ingredients, namely 'top–down approach', 'role model function' and 'resources' (see Table 9), with its tools, such as storytelling or positive values, is essential for establishing the founder's DNA (socialising, communication, safety, quality modesty, no anxiety, etc.). Some would claim that not every employee is ready, willing, or open to spend time for socialising and communication or to build relationships, and this is definitely true. We see later in this research that having such a DNA in the organisation leads to a setting, which automatically singles out those who are not in line with the open and familiar philosophy of the founder.

8.2.1.4 Socialising and communication.

Socialising and communication go hand in hand because the term ‘socialise’ is also linked to communicating with others (Collins, 2009). The two terms are not pooled because for socialising and communication, different elements are needed and used for improvement. The company under scrutiny, like many others, is not a testing ground for fancy, cost-intensive experiences and mistakes, and it never will be. The findings revealed many elements that prevent situations such as feedback culture, consulting, and so forth. The very origin of these elements is found in the founder’s philosophy, but take place by way of socialising and communication; all the other elements are subordinate, interwoven, and supports socialising and communication. In this regard, socialising was highlighted and highly supported by the founder through different activities from the first. For instance, and as indicated in the last section, the founder of the organisation under scrutiny invited his employees very often to sit outside, take a break, enjoy the sun, discuss different private and job-related issues, and eat ice cream (I6/Q7.8). This example perfectly shows not only the top–down approach and the founder’s role-model function, but also the beginning of an objectified reality.

Another employee, who is one of the first in this organisation, explained that the organisation always has been very informal and communicative. Because communication is so important to the founder, the company name was put between two inverted commas (Original quote, ‘Er wollte, dass man sich austauscht. Es ist ja … unser Logo sind ja zwei Gänsefüße, die stehen für offene Kommunikation. Es ist von ihm herausgekommen. Er war der Erfinder unserer Kultur’) (I16/Q18.45).

The inverted commas are a metaphor, which show the whole company how important ‘communication’ is for the founder. This metaphor transports the founder’s message through time and space and beyond the internal network; hence, it was mentioned by almost all interviewees.

8.2.1.5 Care – an omnipresent element.

By means of the above-mentioned quote that the founder showed, presented, and took great care of his philosophy (I16/ Q18.45), it has already been indicated that ‘care’ is a vital element for NDKM. Care is not only interesting and linked in this research to Heidegger’s concept of care *(Sorge)*, but is also essential for social interaction, the sharing of insights and therefore, for this phenomenon. The concept of care is present in the entire research from the outset and is in line with Heidegger’s idea of care, which is a key concept for life. Such a conceptualisation might be the reason why Heidegger’s concept of care is often mentioned, interpreted, and discussed by different types of literary authors.

However, the existing interpretation of ‘care’ shows that it is not only omnipresent and a given, but also apriori (Hantel-Quitmann, 2013) for being-in-the-world *(Da-sein)*. For Heidegger, care *(Sorge)* is the very basic layer of being (Averkorn, 1996), which contains the elements’ concern *(Besorgen)* and care-for-the-other *(Fürsorge)* (Cassin, Apter, Lezra, & Wood, 2014). Concern is about dealing with the world (material) or as Alverkorn interpreted Heidegger, it is ‘dealing with at-the hand’ (Original quote, ‘Umgang mit dem Zuhandenem’) (Averkorn, 1996, p. 30). For this research, the concept of ‘care-for-the-other’ is more interesting, which not only implies social interaction (Averkorn, 1996), but also cooperation (Hantel-Quitmann, 2013).

The importance of Heidegger’s concept of ‘care’ for social interaction or dealing with mankind and therefore knowledge creation is plainly shown by the vast number of discussions and literature with topics, such as leadership, psychology, nursing, family, or pedagogy to name but a few. This type of literature already emphasises ‘care’ as essential for social interaction or being with others. For instance, Ehrmantraut (2010) discussed Heidegger's concept of care in depth and linked it to leadership and the role model function.

Heidegger's fragmentation of 'care-for-the-others' with its sub-issues leaping in *(einspringende Fürsorge)* and leaping ahead *(voraussspringende Fürsorge)* (Tomkins & Simpson, 2015) is vital for this research phenomenon, and this discussion shows that both the sub-elements of care are omnipresent and used on a daily business in different forms and situations (Tomkins & Simpson, 2015).

Leaping in can be interpreted as a situation where a person steps in for another person to take over their open issues to be organised or as relief for questions and worries so that the replaced person can apply the result after it is finished. (Original quote, 'an seine Stelle setzen, für ihn einspringen. Diese Fürsorge übernimmt das, was zu besorgen ist, für den Anderen […] er tritt zurück, um nachträglich das Bersorgte als fertig Verfügbares zu übernehmen') (Uzarewicz & Uzarewicz, 2005, p. 122).

On the other hand, leaping ahead is the concern for others, which becomes clear when they feel free. (Original quote, 'die eigentliche Sorge – das heißt die Existenz des Anderen betrifft […] verhilft dem anderen dazu, in seiner Sorge sich durchsichtig und für sie frei zu werden') (Uzarewicz & Uzarewicz, 2005, p. 122) or as Vetter (2014) interpreted Heidegger, it is about supporting others in their endeavour (Original quote, 'um diesen in seinem Bemühen zu unterstützen') (p. 84).

This can be compared with the 'support' element; for instance, organising an appointment, meeting, or a part of a project to work further on the received result. This understanding also has a connection with the understanding of 'service' regarding the pattern of support introduced later in this research. Employees help and support others with their working expertise in the form of, for example, finished concepts, experience, and ideas.

In the perusal of the different interpretations of Heidegger's concept of leaping in and leaping ahead, the indication is that the former is considered more dominant, patriarchal, and controlling or intervening compared to the latter, which can be described with attributes, such as supporting, enabling, independent, advocative, open, or guiding to name a few. Against this backdrop, a reader could wrongly interpret a negative connotation to the leaping in concept and a positive connotation to the leaping ahead concept, especially when using the latter in an organisational context, like leadership or structure.

It is important to understand that the two different sub-types of care coexist and take place in everyday social interactions to a certain extent. For instance, leaping in could be compared with working out a part of a project for another colleague, which has a strong connection to the element 'service and support' in this research; leaping ahead can be compared with consulting, also a strong element for the organisation under scrutiny.

Although there is a positive and negative mode of care, (Uzarewicz & Uzarewicz, 2005) the findings showed that in the organisation under scrutiny, the positive mode of care is highly pronounced and omnipresent. This has often been indicated by the interviewees through different expressions and words, such as positive values, positive emotions, or positive impacts, to name but a few, to describe the elements of this phenomenon.

Especially for knowledge creation and its NDKM, the positive mode of care-for-the-other is one of the most essential elements because it triggers trust and establishes a suitable social interaction for NDKM.

8.2.1.6 Trust – an essential element for NDKM.

An essential element of socialising and communicating efficiently and successfully is 'trust'. 'Trust' is a term frequently mentioned in the current literature regarding knowledge creation, sharing, learning, or KM. (Allee, 1997; Hüther, 2011; Khanbabaei, Lajevardi, & Kohsari, 2011; Lesser & Prusak, 2004; Nonaka et al., 2006; von Krogh et al., 2000; von

Krogh, Nonaka, & Rechsteiner, 2012). In this regard, trust has been quoted and discussed as vital for relationships, a binder for socialising as well as for sharing and transferring knowledge (Lesser & Prusak, 2004), which takes place by the dint of communication. Nevertheless, although the term has been used so many times, it still lacks insight, especially in its emotional part (Fineman, 2005), as the intensity of trust has never been discussed or exemplified. It is worth highlighting again that personal knowledge is a highly emotional issue, and in this regard the intensity of trust plays a key role because it also a pre-requisite for knowledge creation, regulates the intensity of explicit knowledge and information sharing and its non-deliberate management. In a similar vein, Fineman (2005) explained that knowledge is ‘more than a dispassionate construct; it is an emotionalized commodity’ (p. 565). However, the findings revealed that two different forms of trust are important for this phenomenon, namely ‘trust among employees’ and ‘trust into the employees’, which are to be established by the founder.

Trust among employees is the foremost aspect in knowledge sharing. Wolff Lotter (2014) started a discussion on this topic by writing an interesting paper on the knowledge community (Wissensgesellschaft) and management. He highlighted a research undertaken by the Renhard-Mohn-Institute of the University of Witten/Herdecke in his study. The research revealed that integrity or to ‘live according to values’ (Original quote, ‘Leben nach Werten’) (Lotter, 2014, p. 37) is of paramount importance, followed by trust. Although the elements are separate in the above-mentioned research, they also go hand in hand. The well-known pearl of wisdom ‘like attracts like’ is used several times in this section and in section 8.2.1.9. In this case, it refers to a person who has the desire to build trust in another person and searches for people who have similar values and mind-sets. The barriers to build relationships (first) and trust (second) are very low in such situations, and hence, most efficient and successful for relationship building. In this regard, the founder of the organisation under scrutiny, especially at the beginning, rallied around people who have been former colleagues from other companies, as he knew that these employees had similar mind-sets and values where trust has been already established.

Lotter (2014) also showed that ‘Personality is the material that trust is made of’ (Original quote, ‘Die Persönlichkeit ist der Stoff, aus dem das Vertrauen ist’) (p. 42). This quote explains that depending on one’s personality, trust can emerge, but this is only a half-truth. It does not matter what kind of personality one (sender) has because ultimately only the other person (receiver) decides whether to trust, drawing on different factors, such as cultural setting, history of the person, personality of a person, dress, language, society, context, and so forth. For instance, if there are two people with good and positive personalities from different cultural settings, they may be influenced by a past war or bad experience with another culture or country, which makes building trust difficult. Exceptions certainly occur, but it should be highlighted that trust can be built only when the barriers are low and both the involved parties are ready for it.

In an organisation, all the contributing factors of trust building boil down to ‘work’, but this renders the possibility for a high-level of knowledge creation impossible. If the relationship is not merely narrowed down to work but is enhanced beyond work as well due to the sender and receiver sharing certain mind-sets and values (like attract likes), it would reduce barriers and trust building on a high-level can take place. Sometimes, new ideas or innovations pop up unplanned through awkward and uncommon ways by sharing and talking about the innermost thoughts regarding different issues. Such information is very sensitive because people only share such ideas and thoughts when they ‘trust’ that the interlocutor will accord a certain kind of respect and seriousness to the shared matter and that it will not be used for ridiculing the person who shared the information.

The intensity of trust required for high knowledge creation can be best demonstrated through the example of what takes place between best friends. In such a relationship, a very high-level of trust develops over time (history) mostly, which draws upon different situations; such a level of trust allows the friends to discuss their innermost thoughts and can be considered as a ‘trigger’ to develop ideas. In this regard, interviewee 24 explained that a very high-level of trust exists between a few employees in the organisation under scrutiny. The smaller the company, the higher is the possibility to build trust among everyone in an organisation. In a multinational company, there are just a few best friends with a high-level of trust among the vast number of employees, like in real life. The interviewee further explained that he had experienced trust in his former company also, but it never has been on the same level as in the organisation under scrutiny. Achieving a high-level of trust needs time and a ‘history together’ as well as a similar mind-set and the ‘like attracts like’ principle also counts.

Trust in the employees is very important to the founder of the organisation under scrutiny. The findings revealed that ‘having trust in their employees’ is not only a statement occasionally made by the managers or leaders of the organisation under scrutiny, but is also truly lived. Trust is particularly recognised through different incidents and highlighted by elements such as autonomy. This is in line with Lotter (2014, p. 44) who explained that where there is trust, control is reduced, and autonomy is enhanced. Such a setting leads to an organisation where fear regarding, for instance, making experiments, is reduced or non-existent and shows that the element of trust can lead to knowledge creation.

An often-mentioned incident was shown through the quote, mentioned in section 8.2.1.3.2, on the ‘role-model function’ (Observation 40/23). The interviewees used this quote to highlight why they do not need to fear in their organisation because the organisation trusts that every employee will do their job as best they can. Such instances highlight the significance of trust and is important for the organisation studied in this research. With respect to this, some interviewees gave a similar example, which took place in the course of their practical work during their summer school holidays.

The interviewees also compared their time in this organisation with their schoolmates who did practical work in other international companies and highlighted how amazed they were about the high-level of responsibility and trust the interviewees got from the outset and found that their organisation is different. It has to be noted in order to not misunderstand that the interviewees have never been thrown into cold water because there has always been a coach for discussions, someone who supported their work in all respects, but the interviewees have had to elaborate the concepts, organise events from A to Z, and so forth. Moreover, as the organisation also trusts their practical workers, they receive responsibility too. The interviewees found that their work has been interesting compared to their schoolmates, whose work is not necessarily creative or amazing, or in other words, work considered as boring or ‘lower work’.

Trust is shared in advance and through a top–down approach. In this regard, Lotter (2014) explained that ‘Trust is a private affair. And it rules the principle of advanced payment’ (Original quote, ‘Vertrauen ist eine persönliche Angelegenheit. Und es herrscht das Prinzip Vorauskasse’) (p. 44). Simply put, if an organisation wants to build ‘trust’, someone must start. To successfully and sustainably establish trust in an organisation, there is no better position than the position of a founder (leader or manager) with their possibility of a top–down approach and a role model function.

Trust into the organisation emerges as an organisational attribute by inculcating trust among the employees and trust in their employees, as the organisation under scrutiny keeps their word. This reduces interpersonal barriers to a minimum and the working place became more ‘interesting’ because of the comfortable feeling that emanates from such values. In this regard, the interviewees highlighted how important it is that their organisation keeps their word and not make claims about what is important for the organisation (e.g., values or employees) and then renege on their word, which often happens in other organisations; this makes the organisation under scrutiny different. Therefore, the combination of trust in the employees and keeping one's word is important because it is a prerequisite for the passion of the employees, another important factor for knowledge creation without deliberate KM.

Other elements that enhance the 'trust into the organisation', such as the founder's value, are difficult to connect to trust because on the surface there is no obvious and direct association. Additionally, these elements are not directly presented through the permanent presence of the founder, but it has been established through the founder's philosophy and what is important to him (objectified reality) and shows the role-model function again. Howsoever, there are many values that are important to the founder, but especially the values introduced in the following section have been mainly highlighted through stories by interviewees, and these values are safety, equality, and modesty.

8.2.1.7 Safety, equality and modesty.

These values are *welcome* and well-known in families or friendships, but are not always considered or highlighted to be important for an organisation. There are many organisations that 'just work' to create a defined turn over, and even when the top management or a founder considers such values to be important, they often are not communicated and permanently shown to the employees. In this regard, the founder of the organisation under scrutiny established and supported different programs to highlight that the overall aim of the organisation is not to create a vast amount of turnover, but rather to put the employees at the centre and provide a setting of safety, equality, and modesty. As interviewee 29 mentioned, 'profit is not everything for this company, we know that and this is very sympathetic' (Original quote, 'Also, der Profit ist nicht alles, das wissen wir und das ist auch sehr sympathisch') (I29/Q35.2).

Growth and turnover are important for the ability to invest money into the organisation and employees and to provide a setting that allows for creativity and innovations.

Safety can be interpreted as having a safe job and not losing the job when something unexpected happens, for instance, when a disease strikes or one's family needs help or a new baby arrives. In this regard, all employees get a lot of support from the organisation under scrutiny. A case example is that a male employee can take paternity leave when he becomes a father to be with his family to enjoy this amazing and new event. There are no discussions and no doubt about getting such breaks. Similarly, if employees have bad and long diseases, they need not be afraid of losing their job. As interviewee 6 perfectly explains, 'certainly the employees are missing, but for the company it is important that this social component exist' (Original quote, 'Natürlich fehlen die Leute..., aber im Unternehmen ist es wichtig, dass auch diese soziale Komponente irgendwo Platz hat') (I6/ Q7.2).

Safety is also a message sent to the employees, which not only means that man and life are considered important, but also that one can trust this organisation, because 'having trust' in their employees is not only a tagline.

Another value important to the founder of the organisation under scrutiny is equality. Where equality does not exist, a strong hierarchy does, which leads to barriers, because one could divert one's ideas and inner thoughts to make a career within this hierarchy. It reduces trust and makes sharing of ideas and explicit knowledge difficult. With respect to this, everyone in the organisation under scrutiny, irrespective of their position (the top management, the secretary, or the cleaner), has the same possibilities. All resources, such as company cars, mini vans, the gym, relaxing rooms, and so forth, can be used and booked by all employees in the same way; there are no privileges, such as booked parking zones for the top management, and there are no bigger offices to show ones' status or other benefits. For instance, the founder selected a room which was not so popular and five cms smaller than the other offices, as his office so that the more popular rooms (those with a balcony) are free for his employees (I27/Q33.5).

Modesty, also important to the founder, is closely linked to equality and possibly even is a result of equality or a trigger of equality. The founder's values of equality and modesty have inspired the employees, as discussed earlier. The interviewees explained that man and life is much more valuable than the turnover for the founder. Therefore, the founder invests around 20% of the turnover yearly to develop the organisation and in this way gives back what the employees accomplished instead of enriching himself privately. The modesty of the founder enables 'growth through own power' so that the organisation can develop on its own; he also puts the organisation's well-being before his own. Hence, the employees automatically become the centre of the organisation (I9/Q10.5).

8.2.1.8 Environment.

One might question the importance of the introduced positive values for knowledge creation. They play a key role though these elements are not directly mentioned with regard to knowledge creation. The introduced elements allow establishing a positive environment where the employee is more valuable than the turnover of the organisation. In this regard, the literature review already showed that the environment of an organisation or its relative, namely 'ba', is important for knowledge creation. Von Krogh (2000) discussed Helmut Volkmann's 'Xenia – the knowledge city', which exemplifies a city as an ideal place (environment) that serves as a 'meeting place for people' (von Krogh et al., 2000, p. 169) for focussed knowledge creation. Despres and Chauvel (2000a) explained that 'ba' is 'the space for dynamic knowledge conversion and emerging relationships' (p. 60).

As mentioned earlier, an organisational environment is not only defined through its architecture, places, or its physical setting, but also through the employees with their social interaction who dwell in the environment. An environment without employees is only a blank shell and hence, a dead asset and worthless for knowledge creation and its management. The elimination of interpersonal barriers is necessary for social interaction among employees (Nonaka & Konno, 1998) so that a high frequency of explicit knowledge and information transfer can take place. Explicit knowledge or information is essential for creating new knowledge and its most efficient transfer takes place through communication.

In this regard, it also is important to highlight Watzlawick, Beavin, and Jackson (1982) (as cited in Birkenbihl, 2004) because they elucidated why the elimination of interpersonal barriers are so important. Watzlawick, Beavin, and Jackson (1982) explained that a message has a relationship and a content level, where the relationship level dominates the content level. Kruse (2015) corroborated this and highlighted that ‘human action is highly emotional and intuitive’ (Original quote, ‘Menschliches Handeln is hochgradig emotional und intuitive’) (p. 182).

Nonaka and Konno (1998) and Watzlawick et al. (1982) elucidated on what really is needed for a successful explicit knowledge or information transfer that can finally lead to knowledge creation. The link to the founder’s values is found in Nonaka’s and Konno’s (1998) explanation of ‘originating ba’. ‘Originating ba’ is a place where employees share ‘feelings, emotions, experiences and mental models’ (Nonaka & Konno, 1998, p. 46).

The founder’s philosophy and positive values allow for establishing and supporting a setting for positive emotions and positive feelings, which reduces the social interaction barriers to a minimum. This might appear logical and obvious, but, in fact, it is very difficult. To establish such an environment on a high level requires a lot of time, resources, positive values, and programs to show and share these values as discussed before.

8.2.1.9 Like attracts like.

The founders, with their ingredients and possibilities, play a key role because they ‘test’ and employ the staff at the very beginning. Generally, a person (founder) tends to employ someone who shares more or less their philosophy (like attracts like) or thinking so that they can work together well. The applicant selection process is certainly tricky because when new workers start working no one really knows much about them, what they really think, or if they really will fit into the world established by the founder, irrespective of the thoroughness of the job interview. Nevertheless, founders will attempt to employ people who share a similar or the same philosophy with them. If an organisation does this right, it can grow with less ‘human barriers’ and draw on the founder’s philosophy, which will in turn build a very special community.

The findings revealed that the founder’s values really inspired employees, and hence, the inspired employees actively lived and delivered the founder’s philosophy to the other newcomers to the organisation. However, there will still be some who cannot be inspired or do not share the same philosophy of the founder, which would lead to a barrier for communication and relationships. A discussion with an interviewee showed that for organisations with a special or an extreme marked organisational philosophy, a kind of ‘cleaning process’ exists. In this vein, an organisation can be divided with respect to their employees into three possible areas (see Figure 14). There are organisations where mostly everyone fits in because the organisational philosophy is not ‘lived’ and shown as essential on a very high-level. If the setting is held ‘neutral’ and the organisation is not built on a high-level philosophy, almost every person can dwell in such an environment. But in such a setting, many interpersonal barriers may emerge leading to a low intensity of knowledge creation. In organisations, extremely shaped by the philosophy of the founder, the employees must share the same or a similar philosophy and values, if not the employees would not be able to ‘survive’ within such a setting. Otherwise, it would be too exhausting due to the ‘every day fight’ against the organisational philosophy, which does not conform with one’s own philosophy. An interviewee referred to this cleaning process as ‘spit out’ (Information transcribed/Q42.2). Although the expression ‘spit out’ sounds extreme and rough, it perfectly describes what happens. An organisation that lives the philosophy of the founder on a high level automatically ‘spits out’ those who do not fully fit in. This reduces interpersonal barriers, as it is a kind of a healing process.

Figure 14. Effect of high-intensity philosophy

This phenomenon is vital for knowledge creation because an organisation with a high-intensive environment draws on socialising and communication, and positive values transfer information and explicit knowledge quickly and more efficiently. When the researcher’s practitioner network was asked if such a phenomenon is known to them, some of them just shrugged, while others explained that ‘spit out’ situations are mostly negative ones where the employees finally leave the organisation because of the non-existing relationships, bad attitudes, and non-existing philosophy. For instance, an employee worked in an organisation where the founder treated his workers in a ‘bad’ way, which included shouting around loudly, disrespectful treatment of employees, no values shared, high work load and pressure, and mostly a promise made by the founder was not held. Although the organisation in this instance is successful because of the current demand of the products and the founder’s reach to the customers, the founder and leader of the organisation paid a high loan and the employee turnover was 75% per year. Additionally, the degree of innovation, improvement, or development was very low. Information was not shared and the employees built no strong relationships because of the founder's philosophy of how to run his world (i.e. organisation) and the 'negative' environment so created.

8.2.1.10 Founder's Philosophy – an example.

The term 'founder's philosophy' has been mentioned often in the research so far. The most popular philosophy of the founder of the organisation under scrutiny on how to run his company was cited by almost every interviewee and is summarised in the following statement:

> Create an environment with no artificial limits where a team of excellent members can reach an excellent performance and enjoy working (having fun) together at the same time. This team should get its recognition for providing the best solutions to the customers.

The sentence contains interesting phrases such as 'no artificial limits', 'excellent members', and 'enjoy working (having fun)'. All these phrases resonate with the elements discussed before; for instance, 'no artificial limits' and 'having fun' create a setting where the employees love to work. It is impossible for the employees to have fun with negative values or bad treatment of the employees at the workplace. For the employees to have fun at the workplace, it must be an environment filled with understanding and positive values. Having fun and having no artificial limits go hand in hand and build a foundation for very good relationships, on-going discussions as well as provide a setting to be keen and creative. It goes without saying that these elements are the key elements for information and explicit knowledge transfer as well as knowledge creation.

The above-mentioned ideas are demonstrated in the following quotes by the interviewees. Interviewee 12 explained that 'especially my equipment … that I can work with … such equipment is really fun … […] like the computer screen … it is amazing to work with it' (Original quote, 'speziell das Equipment, das was ich da habe,... mit dem zu arbeiten macht auch Freude...[...] also sprich, der große Bildschirm zum Beispiel ..., der ist fein zum Arbeiten') (I12/ Q13:5).

Similarly, interviewee 29 also explained, 'It is fun to work here, this is also very important' (Original quote, 'es macht Spaß, zu arbeiten. Das ist auch ganz wichtig') (I29/Q35.1). Interestingly, interviewee 29 explained that he was amazed when he began to work in the organisation, as the organisation undertook a value process where 'fun' was a defined as a value. He stated as follows:

> I also recognise this value; …we can take brakes; …we can go and play games; …we can talk and have fun; …it does not matter on what level we converse we always have fun when we do it; …this means we have fun, …it is jocular; …we also can use time from our daily business to do other things like going and playing a game; …or playing billiards during our break or volleyball. Yes, in fact this is fun, yes. (I29/Q35.1)

As evident from the above statement, there are many options available to the employees to have fun, such as take a break, go out for a walk, play a sport, just sit outside on the balcony, or drink coffee with others. These possibilities are also in line with the different cultures existing in the organisation. For instance, there are special relaxation rooms or rooms for Islamic employees, where the room and the setting in the room is directed to the east and customised as needed so that they can pray. However, despite the vast amount of possibilities of breaks, the company is not a 'fun park'. The employees are diligent and concentrate intently on their work. The simple fact that they can use the possibilities whenever they want has an incredible effect on 'enjoy(ing) working (having fun)'.

There are many interpretations on who an 'excellent member' is. The obvious interpretation definitely includes the 'smart and intelligent employees', but for this organisation this is not the most important criterion. In this organisation, an 'excellent member’ is not only the smart and the intelligent but also the communicative, who are able to build relationships and share values. In this vein, all applicants are selected based on the traits important for the founder and his philosophy. As mentioned earlier, socialising and communication are elements very vital to the founder of the organisation under scrutiny. The human resource department of the organisation selects candidates with not only the rights skills, but also the ability to build relationships and communicate effectively with others. In this regard, an interviewee from the HR department (I10) and the head of the organisation development/change development department (I24) explained that when they have two applicants and one of them has better skills and more experience than the other, but lacks in communication and socialisation skills or when they get the impression that the applicant does not fit their work environment/culture, they would choose the latter applicant with less skills and experience. They argued that the latter applicant can learn the theory and become experienced, but it is difficult to change the behaviour of the former so that they fit into an intensely lived setting or become communicative and be able to build relationships.

Inculcating all the elements of the founder’s philosophy in the organisation also significantly affects the employees’ ‘trust into the company’, as they can literally see the founder’s philosophy and values being lived and that it is not a separate statement on the wall. It strengthens the employees’ ‘relationship to the organisation’ and initiates and enhances passion because the organisation is different from the others. Moreover, the employees understand that they are the focus of the organisation and that they can trust the organisation. The level of relationships is important in transferring explicit knowledge and information (relationship level dominates content level of a message). In this regard, the better the relationship, the easier a person can share their innermost ‘thoughts’, and it does not matter how open they are because a good relationship is also filled with respect and trust.

The past experiences of the organisation under scrutiny have shown that the investment in the founder's philosophy and values (DNA) has been the right one. Hence, the organisation under scrutiny understands that the bigger they get, the more they have to invest in programs that sustain the founder's philosophy and DNA so that sustainable relationships can be built, interpersonal barriers can be reduced, and ideas, thoughts, and explicit knowledge can be shared.

The discussion in this section not only establishes a connection between the above-mentioned work of Berger and Luckmann (1966) and the understanding of knowledge in this research, which is socially constructed, but also shows a connection to the end of this research and highlights how the objectified reality of the founder (i.e. the founder's philosophy) continuously impacts the five elucidated patterns important to establish knowledge creation with NDKM.

8.2.1.11 The Founder's Philosophy reflected.

One of the questions that might be answered through the findings of this research is whether NDKM can also be established without the founder's philosophy and its key elements. The research outcome shows that if a high-level of knowledge creation with NDKM is desired, then it is also important to be guided by the founder's philosophy from the outset. Nevertheless, this research will not refute any attempt to improve or implement knowledge as a strategic pillar of KM as worthless, but it would be difficult to achieve the same high output in the long term. In short, the earlier the key elements come to be considered essential, the easier knowledge creation with NDKM becomes possible on a high-level. As in established organisations, different social barriers, structures, and relationships already exist; and these are combined with employees who perhaps do not fully fit in an NDKM environment, which should be filled with trust, respect, autonomy, and familiar and open communication. Such employees would probably end up in an unlucky and unsuccessful NDKM trial.

In such a situation, an organisation cannot dismiss employees on the grounds that they cannot handle such an environment or do not fit in such an environment. It would take a lot of time and effort to adapt the existing environment into an environment suitable for NDKM. This might be an interesting topic to scrutinise in another research to reveal at what point implementing NDKM is still possible and economical or what effort and strategy is needed to implement such a type of KM.

This discussion clearly shows the possible limits and difficulties that could emerge when a NDKM environment is tried to be implemented into an existing organisation. This can be compared with the thought of former managers to implement KM by the fancy information or communication tools, which always ended up in an expensive and ineffective trail because IT techniques are only tools or supporting systems for KM.

8.2.2 The enablers – basic setting.

The constituents of this section are identified as cultural framework (CF), organisational development (OD), and knowledge strategies (KS), which build a strong symbiotic relationship vital for knowledge creation and its non-deliberate management. This symbiosis is predominant in the organisation under scrutiny for this research and essential to establish a setting (basic setting) most valuable for reducing interpersonal barriers and enhancing relationships as well as the information and explicit knowledge flow. The initial findings in this discussion draw on the founder's philosophy and consistently remind or rather teach the whole organisation what are important to the founder, which is in line with Berger and Luckmann's discussion in the last section that showed that teaching and keeping in line is essential and an on-going process.

The sketch (see Figure 15) represents the three main constituents of this section, which are aimed towards the employees and not normally towards the customers. It echoes the basic thoughts of the founder of the organisation under scrutiny who believes that there are factors more important than turnover.

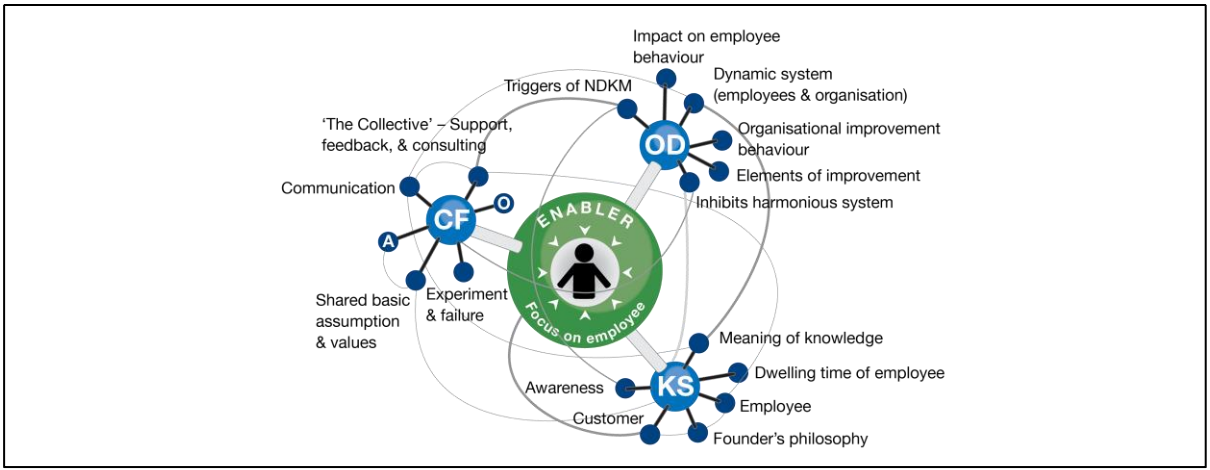

Figure 15. The enabler's – basic setting

Basic setting and its main enablers focus on the employee. OD = Organisational Development; CF = Cultural Framework; KS = Knowledge Strategy; A = Atmosphere; O = Organisation.

Although Figure 15 shows the three main constituents separately, they exist in harmony drawing on a permanent interaction. As discussed in the last section, the society draws on a dialectical process and the result of human action (three constituents) acts back on the producer (i.e. employee). Therefore, the organisation and employees grow, develop, and improve together through permanent interaction.

8.2.2.1 Cultural framework.

The insights of Schein (2004), who is acknowledged as an expert of culture and leadership, are used as an introduction for this section because it allows one to establish a connection between the previously discussed section 8.2.1, 'DNA – the founder's philosophy' and this section 'Cultural framework'. Schein (2004) explained that a culture is ‘a pattern of shared basic assumptions that was learned by a group as it solved its problems of external adaption and internal integration, that was worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think and feel in relations to those problems’ (p.17). This quote parallels the idea of Berger and Luckmann (1966) (discussed in section 8.2.1) that behaviour must be taught and kept in line.

The phrase ‘solved problems of external adaption and internal integration’ is an interesting statement and can be connected to another quote by Schein (2004) (section 8.2.1 DNA – the founder’s philosophy), which explains the impact of a founder on ‘how a group solves external survival and internal integration problems’. Therefore, if the founder has an impact on how to solve external and internal problems, they also influence the ‘shared basic assumptions’ (i.e. Schein’s definition of culture). This elucidates the connection and the power a founder on the organisational culture. It is important to recognise that the solution per se is not central, but the stepping stones that pave the way to accomplish the solutions have been laid by the founder. Therefore, the cultural framework contains elements drawn on the founder’s philosophy (see Figure 16), which also explains why the founder’s philosophy is considered as the very foundation of the phenomenon of this research.

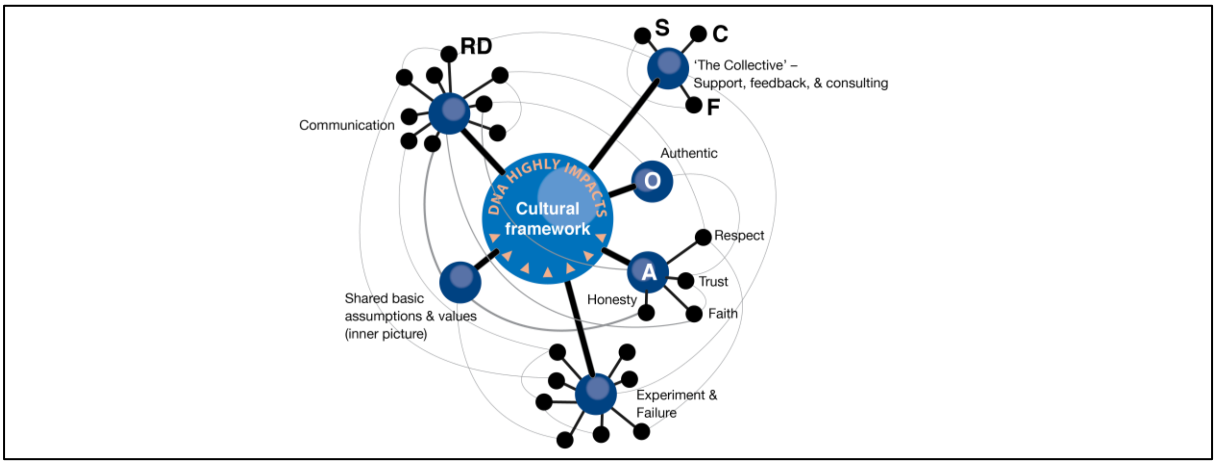

Figure 16. Cultural framework

DNA highly impacts the cultural framework; O = Organisation, A = Atmosphere, S = Support, C = Consulting, F = Feedback, RD = Right Dose.

The findings elucidated that the elements ‘communication’, ‘the collective’, and ‘experimental & failure’ are dominant and essential for the phenomenon. Hence, they are discussed in-depth in the next sub sections.

The introduction of this section and the existing literature on culture and KM or culture and knowledge creation may lead to the understanding that a founder or a leader is the sole protagonist and, therefore, is solely responsible for shaping a culture suitable for KM. This perspective is in line with the quote that culture is ‘what a founder or leader has imposed on a group that has worked out’ (Schein, 2010, p. 3), but as Berger and Luckmann (1966) pointed out there is more to culture as ‘Society is a human product’ (p.61). In this regard, it is worth noting the work of Professor Kruse, who is a German psychologist and honorary professor of organisational psychology. In an interview, Kruse (2007) vigorously refuted the notion that culture can be defined or developed by someone because culture is an indirect variable, as will be explained more in the discussion of organisational development. The upper echelon of an organisation can rather only implement parameters or indirect elements so that a certain form of culture can emerge (Kruse, 2007). This insight indicates that the upper echelon might be important, but is not the sole protagonist in developing culture.

Brown and Duguid (2001) picked up the issue of ‘cultural forces’ from Schein (1985) and discussed it in their paper *Knowledge and Organisation: A Social-Practice Perspective*. They explained that the most important cultural elements are provided by the employees and are drawn from their work, tasks, aims, and responsibilities and not by the imposed rules defined by the upper echelon (Brown and Duguid, 2001). Collins (1997) similarly discussed this issue and showed that a social reality (i.e. organisational culture) draws not on its definition and implementation by someone, but rather it is created by ‘people’s *actions*’ (p. 91), tasks and behaviour in a society (e.g. organisation).

Despite the importance of the actions and behaviour of the employees, it is worth emphasising the importance of the founder or top management because of the concepts of objective reality and fusion of horizons. To recapitulate an objective reality 'has power to shape the individual' (Berger & Luckmann, 1966, p. 67) and the fusion of horizons is the bridge to share this objective reality.

Therefore, the basic formula for fostering a sound culture suitable for NDKM is a founder or top management that defines the right values (e.g. the founder's philosophy) to have a positive impact on the behaviour of the employees (culture), which finally enhances knowledge creation within an organisation. The importance and necessity of the positive values have already been elucidated by different authors such as Alavi, Kayworth, and Leidner (2006) who claimed that cultural values have a positive impact on traditional KM, and it should create a 'comfort zone' or as named in this research, a good 'working atmosphere' *(Arbeitsklima)* where employees are motivated to work, share, or create.

Defining the right values is important because the society (culture) changes with time. The statement 'The loss of identity is the destruction of the system' (Stacey, 2001; p. 238) perfectly explains what could happen with NDKM in the absence of the right values. If the essential and positive values disappear, NDKM would also 'lose its identity' and, therefore, its possibility to trigger the employees and their behaviour and action for knowledge creation on a high-level. It also shows the link of NDKM to the importance of organisational development. Similarly, Zarraga and Bonache (2005) elucidated through their research that such a setting (good atmosphere) supports knowledge transfer and, therefore, can push knowledge creation. Therefore, the aim of every organisation must be to create a good working atmosphere based on respect, trust, positive values, and so forth.

However, values and trust are elements which cannot be merely be thrown alone into an organisation in the hope that they will bloom by themselves. It must be an aim of the very top of the organisation (top down approach) to establish such elements in the organisation. Although the *top management* (i.e. the upper echelon) also has a vital impact on the creation of such elements, they primarily enable these elements, which is the reason why the main section of this discussion is named ‘The enablers – basic setting’.

In this regard, Schein (2010) explained that ‘Culture is both a “here and now” dynamic phenomenon and a coercive background structure that influences us in multiple ways. Culture is constantly re-enacted and created by our interaction with others and shaped by our own behaviour’ (p. 3).

The findings of this research corroborate Schein’s quote, but the findings go one step further and elucidate that for a high-level of knowledge creation and NDKM not only are the founder and the employees important, but also it is imperative that the founder establishes the elements as presented in the last section from the outset. Trying to implement such elements afterwards might end in an ineffective trial with a different outcome than doing it from the outset.

This discussion is also in line with the observation of Stimpert, Gustafson, and Sarason (1998) that ‘changing identity’ (p. 92) is, as the term indicates, about changing behaviour. Such social and psychological change is always difficult, especially if the change is not in line with the mind-set of the managers and workers (Stimpert et al., 1998); for instance, implementing and communicating culture would be difficult when most of the employees (critical mass) of an organisation are introverted.

In this research, the focus is on how to create high-level knowledge through NDKM. The different elements have to be rooted in the very foundation of an organisation, which needs the power of a founder so that the employees are guided and a suitable setting is created. Hence, there is a hierarchy among the founder and employees to establish a setting that is amenable to knowledge creation and sharing, which aligns with Berger and

Luckmann's concept of objective reality that has been introduced at the beginning of this discussion.

This discussion might give the impression that only through the above-mentioned priority can a culture of high-level knowledge creation and its NDKM be established. This would truly be the ideal situation, which would lay the best foundation for such an undertaking. However, in reality, as an interviewee explained, 'you can make everyone, … everyone "fit" […] but the employees must be compatible to the system and our culture' (Original quote, 'Du kannst jeden … jeden fit machen, aber man muss schon etwas sagen, da legen wir schon sehr viel Wert darauf, die Leute müssen kompatibel sein zum System und zu unserer Kultur') (I16/Q18.14).

The phrase 'Compatible to the system and our culture' is very important, and the system or culture is normally devised through the philosophy of a founder. It is a 'systemic approach' (I16/Q18.14), where the employees have to be in harmony with the founder's philosophy and spirit and the existing organisational setting (I16/Q18.14). This harmony can be linked to the notion of 'inner picture' (Hüther, 2013c), which is discussed in the section 8.2.2.3, 'Organisational development'. The 'inner picture' of an employee must be in line with the inner picture (i.e. aims) of an organisation. If this is not the case, two different worlds would collide and create emotional barriers – the biggest danger for knowledge creation and its non-deliberate management.

Employees are vital in implementing a certain culture in an organisation. In this regard, the findings revealed an important fact. The last-mentioned quote 'you can make everyone, … everyone "fit"' (I16/Q18.14) explains that an employee can be swayed to think differently or change their behaviour (making someone fit), but only to a certain degree, as highlighted by the interviewees also. Hence, if an organisation aims to implement a particular culture, the employees must 'fully' fit into the 'planned' cultural setting (i.e. the founder's philosophy in this research) in order to share the same values and key elements as the organisation wishes, as it is a precondition for knowledge creation with NDKM. For the sake of clarity, the above discussion does not imply that the organisation tries to implement a monoculture, as it could hamper creativity and innovation. Instead, it only highlights the importance of the key elements, which are essential for social interaction. Diversity, which is important for innovation, is omnipresent in the organisation under scrutiny and is determined by the individual horizon of each employee, as discussed in section 8.2.2.3, ‘Organisational development’.

In cases where the employees cannot be fully aligned towards the new or desired culture, the organisation ought to release these employees; but this would lead to a new problem. An organisation cannot just release their employees because they possess knowledge and routines essential for the organisation. This discussion shortly explains how difficult it is to change an already existing culture because it takes a lot of effort, time, and money. A rule of the thumb is that the bigger the company, the more difficult the cultural change.

The ‘cultural framework’ pattern discussed in this section reveals ingredients arising from the seed sown by the founder’s philosophy and values. These ingredients represent what is permanently important to the founder and teaches all the employees about their values and insights almost every day and creates ‘artless KM elements’, which are important for NDKM. Artless KM elements are situations where artificially placed (traditional) KM strategies and processes are normally used to enhance knowledge creation, such as knowledge sharing or knowledge distribution processes.

The artless KM elements take place without the presence of the founder, which is important, especially when a company becomes bigger. It is vital that the philosophy of the founder be set at the very top of the organisation (top-down approach) to preserve these elements. The findings revealed that the organisation under scrutiny still uses the founder's philosophy as a guide to take decisions, especially in strategic and organisational development. Although this does not have a direct impact on the creation of knowledge, it has an indirect impact. As the DNA's (i.e. the founder's philosophy) point of focus is the employees and their needs, using it to decide what is best in critical situations has an impact on the employees and their behaviour, emotions, and views on the organisations. Therefore, each decision made is also concerned with what is best for the employees, and it finally impacts knowledge creation. Moreover, this framework experiences growth over time and the new elements are and must be in line with the basic philosophy and spirit of the founder.

It was found that the organisation's aim of inculcating the values of the founder's philosophy and spirit in the employees has been fully accomplished and was elucidated through the language (adjectives) used by all the interviewees and employees. Adjectives such as honesty, faith, trust, respect, or support were often used to describe the organisation under scrutiny by the interviewees (I4/Q5.1) (I5/Q6.42), which indicates a good working atmosphere (Arbeitsklima) (I5/Q6.44) (I9/Q10.5) or a 'comfort zone' where employees are motivated to work, to share, and to create.

In this regard, some interviewees also used words such as 'proud' and 'passion' to describe how they feel about working in the organisation under scrutiny (I5/Q6.42) (I5/Q6.44) (I29/Q35.1). Employees are generally driven by the basic philosophy of the founder who established an organisation. Moreover, the interviewees stated incidents, using quoted examples from their colleagues (I16/Q18.45), where management strategies such as flat hierarchy, equality, or being an open organisation are just failed attempts or 'meaningless' promises in many other organisations. The interviewees also revealed that matters were different in their organisation with the often-repeated statement 'this is not only a statement, it is reality in this organisation' (Original quote, 'das hört man nicht nur so… das ist tatsächlich so') (I5/Q6.42).

This can perfectly be linked to the quote 'what we do is not new [...] but we try to do everything on a very high-level' (Observation_Notes, p. 3), already introduced in chapter 8, 'Findings exercises'. Both the above-mentioned statements indicate that the organisation under scrutiny is different from many other organisations (I16/Q18.45) because of 'small things' such as keeping promises, enhanced communication, the focus on the employee, and so forth. These elements finally led to the situation where the employees are proud of their workplace, which also nurtured their passion for their work. Hence, the organisation is genuine with regard to its aims and promises.

However, it requires a massive yearly investment to make the organisational culture transparent (I27/Q33.3), which includes showing and teaching the employees the organisation's defined values. This again reflects Berger and Luckmann's (1966) insight that behaviour must be taught and kept in line.

Therefore, the culture (i.e. behaviour) required for high-level knowledge creation or NDKM can not be accomplished by mere implementation of the defined values, but rather it must be 'recurring'. This means that the essence of the desired culture and its different elements have to be frequently brought to the minds (teaching) of the employees, which in turn has an impact on the employees' behaviour and the culture. Sometimes, an organisational society requires a trigger to be aware of why certain values exist in an organisation and how they have to be 'lived' to establish a high-level of knowledge creation. This shows a link to the pattern 'Organisational development' discussed in section 8.2.2.3

8.2.2.1.1 CF – communication.

The traditional understanding of KM contains different elements, such as the sharing, distribution, creation, transfer, acquisition of knowledge, and so forth. All these elements require proper and suitable communication (Wensley & Verwijk-O'Sullivan, 2000) to transport information and explicit knowledge, which highlights how important communication is for knowledge creation and KM. As already shown in the section 8.2.1, 'DNA – the founder's philosophy', communication is important to the founder of the organisation under scrutiny. This section not only emphasises the importance of communication for this research, but also postulates that communication is a pre-condition or a priori requisite for knowledge creation and NDKM.

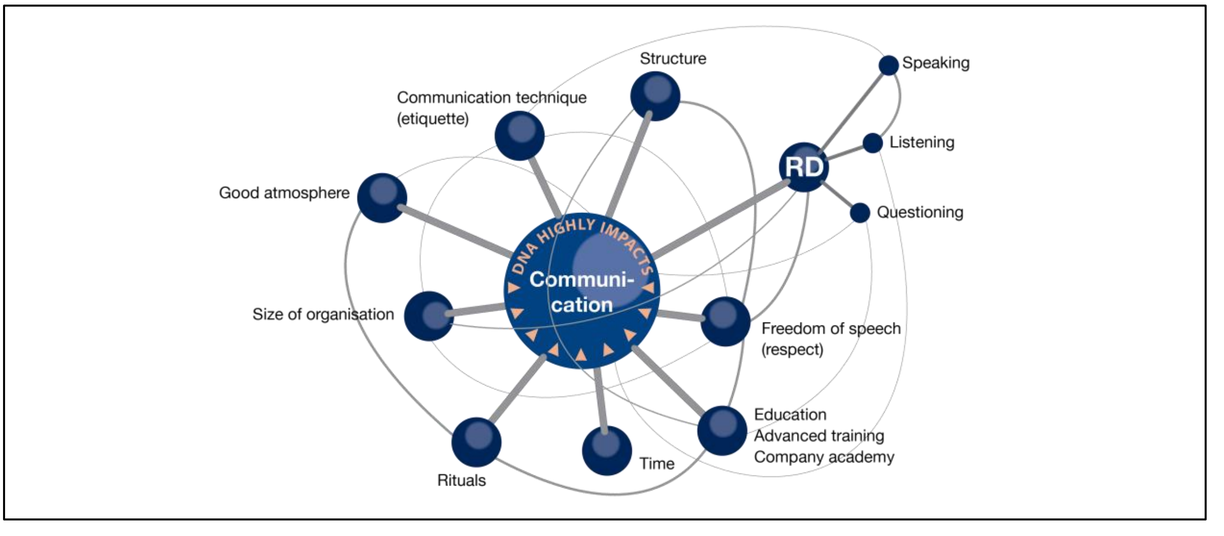

Figure 17. CF – communication

RD = Right dose.

Many authors or experts such as Tylor and Osland (2005), Kikoski and Kikoski (2004), or Davenport and Prusak (2000) have expressed that communication is an essential prerequisite for the creation and the spread (sharing, transferring) of knowledge (i.e. information and explicit knowledge).

However, in the organisation under scrutiny for the research, communication is an extensive and dominant issue and takes place through different channels, such as email, telephone, video, meetings, gatherings, documents, and so forth. In this regard, it is the act of communication and not the technology used for communication that is important. High-level knowledge creation and its management is possible only by knowing how to communicate and the different features linked to it, such as places, organisational philosophy, and so forth.

Communication can also take place non-verbally; for instance, non-verbal communication has to be resorted to if one is not able to put their thoughts into words to describe something. In such a case, non-verbal knowledge transfer shows how to do, read, or make something and knowledge is communicated by way of showing and learning by doing. Instead of tacit knowledge, this should be understood as knowledge that is too difficult to explain or knowledge one cannot explain because of the inability to do so. Tacit knowledge in this research is described as the 'capacity for effective action' (Senge, 2002a, pp. 56–57).

The findings of this section elucidate that communication needs to be allowed for everyone across an organisation and communication should take place where no skills are transferable at the moment. As shown in this section, employees get inspired by communication because it allows the fusing of different horizons (employees) from different departments. Sometimes a skill, information, or explicit knowledge may inspire employees, but sometimes a private chat regarding a hobby can lead to a solution.

The communication culture in the organisation drawn from the founder's philosophy was recognised during the observation in a project team or through approaching random employees. All of them took the time to amply answer the researcher's questions (Observation/Q41.16). The passion of the employees for communication can be also linked to the above-mentioned statement that 'what we do is not always right… but we try to do everything on a very high-level' (Observation_Notes, p. 3). It can also be linked to the founder's philosophy, especially by the dint of socialising. Socialising is not only a gathering of random people, but also the interaction between people through communication. Therefore, communication can be described as a 'binder' or a 'bridge', which is also the subtitle of the pattern 'Communication – the binder and the bridge' (see Figure 12). It is a binder of relationships and is the most effective way to expose oneself new perspectives (i.e. sharing and transporting explicit knowledge) about which one (employee) would not think at first (I30/Q36.11). Moreover, communication not only builds bridges between employees enabling the transfer and sharing of information or explicit knowledge, but also by doing so locates knowledge gaps, which is a prerequisite for new knowledge creation (Wensley & Verwijk-O'Sullivan, 2000).

Implementing communication as a culture does not automatically lead to communication, but rather it provides a setting most suitable for communication. As an interviewee perfectly mentioned, 'you are responsible that communication takes place' (I23/Q25.9). The organisation under scrutiny does not have scrupulous documentation about meetings or conversations, which forces them to participate in conversations and to communicate with others (I23/Q25.9). In this vein, interviewees explained rituals where a bunch of employees from different departments sit together, share time, and discuss different private and job-related topics and problems, which finally can lead to an Aha-experience (i.e. new knowledge). Employees also find new solutions or ideas when stimulated by communication (I21/Q23.26) (I28/Q34.17) (I30/16.10) (I1/Q1.40).

For rituals or communication at multiple levels, not only the setting, but also the element 'time', a pre-requisite to have a conversation, is important. Ives et al. (2002) highlighted that employees need 'quality time together' (p. 110) so that intensive communication can take place. In the organisation under scrutiny, the employees frequently took time to converse and discuss with their colleagues at different places in the organisation (I16/Q18.6).

Considering this possibility, organisations must provide their employees the time for communication and discussions. In the organisation chosen for research, deadlines of tasks or projects are not always very strict because this gives the employees the time to reflect or discuss about different issues. Additionally, the employees recognised and learned quickly that by taking the time to bring in knowledge, ideas, and insights, later problems could be reduced to a minimum, which finally provides them more time and less troubles (Observation/Q40.16) and leads to success and fun at work.

Moreover, the above-mentioned Aha-experience highlights the importance of communication for knowledge creation because all the interviewees stated that an Aha-effect (i.e. knowledge creation) always precede a conversation. For instance, even when an Aha-experience pops up while riding a bike back home, a previous discussion or conversation has been the reason for it. Conversations stimulate thinking, transfers ideas and missing information, and lead to the Aha-experience. This resonates with the understanding of knowledge in this research, which is socially constructed. Different horizons fuse and new knowledge emerges (Aha-experience) through a conversation or discussion.

The interviewees also highlighted that the existing communication culture enable them to find new solutions to a problem combined with additional insights, such as pros and cons, which allows diminishing the amount of ideas and solutions to a problem (I22/Q24.8).

Communication also allows one to transfer additional information, which, for instance, would not be documented in a protocol. The findings reveal that communication is the most important way to transfer and share insights, and experience pros and cons (etc.). Moreover, different philosophers and experts have indicated that communication is more efficient than documentation. Gadamer (2010) mentioned that spoken words when written lose some power. Lock Lee (2002) put it differently and stated that by socialisation and, therefore, conversation (explicit), knowledge sharing (i.e. lived experience, insights, pros, and cons) can be enhanced. Senge et al. (2010) emphasised that even in an organisation with the most developed information and communication technology (ICT), face-to-face communication is considered essential (Senge, Ross, Smith, Roberts, & Kleiner, 2010), and they aim towards having face-to-face meetings, as it ‘sustains communication and knowledge sharing’ (Ives, Torrey, & Gordon, 2002, p. 125).

The importance of communication for the organisation under scrutiny is evident from the example of the documentation procedure for ISO certification. Although ISO certification demands scrupulous documentation and contains information about claims or defects, the employees prefer direct communication (e.g. market manager with engineers). Moreover, communication always transfers more information (additional insights) than an employee can document or read in the scrupulous ISO documentation. Additionally, reading takes time, which is scarce in the daily business. Communication also allows for immediate re-questioning if something is not understood and the ‘informant’ can paraphrase the information for better understanding, which in turn enhances information transfer (Observation/Q40.6).

The findings showed that the interviewees often compared their experiences in the current workplace with their former workplace and mentioned how many senseless and unproductive discussions or meetings they have had before. In such cases, communication with others becomes ‘uninteresting’ or ‘annoying’. The interviewees highlighted that the right ‘dose’ of listening, speaking, and questioning is essential to make communication effective. The right ‘dose’ of these three elements is important so that a balanced conversation can emerge. If a person only wants to talk or utter their thoughts and is not able to attentively listen to the ideas or comments of their communication partner, a unidirectional conversation occurs, which is not suitable for NDKM (Observation/Q41.2). Thus, not only the right dose, but also the right people are essential (I4/Q5.36).

However, the employees are grateful for being able to discuss and philosophise about different topics and ideas. Additionally, they also give the organisation great credit for according the opportunity to state their positions or utter their concerns (I2/2.13).

Therefore, communication has an important status for the employees of the organisation studied in this research because it supports their work and is recognised as vital for new knowledge creation (I20/Q22.32).

Although communication is often mentioned in the current literature and considered important for KM or knowledge creation, what has never been explained is what kind of communication is important and what are the essential ingredients so that communication can take place at a high frequency and what is most suitable for knowledge creation in an organisation. Sveiby (1997) already explained that ‘personal chemistry’ (p. 23) is important for communication. Similarly, Fineman (2005) explained that knowledge is an emotionalised and passionate construct (Fineman, 2005). Both these statements highlight the importance of interpersonal relationships. In this regard, an organisation can support and positively influence the personal chemistry among the employees in an organisation to a certain degree. In this research, knowledge is understood to be socially constructed, and it is important to understand how to create and sustain a setting, which supports and enhances communication on a level to trigger knowledge creation and its NDKM.

For instance, shouting loudly is a ‘kind of communication’; however, it is not suitable for sustainable and high-intensity knowledge creation because by the dint of this kind of communication barriers emerge and block social interaction, which is detrimental for knowledge creation.

In this regard, communication is not only a binder or a bridge, but it also has a vast impact on the atmosphere in an organisation, which may enhance or reduce the knowledge creation output (Zarraga & Bonache, 2005). This discussion can be linked to the idea of the ‘comfort zone’, already introduced in the last section. There are different ways in which someone can be approached for a conversation, and there are different ways in which a conversation can be held. Each way reveals different emotions and, as already explained, emotions can block information transfers or build barriers, which subsequently will hinder or stop information or explicit knowledge transfer. Also, the exchange of lived experiences strongly takes place on a personal level (I7/Q8.19), where a good atmosphere and low personal barriers are available. In this regard, positive emotion is the key element in establishing a suitable atmosphere for NDKM, which is strongly enhanced through respect and knowledge on how to communicate, empathise, and so forth. Therefore, the right approach for communication has to be chosen and learned in order to establish a setting useful for knowledge creation.

Communication in the organisation studied in this research is enabled with elements such as respect and positive values, which also draw on the founder's philosophy. In fact, the existing communication in the organisation is the result of the founder's effort to implement his philosophy. The findings revealed that no dispute has been recognised by any interviewee so far (I30/Q36.16). There are discussions because of the different meanings and perspectives of the various employees in the organisation, but the discussions are based on arguments, attentive listening, and respect.

The founder's philosophy has led to a type of communication that is highly valuable for knowledge creation and valuable for the other patterns, which will be introduced later. That communication is valuable is essentially underpinned by many interviewees and the different descriptions about the organisation. Many employees compared the communication situation in their current organisation with their former organisation, and it was found that though communication was highlighted as essential but never accomplished because of the different barriers such as hierarchical structure, the employee setting, or the philosophy of the former organisation. However, the organisation studied in this research was described as highly 'communication orientated' (I2/Q2.1), which not only makes claims that communication is important but actively lives and breathes communication (I9/Q10.54).

Interviewees also highlighted how well the communication in their current organisation works. Moreover, they realised how important the existing communication setting is for their work (I12/Q13.25).

Such an atmosphere is a prerequisite and foundation for the ingredient named ‘freedom of speech’. A good atmosphere combined with values like seriousness and respect leads to an anxiety free (I21/Q23.22) (I30/Q36.7) setting and is vital for the ‘freedom of speech’. In the organisation under scrutiny, it is not only possible to approach every employee for a question or discussion, but also the employees explain that they have the ‘feeling’ that they can approach anyone in the organisation. Implementing such a ‘feeling’ is difficult, but once it is established everyone feels invited and welcome by everyone for a conversation or discussion. For instance, any employee can approach another department and utter concerns about a product or product cover (etc.) that is not in their portfolio. They can also express their opinion, which is ‘heard’ and also seriously discussed with others and not just set aside (I10/Q11.25) (I9/Q10.36).

Once the employees experience the ‘freedom of speech’, they are amazed and inspired by it. It became a very important element to them because they did not get ‘blocked’ by the barriers at their work. Additionally, an employee explained:

> ‘if someone has a good idea then the person should have the possibility to bring-in their idea […], therefore when this person has a suggestion for improvement he or she should be allowed to initiate it. It does not matter if this person is a janitor or the director of the company’. (I2/Q2.13)

Such a setting is highly valuable and essential for explicit knowledge sharing, which is, as previously explained, the most difficult issue regarding KM. Furthermore, the hitherto mentioned barriers, such as hierarchical structures, departments, or positions, are mostly the barriers to approach other employees, therefore, also barriers to transfer or share ideas. Such barriers draw on and exist through the negative element ‘authority’, which exists in many organisations. For instance, many organisations have defined or non-defined but lived ‘communication processes’, which describes the path an employee has to follow to approach other employees to ask for communication. In other words, in a traditional hierarchical structure, an employee first has to approach the supervisor, who decides if the employee can approach another employee to discuss an issue or not. An interviewee experienced this situation in his first company where the workers were marked by the colours of their work coat, and highlighted it as a very big problem because it created a class society in the organisation (I4/Q5.21). In the ‘class society’ so created, the managers ‘solely’ talked to other managers and the workers ‘solely’ had conversations with other workers. Therefore, such a structure reduces the mix of perspectives, different horizons, and relationships.

Comparing this with the organisation under scrutiny, all employees can be approached and supported by any employee from any department regarding different questions or issues, and knowledge is more extended and ideas are more stimulated because of the different perspectives and information shared by engineers, managers, and marketers regarding a question or issue. This clearly explains why the founder’s philosophy is so essential. With the right focus on the right issues, barriers can be limited and existing barriers can be eliminated better. In this regard, the employees highlighted the possibility of approaching other employees from different departments without any barriers for a discussion or to simply utter a concern about a product (I4/Q5.24).

The possibility of approaching another person is, in fact, very essential because it is difficult to be creative (i.e. create new knowledge) when a person only sits for eight hours in front of a computer. Creativity needs ‘sparring partners’, where ideas are put back and forth between the employees to enhance, eliminate, or discuss these ideas (I8/Q9.7) (I1/Q1.28).

The employees understand the essentiality of communication (I11/Q12.44) and consider these possibilities as highly valuable for their work and their personal development. In this line, the interviewees explained that although communication is a time-intensive issue, they prefer face-to-face communication (I11/Q12.44) (I9/Q10.56) to pick up new information; for instance, they deliberately loiter around colleagues who have returned after a customer trip to assimilate the newest customer and market information (I9/Q10.56).

In order to draw on the organisational success that can be achieved through communication, the organisation developed and built more and more possibilities to improve and enhance communication in the organisation at multiple levels (I7/Q8.19), which became pivotal for the growth of the organisation. In the organisation, they try to do everything on a very high-level, and they really care about how they can improve communication within the organisation. This is evident from their unique communication department, which focusses on the improvement of internal communication (I8/Q9.12) within the organisation unlike other organisations whose emphasis is on the communication between the market and the customer. This improvement makes communication on the highest level possible and facilitates explicit knowledge and information transfer. This department literally works on the ways to enhance communication in the organisation, which not only includes techniques, like fancy communication tools or the internet, but also training on how to communicate, elements of social interaction, the meaning of power, and so forth.

However, communication per se or to speak is not everybody’s preference (I28/Q34.25) (I27/Q33.15). On the one hand, the employees criticised the organisation’s communication strategy, which considers everyone’s thoughts, ideas, or doubts regarding different issues, as it requires more time for problem solving and makes decision making difficult. On the other hand, despite this negative aspect, the employees also highlighted the benefits of the possibility that allows every employee to bring in their knowledge, insights, and experience (I23/Q25.22) (I13/Q15.17). As mentioned earlier, if anyone has doubts with respect to an issue, they can bring up their doubts and be heard, which means that they collectively discuss and analyse these doubts until they are eliminated. Though the time required to collectively make decisions is a disadvantage, but it is also advantageous as the solutions of the problems contain thoughts and ideas from different people, driven by their passion, resulting in astonishing solutions (I27/Q33.15) (I10/Q11.26).

Although many, especially the new employees, were 'infected' (I27 /Q33.3) by the communication with their colleagues, there were still some who preferred to be calm and silent, which is also respected (recognition of individualism) by the organisation. However, even these employees recognise the importance of communication for the information or explicit exchange of knowledge. The findings resonate with the insights of Senge et al. (2010) that humans of a community or, in this case, the employees of an organisation, need the opportunity to respond or interact face-to-face so that they 'feel known and "seen" as valued community contributors' (p. 516). In this regard, an interviewee explained that 'The exchange is also important for me. I would be unlucky only sitting in my office' (Original quote, 'aber es ist mir schon wichtig, einfach der Austausch. Also ich wäre jetzt auch nicht glücklich, wenn ich den ganzen Tag nur in meinem Büro wäre') (I29/Q35.19).

The term 'respect', often used during the discussion about the founder's philosophy and spirit, is especially important for communication in the organisation under scrutiny. Krogh et al. (2000) suitably used the term 'conversational etiquette', which summarises the different elements like the vitality of 'not only on what is being said but on how it is said' (p. 134). In this regard, all the interviewees highlighted that they get answers and feedback in a very special way. The organisational communication etiquette is also influenced by different programs such as 'consulting organisation', which will be introduced in the section 8.2.2.1.2, "CF - the collective – 'support, feedback & consulting'".

The conversations of the employees are not marred by negative emotions or time pressure, but rather it is influenced by attentive listening and respect with the focus on facts and arguments. In this regard, Senge et al. (2010) explained that attentive and careful listening is essential for learning (p. 501), and knowledge creation takes place through the learning enabled by this. In this way, the employees of the organisation studied in this research did not get disappointed, angry or ‘negatively emotionally loaded’ because of a discussion, which shows that communication skills are important for NDKM. The employees also compared their experiences in former organisations with that of their current organisation and highlighted the difference. Employees have an urge to share information and insights with others just because they show respect for their work, and to not ridicule the other person. In the organisation, saying no to an idea or a new concept that come up in a discussion is not considered rude, as it is understood that even saying no to something amounts to a dialogue and an explanation is given why the idea or concept is not appropriate at the time (I28/Q34.22).

To achieve suitable communication techniques for NDKM requires different elements and calls for employees who not only share the basic philosophy of the founder but also have a certain degree of education. If the majority of the employees have a certain degree of (academic) education, then it makes communication easier for the simple reason that these employees have already received a certain kind of education in communication. Almost all programs in higher education teach the importance of teamwork and communication. In the organisation under scrutiny, almost 80% of employees have an academic title, and additionally, almost all the employees frequently undertake advanced training for 2 to 3 days a year and around 45% use the chance and participate in study while working. Such a high grade of academic education is not always possible in an organisation and is strongly connected to the developed products; this indicates that product development itself has an essential impct on the intensity of knowledge creation.

In this regard, the Human Resource Management (HRM) department plays an important role because they decide whether an applicant has the attributes such as education/qualification in communication necessary for the organisation under scrutiny. In this vein, an interviewee explained that aside from professional competence, communication competence is also a central factor necessary to work in the organisation under scrutiny (I10/Q11.11).

The organisation also provides a company academy with different programs where coaches and supervisors give seminars to the employees to enhance communication or to become a suitable and proper communicator. The seminars teach different aspects of communication such as understanding the different perspectives arising from the varied educational and cultural background of the employees or the importance of attentive listening and giving compliments. A result of this ‘communication education’ is that when the majority of the employees have proper social and communication skills, most new employees also become automatically ‘infected’ (I27 /Q33.3) (Interview transcribed/Q42.2) by the existing communication culture.

The size of an organisation limits efficient communication (I10/Q11.26) (I11/Q12.24) (I23/Q25.10) and, therefore, also hampers knowledge creation and NDKM. Hence, the biggest challenge the organisation under scrutiny faces is to keep the organisation ‘small’ in size because the bigger the organisation gets, the more complicated communication becomes (I16/Q18.38) (I10/Q11.53). Thereby, the large size of an organisation hinders information or explicit knowledge transfer (I16/Q18.38) and enhances knowledge transfer barriers and negative emotions, which are especially dangerous for information or explicit knowledge sharing. This is in line with Grainer’s curve, introduced in the last section, which shows the different challenges an organisation and its founder face during the growth period (Trompenaars & Coebergh, 2014). The findings revealed that the employees really cherish the times when the company was smaller because then there was better interaction and communication between the different areas and departments of the organisation without any problems. However, with the growth in size of the organisation much more employees are located in different offices and places, which makes the earlier level and intensity of interdepartmental communication and interaction difficult, leading to reduced interchange of explicit knowledge and information (I11/Q12.4).

In this vein, the interviewees explained that it is already difficult to communicate; for instance, it is challenging to communicate through emails because so many colleagues have to be considered (I9/Q10.49).

Although some interviewees blame the situation, they also highlighted that the organisation has already implemented some solutions to improve the situation, which will be explained in section 8.2.3.1, 'Structure'.

However, the introduced communication framework allows for the frequent and easy coalescing of different past and new experiences and information across the organisation, which leads to new solutions (i.e. new knowledge) (I11/Q12.36) (I2/Q2.45) and is in line with Gadamer's (2010) concept of 'the fusion of horizons'.

8.2.2.1.2 CF – the collective – 'support, feedback & consulting'

Having previously discussed how a certain type of communication established in an organisation paves the way for the many other key elements of this research, this section, which is another ingredient of the earlier introduced section, cultural framework (see section 8.2.2.1), introduces the three elements highly essential for knowledge creation and the NDKM of it. The three elements are support, feedback, and consulting framework (SFC framework).

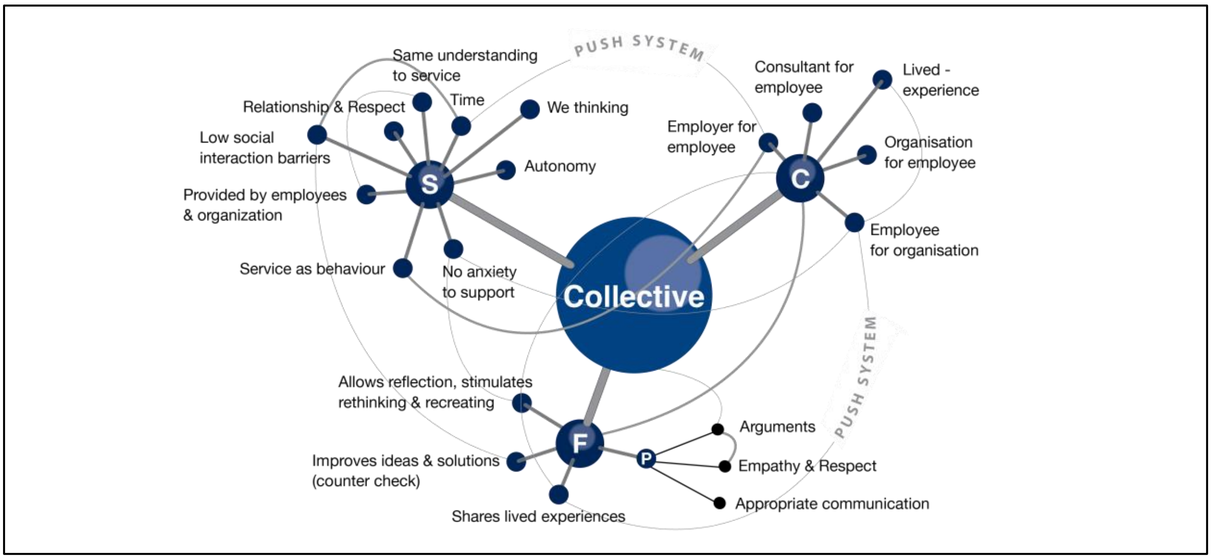

Figure 18. The collective – support, feedback, and consulting

S = Support; F = Feedback; C = Consulting; P = People. All elements are interwoven and draws on a push-system.

The SFC framework is vital for this research because it has a high impact on the frequency of communication as well as on the transfer, search, and equalisation of information or explicit knowledge. Although in the current literature a supportive culture is highlighted to be vital for KM (Tseng & Fan, 2011), the findings of this research also revealed many other elements important for knowledge creation with NDKM. Deeply anchoring the importance of the SFC framework in the mind-set of the employees automatically solves different problems, which are notorious problems or challenges in organisations and traditional KM systems such as knowledge hoarding, transfer, sharing, and so forth. Many experts and authors provide solutions to reduce some of the problems like knowledge hoarding, and indeed their basic idea is correct. For instance, Lesser and Prusak (2004) explain that integrating employees into communities and discussions would allow them to exhibit their knowledge and experience. But much more needs to be done beyond the integration into communities and discussions so that the employees can achieve a high performing organisation with regard to knowledge creation without using a traditional KM.

The SFC framework also allows one to enhance essential social reality elements; for instance, the respect for experience and knowledge of others. This is important because as Senge et al. (2010) already explained in the last section, humans need to ‘feel known and “seen” as valued community contributors’ (p. 516). Such elements are not much highlighted in the current literature, but are one of the biggest barriers, beyond fear and others, to maintain bi-directional communication possibilities.

The support, feedback, and consulting framework of the organisation under scrutiny mutated into a ‘collective’ resulting in every employee learning from each other in all directions and with almost no barriers (I26/Q31.9) (I5/Q6.6). This is the reason why the organisation is able to maintain sustainable and high knowledge sharing, which is especially important for new employees so that they can quickly assimilate and learn existent knowledge and information.

In this regard, the evidence showed that sharing explicit knowledge or information is indeed strongly enabled through the collective, which will be introduced later (see section 8.2.2.1.2), and draws on a very strong supportive organisational mind-set where no employee will restrain or block information or knowledge (I23/Q25.17).

Because of the supportive framework of the organisation, the employees easily get access to their colleagues and can ask (consulting) for their opinion or experience regarding different situations (I19/Q21.16).

Regarding this framework and knowledge sharing, it is interesting that many organisations still believe that it is important to flood themselves with information. This research does not claim that documentation is wasteful or that it does not play an important role for knowledge creation or KM. Providing information to a certain degree is indeed very important, but if too much explicit knowledge is available, the search for the right or the most useful solution would take a lot of time. The argument that the use of new and fancy software for information management would erase this problem might be partly correct because it only supports the search. Other problems such as the need for resources to update existing knowledge and information or the exorbitant time consumption for searching and reading still exists. Additionally, reading may lead to new questions and need direct contact with the author to get an answer or with other colleagues to discuss the questions. Therefore, the motto of the collective is ‘less documentation is more’. Documentation is to be made where it is needed, but the organisation is not to be flooded with information or discovered knowledge. Once again, even information and explicit knowledge is essential for knowledge creation, and a more efficient way to share explicit knowledge is to establish the introduced collective. This saves costs because the time needed to approach other employees and not to update, search, read, and approach others if questions arise is available. This fact can be linked to the example of ‘ISO certification’, already discussed in section 8.2.2.1.1, ‘CF – communication’. Communication is a quicker alternative to assimilate the needed explicit knowledge. Instead of flooding an organisation with documentation and information (push), the employees seek out and approach others for what they need (pull). This is in line with the arguments of Stein and Ridderstråle (2001) as well as Coakes (2006) that for knowledge creation, a pull system is better than a push system because the push system also provides unnecessary information.

Establishing the collective also supports and improves social interaction. Since good relationships, networking, and low social-interaction barriers are essential for knowledge creation, the collective invites knowledge creation without deliberate KM.

8.2.2.1.2.1 Support framework.

The findings elucidated that supporting others is the foundation and, therefore, the first element of the framework of this section; it is also the pre-condition for implementing a sound feedback and consulting framework. Support is the elixir vitae of the organisation and is recognized in many ways. It is also frequently mentioned by the interviewees through different stories and situations which indicate that it is a ‘supportive company’. The term ‘support’ is also often used in the current KM literature, but is mostly connected to the support provided by an organisation to their employees, for instance, regarding learning or experience (Allee, 1997), or the support provided by information technology infrastructure, strategies, processes, and so forth (Nonaka & Takeuchi, 1995) so that the creation of new knowledge can be stimulated.

However, the behaviour of ‘supporting others’ has its origin in the founder’s philosophy and displays Heidegger’s notion of care (leaping ahead); it once again emphasizes the founder’s power to establish a useful setting for knowledge creation. The seed of ‘support’ is therefore from the outset present in the organisation, which leads to a very pronounced behaviour regarding ‘supporting others’. This is highlighted through the behaviour of the employees who are not only interested in their own business, but also support others so they can improve their situation (Original quote, ‘Also, das kenn ich bei [Firmenname Forschung] überhaupt nicht ..., weil bei [Firmenname Forschung] würden alle drei am Tische sitzen ... und sich gegenseitig irgendwie versuchen zu helfen’) (I24/Q30.6).

The analysis of the findings elucidates that the biggest barrier regarding ‘supporting others’ is, in fact, not the ‘will to help’, but rather the social interaction barriers, ‘the non-existent we thinking’, and the different understandings of ‘support’. An organisation built with low social interaction barriers will have a smooth way for a high-level of knowledge creation. An employee can also unwillingly support others, but this will not create a proactive and useful setting for knowledge creation and sharing. In such a setting, the problems, distractions, lessened knowledge, or idea flow is hard-wired. Additionally, in such settings, envy and disfavour are mostly dominant and lead to social interactions defined and dominated by imperative, assertiveness and showmanship (Hüther, 2013a), which is the most dangerous for NDKM.

The findings of this research also revealed that not only the support from the organisation, but also the support among and provided by the employees, for instance to solve a problem or to give a feedback, is indeed essential and very vital. To clarify, in this research, the term ‘employee’ includes the positions of a leader, coach, and supervisor, as it is not explicitly mentioned earlier and therefore highlighted.

In the organisation under scrutiny if an employee makes a request regarding education, consulting, software, or so forth to work better, to try something out, to improve something, or just because they believe it might be important, the organisation supports the employee in getting the requested material. This takes place in a very uncomplicated manner and the findings revealed that the organisation supports this at a very high-level, even if the granting authority of the organisation thinks that this request is not really necessary at the moment because of the employees’ position (I29/Q 35.1) (I24/Q30.21). The basic idea behind this behaviour is that the employee should feel comfortable, learn, and consider their position as an excellent one.

As the employees convert the founder’s philosophy of ‘focus on the employee’ into ‘focus on the organisation’, the ‘wellbeing’ of the organisation becomes an employee matter. The focus of both the sides (organisation and employee) on support and improvement leads to a setting where creativity and knowledge creation can take place at a very high-level. The willingness to participate, help or support in order to improve the organisation or find solutions to a problem is deeply anchored in the employee behaviour (I3/Q3.27) (I20/Q22.13) (I11.Q12.22) (I6/Q7.13).

Knowing this, the employees directly and frequently approach the other employees to ask for support and for assimilating knowledge they might need for their task and work (I30/Q36.7) (I4/Q5.3) (I5/Q6.27).

The support among the different departments, groups, and employees are often highlighted as a 'service' to others. A service, which is provided at a very high-level and often mentioned as valuable and very helpful, allows the quick transfer of the already existing explicit knowledge and information (I16/Q18.39). But it is most important to understand that support or service is something that takes place in every high-level act of the employees at all the places and corners in the organisation under scrutiny. Even the management and the top management considers their work as a service to their employees so that they can do their best for the employees. In this regard, analysing the support behaviour in the organisation under scrutiny elucidates characteristics which are also found in management and leadership styles such as the affiliative or democratic leadership style presented by Goleman (2000). In such leadership styles, the employees are put in the centre and hence given support so that they can perform their best. Additionally, the term 'care' is very closely linked to service or leadership, as already introduced in section 8.2.1 (DNA – the founder's philosophy). Kikoski and Kikoski (2004) summarized the research by Georg von Krogh (1998) and explained that care leads to collaborative work and increases support.

Although 'support' or service is not a new or special phenomenon, the findings revealed that the references to support was found in all interview stories regarding different situations. It shows that support is not only a philosophy of the organisation but also a strongly anchored trait of the employees. For instance, employees and managers support their colleagues in meetings with additional information, experience, or contact so that they can work more efficiently and more quickly or solve problems better (Observation/Q40.27). If an employee requests an appointment for support, employees always promptly and quickly answer and grant it (I3/Q3.27). If an employee gets stuck in the middle of a project or task, it is natural for the others to offer their support so that the employee can go forward with their work (I20/Q22.12) (I5/Q6.13) (I7/Q8.22). The examples plainly show that effective support is about the taking time to support others regarding 'many small things', which happen daily. Additionally, the findings also revealed that the interplay of the 'support offer' and 'acceptance' is very high compared to other organisations. The analysis of the very foundation (support) to find out what is really needed to achieve a supportive framework elucidates that such a framework is only possible when no barrier exists in relationships and also when there is respect among co-workers. This can be linked back to the essence of the manifold quotes presented in this research in section 8.2.1.8 (Environment), which is that the 'relationship level dominates content level of a message'.

However, it is clear that in organisations where the employees are not the centre of focus, but rather the business turnover, it would lead to a 'me-orientation' and result in a setting where support is not a high-performance service.

It is interesting that especially big and international blue-chip companies have problems regarding their support (service) understanding. The interviewees juxtaposed the implications of the support framework they have now with their former organisations and highlighted that the situation in the former organisation especially created a big barrier for their work and for being creative, which proves how important a supportive framework is. The employees explained that the barriers in their former organisations emerged in the first place due to the different understandings of the meaning of support, service, or emotions. Using this research as evidence explains that without a fully established, understood, or accepted philosophy, such barriers (antecedents) can emerge through erroneous communication, little or no trust, and incorrect focus, to name a few.

The focus on the business turnover instead of the employee, as is the case in many organisations or stock controlled companies, and distractions regarding harmony (emotion) form barriers which are dangerous for a supportive and service framework. For instance, in a well-known international German blue-chip company, the departments provide no service and instead compete with each other. Such situations automatically eliminate the 'we thinking' and lead to an inseparable barrier for explicit knowledge and information transfer. Such an established setting makes it impossible to approach the employees directly because communication and the transfer of explicit knowledge are only possible with the help of supervisors or coaches. In such instances, communication does not take place the most efficient way, and as stated by an interviewee, 'it always included supervisors and bosses' (Speed interview 1/Q37.10).

A positive aspect of an established supportive framework is its power to deal with situations which require urgent solutions. In such cases, the employees abandon their current tasks and work to help others in an urgent situation or problem. The interviewees used the expression 'wall behind someone' (Original quote, 'eine Wand hinter dir') (I2/Q2.42) to describe the effect felt by this kind of support. The expression refers to urgent situations where the support of the whole organisation is like a wall that stands behind those with a problem to help them solve the issue at hand (I2/Q2.42).

However, in such cases, the abandonment or the postponement of a meeting is done only in emergency situations and is not a daily occurrence. The important point is that if such situations emerge, there is no discussion about providing support or not. The employees understand the very essence of support and provide it whenever they can.

The interviewees highlighted that 'support' also exists in other organisations, but there the occurrence is few and not on such a high level in the whole organisation. A possible reason for less frequent and 'isolated support' may be the cautious behaviour built on fear.

Fear to support others mostly results from managers and supervisors who consider support between the employees without their approval as unwanted. Hence, providing supporting could have a negative impact on the careers of the support providers and is therefore a negative result of a strong hierarchy (I24/Q30.6).

In this line and as mentioned before, to accomplish a highly supportive framework, different elements like communication, the right type of relationship, the absence of fear and the presence of trust, and so forth must be present. Evidence showed that if one of these elements is missing, it violates the framework of support and leads to a 'mental barrier' regarding explicit knowledge and information transfer (Original quote, 'wenn diese gedankliche Mauer vorhanden ist ..., dann kommst du nicht an die Information') (I13/Q15.24).

'Mental barrier' is one of the most dangerous barriers for NDKM. What is worth highlighting is that HRM also plays an important role because character traits like egoism and self-interest also violate support (I21/Q23.20).

However, having an established healthy and high performing 'support framework' allows an employee to assimilate knowledge from different departments regarding different issues like marketing, product communication, calculation, management, engineering, and so forth. It automatically expunges the most difficult issue for KM, which is knowledge search. If knowledge or information is required, the employees take the phone and call someone within the organisation who may have this information or knows someone who does. Through good relationships and supportive framework, it is a simple process (I21/Q23.20) (I13/Q15.12) (I15/Q15.23) (I19/Q21.16) (I24/Q30.21).

In this regard, elements like relationships, network, dwelling time of employees, and so forth are highly essential to improve knowledge search. Especially for the growth of large companies, these elements are vital because it is impossible to know all the employees. The more the number of employees, the more difficult it is to find the right person with the required knowledge. The support-framework guarantees that even in big organisations, the employees are able to search for knowledge and experience. Other employees also consider this type of knowledge search as very useful (I13/Q15.12) (I15/Q15.23) (I19/Q21.16) (I24/Q30.21).

Although the search for knowledge might sound simple, the character trait ‘autonomy’ is a pre-condition for this type of knowledge search to work, as employees must be able to search for and build their own ‘help-path’. In such an organisation, there are many possibilities to assimilate knowledge and experience or to ask others, but autonomy is necessary for an employee to be able to find their own way. The employees find out whom they can approach with which question (I4/Q5.15) (I9/Q10.26).

It is worth highlighting the vitality of the vast number of different networks and communities existing in the groups (i.e., departments) for knowledge search. Each employee possesses a community and network, and each employee gets extensions with the network of their colleagues because of the ‘support’ framework. Hence, the search for knowledge (i.e. support) can be compared to a wildfire where the knowledge gap regarding a problem is investigated by the whole organisation in the different networks and communities. Against this backdrop, the ‘searcher’ finds the contact, or employees from other departments contacts the person in need of support and provides their support. This is the most efficient way of knowledge search because in such cases the organisation as a unit tries to provide support to solve a problem (i.e., knowledge gap). Knowledge search in the traditional way of KM takes place mainly by searching machines, books, and so forth.

This method of knowledge search, where the search happens not only after knowledge but also after experience, is highly valuable, widely used, and efficient. However, it is important to emphasize that the traditional way of KM is also required, as one draws largely on explicit and documented knowledge and is often used to get inspiration to immerse oneself into a new topic. Seeing each employee as an individual and respecting induvial needs illustrates why these elements should not be abandoned. For instance, there are employees who always need to first search online or read a paper to get interested in a new topic. There are also departments where a search database is the tool for daily work, such as customer service. The knowledge search for NDKM needs an additional support framework, which improves and enhances knowledge search to a high-level. This is especially important for a large organisation where a vast number of lived experiences combined with excellent and deep thinkers exist. Each of these employees is a unique, speaking 'search machine', who can be easily tapped into for resources in the support framework.

In this discussion, the phrase 'high-level of support framework' is often used. The meaning of the term 'high-level' varies from person to person and is mostly linked to the question of where the support should start, how much should be invested, and where it should end. The interviewees narrated an incident of an employee asking for help or for more detailed information regarding an issue. In this case, with such an established framework, the colleagues not only shared information but also worked out details, a part of the concept or engineering elements, so that the employee gets an inherently consistent information package/solution (I22/Q24.5).

A high-level of support certainly depends on the time one has, but it also always draws on the effort and respect one accords another, which is very high in the organisation studied in this research. Even if an employee cannot help, the effort taken to find someone else who can help is astonishing (i.e. high-level of support).

This discussion may give the impression that the employees in the organisation under scrutiny do not have a lot of work, but are always in waiting to support and help others. In fact, the situation is the contrary, as the employees have a lot more work to do owing to the success and quick growth of the organisation. Although ‘taking time’ is a pre-requisite for a supportive framework, this description may have negative connotations because it may indicate that the employee providing support has less time for their own daily business. However, ‘taking time’ to provide support does not require hours. It is rather the contrary because providing support requires short but frequently held social interactions (Original quote, ‘irgendwo eine Viertelstunde … holen uns schnell einen Kaffee … und reden drüber’) (I7/Q8.22).

8.2.2.1.2.2 Feedback framework.

Beyond the strong support framework, the organisation also has a very strong and lived feedback framework (i.e. feedback culture). Feedback is a very vital tool for knowledge creation because it stimulates ‘re-thinking’ or ‘re-creation’ drawing on different horizons. Feedback is mentioned in the current literature, but it is mostly referring to the feedback of customers to improve products (customer feedback) (Nonaka & Takeuchi, 1995).

Many employees fear feedback because it is often compared to ‘criticism’ and for some others it may ‘feel awkward when they have to correct others behaviour or actions’ (Walker, 2011a, p. 88). This is the reason why giving feedback is often avoided. Additionally, fear regarding getting feedback can also emerge because of the wrong way to give feedback (communication).

Basically, in the organisation under scrutiny, there are two kinds of feedback and are as follows: feedback regarding an idea, concept, or presentation and feedback regarding the behaviour and traits of an employee. The first form of feedback (i.e., feedback regarding an idea, concept, or presentation) is frequently used because it allows a task or a project to be improved. A prequisite to appreciate feedback is not only communication or the founder’s philosophy, but also the deeply anchored aim of each employee to achieve excellence, perform innovative work, and to respect or understand the importance of different horizons, lived experiences, and perspectives. In this regard, many employees appreciate having a feedback framework because it allows them to reflect on and improve their work before they present or submit it to the whole organisation. Their aim to achieve excellence in work prompts them to reflect and improve it to a high-level. Understanding that a single person cannot possess all the necessary knowledge and respecting the myriad of different lived experiences existing in an organisation shows, once again, the importance of the 'we-thinking' (I7/Q8.22) established by the founder's philosophy (I7/Q8.22).

Meanwhile, the feedback framework is not only 'nice to have', but also accords the employees the opportunity to reflect on their work with the help of others. There are cases where the employees discuss their work not only with one person from the organisation, but also with several others to ensure a high-level of work; this process involves the pursuit to identify the problems and mistakes in one's work, which leads to improvement (I12/Q13.19).

This process is highly valuable for employees, as it supports those who feel uncertain about their ideas or work (I15/Q17.17) (I8/Q9.7) and those who want to be directed in the right path regarding a new project (I11/Q12.21). The feedback framework enables them to engage with the 'whole' organisation in intellectual sparring to improve or to bring forward ideas and the employees call this process 'counter-check' (gegenchecken) (I4.5.18) (I5/Q6.6) (I1/Q1.28) (I5/Q6.13) (I12/Q13/16). Therefore, feedback enhances ideas and puts forth solutions because it allows the employees to analyse and reflect on an issue with different experiences and perspectives and provides self-assurance (I8/Q9.22).

Nonaka's and Takeuchi's (1995) knowledge creation model is made of the following four elements: socialisation, externalisation, combination, and internalisation. Feedback has an important impact especially on internalization. Feedback not only stimulates new knowledge creation, but also integrates new knowledge, experience, and information from others. It is a 'loop that is fed back into the system' (Kikoski & Kikoski, 2004, p.132).

Therefore, if the feedback framework is strong, new knowledge can be integrated and spread within the organisation more quickly and more efficiently.

The exchange of feedback within an organisation is also essential because ideas, new knowledge, and improvements draw not only on facts but also on lived experiences and gut feelings. In such situations, feedback helps to clarify whether a situation or the influencing factors of a strategy or idea are correctly recognised. In fact, it is again a counter-check combined with a coalescence of different lived experiences; simply put, it is explicit knowledge and information transfer/sharing (i.e. the fusion of horizons) (I8/Q9.7) (I9/Q10.26).

Therefore, through a feedback framework, sharing explicit knowledge and lived experience become omnipresent. In the environment of an organisation, empathy and respect also play an important role regarding feedback.

The second kind of feedback is the feedback regarding the behaviour of an employee which takes place for everyone, even for the top management. However, as mentioned, feedback in general is not an easy issue because it is linked to emotions, especially when an employee obtains feedback regarding their work or person. Many employees are not used to getting positive or negative feedback directly and openly especially new employees, as in the organisation studied in this research. Nevertheless, the findings revealed that all the employees emphasised its importance (I28/Q34.6). As the essence of feedback is improvement, it mostly highlights aspects which are not perfect, and this explains why communication is so important for feedback. Effective communication is built on the doctrine of how to utter and explain something as well as use proper and sensitive vocabularies and arguments (I28/Q34.6) (I26/Q34.7). In this line, the findings revealed that feedback should be guided by respect, arguments, empathy, and the right use of words, so that no ‘fear’ or negative emotion emerges. von Krogh et al. (2000) named such feedback as ‘constructive feedback' (p. 54). Only when guided by the right kind of communication and behavioural setting can feedback be experienced as something valuable and an effective feedback framework be established (I8/Q9.2) (I8/Q9.4) (I26/Q34.7) (I8/Q9.3).

The destructive power of negative emotions has to be highlighted because emotional barriers are the biggest danger to knowledge creation and NDKM. Where emotional barriers do exist, no cooperation or support can take place. Additionally, emotional barriers can poison an organisation and lead to unrest as the famous proverb explains, 'a rotten apple spoils the whole basket'. For an organisation, this means that people start to bad-mouth others, and this inhibits, wittingly or unwittingly, cooperation and can lead to the boycott of work. Such a situation can quickly affect the whole organisation, especially small ones. Therefore, it is vital to preserve low social barriers, good relationships, respect, and so forth.

8.2.2.1.2.3 Consulting framework.

Consulting, or as the organisation calls it, 'corporative consulting' (I16/Q18.8), is the principal factor of support and feedback. This type of consulting takes place in four different forms which are consultant for employee, organisation for employee, employee for organisation, and employee for employees.

The first form of consulting which is consultant for employees is a traditional form of consulting where a consultant is invited to present their insights on a topic. This form of consulting is often used for new and the state of the art technology, methods, or processes and not for the organisation, as will be introduced later in this section. For instance, this type of consulting takes place through a workshop where different employees from different departments are invited to participate (I10/Q11.37) (I11/Q12.32) (I18/Q20.35) (I20/Q22.9) (I24/Q30.21) (I29/Q35.21).

The second form of consulting is provided by the organisation (organisation for employees) and is specifically for employees in new positions. This consulting is important because, as already mentioned, the innovative output of an organisation is best when good relationships are established and maintained because such relationships are essential for explicit knowledge transfer and knowledge creation. An employee, who is in charge of a project team, or a supervisor, coach, or leader sometimes needs consulting on how to improve the relationship and cooperation between colleagues. For instance, this might be important for a new cross-cultural project group where the employee in charge is consulted on how to deal with a multinational team because the wrong communication and teamwork can lead to barriers, which would hinder explicit knowledge and information transfer, thereby also hindering the success of the project. Different programs are provided by the organisation under scrutiny for the employees, and various situations, such as enhancing relationships or understanding different cultural backgrounds, can be opted for by the employees if they wish. It is to be noted that this is consulting and not education because the employees in charge must decide what they will use, where, and how. What is needed for their team to accomplish success is the employees' responsibility, which is strongly linked to autonomy; it is not preset but rather shows the different possibilities which employees can use when they want to, and additionally, the employees in charge are also consulted about the different questions and problems they have. The overall aim of this form of consulting is to provide guidance on how to maintain the very essence of the organisational DNA elements like relationship and communication (Observation/Q40.37).

The consulting form 'employee for organisation' emerged as the organisation realised that only the employees of the organisation are able to fully understand the desires, aims, and fears of the organisation as well as the founder's philosophy. This kind of embedded consulting is about strategy, future orientation, global or local organisational issues, and so forth. This form of consulting emerged because an external consultant never considered the deeply anchored and unique philosophy of the organisation, which led to 'not useful' results.

As the organisation realized this, it began to select some employees with different expertise who were educated by prominent experts and consultants. The aim was that these employees should consult the organisation regarding different questions and problems while considering the very essence of the organisational philosophy. A very important factor to be considered, especially at the beginning of this program, is the relationship between the employee and the consultant. The employee selected the consultant because it was also essential for the organisation that the relationship was perceived as perfect by the employee. At the beginning, the employee and the external consultant frequently held meetings so that through discussions regarding different issues, the consultant's knowledge, processes, and behaviours are transferred to the employee. Later, the 'consultant–employees' met the external consultant only if they needed support for a special or new problem (I16/Q18.8) (I16/Q18.9).

The result of this process is positive in a two-fold way – it considers the very essence, the current problems, and situations of the organisation, which can only be known and fully understood by an employee working in the organisation. Solution approaches are not alien and are pushed through, as done by the other organisations which employ external consultants. Therefore, the new results are in line with the philosophy of the founder and lead to a higher acceptance and contentment among employees. Additionally, this process enhances trust in the organisation, which ensures that everything is done to improve the organisation with respect to the existing foundation and DNA (MEMO: 2014-08-26_21:46:01).

Hence, the above-mentioned reasons were the initial spark for the paradigm change (I16/Q18.8) and the emergence of the consulting form 'employee for employee'. The organisation learnt that each employee could be a consultant because of their work experience, education, hobbies, and so forth. Therefore, the organisation encouraged the employees to consult their colleagues. Through this, the organisation highlighted the vitality of their lived and work experiences (horizon) of the employees and, thus, once again, the importance of the employee. This form of consulting did not arise in the first year, but with the on-going success and development of the organisation, the employees gained highly valuable experience through new situations, organisational growth, and job rotation. Consulting through such lived experiences (horizon) that is always in line with the founder's philosophy improves the quality of work at a very high-level. By means of the already introduced frameworks such as support and feedback, employees can easily request their colleagues for consulting on an issue, project, or new problem (I9/Q10.20) (I11/Q12.21).

Especially for this type of consulting, many elements are needed such as support and relationship, communication, environment, and so forth. For instance, employees take a walk with their colleagues and are consulted regarding a task, new job, presentation, and so forth. Consulting in reality is as simple as it sounds. In another instance, an employee who became a coach and never had managerial responsibility before will approach a coach or leader who is respected for being good to ask for mentoring (i.e. corporative consulting), beyond the coach training provided by the organisation. In such a case, they would meet up once a week and talk about the past week and its happenings. Drawing on the happenings narrated by the employees, the mentor reflects and supports them regarding different questions and maybe even future situations; this is learning through corporative consulting drawn on lived experiences (horizon) (I16/Q18.6).

Such situations occur among all employees, departments, and levels in the organisation and are respected and known as very valuable. Consultation takes place not only wittingly when an employee deliberately asks for it, but also unwittingly when an employee gets consulted during a random conversation with others.

In the organisation under scrutiny, private and business issues are always mixed, but most conversations end in business because the employees like to help and to share their new insights, ideas, or experiences. This leads to a situation where the employees gain new, mostly cutting edge, input and innovative ideas every day, and they can adapt some of the approaches and use them for their own problems, which is a non-deliberate consulting (I21/Q23.26).

This shows once again how important a proper communication framework with the right organisational philosophy (we thinking) is.

The findings revealed that the employees are aware of the different horizons existing within the organisation under scrutiny, and they appreciate the myriad of different perspectives, which draw on different lived experiences and settings (horizon) (I7/Q8.22) (I8/Q9.7) (I8/Q9.22) (I7/Q8.22) (I5/Q6.13).

Cooperative consulting is not only important for sharing information and explicit knowledge, but also for sharing lived experiences so that the employees become prepared for the situations where fragile elements such as relationships or harmony can be quickly harmed and seldom be built up anew. In such cases, experienced managers, who already have had such situations, can be consulted. In case they cannot help, they provide a contact to an employee. For instance, a mediator who is a specialist in such situations can provide the relevant education required to deal with related issues (I16/Q18.6). Therefore, consulting in behavioural or management issues also reduces interpersonal barriers, which are dangerous for knowledge transfer and education. The cooperative consulting is advantageous for the next generation of employees and leads not only to many employees acquiring a high education in their profession, but also to employees with managerial behaviour.

8.2.2.1.3 CF – experiment and failure.

Von Krogh et al. (2000) already showed how important it is to have experiences and failures in an organisation by comparing it with one’s childhood, which allows learning and growing. An organisation which punishes each mistake would lead to an environment of fear and overcautious employees. Both elements are very destructive and are well-known barriers for knowledge creation. Although experts in the current literature acknowledge the importance of experiences and failures, it is not often well received in praxis because failures incur costs for the organisation.

Nevertheless, as the current literature shows, knowledge not only creates successes but also failures (Nonaka & Takeuchi, 1995). A failure is the initial spark for improvement and is often used to find solutions by using processes such as the continuous improving process (CIP) or Six Sigma. This is in line with the findings which elucidated that an organisation should not try to prevent each risk and possible failure but rather provide the space to try new ways and in case a failure occurs, to use it and learn from it, as it allows to gain experience (I29/Q3.5). This section does not argue for the licence to going on mistakes but rather for trying out new ways (i.e. experience) and possibilities.

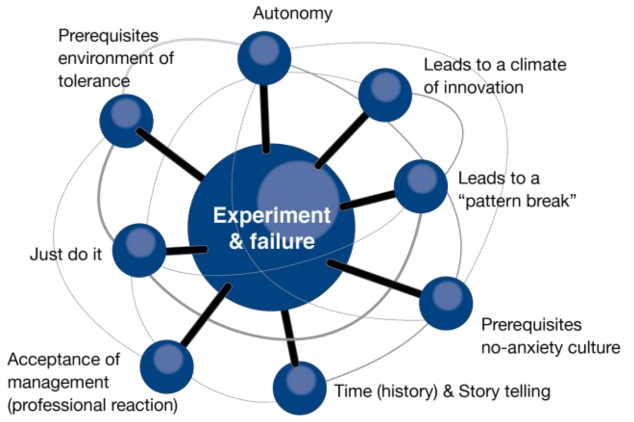

Figure 19. Experiment & failure

As Chauvel and Despres (2000a, p. 261) explain 'fear of abuse' is one of the most common reasons for knowledge retention and, therefore, an 'environment of tolerance' is essential. Only with such an environment is it possible to create a setting where new ways are accepted and with which new knowledge can be created. This is revealed by the interviewees who named their work environment 'indulgent' (I14/Q16.1) and not bound by tradition (I24/Q30.2), which is especially vital for trying out new ways/ideas with the space for failures and mistakes (I23/Q25.1). In this line, the interviewees often compared and explained how the jobs and salaries of their friends were strongly connected to the success of their projects. This leads to pressure inducing anxiety to make mistakes and leads mostly to standard solutions through standard processes to achieve standard outcomes. Hence, it would be justified to blame such an environment as the reason for low innovation (I14/Q16.1). Therefore, the upper echelon of the organisation studied in this research often uses the slogan 'just do it' (Original quote, 'mach einfach') (I9/Q10.6) (I2/Q2.38). Although the slogan might indicate 'just doing it without consultation and discussions', this would never happen because of the 'collective' (see section 8.2.2.1.2). The findings elucidated that the collective is highly valuable for this pattern because it reduces the possibility of making mistakes to a minimum. Because of the collective, the employees discuss their ideas with others to enhance it through reflection so that it is improved at a high-level. Additionally, the vast amount of 'high quality' experience (I1/Q1.42) built over the decades by always trying to be the best with the aim to hold the employees in the organisation positively concurs with the collective and finally also to experiments and knowledge creation. The slogan 'just do it' is bound by responsibility, coordination, and respect towards the organisation to not harm it deliberately (I9/Q10.6) (I1/Q1.42).

Against this backdrop, having an established environment of tolerance combined with an experimental and failure pattern can lead to and provide assurance for knowledge creation because there are no set boundaries for creativity (I22/Q24.35) (I1/Q1.42) (Observation/Q40.20).

Nevertheless, a prerequisite for such an environment is a management which fully accepts this philosophy and reacts very professionally in cases of failures and mistakes; moreover, the communication must draw on arguments and professionalism (I14/Q16.3).

Additionally, it must be understood that there is no perfect organisation (Observation/Q40.20). The foundation stone for such an environment was laid by the founder who showed through his philosophy that no employee must be afraid to take a decision or to try out new ways as long as it is done in a positive way and not to deliberately harm the organisation (see section 8.2.1.3.2). In this regard, history plays an important role because mistakes happen with time and they should be used through the medium of storytelling to teach and show others that the founder's philosophy is not merely a statement, but rather something that is truly lived by and supported by the organisation. Almost all interviewees highlighted a situation where a large amount of money had been invested by two employees without any direct benefit for the organisation (I24/Q30.23). The founder used this incident to highlight what is really important for this organisation and 'infected' all the employees with his philosophy.

The findings revealed that autonomy (discussed in-depth in section 8.2.2.3.2.2, 'Autonomous working') has a strong relationship with experiment and failure. Autonomy in the organisation studied in this research is about finding one's 'own way' to achieve goals (I29/Q3.5) (I2/Q2.38) and, therefore, contains the ingredient of experiment. It paves the path to grow and become an expert and global thinker, which is generously allowed by the organisation (Q9/I10.26) (I2/Q2.38). The employees can try out new ways or approach an external expert to assimilate new knowledge if necessary without discussion or organisational limits or barriers. Therefore, autonomy or rather 'high autonomy' as it takes place in the organisation under scrutiny also contains the element of 'responsibility', which requires one 'to think' first before deciding (I18/Q20.2) (I2/Q2.38).

The combination of high autonomy, responsibility, gaining experience, and possessing tolerance leads to an organisation full of multi-talented employees who are not only experts in their topics, but also experts in managerial thinking, project leading, communication, and so forth. These elements are essential so that the employees can act with responsibility like entrepreneurs normally do, which allows the possibility of taking risks or gaining experience without anxiety (I18/Q20.21). An organisation full of entrepreneurs reduces failures and can reveal an enormous 'drive' (I29/Q3.5) to propel innovation.

In this regard Osmetz et al. (2014) discussed an interesting issue regarding experiments and managers. Managers normally use well-known strategies to achieve the highest efficiency possible to prevent 'unpleasant surprises' (Osmetz, Kaduk, Hammer, Schaller, & Wüthrich, 2014). This behaviour is not only a management issue, but also a social one. The authors recommended that instead of always doing the same and waiting until something does not work anymore, an organisation should start experiments and assimilate new knowledge so they can survive extreme situations better such as the collapse of a market. Therefore, an organisation needs a manager who is a 'pattern breaker' (*Musterbrecher*) (Osmetz et al., 2014, p. 6) to scrutinise existing strategies and who is open to trying new approaches (experiment) (Osmetz et al., 2014).

The employees perceive the existing environment as very positive because they see it as an environment of change or rather as an environment where change is desired, which allows a 'climate of innovation' (I28/Q34.4) (I18/Q20.21) (I29/Q35.1).

It is an environment which encourages the search for solutions, new ways, and innovations (I7/Q8.1). But this section will not merely glorify the introduced environment, but also show that such an environment can also lead to an excessively tolerant environment (I14/Q16.3). In this regard, the employees appreciate having such an environment, but they also criticise others who overstep the tolerance accorded by the organisation, which finally leads to social interaction barriers. Moreover, seeing how others exhaust such an opportunity given by the organisation also evokes negative emotions of other employees. This situation is also strongly linked to the size of an organisation. The bigger an organisation is, the 'less obvious' the mistakes are, and this leads to instances of not improving first by the dint of the collective.

Such an established pattern in an organisation which leads to a situation of almost there being no borders and limits (I28/Q34.2) regarding creativity, combined with the previously introduced elements of the 'Five General Patterns', motivates and inspires employees to improve processes and products. Doing this permanently leads to astonishing solutions because each employee can combine different experiences, situations, and disciplines (I24/Q30.2).

The presence of the role model function regarding the SFC framework or 'infection' (Interview transcribed/Q42.2) is quite interesting and already has been introduced in the founder's philosophy. All employees who experienced the value of the pattern to 'try new ideas out' or to gain experience also handed over the same possibility they obtained. They wanted to support and provide the space if an employee is keen to try to go on a new path with the aim of improvement. 'Trying out' (experiment) not merely means attempting innovative methods for problem-solving in one's own business or area. For instance, the employees get invited to projects when it is known that they want to gain new experiences and have new ideas. They get a task, which they are interested in, so that they can try to solve the problem and bring completely new ideas, which are then discussed and considered valuable by everyone (I4/Q5.32).

8.2.2.2 Knowledge strategy.

The term 'knowledge' is often mentioned as important in different strategies and highlighted as *the* success factor for the future an organisation. Knowledge as one of the strategic pillars of an organisational strategy is indeed vital (I18/Q20.10) because it sensitises the organisation regarding knowledge and its importance. However, 'knowledge' as a strategic pillar is not good enough to establish a NDKM because it mostly only involves the kind of knowledge that might be important for the future of an organisation. The findings revealed that a knowledge strategy regarding NDKM must focus first and foremost on the carrier and creator of knowledge, which is the human being or, to be more precise, on the employees and customers as well as on the meaning of knowledge for the organisation in the context of this research. Being aware of the importance of these elements allows the high intensity and top-level creation of knowledge. Although the knowledge strategy of this research is given through the outcome, it is important to mention the issue strategy at this stage because it is an essential element of the pattern ‘basic setting’.

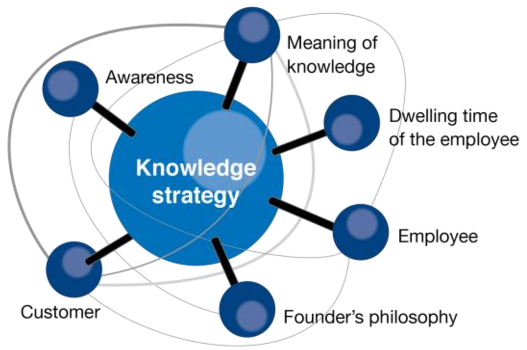

Figure 20. Knowledge strategy

For the NDKM strategy, employees and customers are not two separate parts, but rather two sides of the same coin. Combining both the parts leads to a valuable symbiosis where the one triggers or inspires new ideas while the other create these ideas into new knowledge. This symbiosis can be compared with the well-known supply and demand concept in economics. Without customers and their needs, an organisation will not be able to survive, and without employees, an organisation is an empty shell and will not be able to provide products or innovations to the customers. Moreover, the customers are an important trigger for organisations to create innovations; therefore, it is important to get the customers on board and consider them an essential part of NDKM, which is more or less possible depending on the products.

The meaning and understanding of knowledge for an organisation is also important for the employees because it triggers awareness and inspires and teaches employees about what the knowledge strategy is. In this regard, understanding the meaning of knowledge does not contain re-defining the essence of knowledge because this would be an ‘unproductive discussion’ (Davenport & Probst, 2002, p. 27) and not valuable for the organisation.

Awareness especially is often underestimated, but it is the first step to ‘to make aware’ that; for instance, in this case, knowledge creation is important. Knowledge is already and often recognised as the power and competitive advantage of an organisation. Against this backdrop, many organisations have invested a lot of money to implement, for instance, traditional KM, communication techniques, or to buy new knowledge in the form of consultation or new employees. This is a way to enhance knowledge, but it is also very isolated because knowledge is only created in the places where the organisations do allow it or have planned it. In this regard, traditional KM is very time- and cost-intensive and its efficiency is questionable. Traditional KM builds on interviews, databases where knowledge is stored, and so forth; in short, it is a path or plan about how and when knowledge has to be created. The findings showed that knowledge creation cannot be planned. It may take place in a discussion, while riding the bike home after work, while indulging in hobbies or even while reading a book in the evening. Creating knowledge is highly subjective, which cannot follow a plan.

This shows that instead of investing in isolated systems like traditional KM, it is better to build an environment with basic conditions so that the management and creation of knowledge can take place at any time.

In this regard, it is useful to quote Senge’s (2002) insight that KM is ‘an awkward term’ (Senge, 2002b, p. 56) because knowledge cannot be managed, but an organisation can provide an environment, which allows the creation of knowledge. Instead of investing in isolated systems like traditional KM, it is much better to invest in the organisation because it is an investment for all, which will survive, and it allows creating knowledge at any place and in any department in the organisation.

The findings of this research show that NDKM is about to be informal, to support, to consult, to sit together, to improve together, and so forth. The very basic essence of all these activities is 'sharing' information, insights, experiences, ideas, and so forth not only within the organisation but also with the customers. This is in line with the slogan of the organisation under scrutiny 'knowledge is for sharing' (I18/Q20.10), which highlights that knowledge is not only a power but also communal in nature. The power of sharing knowledge is shown by dint of marketing and is presented through, for instance, 'micro websites' or workshops, where the organisational knowledge is shared with the aim to show the customer how they can do their job better when they use the product of the organisation. The idea behind this slogan is not only to provide products but also to provide knowledge so that customers can improve their work, and thereby the organisation teaches its customers. Additionally, this is not done by employees but by true and knowledgeable external experts who explain and talk about different issues (I18/Q20.10). This has a very strong impact on customer retention and allows the organisation, through the customer ideas and problems, to create new products and innovations; it also represents the knowledge circle of the customers and employees.

The focus on the employees and customers regarding the knowledge strategy leads to the question of how the organisation can improve its setting or situation so that the employees can assimilate and create better knowledge. Asking and working permanently on this question with the whole organisation automatically leads to solutions, which pushes the organisation in the right direction regarding NDKM. This push into the right direction is only possible drawing on the DNA elements introduced earlier in this research. These elements contain a very communicative community filled with respect and the aim to improve the organisation to a top level as a team (we thinking).

The findings elucidated many elements which are mostly and not directly linked to KM or a knowledge strategy, but are, in fact, very important for NDKM, investigated in this research.

For instance, the founder’s philosophy reduces the barriers in the organisation under scrutiny to a minimum, which is important to strengthen the bond among the employees and to enhance the sharing and transfer of knowledge and information. This also shows, once again, why the founder’s philosophy is vital to establish an environment appropriate for knowledge creation without deliberate KM. To recapitulate, the founder’s philosophy contains elements such as trust, respect, communication and approaches, relationships, fun, and so forth. All the elements are recognised as highly valuable and important for knowledge creation as for the transfer, distribution, and assimilation of knowledge, and so forth (in short for KM) because it reduces barriers between individuals (i.e. employees and customers). Low barriers are necessary if a high knowledge and information transfer from the inside of the organisation to the outside and vice versa is to happen because it allows having many good and valuable relationships with different customers (network). This is also in line with the findings of Un and Cuervo-Cazurra (2004), who elucidated through their research that social interaction (relationship, networking) is essential for sharing, transferring, and creating knowledge.

The strategy of retaining the employees for as long as possible (dwelling time) in the organisation is also very vital. The organisation’s aim is to grow not only by the business turnover, but also by providing career possibilities for those employees who have the strong wish to make a career for themselves in the organisation. Employees who have worked in different positions over decades with different experiences is very vital for the collective.

To conclude, the elements introduced above are only some of the many strategies that are important for knowledge creation without deliberate KM. As mentioned earlier, the strategy for NDKM is given by outcome of this research.

8.2.2.3 Organisational development.

In the last few decades, it has often been mentioned in the literature that different elements such as ‘information technology’ or ‘business process engineering’ the are forerunners of KM. However, the discussion in this section will elucidate that organisational development (OD), shaped by the founder’s philosophy, along with different elements such as the collective, are *the* fundamental element to enhance and preserve NDKM, especially when an organisation grows. It can be compared with a life-supporting system for knowledge creation without deliberate KM.

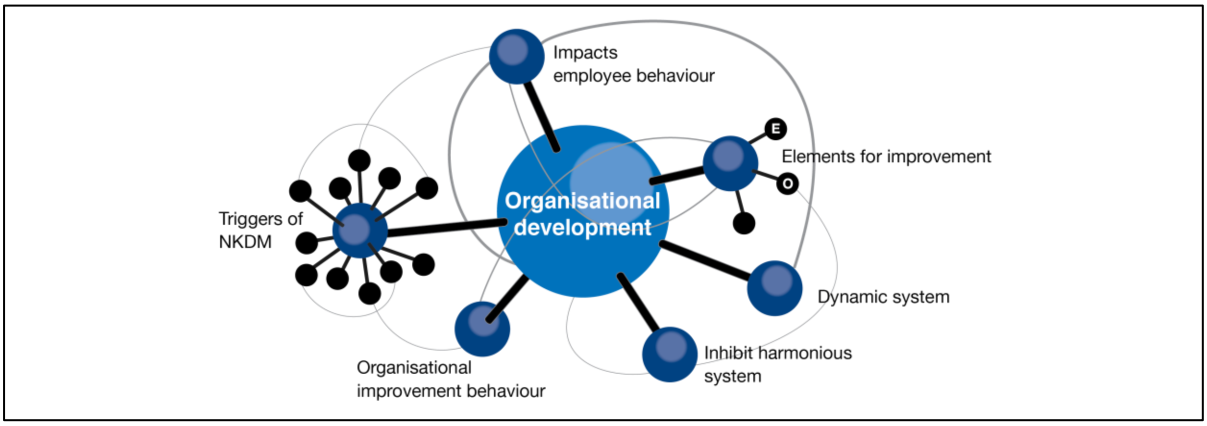

Figure 21. Organisational development

E = Employee; O = Organisation.

It is important to stress that the understanding of OD, like culture, must change to unfold its full power. OD in an organisation is often understood as a particular department, which focusses solely on the accomplishment of different projects, defined by the top management, to change or improve an organisation. A small poll undertaken by the researcher with random people underpins this statement and shows that OD is sometimes condemned as a purely theoretical issue, not necessary or helpful, isolated from practice and therefore considered worthless.

The findings revealed that instead of limiting OD to a department, it should be considered as a holistic organisational issue or, rather, as a dynamic system where the employees are invited by the organisation to improve the organisation and the environment as a unit (employee and organisation) and autonomously as an individual to bring in ideas and to better the organisation (I27/Q33.4). Therefore, even if there is an OD department for implementing different projects and improving the organisation, the whole organisation should have the possibility of developing by proactive and autonomous working employees. It would be superior to have every employee working towards the improvement of the organisation than a few or an OD department working for the same goal.

In the organisation under scrutiny, the employees do not need to ask for permission or to sign authorisations before they can start with a project for improvement; instead, they briefly discuss the issue with their coach and then commence. This again shows the positive impact of the possibility of working autonomously. Therefore, OD is an organisational and employee related issue; the organisation sets low barriers so that employees can start projects they see as valuable or interesting for the organisation (I18/Q20.5).

Both OD and culture are essential for NDKM and go hand in hand; therefore, they are fundamental elements of this research. At the beginning of the ‘Culture framework’ section, it was explained how important a sound culture is for NDKM. As a reminder, similarly to OD, organisational culture needs the bi-polar interaction of the employees and the upper echelons (i.e. top management). The upper echelon defines and teaches values (founder’s philosophy) which have an impact on the behaviour of the employees (culture) and can finally lead to a high level of knowledge creation. It echoes the importance of Berger and Luckmann’s (1966) objective reality introduced at the beginning of this discussion. However, the values defined by the upper echelon not only have an impact on the employee's behaviour, but also act back on the upper echelon because the employees show by way of their passion how they appreciate these values, which resonates with Berger and Luckmann's (1966) dialectical process.

In this regard, Kruse (2007) perfectly explained that culture is not a thing, and, therefore, a wished culture can not be easily created by implementing different elements such as an open architecture or processes because it is an indirect variable. An indirect variable is an emergent, which is not fixed and contains different values and triggers.

Therefore, the development and improvement (i.e. change) of an organisation has an impact on the employee's behaviour, which explains why OD and culture go hand in hand. To achieve a wished behaviour, suitable for NDKM, the triggers, which has an impact on the employees, must be developed and implemented by the organisation so that a wished for culture could be established.

Hüther (2013a) explains in this regard that a society (culture) can only change (development, improvement) if those who create the society (i.e. the employees) are changing. Interpreting this sentence shows that the employees are not only the reason for a culture, but also the main protagonists of changing it. The discussion about change in this section is not intended to confuse. It was elucidated in section 8.2.1 (DNA – the founder's philosophy) how difficult it is to change an existing culture towards a suitable culture for NDKM. The change mentioned in this section is about the on-going improvement of an existing and suitable culture and organisation for NDKM. In this regard, the upper echelon defines the general conditions on a meta-level and the employees bring up new ideas, improvements, or solutions regarding an organisational problem (micro-level).

The discussion so far shows the complexity of this topic because many elements must be interwoven so that NDKM can emerge. If the employees have the possibility to proactively and autonomously improve and work on ‘their’ environment, it finally will have an impact on the society (culture). This is possible on different high-level elements such as communication, relationship, profession, and so forth and must take place and be anchored within the organisation in a certain way.

Kruse (2007) highlighted in an interview that it is essential to inhibit harmonious systems in order improve organisations. A harmonious system emerges when the employees can only follow defined rules and processes like in organisations with a strong hierarchy where autonomous working is mostly banned. In fact, using established and stable systems for the improvement of already existing strategies is what mankind is used to doing (Kruse, 2015). However, harmonious systems lack the elements of diversity, irritation, and confrontation or as Kruse (2015) called it ‘instability’ and also inhibit communication across the organisation. Lateral thinkers, who are important for an intelligent system, have no possibility of bringing in and discussing ideas or leading to provocation in such a setting. To create knowledge or to be creative at a high-level, it is important to allow individuals within an organisation to distract (approach) others with different ideas and problems (Kruse, 2007). Disorder is essential for improvement to take place (Original quote, ‘Störung ist […] die notwendige Voraussetzung für das Entstehen neuer Ordnung’) (Kruse, 2015, p. 53). Polanyi’s (1966/2009) explanation of reaching the peak of a pyramid, shown through the example that a new process must take place so that the peak of a pyramid can be reached, underpins the vitality of provocation and diversity (lateral thinkers). Diversity and provocation interrupts harmony, which can lead to a new process (knowledge creation) and only by means of a new process is the next level (e.g. a pyramid) reachable.

Therefore, even if there are process managers or OD managers, each employee should be encouraged to bring in ideas or solutions so that improvement can take place. Such behaviour, named by the researcher as improvement behaviour (i.e. culture), must also be developed and taught (cultured).

Although organisational development is essential for knowledge creation, an organisation has to be aware that too much development can lead to a new barrier (I19/Q21.1) because employees need time to get used to the new processes or developments after implementation. If too many new developments follow, it can lead to dissatisfaction arising from the excessive stress on the employees, which is a negative emotion against the organisation, and finally hinders and diminishes knowledge creation.

8.2.2.3.1 OD – elements of improvement.

If it is found that a defined behaviour is essential for NDKM, an organisation must frequently focus on its development and improvement. It is important because not only to be innovative, but also because behaviour (i.e. culture) is a very fragile element. In this regard, ‘all socially constructed universes change’ (Berger & Luckmann, 1966, p. 116) and social change always draws on the behaviour and action of employees. The actions and behaviour of an employee must be guided so that a suitable culture for NDKM can be created. This discussion has some roots in section 8.2.2.1, ‘Cultural framework’ and the discussion about the ‘loss of identity’. Kirchner (2012) discussed the issue of organisational identity in his book *Who are we as an organisation* (German Title, Wer sind wir als Organisation) and elucidated that in certain situations there have to be ‘identity workers’, who are members who work on the identity of the organisation so that the organisation does not deviate too much from its very core and essence, which is the founder’s philosophy in this research (Kirchner, 2012). Such deviation or loss of identity leads to barriers that inhibit NDKM, and this emphasises the importance of OD.

Understanding the elements of improvement is especially vital for organisational growth because it frequently takes into account not only the needs and problems of the employees, but also the management, as it often happens in other blue-chip companies. It allows the understanding of the employees and their behaviour, which lead to grasping the possible triggers important to improve and establish a desired behaviour and culture. This power should not be underestimated because it enhances satisfaction, passion, cooperation, and trust in the company. It is obvious that the traits named have an impact on the sharing of information and knowledge.

In this regard, the findings elucidated three elements vital for establishing an improvement culture, namely ‘analysing process’, ‘the employees’, and the ‘focus areas for improvement’ (see Figure 22).

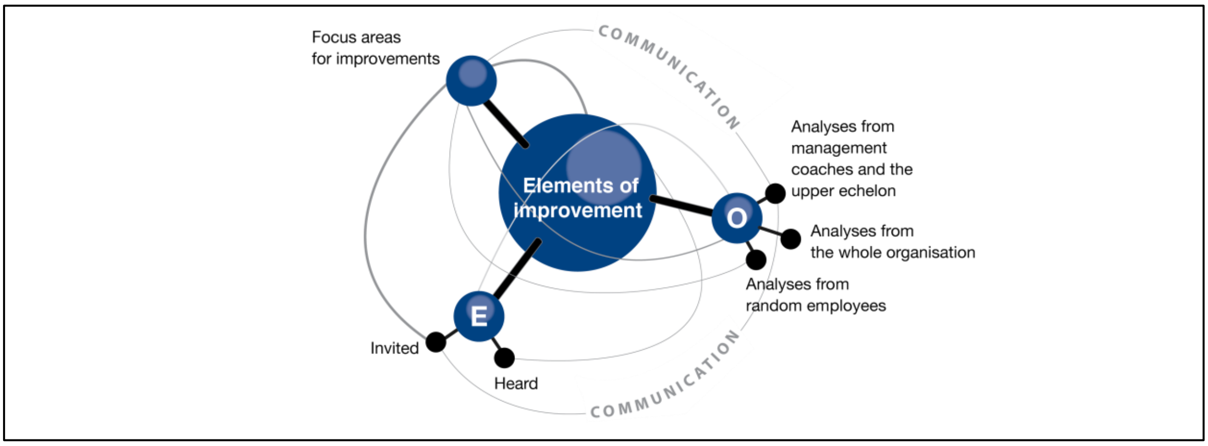

Figure 22. Elements of improvement

O = Organisation; E = Employee; the elements are interwoven and communication is especially important.

First, it is important to stress that communication is not only important for knowledge creation but also for organisational development because conversation ‘takes place against the background of a world’ (Berger & Luckmann, 1966, p. 152). Although Berger and Luckmann (1966) applied this quote to the current and general reality of conversation partners, which has impact on the content of a conversation; in this research their concept is enhanced with the idea that the reality (or world) of a conversation partner is highly influenced by the behaviour of others. The behaviour and action of others (i.e. culture) has an impact on the employee and reveals emotions useful or dangerous for knowledge creation and its NDKM, which are displayed in conversations. Emotions such as respect, disrespect, satisfaction, arrogance, trust, and so forth are expressed by means of certain behaviours and uses of expression, which also have an impact on how a member of a society, in this case an employee, recognises the reality.

In this regard, communication objectifies one's background (Berger & Luckmann, 1966) (i.e. emotion) and reflects a certain culture. Communication can be considered as a mirror, which displays reality. It is worth emphasising that communication is also represented as a fundamental element for this issue, as it is for the founder's philosophy. It shows that communication is not only important for transferring information, but also for building a setting so that high-level knowledge creation is possible. This discussion regarding communication can be linked to the issue's inner picture (Hüther, 2013c), explained further later in this section.

The defined elements shown in the drawing (see Figure 22) also use communication to analyse and objectify the 'intangible'. Such analyses, in the form of workshops, contain casual conversations; therefore, one also re-interprets past casual conversation to describe and objectify the existing culture, experience, and emotions.

The element 'Analysis from random employees' contains a unique process especially developed by the organisation under scrutiny to randomly select actors from the organisation for a workshop, which reflects how the employees perceive the organisation. As this relates to behaviour, actions, feelings, and emotions, this analysis is about the culture of the organisation. This not only paints a picture of the culture but can also be used as a barometer to check if the building blocks of DNA (i.e. the founder's philosophy) are still retained in the organisation. This process is not something that is done frequently because, as explained, a culture is an emergent and cannot be developed. It emerges ‘non-deliberately’, and time is important so that a culture can emerge.

The idea behind this process is not only brilliant but also understandable, if one understands what culture is about. If culture is a picture painted by the employees, it is also important to use a random and not a fixed mix of employees to ensure that the employees do not paint a false picture of culture. Therefore, this specially developed process allows for gathering employees with different cultural backgrounds, education, and jobs, which leads to a group with top-managers, kitchen workers, sales managers, receptionists, and so forth. Such a varied mixture of employees best represents the whole organisation and recognises the multitude of individualism. Many managers of the organisation studied in this research did not like this approach at the beginning because they did not understand what the benefit of the inclusion of a kitchen worker or a cleaner might be for such an analysis.

In order to analyse a society with multiple individuals, each employee’s perspective has to be considered to get a complete picture of the organisation. This basic thought resonates with the hermeneutic process and its concept of the part and whole (Gadamer, 2010), which is a process that uses different perspectives to interpret and to paint a picture of a phenomenon. For better clarity, let us imagine that each perspective of an employee is an element of a puzzle. With a single part, one will not able to explain what the picture might be about (e.g. culture), but putting together all the individual parts of the puzzle will finally reveal the whole picture. Additionally, Berger and Luckmann (1966) perfectly explained in already-mentioned quote that ‘What is “real” to a Tibetan monk may not be “real” to an American businessman’ (p. 3). This quote also shows the inner-subjective world, which exists in each society and explains, in a nutshell, that the reality a person considers as real is always different from another person and draws on the concept called horizon (Gadamer, 2010). To recapitulate, a horizon can be seen as a circle defined and filled through education, culture (family, country), lived experiences, and so forth, which make a person unique (individual).

This short introduction shows why the unique process is vital. After successfully accomplishing the workshop and showing the results to the managers who initially criticised the process, the results changed the minds of the managers.

The element ‘analyses from management, coaches and the upper echelon’ is an annual workshop where the management staff paints their current picture of the organisation. They discuss as well as analyse what has to be preserved, improved or pushed with regard to their opinion which always reflects the founder’s philosophy. The interviewees highlighted the statement from the workshop that ‘on this we have to pay attention that we do not lose it (i.e. culture element) and that we can preserve it’ (Original quote: ‘Da müssen wir schauen, dass das nicht verloren geht, dass das bewahrt bleibt’) (I27/Q33.4).

The element ‘analyses from the whole organisation’ draws on different external awards and internal projects. It is about the feedback from each employee, which is taken very seriously by the organisation and can lead to a multitude of new improvement triggers.

For instance, the organisation frequently attends official competitions such as the worldwide and well-known ‘best working place’ competition, where a lot of organisations get tested. The organisation under scrutiny won the competition several times because they used the received analysis to actually improve the organisation. Additionally, the organisation also undertakes internal analyses like the aforementioned satisfaction poll or the ‘information fishing’ poll, another very prominent conduction, which is about how to improve the information transfer and search within the organisation with the focus on the employees (I4/Q5.39). All the findings are used to improve the organisation significantly. It is worth emphasising that using the ‘feedback’ from the employees to improve the environment is also a form of ‘recognition of individualism’ (see section 8.2.2.3.2.8) or showing respect to the employees as being the most valuable asset of the organisation (employee focus), which will in turn have an essential effect on how the employees respect and see the organisation that highly influences the emotions of the employees, as pre-existing emotions are the most difficult barriers to remove or the most valuable triggers for building relationships and knowledge transfer.

Different actions are defined based on the analyses and such statements, which lead to the element ‘focus areas for improvement’. For instance, a focus area might be something ‘small’ elucidated by way of a poll from the whole organisation, such as improving the information data base, or a bigger project such as conducting several cultural workshops with the whole organisation to bring the founder’s philosophy, which has a major impact on the behaviour within the organisation, closer to the employees again (I27/Q33.4). This example is in line with Berger and Luckman’s (1966) statement that a society will change, and it emphasises the importance of OD. A random discussion with an interviewee (I24), who is biologist and in charge of organisational analysis and improvement, similarly indicates that if guided by the right values, OD definitely plays a key role for knowledge creation because it reduces interpersonal barriers.

The improvement process is a dynamic one because the employees can also bring in their ideas and their concerns (I27/33.4). The employees are invited to share their views and are heard. It is to be noted that developing, transporting, and preserving values, which draw on the founder’s philosophy, must be a recurring and vital process. Culture can change and NDKM is about a special culture filled with the artless KM elements.

8.2.2.3.2 OD – triggers for NDKM.

NDKM, which draws on a certain behaviour, is an emergent and requires different triggers (Kruse, 2007). Beside the patterns already introduced in this research, such as the founder’s philosophy, eleven additional triggers have been identified that enhance or reduce knowledge creation with NDKM. Although some of the triggers are not considered as an NDKM issue in the first line, such as growth (strategy), they have a vital impact on NDKM.

However, understanding the importance of the symbioses between organisation (provider) and employee (convertor) is vital to build and achieve a sustainable and well working NDKM system. Employees aligned with the founder's philosophy who consider improving the organisation to be their task (behaviour) along with the organisation, which focusses on supporting their employees as well as allowing them to change and to try out something new (experiment), leads to a complex, but intelligent system that draws on a dialectical process.

In this regard and for the sake of clarity, it is worth mentioning the issue of autopoesis, which has often been used in regard to knowledge creation and KM (Bourgine & Stewart, 2004; Jelavic, 2011; Johannessen et al., 2002; Kay & Cecez-Kecmanovic; Nonaka & Takeuchi, 1995). Autopoesis, in a nutshell, is described as a self-creating and self-maintaining living system (e.g. cell), and on the surface, this concept also resonates with the findings of this research. Stacey (2001) used the insights from Maturana and Varela's (1992) magnus opus *Autopoesis and cognition* for their work *Complex Responsive Processes in Organizations: Learning and Knowledge* and discussed in-depth why autopoesis is not suitable and found it 'inappropriate' (p. 236) to use it as an analogy for knowledge creation or KM. The most important reason why autopoesis is not an appropriate analogy is because the identity of an autopoetic system cannot be transformed; it is not a dialectical process (Stacey, 2001) and therefore, not in line with this research. To recapitulate, this research considers knowledge creation to be socially constructed, which explains that the individual's knowledge and mind reacts and grows with social interaction and allows the melding of the different horizons (i.e. lived experience). To superficially explain, this process automatically leads to the transformation of one person and knowledge and affects others in the society (melting of horizon), which also reflects back on the sender. This essentially represents, Gadamer's (2010) concept of the fusion of horizons and Berger and Luckmann's (1966) dialectical process. Against this backdrop, this might also be the reason why the knowledge creation process of Nonaka and Takeuchi (1995) is often described as a knowledge creation spiral and not as a knowledge creation circle; knowledge creation is a dialectical process.

Despite this criticism, basic elements of the autopoesis concept are used as an inspiration for this research. Knowledge in this research is, as mentioned, socially constructed through individuals (i.e. a living complex system). Therefore, an organisation can also be interpreted, albeit metaphorically, as a living system.

Additionally, a kind of a self-creating and self-maintaining system must also take place for NDKM. Knowledge creation and its NDKM are emergents, and therefore, the organisation needs triggers, which have an impact on the employee behaviour to allow new knowledge to emerge (output). In this regard, the findings elucidated a multitude of triggers as depicted in Figure 23.

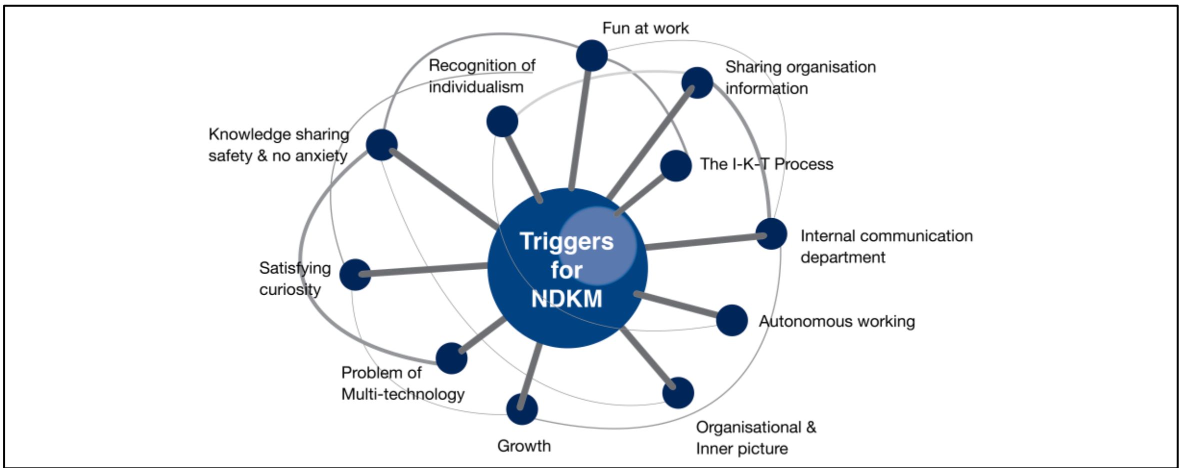

Figure 23. Triggers for NDKM and its interwoven elements

8.2.2.3.2.1 Internal communication department.

The organisation has created a department for internal communication, which only focusses on how communication among the employees can be improved and supported. The department creates places, concepts, and events, and additionally supports and consults regarding the topic of communication. This also contains elements that must be considered during a presentation with a multi-cultural audience so that the information can be transported most effectively (I8/Q9.13). This enhances communication, discussions, and knowledge creation and finally leads to a certain behaviour that supports relationship building and is essential for NDKM.

Implementing a communication department merely to improve internal communication shows the importance of the top management (top-down approach) because the top management decides whether one will be implemented or not.

8.2.2.3.2.2 Autonomous working.

Another important trigger that is mentioned several times in this research is autonomous working, which has been linked by Nonaka and Takeuchi (1995) to autopoiesis. In the organisation under scrutiny, every employee, even the young ones, gets interesting projects to oversee, which presumes autonomous working and responsibility (I8/Q9.10). Although autonomous working sounds great because employees can decide which way they will accomplish a goal, it is not a playground for employees wherein they can do whatever they want. In this regard, an interviewee who is a learned sociologist has quoted French philosopher Derrida and argued that ‘there is no outside text’ (I8/Q9.10). In this manner, the interviewee has explained that the same elements such as structures or rules exist in every organisation. The difference lies in the way the elements are used and experienced, for instance, in establishing a strong or flat hierarchy (I8/Q9.10). Therefore, although high autonomy and responsibility are prevalent, exact and defined rules and aims also exist; autonomous working is thus not a playground. It is noteworthy that the previously introduced pattern ‘The collective’ (see section 8.2.2.1.2 CF – the collective – ‘support, feedback and consulting') plays an important role in the organisation of this research because it strongly supports autonomous working and guides employees.

Kaltenecker (2016) underpins the previous discussion about rules and aims in this regard and argues in his book *Selbsorganisierte Teams führen* (leading autonomous teams) that autonomous teams (i.e. autonomous working) need to define general conditions that are paired with freedom for self-organisation and making decisions. Kaltenecker perfectly exemplifies this with the case of a soccer team. The coach (leader) of a soccer team defines the general conditions to show the way to go. The way is wide like a highway, and the employees can work autonomously and be creative within this highway. This is important because the players (employees) must be able to make decisions on the field that are appropriate for the different situations that emerge during a game (Kaltenecker, 2016).

Although the possibility to work autonomously is guided and bound by the general conditions, the employees can gain experience and learn (creating knowledge) to make decisions and to bear responsibility. Drawing on this experience, employees can grow, gain new experiences, and create new knowledge. This is important with respect to many issues discussed in this research because autonomous working allows work to become an adventure and enables employees to be creative, gain experience, grow, and so on (I20/Q22.36). The findings have revealed that the organisation under scrutiny in this research strongly supports the employees so that they can gain experience, improve their skills, and create new knowledge (I22/Q24.35) (I28/Q34.18). Knowledge created by dint of experience is the most important treasure an individual can obtain, because experience can be used for the same, a similar, or a different situation; additionally, it can be shared or accumulated along with other experiences (Hüther, 2013a).

It is worth highlighting here the already-introduced 'pattern breaker' (Osmetz et al., 2014), who is a person who tries new ways out by breaking patterns of routines and activities.

Instead of linking the ‘pattern breaker’ only with the position of a manager or leader, as Osmetz et al. (2014) have done, each employee must have the permission and possibility to be a pattern breaker because, as shown in the organisation under scrutiny; this not only enhances ideas and knowledge creation but also enhances trust among the employees (reduces barriers). An organisation with proactive workers who are pattern breakers (autonomy working) can be an essential platform for creativity (I5/Q6.1). Employees certainly need to have enough passion for their work to handle such a working philosophy, because there is no one who shows the exact direction to go (I5/Q6.1). This discussion aligns with Polanyi’s (1966/2009) insights that showed how to reach the peak of a pyramid (e.g. the aim to be on the edge), which draw on different solutions (i.e. new ways, new processes, broken patterns) and finally lead to improvement and the creation of new knowledge.

However, autonomous working also enhances the chances to survive in business, and can be compared to daily life. An adult has higher survival chances than a child would have if both were exposed to no man’s land. Therefore, if employees can accumulate different experiences and knowledge, they are more equipped, because of autonomous working, to decide correctly in difficult situations than someone without any experience. This behaviour is also well known as ‘routine’.

Hence, experience emerges through different challenges (autonomy in working), and this leads to different thinking processes and perspectives (Hüther, 2013a). As mentioned already, such experience (i.e. knowing how) is especially valuable when situations in the market are changing (Hüther, 2013a), because it enables foreseeing, understanding, and solving different problems. Kruse (2015) corroborates this and infers similarly that ‘the deliberate generation of instability preserves innovation within an organisation and widely helps to avoid critical situations for an organisation’ (Original quote in German, ‘Das bewusste Erzeugen von Instabilität erhalt die Innovationskraft in Unternehmen und hilft, krisenhafte Entwicklungen weitgehend zu vermeiden') (p. 81).

Autonomous working is an essential element not only for innovation but also for NDKM, and it shows a link between these two elements. As will be introduced later in this research, autonomous working that enhances proactive working also has a strong connection with passion. Passion, as will be introduced in the last section, significantly impacts the non-deliberate management of knowledge because employees actively search and share knowledge or participate in the projects that they are interested in and thus enhance the possibility of innovation.

The previous discussion, especially the phrase 'instability preserves innovation' that also reflects the issue of the 'pattern breaker' mentioned above, does not diminish the importance of routines but rather explains that the elements go hand in hand. It is worth emphasising that routines are essential for an organisation; but in addition to this, the awareness to be a pattern breaker and the possibility to work autonomously are also essential. Without routine, no pattern breaking would be possible.

Nevertheless, it is notable that autonomous working is not always possible because too many factors have an impact on its success, such as behaviour (culture), leadership, position, type of employee, level of education, type of products, and so on. As mentioned at the beginning of this section, autonomous working strongly appeals to many managers and employees, but the employees cannot always handle the freedom and responsibility to make decisions which come with autonomy. This is because most of the employees are used to getting clear-cut tasks and a precisely defined process for how a task is to be accomplished. This obviously does not exist within a very dynamic and autonomous working organisation (I12/Q13.1). If an employee can handle the situation for making decisions, it is indeed very valuable (I20/Q22.36), but if not, it would lead to a new barrier. This fact also highlights why it is essential to have the founder's philosophy from the very outset. Every new employee would be tested and engaged by dint of a criteria's importance, for instance, for autonomous working that finally leads to an organisation full of autonomous working employees (power). Additionally, having the freedom to work autonomously also has a positive impact on *stress*. The findings highlight that because of the possibility of autonomous working, employees can plan their day as they see fit, which also enhances fun at work and reduces, as mentioned, stress. Even when the employees have stress, they call it 'positive stress' (I16/Q18.2). Stress is an element that significantly prevents or reduces knowledge creation or its non-deliberate management because employees under pressure (negative stress) do not have the freedom to reflect or assimilate new information and knowledge so that new knowledge can be created at a high level. Imagining how we talk or think when we are in a hurry (negative stress) as compared to a discussion within a defined length of time clearly exemplifies that the former leads to many barriers and the latter, although strenuous, will be more productive.

Thus, as the findings have elucidated and in this researcher's opinion, the most valuable trigger for a NDKM system is when the right elements that have an impact on employees' behaviour have been implemented from the outset (i.e. the founder's philosophy). As highlighted at the beginning of this section, the employees' behaviour shows the culture of an organisation. This insight is also in line with Kaltenecker (2016) who argues that the success of autonomous working teams mainly depends on the culture of an organisation. Kaltenecker (2016) presents several examples of management failures under the heading 'Culture eats agile for breakfast' (p. 64) where the author clearly shows that the failure of autonomy within an organisation draws on the return to past managerial behaviour. Additionally, the examples underpin the importance of leadership and the right organisational DNA (the founder's philosophy) and are also strongly linked to the discussion 'trust in the organisation' introduced in the section 8.2.1, 'DNA – the founder's philosophy'.

If an organisation defines general conditions like the possibility of their employees making decisions or working autonomously and then retools back to a strong hierarchy, the organisation is not sticking to what they teach and promise, which negatively affects trust and subsequently also knowledge creation and its non-deliberate management.

8.2.2.3.2.3 Organisational aim and inner picture.

Between the defined organisational aims and knowledge creation is a strong symbiosis that draws upon a dialectical process. A communicated organisational aim triggers thinking and ideas for each employee. Through a dynamic self-creating and self-maintaining environment filled with autonomous and proactive working employees, the organisation develops itself at a very high level because the whole organisation focusses on the same aim. An organisational aim not only triggers thinking but also brings employees together, which is important for NDKM and its elements like knowledge distribution, searching, and knowledge sharing. Lawton (2002) astutely observes in this regard that a community exists if a common aim or concern exists.

Through the mentioned combination of a dynamic self-maintaining system and aims, a dialectical process can take place. The aim triggers ideas and allows the employees to search for and implement ideas. Each improvement affects the employees and triggers new ideas and new aims (the product acts back on its producer); it is an upward spiral that finally leads to the expert level.

This discussion echoes that of Hüther (2013c), who introduced ‘the power of inner pictures’. Inner pictures influence the thoughts, feelings, and decisions of man and can be linked to culture and behaviour. It may not be visible at first glance, but having a clear picture that draws on the values of the founder might be the ideal springboard for NDKM within an organisation. The difficulty of the coexistence of men, which derives from social interaction, is not difficult because of the human being per se, but because of the different inner pictures (i.e. beliefs, conceptions, and convictions of a man) that exist within an organisation (Hüther, 2013c). This underpins the significance of having a single picture (i.e. an organisational aim). In this research, the founder of the organisation shared his inner picture with others, which is the reason for the unique setting of the organisation under scrutiny – the sharing of inner pictures presumes communication (Hüther, 2013c). It to be emphasised that the discussion of the inner picture established by the founder can also be interpreted as the very dream or vision of a founder or organisation.

Regarding Hüther's discussion, it is noteworthy that an inner picture (i.e. aim) must 'make sense' (Original quote, 'Sinn stiften') (2013c, p. 39) to mankind, so that it can be used as an orientation. If this is not given, or a means to attain such a sense through pictures is not demonstrated, mankind loses (Hüther, 2013c). Although this statement might sound dramatic, it is easily exemplified. If a person is moulded through safety and social interaction, which are given by birth and later transferred via elements like culture, family, lived experience, education, and so on, the person needs a picture for orientation (i.e. aim) that aligns with these elements. If an organisational aim is to humiliate or hurt people, it would not align with their inner picture of safety for many individuals. Such a collision would lead to many emotional barriers, such as anger, that are the most dangerous for information transfer and knowledge creation.

However, the importance of having an aim is suitably brought out by Polanyi (1966/2009) in his masterpiece *The tacit dimension* where he introduces the 'process of emergence'. Polanyi argues that the 'inanimate nature is self-contained, achieving nothing, relying on nothing' (Polanyi, 2009, p. 44) and is comparable to an aimless organisation. Although such a comparison can be too excessive because each organisation has definite aims even if they are not communicated, the expression 'aimless organisation' describes how employees consider the organisation to be when they do not know the aim. If leaders always keep defined organisational aims and goals to themselves, which can happen in some cases, it can lead to a negative mood within the organisation as the employees fail to see what they are working so hard for every day. Negative mood can be equated with negative emotions – a well-known knowledge creation and knowledge transfer barrier. Polanyi perfectly elucidates again in this regard that 'processes that are expected to achieve something have a value' (2009, p. 44). However, this discussion plainly shows that communicating the organisational aims within an organisation is vital because the aims are then put on the top of a pyramid (i.e. organisation) and every employed person within the organisation tries to achieve the defined aim. This requires different and new processes (i.e. knowledge creation) and ways to reach the peak of the pyramid (aim), which leads to knowledge creation. In Polanyi's (1966/2009) words, 'the logical structure of the hierarchy implies that a higher level can come into existence only through a process not manifest in the lower level, a process which thus qualifies as an emergence' (p. 45). Polanyi (1966/2009) and his understanding of how to reach the peak of the pyramid have been already introduced in section 8.2.2.3.2.2, 'Autonomous working'. The new process that is not manifest in the lower level can be arising from the already-introduced elements such as disorder, pattern breaking, or instability that derives from autonomy and proactive working employees. Essentially, this is the trigger not only for new knowledge but also for innovation.

Therefore, defining and communicating organisational aims that are aligned with the founder's philosophy leads to a high level of knowledge creation because the employees can proactively bring in new ideas and have the opportunity to improve their organisation.

8.2.2.3.2.4 Growth.

The findings have revealed that growth not only in terms of cash flow, but also expansion, professionalism, and maturity, is essential for NDKM and should be a frequently addressed issue (I5/Q6.41). It is worth noting that constant growth also presumes temporality, which aligns with this research and Gadamer's philosophy that show that history impacts the consciousness of human beings.

However, there are employees who have ambitions and therefore need the possibility of a career ladder and those who are happy with working in the same position for their whole lives. In fact, both these character types are vital for an organisation and can be linked to the recognition of individualism. The sub-aim of growth is to retain the employees for as long as possible within the organisation, which explains why a career ladder is important; for some employees, work must be like an 'adventure' where they can learn, have new experiences, and grow if they have the wish to do it. With a newly created position, new experiences can evolve and it creates a 'possibility' for employees where they can achieve and create new experiences (i.e. knowledge creation) (I22/Q24.45) (I23/Q25.37).

Not having such a possibility can lead to a situation in which experienced employees who aspire for more will leave the organisation. Each vacancy would rip a hole in the existing network, which is a new barrier to the transfer and sharing of knowledge. Hence, retaining the employees for as long as possible within the organisation is vital because the organisation gets many experts through a career ladder and growth. Additionally, new employees get educated by the old ones (experts with a role model function) who provide expertise, stories, relationships, and networking, which recalls Heidegger's notion of care and, more precisely, his concept of leaping ahead that has already been introduced. However, the possibility of a career ladder does not only allow upward mobility but also backward mobility into a position in a different department, which is also very vital for the organisation.

In such cases, the employees with knowledge and life experience about leadership and customer service, for instance, provide their expertise in a different department. This enables gaining a totally new perspective on an issue and implements an extensive and large network with good relationships; it brings the organisation closer, creates new connections, enhances new relationships, and leads to astonishing ideas and solutions. In short, moving up or down the career ladder within the organisation enables connections to new communities and networks, which is fundamental for a high level of information and knowledge transfer (I11/Q12.34).

However, organisational growth, career possibilities, and long-term employment are mostly underestimated because many employees believe in having different experiences in different organisations. This might indeed be very valuable as well, but another very vital variant, as mentioned, is to have this experience within one organisation. This is only possible when the organisation considers the elements of growth, career, and long-term employment as essential for their employees. However, long-term employment aligns with the previous discussion about growth and is essential for the issue of NDKM (I27/Q33.19).

The following example is worth highlighting because it exemplifies the essentiality of organisational growth. Employees can be considered as the *hard disk* of an organisation filled with unique experience and knowledge. Relationships and communication that are established by integrating and drawing on the founder's philosophy are the cables between the 'hard disks' and allow for sharing insights; this is the 'counterbalance' or 'distribution' of knowledge among different employees (I27/Q33.19). If a hard disk leaves the organisation or *dies*, all the other hard disks would have already assimilated enough information and knowledge to fill the gap. In fact, such an organisation is like a database with the difference that no time has to be used to update or secure knowledge; at any time, the latest information and knowledge would be available. This cannot be achieved with any fancy technique because of the quantity of information, data, and knowledge that exists within an organisation. Additionally, refreshing old personal information such as experience is impossible, which is one of the reasons why KM strategies that draw on databases are unlucky and unsuccessful strategies. Although databases are vital for KM and NDKM, they can only *support* the employees. However, this example shows how essential growth and the collective (communication, feedback, and support) is because it allows for filling knowledge gaps when an employee leaves the organisation. To avoid misunderstandings, the growth of the organisation and the holding of its employees for as long as possible shows the best way to hold, extend, and transport general information and knowledge so that others can use it if necessary. It does not copy one's knowledge or experience, but it allows others to understand the general approaches of the employee's ideas, strategies and concepts. Others can also use these approaches for their work or can work on other employees' projects if necessary, for instance, upon the loss of an employee. This approach reflects a process called 'Scrum process', which draws on the transparency, controlling, and alignment normally used for software development. The Scrum process focusses on information sharing, mainly at a superficial level, so that others are always informed about what is going on and, if necessary, can work on others' projects.

8.2.2.3.2.5 Problem of multi-technology.

It is worth stressing on the problem of multi technology within an organisation because multi-technology can lead to a social interaction barrier. Vital in this respect are the career ladder and especially the possibility of going a step backward into a different department, which is possible in an organisation where the product does not contain too many multiple technologies and therefore different technology departments. For instance, in a software company in which writing programs is the foundation, it is easier to *move* within different departments compared to a company where a product contains software, electrical, and hydrology engineering departments. It would hardly be possible for an employee who is an expert in hydraulic systems to work in a software engineering department. Therefore, having a product that contains and combines less diverse technology expertise makes it easier to provide a career ladder within an organisation and reduces, as already mentioned, ‘mental barriers’ (Original expression, ‘gedankliche Mauer’) (I13/Q15.24); it enhances the transfer and sharing of knowledge and makes the non-deliberate management easier. Multi technology is revealed as one significant barrier regarding sharing knowledge and information across the organisation that is not to be underestimated. Multi technology can also establish different sub-cultures (i.e. behaviour) for each technology department, which is a further danger for enhancing social interaction barriers.

8.2.2.3.2.6 Satisfying curiosity.

It is significant that to open up and be creative on a high level is only possible when employees are able to *satisfy* their curiosity, which does not always align with the duties and tasks of their current job. Some western managers and leaders would denounce such a possibility as time wasting and cost intensive because it does conform to the western conception of management that stresses on efficiency and cost reduction.

The findings have elucidated that ‘satisfying one’s curiosity’ takes place at a very high level compared to other organisations (I26/Q31.22) (Speed interview/Q39.3) and is strongly linked to growth; simply the possibility of learning (i.e. satisfying one’s curiosity) is highly appreciated by the employees. In the organisation studied in this research, eight per cent of the employees have an academic education, and the average advanced training of each employee is between two to three days.

Therefore, an organisation develops itself by allowing the employees to open up not only as the organisation wants but also regarding the issues the employees are interested in. The findings have also revealed that around four to five per cent of the employees started with a part-time bachelor’s or master’s degree. This significantly contributes to knowledge creation, knowledge transfer, knowledge search, networking, creativity, innovation, and so on because it is not only an accumulation of new knowledge, but also enhances skills like social interaction, networking, and communication or inspires employees to improve their work or organisation.

It is noteworthy here that each employee becomes a trainee first before they start with a new position and, if desired, they can also organise a mentor who provides lived experience. This reduces barriers from the outset because the employees know what to do and how to communicate and react appropriately for the position. Moreover, employees who cannot satisfy their curiosity because the organisation does not allow it will leave the organisation sooner or later. In such a situation, the employee will take the whole experience and knowledge created with them into another organisation. However, having proactive employees who have the opportunity to satisfy their curiosity improves not only the organisation, because they can assimilate different experiences and knowledge, but also results in the improvement of 'themselves' (I28/Q34.36) (I28/Q34.18) (I26/Q31.22) (I23/Q25.37) (I22/Q24.45) (I9/Q10.19) (I20/Q22.36) in different respects such as leadership, economics, engineering, process development, project organisation, and so on. This is a permanent state of knowledge creation in which employees evolve their horizons and become experts (I18/Q20.24) and generalists. A generalist not only better understands the connections and aims from different processes, but can also use a different and new perspective to analyse and reflect on different issues to generate new ideas, improvements, or innovations. It also enhances communication (i.e. knowledge transfer and search), which contains correct reactions to a critic or appropriate behaviour in a conflict situation. In traditional organisations, communication is normally a management or coaching issue that is trained through a study session or by the role model function. However, as introduced in the section 'communication', the findings have elucidated that each employee should have such a managerial skill that is normally reserved only for managers. In this regard, the organisation provides training and workshops to enhance it (organisational academy) (I29/Q35.3) (I30/Q36.17) (I7/Q8.34).

However, not only the employees but also the organisation is proactive. The organisation closely analyses and reanalyses which strength an employee has, and additionally, where and how they can help to improve the employee consistently (I21/Q23.35) (I23/Q25.37). This happens not only for the possibilities and the career ladder that the organisation provides, but to strengthen or improve the interpersonal skills of an employee such as communication, coaching skills, and so on.

In the same vein is job rotation, which is another form of training. The findings have revealed that even job rotation is not fully implemented in the whole organisation; all coaches and employees appreciate and support the process whenever they can. It allows for transferring knowledge and insights between departments that must work together. It is important for NDKM because it not only reduces barriers between departments as (new) employees make acquaintances with other employees, but also because a department can work better when they understand what is really needed from the departments they work together with (I2/Q2.35). The interface for *information and knowledge transfer* between the employees is vastly improved by this process. The employees of different departments get closer and collectively improve a process or the product through job rotation and better communication. Certainly, this only takes place when employees are drilled to be proactive and if they have the freedom to improve and experiment – something that should be provided by the organisation and OD.

8.2.2.3.2.7 Knowledge sharing – safety and no-anxiety.

The term 'safety' that is used in the title of this section has also been used for the section 8.2.1.7, 'Safety, equality and modesty', which was linked to employment. It was vital to reuse the term 'safety' to describe a suitable setting for knowledge sharing.

However, an important element regarding OD is to give assurance that employees are safe when they share experience and knowledge or when a new change within the organisation takes place. For instance, sharing information or knowledge is tied to negative emotions such as worries of becoming replaceable or change such as a new organisational structure that can reveal uncertainty and lead to the anxiety of becoming redundant. Both situations can bring up negative emotions that would immediately lead to new barriers.

The emotion of fear is human, omnipresent, and inextinguishable, but it is reducible. It is human because it serves a protective role and an allocative function, but it also bears the problem that it can lead to passive and avoidant behaviour, psychosomatic illnesses such as inner unrest, nervosity, insomnia, and so forth (Altenthan et al., 2010). This plainly explains why anxiety is a danger for NDKM and knowledge creation: Without sharing information or explicit knowledge as well as approaching others (i.e. social interaction), the NDKM phenomenon cannot successfully exist.

Therefore, a permanent task of OD is not just to improve but also to provide safety to the employees; the message must be that the employees are and will always be the most important assets of an organisation and therefore are irreplaceable (I6/Q7.39) (I21/Q23.22). In this regard, the findings have shown that not having fully developed the respect, trust, and safety within an organisation will reduce knowledge and information transfer as well as the creation of innovations. Without trust and a setting where opportunities can happen, employees do not share ideas or lived experiences that might lead to innovations (I21/Q23.22). This discussion is linked to the issue of ‘positive emotional relationship’ discussed in the section 8.2.4, ‘Communication – the binder and the bridge’, which is presented through esteem, respect, and authenticity.

Additionally, the frequent development of an organisation highly contributes to creating an environment where anxiety does not exist and employees are keen to ask or to approach random colleagues (I24/Q30.11) across the organisation. It is noteworthy that interviewees have clearly pointed to the factors that can lead to such an environment, like communication, relationship building, understanding emotions, and so on, which must be initialised frequently, for instance, via role models or workshops. As already elaborated, anxiety is an emotion that is quite dangerous for knowledge sharing and knowledge creation because it hinders communication and relationship building.

8.2.2.3.2.8 Recognition of individualism.

Another very important element is the recognition of individualism, which is about recognising not only the fact that each human is an individual but also that each individual needs a special and unique space of silence to work best and retreat to relax and reflect best (I3/Q3.34). Handy (1999) discusses this issue similarly and names it ‘psychological contract’ (p. 45), which is about the ‘set of expectations’ (p. 45) that both sides – employee and organisation – have. If the organisation fulfils the set of expectations of an employee, the employee is then willing to provide work, which in turn is the expectation of the organisation (Handy, 1999). Therefore, fully recognising employees, which is about fulfilling the expectations of the employees, not only enhances trust in the organisation and knowledge creation, because the employee can *choose* the environment where they can work best, but it also has an impact on passion (i.e. high level of work, an expectation of the organisation, an element most valuable for NDKM).

The findings showed that the issue of the *recognition of individualism* has many facets and emerges, perhaps not visible at the first glance, at many places and in many situations within an organisation. A significant and well-executed recognition of individualism is best explained by the fact that an individual opens up best within an *informal setting*; it needs an organisation that focusses on the needs of the employees to create a sense of belonging to their environment; it requires an ‘organisation of acceptance’ (I6/Q7.1).

Importantly, the whole experience and behaviour of an individual is created through society and other individuals from the outset (Hüther, 2013b). This also explains that any interruption of normally followed routines and behaviour can lead to stress, which in turn is known as a barrier for knowledge creation. It emphasises the recognition of individuality at the top level as essential. If some individual feels fear or stress, it is impossible to open up due to desperation and other negative emotions. If stress takes place over a long period, it not only creates barriers but also dissolves connections within the brain that are responsible for finding solutions (Hüther, 2013b); dissolving such connections reduces knowledge creation.

There is no patent on how to create an organisation of acceptance so that an employee can be fully recognised because of the individuality of each employee. Additionally, each company is shaped by the local culture, their products, the employees, the existing structure, the leaders, and so on. What is felt to be comfortable in one company may be perceived as uncomfortable or useless in another. Hence, each organisation needs their own environment so that their employees can feel comfortable and work best. It is worth reemphasising that employees also need a place of silence and retreat to relax and reflect. An organisation should not only focus on a special environment to bring employees together, but also on places within the environment where employees can retire to be alone and reflect about different issues. As already introduced in the literature review, ideas and creativity often pop up when no light is cast on an issue, which underpins the importance of such places. Having such places also entails a requirement of *time* for the places to be used, which is an important element for NDKM.

8.2.2.3.2.9 Fun at work.

The elements mentioned in the last section create an environment that strongly affects fun at work (I6/Q7.1); 'fun at work' is a key element of the philosophy already introduced by the founder. Given that the employees spend more time in the company than at home, for instance, exemplifies how important fun at work and the previously introduced recognition of individualism (i.e. about the environment) are (I6/Q7.1).

The company is interested in the employees having an astonishing and adventurous working place. This is very closely connected to autonomy and has a vital impact on creativity and innovation (knowledge creation) (I24/Q30.1). But the organisation also knows that to be on the edge and to be innovative, its employees must have the possibility to evolve and perform experiments. This is the reason why the organisation under scrutiny unquestioningly provides support when, for instance, an employee wants to have the newest software update or totally different software. The employee is thus enabled to work better or differently (Speed interview/Q39.7). What is to be highlighted is that fun at work is purely lived and supported by the organisation. Workshops are well organised and sometimes conducted at remarkably nice places or locations (I6/Q7.13). Even though this is criticised as wasteful by different persons not working within the organisation under scrutiny, the findings have revealed that it could be linked to the introduced elements of ‘respect’, ‘trust in the employees’, and ‘relationship building’. Both elements reduce barriers within the organisation and enhance knowledge and information transfer.

It is worth highlighting that events (art, music, cinema), parties (BBQ, welcome party, etc.) or events outside the company (I6/Q7.13) can also be counted as fun at work and are frequently conducted with the aim of gathering employees, reducing barriers, and triggering communication. The development of the organisation in this regard enables bringing together different employees, supports highly networked building, and allows creating an extensive network.

The following case exemplifies the importance of such activities very well. An analysis of a satisfaction poll has shown that the women in the organisation have been more critical in their answers. Hence, the organisation decided to have interviews with all the women working in the organisation and to analyse if there was a reason for this, but the results showed that there was no common denominator. The answers were more critical because men answer less critically than women, owing to their emotions and perspectives regarding different situations and issues. Although the findings of the interviews elucidated that there was no particular problem which affected female employees, the organisation planned a concert for women, which was played only by women with music composed only by women and named it ‘in acknowledgement of the efforts of our female colleagues a concert will taking place, … men also allowed’ (Original quote, ‘zur Anerkennung der Leistung von Frauen gibt es dieses Konzert für Frauen ... dürfen aber auch Männer mitbringen’) (I24/Q30.9).

Such events not only display respect to the employees or engage in a recognition of individualism that enhances trust, pride, and passion for both the female and male workers within the organisation under scrutiny (as feedback has shown), but it also brings together different employees from different areas and different levels. It is a special meeting point where employees gather and discuss private issues, music (in this case), as well as business problems such as loss of marked shares or new ideas and projects. The employees get to know each other better because there is something in common that they like and can share; thus, new relationships and friendships emerge. Additionally, employees who do not ‘like’ classical music come by to enjoy the event with their friends and colleagues, or to connect and talk to newcomers (I24/Q30.9).

This case exemplifies why fun at work, which is closely linked to recognition of individualism, is important for NDKM; it reduces barriers and enhances trust, relationships, passion, and so on and finally leads to higher knowledge and information transfer. Additionally, the organisation also tries to discover such cases not only by polls but also by different situations and ideas to create special events because then there is something interesting to talk about. This is done so that everyone is interested in the organisation continuing with its development (I24/Q30.9).

However, because of fun at work, the organisation provides a unique environment with many programs that *distract* one from working and provoke discussions. Although distractions might be considered to be a negative, they also bring employees together where they share time, strengthen relationships, and most importantly, communicate and discuss. It is also strongly linked to the element of ‘fun at work’ and the discussion about how work should be an ‘adventure’ (i.e. interesting). The employees would then think that working is not merely about monotonously sitting for eight hours at a desk and staring into a computer, but rather that work can have a reason, value, and importance (I24/Q30.11).

8.2.2.3.2.10 Sharing organisational information.

Organisational information is also important on an emotional level because employees who invest their time and lives in an organisation have a strong desire to know how healthy the organisation is and in what direction it is moving. Many of the employees are interested in the status of the organisation regarding its turnover, number of contracts, or the current costs of a project, for instance. This behaviour is unusual for an organisation and represents, once again, how important information sharing is for the organisation under scrutiny. It also enhances transparency and ‘trust in the organisation’; which in turn is important to reduce emotional barriers.

Additionally, it leads to new discussions and ideas about how to improve the market. It also gives answers to those who are interested in knowing why they should work more (emotion). The importance of sharing business information is underpinned by researcher’s experience. Many companies, especially small and mid-sized ones, are cost driven and decide not to share such information. The result is that the employees start to question why they should always work extra hours or why they cannot get the tools required to work well. Such an information strategy can lead to emotional barriers and hinder information and knowledge transfer, although not all employees react emotionally in the same way. This is because some employees do not question the reasons for permanently working extra hours, while some employees could start questioning and infecting others with their negative mindset about the situation or organisation (I6/Q7.15).

Many different platforms are created – to meet up, to drink a coffee, and to share valuable information and insights – that the employees know about when the events take place (I11/Q12.34).

8.2.2.3.2.11 The I-K-T process.

The 'Information-Knowledge-Transfer' (I-K-T) process (I5/Q6.8) draws on sitting together for communication instead of conducting documentation within an area. It is not an isolated process like documentation and ensures that the employees get additional information (i.e. pros and cons of solutions, claims, and problems) that is very vital. Through the I-K-T process, employees can enhance relationships and mutual understanding about a problem, as the employees know exactly which colleague has the knowledge and should be approached if something is unclear or a similar claim emerges.

Using the I-K-T approach to share knowledge and information has many advantages, but the most important among them is that *less time* is needed to share information (compared to documentation) and that it *strengthens the bonds* among the employees. This discussion is not intended to diminish the importance of documentation, because the main part of people's knowledge is documented and is very vital for the world we live in now (e.g. history). In some cases, documentation is important, but because of time, pressure, and daily business, it is not the most efficient way to share and research knowledge. The time required for searching, reading, organising, and updating existing information is much higher than that of the process introduced in this section.

8.2.3 Structure, relationship and networking – the connectors.

It is becoming increasingly difficult to ignore that the structure, relationship, and the network of an organisation have a fundamental impact on the flow and pursuit of information, knowledge, and knowledge creation (see Figure 24).

Although each of these three elements are based on each other and have many connections, they are discussed separately to effectively highlight their respective advantages for this research.

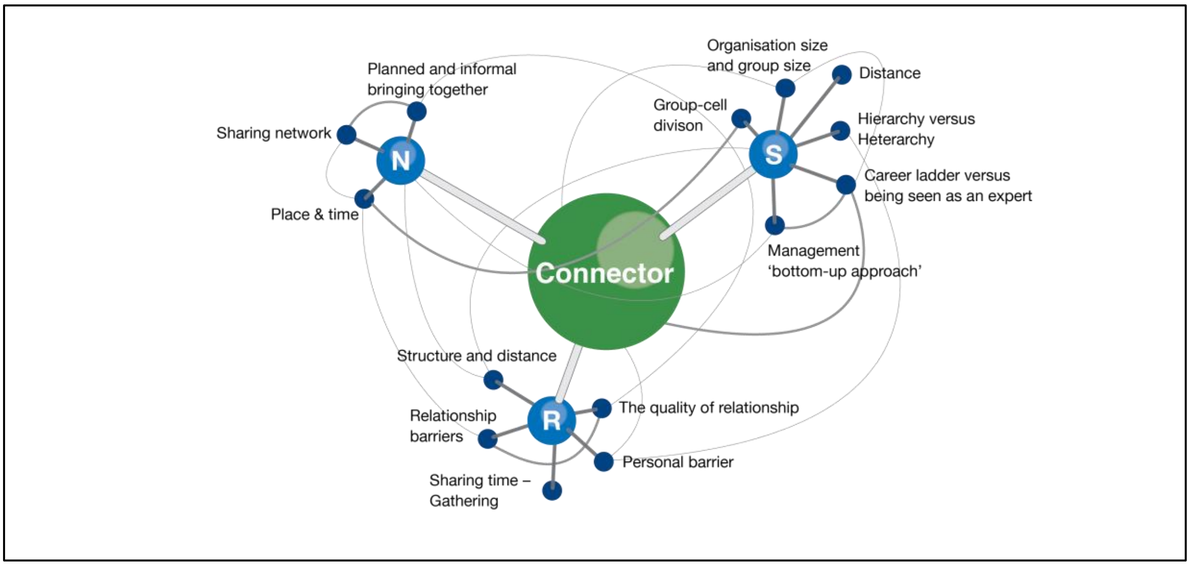

Figure 24. Structure, relationship, & network – the connectors

N = Network; S = Structure; R = Relationship.

8.2.3.1 Structure.

Not only autonomy but also communication and freedom to work require a suitable structure so that these elements can take place at maximum efficiency and effectiveness. This demonstrates again the cross-linking of different elements and reveals that to execute communication (for instance) at a high level, other elements must also be established, as multiple elements have an impact on the output of new knowledge and its NDKM.

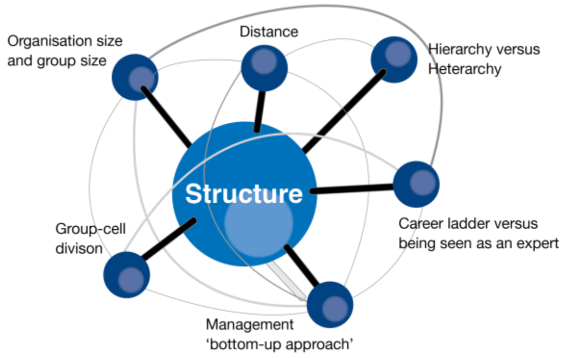

Figure 25. Structure

The literature review of this research similarly emphasises that for knowledge creation and KM, a suitable structure must be installed so that easy sharing and discussion of information or experience is possible, which has a great impact on knowledge creation and innovation (Farhad, Khairuddin, & Roohangiz, 2011; Khanbabaei et al., 2011; Nonaka et al., 2006; Nonaka & Takeuchi, 1995). von Krogh, Nonaka and Rechsteiner (2012) observe in this regard that the structure and form of an organisation could change as soon as an employee faces new tasks or problems. In an organisation with a high level of autonomy and proactively working employees, change takes place daily, which highlights the importance of a dynamic and flexible structure. Giddens (1984) argues through his concept of 'structuration' that the relationship between structure and human actors is a dynamic one. Additionally, Giddens (1984) elaborates on the 'condition governing the continuity or transmutation of structures, and therefore the reproduction of social systems' (p. 25), which not only shows the close connection between society and the actions and behaviours (i.e. condition) of employees and the structure, but also how the structure affects the reproduction of a society.

Jackson and Sørensen (2013) interpret Giddens (1984) and highlight that a structure might influence humans, but it does not ultimately control their actions, and that humans, on the other hand, are able to reciprocally influence the structure by doing things differently.

Additionally, the literature discusses different forms of structure, such as heterarchy or hierarchy and their impact on knowledge creation or KM (Hedlund, 1994; Nonaka et al., 2006; Rezgui, 2007; Seshadri & Shapira, 2003; von Krogh et al., 2012).

The most prominent and well-known structure is hierarchy. Hierarchy is often considered to be less vital for KM or knowledge creation because of the reduced possibility of social interaction and communication across the organisation. The opposite of hierarchy, which is heterarchy, is stressed as valuable for knowledge creation and KM (Nonaka et al., 2006) because it is a participatory type of organisation and, when combined with elements such as communication (Rezgui, 2007), it enhances knowledge transfer and knowledge sharing – a prerequisite for knowledge creation. Hedlund (1994) linked hierarchy to what is called the 'M-Form' that stands for multidivisionality and heterarchy to the 'N-Form' that stands for newness and novelty. The differences between the two types are shown in Table 10 below.

Table 10

N-Form vs. M-Form

	N-Form	**M-Form**
Technological interdependence	Combination	Technological interdependence
People interdependence	Temporary constellations, given pool of people	People interdependence
Critical organisational level	Middle	Critical organisational level
Communication network	Lateral	Communication network
Top management role	Catalyst, architect, protector	Top management role
Competitive scope	Focus, economies of depth, combinable parts	Competitive scope
Basic organisational form	Heterarchy	Basic organisational form

Note. Compiled by Hedlund (1994, p. 83).

Although heterarchy is regarded as more valuable for knowledge creation and KM, studies, such as Seshadri & Shapira (2003), have attempted to present hierarchy as a vital approach to developing ideas. Employees submit ideas (bottom-up approach), which are reflected through different management levels until the idea reaches the top management (Seshadri & Shapira, 2003).

This approach is considered to be less vital in praxis because reflection, discussion, or improvement would always take place with the same management staff and therefore also with the same perspective. Therefore, it is questionable whether each idea would receive the same attention and whether the employee who had the idea would be able to participate in the discussions and help to improve it. In this research, the previously introduced framework called 'collective' is regarded as a better and more useful approach to develop an idea at the level of the employee because the development or improvement of an idea takes place through a myriad of different discussions with changing discussion partners across the organisation.

In this regard, interviewees have explained that in strongly structured hierarchies, communication is mostly transferred to the next 'tier' and, therefore only in one direction rather than across the organisation (I4/Q5.21) (I1/Q1.64). This hinders communication, whereas a very flat structure, like in the organisation under scrutiny, enables communication and sharing of information across the organisation (I1/Q1.64) (I8/Q9.31) (I10/Q11.26). It is notable that within a flat hierarchy, especially in large companies, communication can become overwhelming because of the never-ending discussions and re-discussions regarding already-defined issues (i.e. long decision-making processes).

Although communication is important, the bigger an organisation is, the more problematic communication becomes (I6/Q7.9) (I11/Q12.29). The findings have shown that this could lead to frustration and negative emotions, as employees try to avoid discussions because it requires time, and no decision will be reached at as an outcome, which also has a negative impact on the relationships among the employees and on the information transfer.

Additionally, a flat hierarchy does not automatically provide the perfect structure for an organisation or, in this context, for NDKM, because it always depends on whether the management and leaders support or permit elements like communication (I22/Q24.2). A very strong, structured hierarchy can also contain supportive leadership where people enjoy working and have good relationships and communication with other colleagues at the same level or the next tier (I: Speed interview/Q39.4). Heterarchy is regarded as more valuable for NDKM or a high level of knowledge creation because elements like equality and a good relationship along with communication are important (I30/Q36.1) (I27/Q33.1) across all levels within an organisation because this leads to low emotional barriers and to passion, which are vital elements for NDKM. Equality and good relationships with all actors within an organisation are almost impossible to achieve with a hierarchical structure.

A strong type of hierarchy, compared to a flat one, does reduce the possibility to fully work proactively and autonomously (I22/Q24.3) (I29/35.23), as it disconnects the different levels such as ‘employee’ and ‘middle’ or ‘upper’ management. In an organisation with a strong hierarchy, a manager mostly presents data and projects elaborated by employees. When the employee does this in an organisation with a flatter hierarchy, it enhances proactive and autonomous working (I: Speed interview 1/Q.39.1) (I: Speed interview 2/Q.39.1). The former can lead to sub-optimal decisions when a manager starts a discussion without some or any of the background information. As soon as a discussion or decision-making process departs from the given background information, which is important to correctly reflect and interpret a situation, a decision made can become sub-optimal (Observation/41.26). This effect can be compared with the process of reading a text. Having a dialogue with a text can lead to new questions that cannot be correctly answered unless the reader has had direct dialogue with the author of the text.

Beside this, the findings reveal additional problems that a strong hierarchy causes, as the interviewees have exemplified by way of blue chip companies such as Blum, Lufthansa, and Deutsche Bahn. Hierarchy can lead to disharmony between management and employees because the top-down communication is also different from a flat hierarchy. Within a flat hierarchy, decisions are discussed or elaborated on together, whereas in a strong hierarchy, the decisions are mostly dictated from the top to the bottom (I: Speed interview 1/Q.39.1) (I: Speed interview 2/Q.39.1).

It is important to note how a flat or a strong hierarchy has an emotional impact on the aims of the employees. The findings elucidate that in an organisation with a strong hierarchy, an aim of an employee could be to move up the career ladder. In an organisation with a flat hierarchy, where almost *no steps* of a career ladder exist, the aim is more to *be seen* or, to be more precise, to be respected as an expert, for instance, within a group of engineers. To become an expert or to move up the career ladder are two different approaches with different effects on the direct environment. Experts proactively assimilate new knowledge, build on it, and try to illustrate and bring in new ideas and improvements, not only to improve themselves, but also to educate others or share lived experience so that they are recognised as experts.

In contrast, moving up the career ladder does not, by any means, encompass the elements mentioned above. A person who wants to make a career within a strong hierarchy is aware of the value of knowledge and therefore does not share it at a high level but rather uses it for their benefit to move up within the organisation (I3/Q3.16). This is an opportunistic approach and clearly explains another vital advantage of a flat hierarchy for knowledge creation or NDKM.

For the sake of clarity, in the section 8.2.2.3.2.4, ‘Growth’, the importance of a ‘career ladder’ has been highlighted, which should not lead to confusion due to the discussion about career ladder in this section. A career ladder is indeed vital for an organisation to hold ambitious employees for as long as possible within an organisation, as it maintains and enhances relationships as well as lived experience across the organisation. Although in a flat hierarchy a career ladder is not about steps upwards but rather about new activities and positions, the findings show how amazed the employees are to have the possibility of changing in both directions from an engineer, project leader, and sales manager up to a manager and vice versa (I16/Q18.29). The scopes of activities and possibilities are much wider than what strong, hierarchical, structured organisations can provide (I29/Q35.2) (I27/Q33.21). This experience is a trigger and a possible reason why employees become experts, and this is tied to the pattern of growth, because such a career ladder is possible only with growth.

Nonaka and Takeuchi (1995) go one step further and begin to combine the hierarchy and the heterarchy structures to elaborate their idea of hypertext structure. Hypertext structure contains different layers that are combined, such as project (heterarchy), business (hierarchy), and knowledge base.

However, as already introduced, an interviewee has quoted Derrida perfectly as having said that ‘there is no outside text’ (I8/Q9.10) while trying to articulate that regardless of how opaque it is, a hierarchical structure always exists to frame the organisation. Given that in each heterarchy a hierarchy also exists, the findings show that the discussion about hierarchy, heterarchy, or hypertext is less vital to enhancing knowledge creation or to making NDKM possible. A former employee, who is presently working at Google, corroborates this statement by comparing the organisation under scrutiny with Google and observing that the tiers existing within a structure are not the problem to share insights or to be creative or innovative in general. Obviously, it is more difficult to have a conversation with the top management because of the size of the company. Although this is possible if desired, it seldom happens. This situation can be linked to distance, which is further explained later in this section.

Therefore, it is more important to establish suitable basic conditions and rules for knowledge creation, NDKM, and how these rules are implemented and adhered to within and across the organisation. This aligns with Khanbabaei et al. (2011) who argue that a complicated structure is not necessary for knowledge creation, but soft triggers like time, space, and leadership are key instead.

The findings elucidate that although there is a (flat) hierarchy with a typical top-down approach, the organisation presents their structure as a 'management bottom-up approach'. In this schema, the top management and middle management are at the bottom and their overall aim is to support the employees so that the employees are on top and thus can do their work to their utmost ability. Plaskoff (2005) similarly demonstrates that managers must serve (i.e. work) employees and establish an environment so that the employees participate in creating new knowledge. Supporting or consulting others have been introduced in the section 'collective' that shows that the elements of the founder's philosophy manifest and occur in almost every pattern. The 'management bottom-up approach' emphasises that the employees are the most important assets for the organisation.

Based on this approach, the organisation contains groups instead of areas and special teams that are connected within a network, and all the groups are respected as equally important (equality). Each group has a coach and is an autonomous unit. When a group becomes too large, the group will be split, which is comparable to a cell division (I11/Q12.15). The work among the different groups is regarded as a service always done with a high quality.

This approach does have various advantages. A small group is comparable to and acts as a small organisation in which communication takes place rapidly because everyone knows everyone else (I1/Q1.22). Employees hear and grasp almost all the information that is in transit across the organisation. Therefore, the path to information exchange is very short and additionally, because of the size of the group, the employees know exactly who the specialist for a certain issue is, which becomes more complicated in large companies (I1/Q1.22). As stated before, in large companies with a flat structure, communication and decision-making processes are more complex (I6/Q7.9) (I11/Q12.29) (I23/Q25.9) (I1/Q1.22) (I8/Q9.46). An interviewee has succinctly mentioned in this regard that organisations became more rigid the bigger they are and that this ultimately reduces innovation (I6/Q7.3). Additionally, splitting a group creates a new position and can be linked to growth, furthering of careers, and adventure, because employees from the former groups often become coaches or leaders in the new groups. This process implements the network from the former group into the new group by way of the coach.

However, very closely linked to the issue of the *size of a group* is the issue of *distance*. The findings have revealed different stories that highlight the importance of a short distance for information transfer. Rezgui (2007) observes likewise that employees are ‘tied to a physical location’ (p. 171). This phenomenon can result in the problem that employees only reflect on and discuss with their direct environment, which finally guides knowledge creation in a single direction. Reflection on ideas only within the direct environment is insufficient, especially for international organisations that try to develop products for the international market. This danger can be analogised with diversity (Kruse, 2015), as already introduced in the section 8.2.2.3, ‘Organisational development’.

The findings of this research show that the smaller the distance to a communication partner, the higher the frequency of information transfer is. This can be perfectly exemplified with the case of working colleagues who sit opposite to one another in the same office, or with an employee who can go downstairs to get the newest market information during a chat or coffee break. In such cases, the ‘way’ for information is short (I21/Q23.18) (I21/23/36) (I23/Q25.9) (I5/Q6.5) (I11/Q12.4).

The bigger an organisation becomes, the more space is needed, which reduces social interaction among employees (distance). In the organisation under scrutiny, different groups have been outsourced due to less space. The new distance to the headquarters rips a hole into the different existing networks, relationships, and connections for reflection and information transfer. In such a case, communication only happens in a planned meeting and not randomly, like when people go downstairs for a coffee break and reflect about different situations (I4/Q5.28) (I10/Q11.26) (I11/Q12.4) (I23/Q25.10). This clearly explains that distance has a negative effect on relationship building and information transfer, which is why the organisation under scrutiny enlarged their headquarters to bring back the outsourced employees.

ICT is a valuable element (I12/Q13.8) in this respect to bridge the distance and to improve relationship building. The findings have shown that because of the high status of communication, the organisation under scrutiny has installed several video conference rooms with cutting-edge technology and each employee has the possibility to get a camera for their laptop or computer if they so desire. The interviewees have highlighted that seeing others has a great impact on their relationship because it reduces *distance* when the employees are able to view the reaction of their respective conversation partners.

It is worth reemphasising that NDKM becomes more difficult the bigger an organisation is. This is not only because of the structure but also due to the values that must be transported and anchored to the new employees and sub-structure. As already indicated in section 8.2.1 (DNA – the founder’s philosophy), NDKM is about a certain behaviour that results in a similar or better outcome in comparison to the deliberate methods and processes in traditional KM. Therefore, NDKM draws on a certain culture (behaviour). Kruse (2007) explains that culture always draws on ‘meaning and understanding’ that have to be transferred to the actors in a society. Clearly, it is easier to transfer the meaning of something like a culture, or the founder’s philosophy in this case, to a hundred people than a thousand people. The latter scenario would require more resources like time, workshops, technical processes, and money, or the transfer of the meaning and understanding regarding culture would likely be difficult or impossible. Although the numbers mentioned above do not reflect the precise break from which the transfer of meaning and understanding ceases to work anymore, it exemplifies that the bigger an organisation is, the more difficult it becomes to distribute the essence of the founder’s philosophy so that NDKM can take place. In huge organisations, different sub-cultures emerge that can lead to new barriers, depending on how much time and money are invested in breaking down the barriers to transfer and live the very essence of the founder’s philosophy.

This discussion can be linked not only to the section 8.2.2.3 ‘Organisational development’, but also to section 8.2.1. ‘DNA – the founder’s philosophy’ and section 8.2.2.1 ‘Cultural framework’. These three sections have discussed the difficulty of changing an existing culture, the loss of identity (culture), and the importance of *triggering* the culture permanently to maintain the suitable behaviour for NDKM. All three elements must be the main concerns of growing organisations and, when combined with the last discussion, reemphasise the gravity of the values of the founder from the outset and the significance of OD in triggering and maintaining what is important.

However, the findings show that many external as well as internal employees do not believe that the unique culture of the organisation under scrutiny could be transferred when the organisation becomes bigger. The first concerns were articulated as the organisation employed its 200 employees, then the same with its 500 employees, and then with its 800 employees. The organisation currently has over 900 employees and they still live the founder's philosophy. The interviewees explain that the structure has been changed several times and adapted according to the growth of the organisation. Additionally, the interviewees are amazed at how the organisation has transferred the very DNA and essence of the founder's philosophy from the past to the present (I3/Q3.317). Looking behind the curtain of this research elucidates that three elements are probably the reasons for the transfer of the founder's philosophy. The values (the founder's philosophy) have been 'lived' and thought from the outset. *Time* is important because history shows by means of different cases why the values are important. The culture in the organisation under scrutiny and the founder's philosophy have been proven and recognised to be a valuable element and a reason for their success. The third element is related to the resources that improve the organisation, which is 20 per cent of the early turn over as mentioned by the interviewees.

8.2.3.2 Relationship.

Essentially, mankind experiences the valuable meaning of relationships by dint of birth. Therefore, a relationship is not something alien to us but rather an issue that accompanies everyone from the outset – a youngster becomes an adult by way of social interaction.

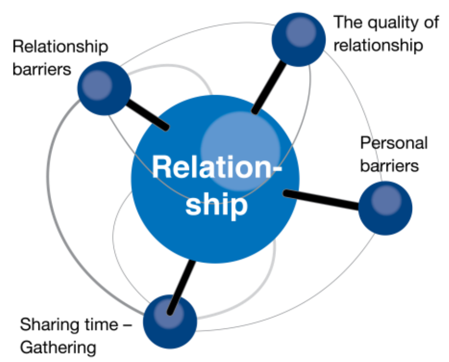

Figure 26. Relationship

As knowledge is a social construct and an essential element for new ideas and innovation (i.e. knowledge creation), the knowledge ingredients such as information, experience, and explicit knowledge are transferred through relationships; it can be described as a pipe for transfer.

In this regard, the literature review has revealed that the concept of 'ba' is often mentioned in the same breath with relationship, social interaction, and knowledge creation.

Ba, which stems from the Japanese and means 'place' in English, (Nonaka & Konno, 1998) describes the 'shared space for emerging relationships' (Nonaka & Konno, 1998, p. 40); Nonaka, Toyama and Konnon (2000) posit that ba 'is a place where information is interpreted to become knowledge' (p. 14). It is noteworthy here that ba is not merely about a physical place but rather about the context in which knowledge is created, which can contain, for instance, a physical space (office), virtual space (internet, mail) and a mental space (shared ideals) (Makino & Inkpen, 2005; Nonaka et al., 2000a; von Krogh et al., 2000).

These quotes represent the ways in which relationships and knowledge creation always go together and can therefore be interpreted as equally important. The findings of this research go one step further and suggest that, within an organisation, relationships are the precondition for the creation of a sustainable and a high level of knowledge. This finding shows a link with that of Watzlawick et al. (1982) (as cited in Birkenbihl, 2004) who, as already introduced, demonstrate the importance of the relationship level over the content level. In other words, the better the relationship with a colleague, the better the sharing of insights and information and, therefore, the higher the possibility of knowledge creation.

Additionally, an organisation cannot create a *place* and believe that relationship building will occur suddenly. A relationship is an emergent element and, as it is for culture, knowledge creation, or NDKM, it is impossible to force employees to *build* relationships across the organisation. Therefore, the organisation must focus on indirect elements such as providing time, coffee corners, lunch table, leisure time activities, or supporting groups of regulars, discussion groups and so on so that new and strong relationships (i.e. quality of relationship) across the organisation can be established (I23/Q25.13) and communication can take place (I3/Q3.23).

8.2.3.2.1 The quality of relationship.

It is worth emphasising here the work of Handy (1999), which not only shows an additional and vital aspect that is essential for relationship building, but also allows building a bridge to the beginning of the research where the importance of trust, empathy, respect, and ways of communication have been elaborated. Handy (1999) astutely observes that ‘our interactions with people are affected to a large extent by the way we perceive them, the things they say and what they do’ (p. 83). Hence, relationship building can occur on a high level only with the right tools such as empathy, suitable communication skills, and so on at hand.

Therefore, the *type* of relationship is very vital and must be based on care, trust, and access to help (Kikoski & Kikoski, 2004; Nonaka et al., 2006). It is notable that the transmission in this pipe of experience and knowledge occurs through communication (Polanyi, 1966/2009), reemphasising the vitality of communication for NDKM. Communication serves as a binder for social interaction and is the element that transports insights and knowledge from one person to another. If the relationship among employees is established without interpersonal barriers like fear, nervousness, envy, or jealousy (Birkenbihl, 2004), the transfer of information, ideas, insights, and lived experience will be richer than if such elements exist.

In the same vein, Lock Lee (2002) shows that if socialisation is enabled, the transfer of information and experience rises up to eighty per cent, which is only possible when strong or good relationships are established. To pre-empt the discussions and for the sake of clarity, it should be noted that knowledge transfer is also evidently possible with a normal relationship, but ‘normal’ is not sufficient for NDKM within an international organisation. This argument aligns with a statement by an often-quoted manager in this research that ‘we try to do everything on a very high level’ (Observation_Notes, p. 3). Szulanski (1996) similarly showed in his research that a good or strong relationship fosters the quickness of receiving required information or knowledge (p. 36).

The book *Personal knowledge* written by Polanyi (1962/2013) holds that information or lived experience is only transferred ‘when one person places an exceptional degree of confidence in another’ (p. 207). The phrase ‘confidence in another’ draws on elements like trust that are preconditions for a good or strong relationship.

To summarise, as different experts have already highlighted, the quality of a strong and good relationship must draw on care combined with elements like mutual trust, active empathy, access to help (helping behaviour), leniency in judgment, and courage (Nonaka et al., 2006; von Krogh et al., 2000). Furthermore, the higher the quality of the relationship among employees, the higher the frequency of contact and the transfer of information and knowledge.

Varied evidence has shown that the goal of high quality relationships has been achieved and shown by the employees through how they recognise the organisation. Even though the organisation studied in this research is an international company, it is described as a family with excellent and highly personal relationships that ensure that work is fun. (Original quote, ‘extrem familiär. Also ... da kommen wir auf persönlicher Ebene gut aus ... es macht beim Arbeiten Spaß’) (I6/Q7.1) (I30/Q36.1) (I30/Q36.16).

Feeling comfortable and having fun within an organisation derives mainly from how one is treated, which has a strong impact on the relationship quality and one’s behaviour within an organisation. As already elaborated, a culture is created by the behaviour and actions of the employees. However, the way in which employees support each other to fulfil goals is astonishing, as the findings have elucidated that the 'me' is not important, but rather it is the service or the 'we' that is crucial (16/Q18.39).

The quality of a relationship also depends on the positive reaction of an employee, such as when one employee approaches another. Having established a supportive culture supports the right reactions because the employees are used to being open, supportive, and interested in the ideas and problems of others. If such a culture and relationship of approaching others did not exist, repeatedly asking for help or discussions of an idea could harm a relationship (I5/Q6.22) that is in fact very fragile and difficult to rebuild. It would thus reduce the possible conduits to share and transfer information and experience.

While discussing the quality of relationships, it is worth highlighting that plans to meet up are essential for high quality relations because it allows individuals to meet their colleagues differently and more privately. It displays another side of the employees and their thoughts and behaviours. Additionally, such meetings allow individuals to connect (new relationships) with different employees from different levels across the organisation. Each new relationship is a conduit for information transfer that can help in different situations or lead to innovations due to a different perspective.

A strong or high-quality relationship can be exemplified by one's relationship to a close friend or family member. We share our innermost thoughts with such a person because of the emotional bond, trust, and respect to the said person. In such a scenario, we are almost devoid of anxiety and share ideas that might be funny and imaginative and can stimulate creativity and innovation. On the other hand, we are unlikely to share our innermost thoughts with unfamiliar people, because there is no shared history, emotional bond, or trust, and therefore we cannot *classify* the person. In such a case, we have more *distance* and it is more difficult to fuse horizons. The findings show that for a sustainable and high frequency of knowledge transfer, a relationship must have a strong bond (I12/Q13.23). Not only knowledge creation but also the transfer of knowledge is highly emotional in strong relationships, as they would comprise ideas that might be fanciful and not mainstream and shared without anxiety – this is also presented sometimes as ‘thinking out of the box’. Nonaka, von Krogh, and Voelpel (2006) observed likewise that for this to happen, a relationship based upon care and trust is required. Therefore, NDKM must contain a strong relationship and the employees must *know* each other (I10/Q11.15).

8.2.3.2.2 Personal barrier.

Although the discussions from the experts and the authors in the current literature are well argued and clearly displayed, they forget to mention that in praxis relationship building is a complex and difficult issue. Going one step further shows that a relationship is always tied to a mutual history and emotions and that the biggest and foremost barrier for relationship building is the individual self with its ego, blockades, and egoism (personality, character). Figure 27 summarises three elements that lead to different emotions that each employee deals with.

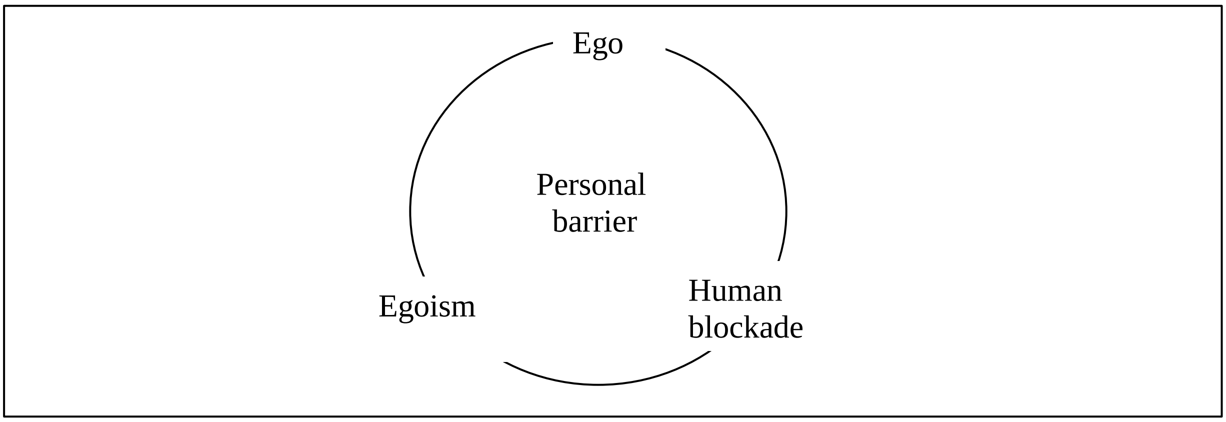

Figure 27. Personal barrier for relationship building

However, in terms of individuality, each person has a different kind of ego (I22/Q24.28) and in business not only knowledge transfer but also ego is strongly linked to *loss*. Many employees are still afraid of losing their job while sharing insights or unable to lose their ego when approaching others to ask for help. Approaching others and asking for help implies a lack of knowledge and allows the interlocutor to *classify* the person regarding their knowledge and experience. It needs care and trust to replace the feeling of loss, especially considering that someone could make fun of another's lack of knowledge. In other words, the questioner must trust that the listener will not *harm* the person with the question. The right reaction to questions is strongly linked to communication, because a relationship can be harmed (barrier) with the wrong answer or reaction and rebuilding a relationship on the same level is difficult (I22/Q24.32).

The second element, which is called human blockade (I22/Q24.28), deals with the very possibility of approaching others. For many employees, it is not easy to approach foreign people for the first time, at the coffee corner or at their office for instance, to ask for help. Such a human blockade is about anxiety or being nervous, and its manifestation mainly depends on how the other employee appears and reacts. This is true for young employees (especially for newcomers) more than for experienced ones, as this might be difficult when no other employee is known to them. The findings have also shown the difficulty of an organisation where autonomous working is requested at a high level. As already elaborated, autonomy within the organisation under scrutiny means that employees must find their own way to solve problems, which also includes approaching different employees within the organisation to reflect on ideas or situations. Although this sounds perfect and approaching others can be considered as a straightforward issue, it is not so in praxis, as this discussion has already indicated. But, as will be seen later in this discussion, it is important for NDKM that as many employees as possible are connected to other employees and not merely the ones who are used to approaching different and mostly foreign individuals such as a sales manager or a top manager. It is vital that an engineer, for instance, who is perhaps more introverted and autonomous can approach a system planer or sales manager.

The last element, egoism (noun), is omnipresent and natural in daily business to a certain extent because the normal behaviour is to finish one's own work first adhering to the defined deadlines and then to invest time in helping others. However, if a request for help is rejected, it can lead to an emotional barrier. Although this situation is not similar for all employees, such a rejection could harm or render a supportive culture difficult (I22/Q24.32).

This discussion explains why an essential aim for an organisation is 'bringing together employees' because it indirectly fulfils the first step 'to approach others' (I22/Q24.9), which makes the second step of 'communication and relationship building' much easier as it helps to reduce the personal barriers. It is noteworthy that this process must be an ongoing process that is supported by the organisation because no suitable relationship for NDKM can be established merely by introducing employees or sitting together for coffee. The employees need the possibility of looking *behind the mask* to know other employees better and to have access so that a strong relationship can emerge. This enhances the very quality of a relationship.

8.2.3.2.3 Sharing time – gathering.

Lawton (2002) explains through the energy flow (self-organisation) theory that people will gather if a 'common concern' (p. 301) (i.e. aim) exists.

There are many situations defined by the organisation in which employees meet up and work together, such as on a new product or to penetrate a new market, but often the same employees gather in such situations. The founder's philosophy has already shown that sharing time together is especially important (overall aim). Therefore, the organisation implements, supports, and provides elements like a nice environment in which employees can gather and relax along with a piano, fitness equipment, lunch table, or discussion platforms to bring together as many different employees as possible.

Drawing on the thoughts articulated in the founder's philosophy, the employees also define many plans to meet up, such as the Wednesday coffee, the 'bake a cake' meeting every two weeks, expert discussion platforms, the volleyball meeting, the lunch table meeting, and so on (I12/Q13.23) (I23/Q25.13) (I7/Q8.19) (I8/Q9.12) (I12/13.8) (I1/Q1.71) (I6/Q7.27) (I7/Q8.29) to 'bring different employees together' and share time. OD plays an important role here because it helps build the organisation so that these events can take place (I24/Q30.9). During these kinds of meetings, it is not only business issues that are discussed, but also private issues that can lead to seeing *behind* the curtain of an employee to understand the person, culture, perspectives, and intentions. It allows one to understand people better and can lead to a better working friendship, which will be the best case (I12/Q13.23) for an organisation and NDKM. With time, it leads to the kind of behaviour in which employees start to approach others, unattached to their position, to reflect on or share ideas (I6/Q7.26). Such events significantly reduce barriers.

If it is not possible to meet up within the organisation, as it usually happens in international companies, the findings show that the employees place a high importance on having meetings. In such a scenario, they meet up with colleagues during exhibitions and foster their relationships in the form of a dinner, chat, and drinks at the bar (I9/Q10.52).

8.2.3.2.4 Relationship barriers.

Lesser and Prusak (2004) observe that an individual award can hamper relationship building because an employee may focus more on personal aims (egoism) and desire to achieve the award instead of what is good for the whole organisation (we). Although an organisation can use awards to enhance cooperation and relationship building, an award is mostly tied to achieving a certain turnover or a similar aim that can lead, as indicated before, to opportunistic behaviour among the employees. This is most dangerous for NDKM because it could diminish the support given to others. Employees would make decisions for their own success and not focus on what might be best for an organisation. Furthermore, the relationship to another person cannot unfold fully, and this discussion can be linked to the introduced element of 'motivation'.

It is worth stressing on that the well-known issue of 'cultural difference' also hampers relationship building. The findings of this research reveal that even 'the way a person is able to speak' (i.e. their eloquence) could lead to anxiety and blockades.

This is perfectly exemplified by dint of German employees who have the advantage of being proficient in High German. Others who speak German with slang words consider such conversation partners as eloquent and intelligent despite this being merely a dialectal and cultural issue, and these *others* can quickly feel outgunned. An employee who speaks in High German is akin to a person who can converse in three or more different languages, as such a person is automatically considered as 'intelligent' within an organisation. Employees who are unable to discuss properly or eloquently in their first language are often downgraded regarding their skills. This anxiety can quickly emerge and make important relationships difficult. This is linked to the importance of communication – how to respond and how to react to questions introduced in the section 8.2.2.1.1, 'CF − communication'. Once again, the better a reaction is, the easier it is to build a new relationship.

It is crucial that each employee understands that eloquence cannot be equated with smartness or brainpower. To counteract this situation, the organisation under scrutiny has established English as the company language so that everyone must talk in a foreign language, which is also important since the organisation has become international.

Although diversity (I22/Q24.28) is essential for an organisation in this regard, it can also lead to barriers due to the myriad of individuals involved. For instance, as formerly introduced, a sales manager who is generally more extroverted can easily approach others, which can be more difficult for an engineer who is more introverted. This clearly illustrates why supporting employees so that they can approach others and have a conversation is essential.

However, unidirectional communication can also hamper relationship building and it is important to ‘distribute and receive information synergistically’ (Muthusamy, 2008, p. 151). This quote indicates that it is important not only to share but also to listen. Attentive listening is not important only to understand others, but also to show *respect* to the speaker. Showing respect enhances trust and reduces anxiety, which can serve to *strengthen* a relationship. This shows that positive social interactions are key to the very foundation of knowledge creation in this research and highly influence the relationship (conduit), transfer, frequency, and the volume of information and knowledge creation.

8.2.3.3 Network.

A network is a construct of many relationships to different individuals. Networks are often mentioned and discussed in the contexts of knowledge creation and KM (Davenport & Prusak, 2000) and are also regarded as vital for information sharing and knowledge transfer (Smith, Collins, & Clark, 2005; Warkentin, Bapna, & Sugumaran, 2001). In this regard, a network is vital for NDKM because it provides different and highly complex knowledge and lived experience in real time, which no other deliberately created (KM) system can provide.

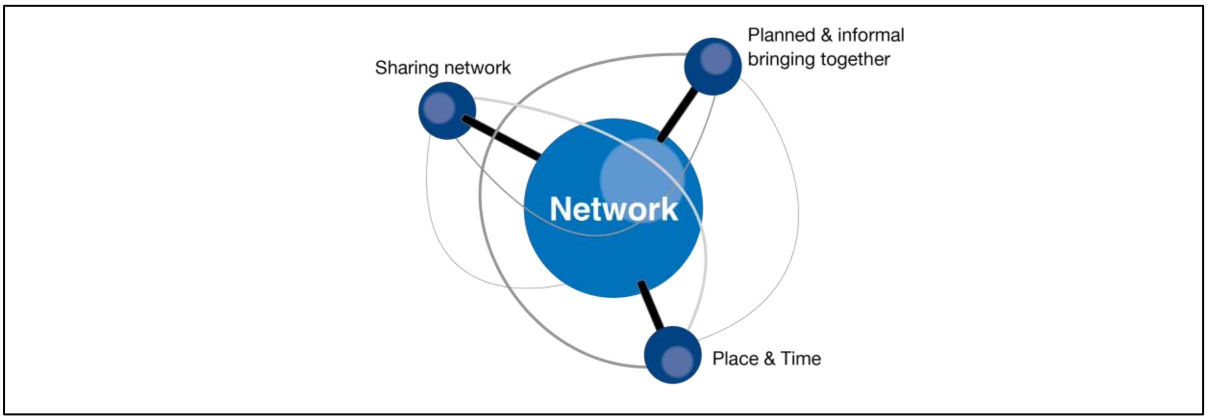

Figure 28. Network

It is important to understand that no employee or manager can provide all the required knowledge to solve all the problems or challenges that one faces during daily business. Therefore, it is important to have a network that supports the said manager or employee with lived experience, new perspectives, and knowledge to gaps when necessary.

Smith et al. (2005) investigate for their thesis whether many direct relationships (i.e. networks) have a positive effect on the transfer and search of information and thus the creation of knowledge. They use Nahapiet and Ghoshal's (1998) insight that many direct contacts of employees allows one to obtain 'information faster, access richer sets of data, and draw from broader sets of referrals' (Smith et al., 2005, p. 349) and the outcome proved the above-quoted understanding to be correct.

But establishing a good network that is filled with diversity is difficult. The discussion in the section 8.2.3.2, 'Relationship' has already shown that employees are tied to their direct environment and location. This is vital because it allows for quick access to knowledge and information (I12/Q13.23), but it also bears the danger that knowledge or ideas are only created in one direction and mostly with the same perspectives. It is to be borne in mind that diversity fosters creativity and an intelligent system and that it can quickly create knowledge regarding new problems or situations within an organisation.

Therefore, it is worth reemphasising the issue of the 'career ladder' that has been discussed in section 8.2.3.1, 'Structure'. To recall, career is about receiving more or new activities; for instance, an engineer can become a product manager and later become a sales manager or vice versa. This is not only valuable for lived experience but also for a network across the organisation. Because of the different activities that the employees are involved in, they can build an extensive network and provide this network to others (I16/Q18.29). It is significant that such a change is deliberately supported by the organisation (I27/Q33.21). This is a very important element for interconnectivity, knowledge transfer, searches, sharing, and finally knowledge creation and its NDKM.

The high regard that interviewees place upon the connection (network) to multi-cultural diversity in the organisation under scrutiny is to be emphasised at this juncture. There are around 25 different nationalities in the headquarter and more than 40 in the whole company. The interviewees have highlighted how diversity impacts their creativity and how it has made them more open to other cultures and their ideas (I23/Q35.31). Grohmann and Colombelli (2012) excellently echoes this sentiment by quoting an interviewee of their research who observed that ‘when you begin to mix people with different views, it turns the discussion richer’ (p. 40).

8.2.3.3.1 Planned and informal ‘bringing together’.

The findings elucidate that an organisation must support networking through different possibilities, events, and programs that can transpire through carefully planned or informal means and require the resource of *time*. This is important not only to establish new contacts and relationships to build a sound network but also, as Nonaka and Takeuchi (1995) calls it, to create ‘a common cognitive ground’ (p. 14). Although Nonaka and Takeuchi use the expression in their discussion of redundancy, which is about overlapping discussions (redundancy) on an issue in this research, a common cognitive ground is described as something that connects the different employees with the same interests, thoughts, values, and so on. In other words, to use a sentence of Senge et al. (2010), ‘we need to meet in person when we talk about what we really care about’ (p. 301). It enables the employees to build stronger connections (relationships) within their network, which facilitates communication and therefore also the search and sharing of solutions, ideas, and thoughts.

However, although the significance of planned and informal meetings has already been introduced in section 8.2.3.2.3, ‘Sharing time – gathering’, it is discussed in greater detail for the sake of clarity here. Informal approaches to meetings include instances such as when someone meets another person at the coffee corner, kitchen, or gym, and not at the office. When such an approach can be adopted, the organisation should support it and must develop it in a way that *invites* the employees to sit down and communicate.

Mønsted (2005) discusses the issue of an informal network and quotes a manager who has described it as a network that 'forms a skeleton of knowledge' (p. 283) because an informal network in particular creates a network filled with diversity and that filters through many different individuals across the organisation.

The organisation under scrutiny holds informal meetings and parties frequently in this respect. The organisation considers parties such as BBQs as a possibility for networking, reducing barriers, meeting new people from other areas of the company, building new relationships, and as a reward for accomplishing goals. Relationships get stronger through celebrations as the employees become acquainted with others in a better and deeper sense.

The employees can organise such meetings whenever they want. Although these meetings are not planned to share business ideas but instead to improve private relationships and social interaction, they frequently do both (I1/Q1.71). In these meetings, new private appointments are made in which employees meet up for hiking, mountain biking, and so on. It is worth linking this back to the last section 8.2.3.3 (Network), as this possibility enhances strong relationships, which are vital for knowledge sharing and NDKM.

Such possibilities lead to an interwoven organisation in which most people know many other employees from different departments. This allows employees to receive many different thoughts regarding different issues, which finally leads to new knowledge.

On the other hand, planned meetings are the 'Wednesday morning coffee meetings' (I6/Q7.14) (I11/Q12.44) or the regulars' table (I8/Q9.12), which exist for different areas in which colleagues from other areas are also invited (I7/Q8.28) to attend. At such tables or meetings, they share success stories or discuss low points that have been presented in the company magazine before. Such discussions are not for finger pointing (low points), but rather to stimulate others with ideas (i.e. new knowledge) and encourage the creation of ideas on how the situation could be improved. Additionally, what worked and what did not work are discussed (I21/Q23.28) and there is an equalisation of information, solutions, and new insights regarding different topics (I12/Q13.9) (I18/Q20.34).

There are also many highly professional platforms in which different people meet up and share marketing knowledge or experience regarding different topics (I7/Q8.19) (I6/Q7.19) (I7/Q8.19). Through the mix of people and the different stories regarding ideas, failures, and successes, the employees can create new ideas *together* (i.e. knowledge is socially constructed).

Planned and informal meetings lead to meetings at multiple levels that are a ‘bringing together’ (socialising) of as many employees as possible to build new relationships for social interaction so that employees and areas can intertwine. Employees need to know each other better before a relationship can be fruitful for knowledge transfer, exploration, creation. and NDKM. In this regard, it is noticeable that communication draws not only on business talk but also on talk about hobbies, leisure time activities, children, weekend activities. or general problems in life (I12/Q13.6.). By doing this, the barriers are reduced and the relationship gets stronger because all this *bringing together* has a corresponding positive impact on other elements like trust or friendship. The interviewees have confirmed that their relationships with, and interest into, the other employees is much stronger than what the employees experienced in their former organisations.

As already noted, there certainly are also employees who do not want to share private insights or are not interested in building new relationships, but the majority participate with passion. The findings elucidate that the employees love working in an environment where employees are interested in others, as this leads to an environment of respect. Additionally, the connections to the employees who do not want to share private insights or search for new relationships is much better and stronger when compared with other organisations.

However, these gatherings are important, as established in the section 8.2.3.2, ‘Relationship’. Although some interviewees highlight that new employees are quickly integrated into a network (I16/Q18.18), the interviewees link this statement to their own network. Additionally, new employees are presented in the intranet and the other employees use this information to approach the new employee to see if their knowledge could be useful for their own work. This phenomenon takes place only because the employees understand the importance of networking.

Nevertheless, as introduced in the last section, it is difficult to approach others for many employees at the beginning because some employees are shy and would never come to the top networker within an organisation (I23/Q25.31) (I22/Q24.9). This can lead to the situation for some employees in which a contact who might be interesting, useful, and vital will never be approached and therefore a conversation will never take place. Additionally, it is easier for some positions than for others, as exemplified by the comparison of sales managers who are normally more open and used to approaching others with software engineers who often like to focus on a tricky issue with concentration of solitary. This fact demonstrates the importance of the element of ‘bringing together’.

Bringing together employees not only eliminates the first hurdle to establish a relationship, which is approaching others, but also supports the reduction of the human blockade involved. Being closely gathered for the same purpose makes it easier to start a conversation and leads to a higher connectivity and networking frequency, which once again highlights the essential role of this program for the organisation.

8.2.3.3.2 Place and time.

To achieve an extensive and high level of interaction, it is necessary that one must understand and respect the myriad of individuals existing within an organisation, which can be linked to the discussion of the ‘recognition of individualism’. To recall a key point, each employee needs the right environment, the right possibilities, and the right setting to freely share their innermost thoughts and ideas at a very high level. Sharing the innermost thoughts is strongly connected to ‘trust’ and ‘feeling comfortable’, which are different for each person. Therefore, nice places like coffee corners, events, different ‘draw back’ possibilities, an above-average amount of meeting rooms and so on provide the required possibilities for networking. In other words, this enhances multiple cross-level relationship building tools and augments communication so that different perspectives can coalesce (I7/Q8.22) and intriguing, new ideas can be created (i.e. new knowledge). The discussion of this section aligns with the concept of ‘ba’ that has already been explained in the last section and literature review.

As mentioned at the beginning of last section, *time* is essential to establish a large network with strong relationships. Given that networking is not only about creating connections with others but also about taking care of the relationships so that a suitable network for NDKM can emerge, it is also understandable that employees will select others based on different criteria such as same interests, character, and so on to invite them to be a part of their own network. Because of the human blockade, it is not easy to share ideas, to ask for help, or to share lived experience; there must be some sympathies or something in common because such ideas could be seen as fanciful by others. Additionally, taking care of a relationship or networking is not a non-verbal issue and is about communication, discussion, and sharing, all of which require time. An organisation must allow its employees to secure time in their schedule to meet and share their information (I7/Q8.19). Therefore, time is an essential element for a good network for NDKM to be established over time (I22/Q24.32).

8.2.3.3.3 Sharing network.

The coaches and leaders of an organisation play a very important role in this regard. The findings showed that the managers consider their task as not only to support their employees but also to connect the employees with others (I22/Q24.19).

Interestingly, although it is considered as the coaches' or leaders' overall aim to connect employees to others, the findings revealed that employees, if they are not able to help, provide access to individuals within their network with the hope that one of them is able to help and support. Additionally, other employees approach their colleagues' network to ask for the right person who might be able to help (I6/Q7.41) (I10/Q11.15). This efficient phenomenon is essential for knowledge searching and knowledge sharing and can be linked to the consulting framework. This might be the reason why knowledge search easily takes place by dint of calling across the organisation. Additionally, the bigger an organisation becomes, the more important such behaviour is. When an organisation is small, everyone knows all, but with the growth of an organisation, it is important that others support one another with their own network (I10/Q11.15).

8.2.4 Communication – the binder and the bridge.

Through the data gathering process, especially by means of discussion and answers with the interviewees in such a way that the sharing of ideas and creative thoughts must be about communication (Original quote, 'Ich denke, dass Kreativität und Ideen weitergeben viel mit Kommunikation zu tun hat') (I4/Q5.11), it became obvious that communication is not only a vital issue in the organisation under scrutiny, but it also has an impact on knowledge creation and NDKM.

In this regard, many elements have been revealed that are primarily associated with communication, specifically with its quality or frequency. However, closely analysing communication to understand the foundation for successful and suitable communication for the phenomenon of this research (NDKM) is based on the elucidated elements such as the founder's philosophy, relationship, and so on, as introduced or elaborated in the previous sections.

It is worth noting that communication, no matter which form it takes, is a binder for social interaction and a bridge that enables the transferring or receiving of information among the different actors within a society or, in this context, an organisation. Therefore, the whole idea of communication implies *connection*.

The ongoing discussion in the current literature about the importance of knowledge creation or KM can lead to the danger that readers try to objectify knowledge or KM to make it manageable for them and they also believe that knowledge creation is the predominant key process for innovation. The findings of this research show, to the contrary, that creation of knowledge is *only* the result of many other elements and situations that are prerequisites for knowledge to sustainably emerge within an organisation. The (right) connection among employees is one of the most important elements because the connection enables employees to transfer and search for the required information, knowledge, and experience and to discuss and reflect on ideas. This fact can be coherently linked to the catchphrase 'it is not important what you know, but who you know' and to section 8.2.3.3 'Network'.

Gadamer, who is often quoted in this research, indirectly explains by way of his concept of 'the fusion of horizons' why the elements 'connection' and 'communication' are vital not only for an organisation, but also for mankind. Through the connection (i.e. fusion) of two horizons (i.e. lived experience), knowledge, ideas, insights, and experience are shared, which is then used as a basis to create knowledge (I11/Q12.36) and innovation.

Although the concept of ‘fusion of horizon’ sounds easy and, for some employees, coherent, it is in fact not so. The concept of ‘fusion of horizon’ draws from processes such as sharing, transferring, relationship building, communication, and so on, and these processes in turn draw on emotion. The vast amount of individual emotions created by way of wishes, desires, fears, and personal problems that exist within each organisation entails that the concept of the fusion of horizon can became very complex as it can quickly lead to barriers.

It is worth highlighting that to maintain a suitable and established connection among employees regarding the previously mentioned processes, they must be kept well and frequently *pushed* within a society, which amplifies the complexity involved in achieving a high level of knowledge creation.

However, as mentioned at the beginning of this section, many elements are elucidated that promote communication and are catalysers. During the discussions of the findings, it becomes clear that the more catalysers (see Table 11) exist or are established within an organisation, the more frequently communication can take place among all the actors.

To manage the high number of possible catalysers, the findings are classified below into seven thematic patterns as shown in the Table 11. The sub-elements (i.e. findings) represent tasks, characters, processes, aims, and so on.

Many of the mentioned catalysers and patterns have already been discussed in the previous section. Therefore, for the sake of clarity, the aim of this section is not to revisit all the elements, but rather to highlight some that will facilitate further insight because they have not yet been discussed in depth, such as the patterns ‘employee’, ‘documentation’, and ‘HRM’. It is worth emphasising that the following discussion is about the essential topic of this research (i.e. knowledge creation) and not the sub patterns.

Table 11

Eight Communication Catalysers

Gatherings (planned and informal)	**Role of employ-ees**	**Informa-tion tools and software**	**Object of documen-tation**	**Human Resource department**	**Leader-ship and coaching**	**Basics**
Quality circle	Multi-plier	Intranet	Meetings	Efficient communi-cation (active talker, attentive listener)	Raise awareness for sharing infor-mation	Aim (product, improve-ment)
Jour fixe (regular meeting)	Collec-tor and distribu-tor	Video conference	Customer requests	Consultant (Viral)	Thinking out of the box	Language
Scrum	Teacher and mentor	Content manage-ment	Pictures, videos, statements to raise awareness	Coaching awareness of emotions, entrepreneur-ship, cultural differences	Platforms for organisa-tional infor-mation	Small human barrier
Information and Knowledge Transfer (IKT)	Net-worker (Job rotation)	Telephone, mail	External documenta -tion (market, customers)	Study (dual, part time, cooperation with universities)	Demand employees for infor-mation sharing	Time
Regular tables		Chat rooms	Company magazine	Appropriate employee	Role model function (mentor, consultant)	Environ-ment/ar-chitecture /office
Meetings		Company search	Reports	Talent system and advanced training	Trust in employees (viral)	Recogni-tion of individu-alism
Workshop		IT solutions	Docu-ments for Wiki	Conflict Management		
Leisure time activities		CRM	Good praxis and low lights			
Platforms		WIKI	Patents			

8.2.4.1.1 Employee.

It has often been explained in this research that the organisation studied has their focus on the needs and wishes of their employees because they consider the employees to be their most valuable asset. This focus is very vital in a KM context because employees memorise experiences and information and interpret them through different information or perspectives. This is essential for knowledge creation because the employees are the most efficient hard drives for an organisation. Nevertheless, the employee is the only one who decides whether information will be shared, transferred, or blocked, which is, as already mentioned, a very emotional process.

Therefore, it is postulated in this research that everything regarding social interaction and therefore knowledge creation also draws on an emotional process (I22/Q24.28) (I28/Q34.22) (I3/Q3.23) (I22/Q24.27). This emotion is often expressed physically, such as with anger or joy. Stacy (2001) astutely and relevantly observes that ‘people experience their interactions in their bodies, in the mode of feelings’ (p. 130).

Essentially, emotions are, as already indicated, omnipresent and have different and vital functions in daily life such as body regulation, selection, awareness, motivation, expression (body language, tone of voice, mimic, etc.), and evaluation of preferences (Altenthan et al., 2010). Many of these elements have an impact on the receiver and influence the level of proximity, openness, or sympathy. It also explains why the expression ‘emergent’ has often been mentioned throughout the discussion of the findings, as it describes how these elements manifest.

Noteworthy in this regard are the insights and works of Reinhard and Anne Marie Tausch, such as their book *Erziehungspsychologie – Begegnung von Person zu Person* (1998), that are often interpreted in study records for pedagogy and psychology. Altenthan et al. (2008) construe their insights as positive emotional relationships that draw on esteem, understanding, and authenticity.

Interestingly, the findings of this research not only foreground positive emotion as essential for this topic because it reduces the interpersonal barriers to a minimum, but it also elucidates that the elements such as esteem, understanding, and authenticity are frequently mentioned elements that are implemented through the founder's philosophy. This corroborates the essentiality of the founder's philosophy and the power that a founder has. As already explained, the philosophy is so successful because it has been placed on the top of the organisation and is also established as the foundation, and it is therefore lived by the whole organisation (i.e. behaviour, culture).

However, as introduced in section 13.2.13, Golemann (2011) has used the term emotional intelligence (EI) and associated it mainly with leadership. His discussion shows many elements that are elucidated in this research and considered to be important for NDKM. EI, as already introduced in the literature review of this research, contains elements such as self-awareness, self-regulation, motivation, empathy, and social skills (2011), which are important for leadership because it recognises the needs and wishes of the employees. This underpins the necessity underlined in this research to place the focus on the employees and their needs and it also aligns with the positive emotional relationship discussed. Moreover, the findings reveal that not only must the leadership but also almost every employee working in the organisation under scrutiny must possess these skills because the sharing and transferring of information or knowledge must occur across the organisation. Furthermore, this is also because sharing is an emotional process and needs low barriers, which can only be realised if each employee can correctly approach the conversation partner and the latter can respond and react in a professional manner so that no barriers emerge (i.e. EI). Hence, the higher the EI of a person is, the lower the emotional barriers within an organisation become.

A short diversion is necessary at this point to highlight that not only is the employee essential, but the right perspective on knowledge creation is also imperative for the employees to be able to create knowledge. A person who starts immersing themselves into the topic of knowledge creation or KM is keen to reveal how the creation of knowledge can be enhanced and typically focuses on omnipresent and famous topics such as the knowledge creation process, the spring of knowledge, or the vast amount of different types and features of knowledge. These insights are truly interesting and vital, but they are mostly not valuable in business and daily life because the insights do not answer the question of how to enhance knowledge creation and its NDKM. Knowledge within an organisation, as it is defined for this research, is seldom created by one person but rather by the whole organisation and its environment – it is socially constructed. Therefore, the most important focus regarding knowledge creation should be not on the knowledge creation process per se, because the creation of knowledge is the final result or the outcome (emergent), but rather on the possibility to search, distribute, and share lived experience and information. This must always be with the precondition of finding the most efficient, economic, and sustainable approach. The elements of the knowledge creation process automatically appear as soon as different horizons fuse, which requires the searching, sharing, or distribution process beforehand.

Against this backdrop and these preconditions, the previously mentioned ingredients that are required to fuse horizons are important for knowledge creation as it draws on the ability to extract the unique lived experience and information of different employees and to fuse different horizons. This can be ensured best, as mentioned in the introduction of this section, by means of ordinary and direct contact (I5/Q6.44) (I23/Q25.13) (I24/Q30.9) (I28/Q34.6). The importance of the direct contact plainly explains again why the focus on employees is essential for NDKM. It is only when an organisation can recognise the needs of its employees and reduce interpersonal barriers that the employees are able and ready (emotion) to establish a good number of contacts across the organisation, which in turn allows the melting together of different horizons through communication.

Moreover, the findings show that contacts across the organisation are enhanced if the employees have the possibility to grow and advance their skills and personal wishes, which is strongly tied to the patterns of autonomous working, growth, and career ladder. If this possibility exists within an organisation, employees can develop their personality and can act over time as multipliers, collectors, distributors, teachers, supporters, mentors, consulters, bridge builders, networkers, barrier breakers, and so on (I4/Q5.39) (I7/Q8.10) (I18/Q20.34) (I5/Q6.33) (I15/Q17.1) (I5/Q6.6) (I16/Q18.9) (I16/Q18.6) (I23/Q25.17) (I13/Q15.24) (I1/Q1.22) (I4/Q5.15) (I22/Q4.19) (I24/Q30.36). All these characters show that if the opportunity is provided by the organisation, an employee does not merely remain as a worker with one defined position but becomes an experienced and multi-functional actor who is ready to establish contact and fuse different horizons.

The concept of 'fusion of horizons', which has often been mentioned in this research, might be considered as an abstract or a very philosophical issue, but in reality it takes place on a daily basis, for instance, while reading a paper, a book, or an email. In such cases, the horizon of one person approaches another by means of a text. Although this kind of fusion is considered to be important because of the vast amount of existing explicit knowledge and information, which is transcribed from people such as long-gone philosophers, experts, or scientists (i.e. horizon), it is not the most efficient way of sharing knowledge (I10/Q11.43) because of the time-consuming reading process and the questions that can emerge. Many interviewees prefer to approach employees to discuss a subject or to ask a few questions about an issue (I9/Q10.56).

The most efficient fusion takes place via direct contact with another person (i.e. communication). This is most efficient because the dialogue or discussion with another employee is led by what is known and what is not, and it is a dynamic process in which questions can be immediately answered and knowledge gaps filled. This is in contrast to a text in which a dialogue is more static and questions remain open and unanswered, especially if an author of the text has already passed away. However, this discussion leads to the next pattern that is called ‘documentation’.

8.2.4.1.2 Documentation.

Although documentation is declared as *not efficient* per se in this research because it is static and time consuming due to the transcribing, storing, searching, reading, and updating processes that it entails, it can also have its eligibility because it promotes the stimulation and sharing (i.e. transporting) of information across the organisation, which in turn connects employees and leads to different discussions (I39/Q35.22) (I5/Q6.9) (I13/15.33). It is worth emphasising that through such discussions, a certain dialectical process takes place that draws on the document because it can also stimulate the author with new ideas.

It is important to note that the *right dose* of documentation is essential here as well. Overloading an organisation with information (documentation of meetings, news, plans, etc.) is not useful because it stresses out the employees and only leads to behaviour that includes not looking for or reading news. Therefore, instead of pushing information at a high level into the organisation, it is more important to select the right channels and to provide information in the right dose according to the motto ‘less is more’. The findings show that the employees understand this principle, which was often quoted and exemplified by the case of documents in a river. If we imagine that there are a few documents in a river that expresses the flow of information, the employees can see, because of transparency, the information they are interested in and are more likely to grasp, read, or use one of the pieces of information. But if the river is overfilled with documents, the transparency is lost and therefore it is more likely that employees would step away because they are unable to select the information they are interested in.

Closely linked to documentation is the reading process, because we only document so that others can read what we want to share (i.e. information). The findings show that reading per se is also considered as vital for new knowledge creation, although it is not a *key element* like direct contact or lived experience. The interviewees have mentioned that they often start a new project by reading to immerse themselves into a new topic. Reading current professional literature or books written by experts regarding a subject helps to build a knowledge foundation on which employees can develop new ideas (I6/Q7.17) (I16/Q18.9). Reading leads to a certain knowledge base but can also lead to new questions. To reflect or discuss these questions, the reader (i.e. employee) approaches other employees if the organisation allows this, and new connections thus emerge. However, it also highlights why the elements introduced in this research such as structure, philosophy, the collective, and so on are essential for NDKM.

An additional interesting feature regarding documentation is the support of employees, especially within but not limited to their networks. When an employee is reading something interesting, such as an article regarding management methods, the employee copies it and sends it to other colleagues who share the same interests or for whom such insights might also be interesting. Thus, *support* is a DNA element as already discussed in the pattern ‘collective’.

8.2.4.1.3 Human resource management.

The importance and the tasks of the department or position of *human resource* is seldom discussed in the light of knowledge creation or KM. The current literature sometimes mentions as an aside that smart people are required for innovation, which is a task of HR. Beyond this task, the findings reveal another element which must be the primary focus because it is essential for NDKM. The most important element besides expertise to become a part of the organisation under scrutiny is how the person fits into the existing structure and behaviour, which mainly pertains to respect, communication, sympathy, empathy, and the possibility of approaching others to interact with them (I9/Q10.36) (I2/Q2.26) (I19/Q11.11) (I28/Q35.19). The interviewees have illustrated, as already introduced in section 8.2.1.10, that if there are two applicants for a position and one of the applicants has a very profound knowledge regarding a subject but is less strong in social interaction and approaching others, the applicant with less knowledge would be chosen if they were adept at social interaction. The reason for this approach is that knowledge can certainly be learnt, experience can be gained, expertise can grow over time and be supported by possibilities such as autonomy in working or a career ladder, but the right way to approach others, to show respect, or to behave so that no emotional barriers emerge is a character issue and can rarely be changed. Having an organisation filled with employees who are strong in social interaction might be one of the reasons for the phenomenon of this research, as it is a prerequisite for the ‘fusion of horizons’. An organisation with almost no emotional barriers facilitates high-frequency, sustainable connections and very easy sharing, transporting, and creating of knowledge across the organisation. It is the very foundation of knowledge creation and NDKM and it springs from the founder’s philosophy. The employees can be considered to be the bricks for the bridge which must fit together so that information flow is possible.

Besides the important task of selecting the best employee for a position, the HR department should also provide seminars, coaching, and possibilities for higher education (I23/Q25.14) (I24/Q30.37) (I26/Q31.21) (I27/Q33.21). The organisation under scrutiny provides this to a high degree, which is another key reason for the low level of existing emotional barriers. Employees not only attend seminars regarding their position but also about *communication*, wherein the issue of differing perspectives, how to react correctly to an emotional situation, how to best approach others, and so on are explained to participants. All these elements reduce emotional barriers and anxiety when approaching others, which leads to more connections, fruitful discussions, fun at work, passion, and finally knowledge creation and its NDKM. It is not only the coaches or the upper echelon that get this possibility for education, but also the employees. In this manner, each knowledge asset (i.e. each employed person) has the best possible links across the organisation. The findings show that the different talent seminars provided by the organisation enhance ambition, self-esteem, competence, the employees' work, and also support the employees in becoming experts.

The aggregate of these elements creates an *open-minded* organisation wherein the employees are interested in different cultures and ideas and are professionals with very attentive listening, a high level of communication skills, and the readiness to connect and share. It is obvious that all these elements have an impact on the previously mentioned vital elements such as sharing, distribution, and gathering of information.

8.2.5 Passion.

The five general patterns (see Figure 12) shown at the beginning of the discussion of the findings showed the pattern of 'passion' embracing all the other patterns and findings of this research. It is notable that passion is a result that draws on *emotion* and a mix of different elements introduced within this research. Therefore, passion is also an emergent element.

Moreover, a very interesting question regarding the phenomena of this research was how the NDKM of knowledge that is not tangible or visible can take place. To start with this discussion, and as a reminder, it is worth revisiting a previously employed definition regarding the traditional understanding of KM: 'Knowledge Management is aimed at promotion knowledge process, such as the "localization" and "recording", "dissemination" and "accumulation" of knowledge, and doing so purposefully by means of various activities' (Enkel, Heinold, Hofer-Alfeis, & Wicki, 2002, p. 116).

Elements such as location, recording, dissemination, and accumulation are often mentioned in the current literature and glorified by many experts as essential to traditional KM. This basic thought might be correct, but the large number of unsuccessful KM projects shows that the existing approach and the ideas regarding traditional KM and its elements must be flawed.

However, reflecting on the aforementioned elements in comparison to the findings of this research shows that such processes occur first and foremost through direct contact and passion. Passion, which is a powerful emotional element, shows again how important it is to place the employees and their needs at the centre of the organisation in order to reduce personal and emotional barriers to a minimum to enable such a phenomenon as introduced in this research (NDKM).

In this research, passion is regarded as the trigger or the impulse that leads to all the other elements as shown before in the definition of traditional KM, and a special setting is needed if the organisation allows their employees to non-deliberately manage them. Goleman (2011) astutely observes that passionate people generally do the following:

> seek out creative challenges, love to learn, and take great pride in a job well done. They also display an unflagging energy to do things better. People with such energy often seem restless with the status quo. They are persistent with their questions about why things are done one way rather than another; they are eager to explore new approaches to their work. (p. 14)

The qualities such as loving to learn, unflagging energy to do things better, or restlessness with the status quo not only indicate what passion is capable of, but also contain the search, transfer, and sharing process of knowledge and lived experience that is necessary to improve a situation. Through the search for improvement or the desire to solve a problem, knowledge is, to put it in a traditional way of understanding it, *managed*. It is to be noted that passion must exist to reveal a common aim or a problem to be solved. This can be linked to the already-introduced issue of ‘organisation aim’, which is a reason why people gather within an organisation. Polanyi demonstrates through his example of the pyramid that to reach the peak of a pyramid (i.e. aim, problem) in the different levels, a new process must take place (i.e. new knowledge). In other words, without an aim to achieve or a problem to solve, the existence of an organisation would be suspect.

However, the findings elucidate that employees reveal passion because of what the organisation provides and does for the employees. This is only possible if the employees are fully placed at the centre of the focus of the organisation.

An employee has said expressed this as follows:

> passion, is anchored in our mission, vision and values …, passion is …, in most of the employees …, it coins the organisation …, and it is also for me […] it is more than only a job …, and contains identification with the philosophy of the organisation …, fun at work …, fun … regarding change which we can undertake. (I9/Q10.1)

Moreover, as formerly presented, passion emerges because of the positive emotional relationship in the organization under scrutiny; this relationship is created through appreciation, esteem, a focus on the needs of the employees, and so on. Therefore, the need of passion corroborates the importance of the founder’s philosophy, which has a direct impact on basic and higher social-psychological needs. It is important that the requirements are marked differently for each person, as what is important for one person may not be of the same importance for another. This illustrates again how vital it is to understand the myriad of individuals existing within an organisation. This issue is intricately linked to the discussion of the ‘recognition of individualism’ and Handy’s (1999) elaboration of the psychological contract between organisation and employees and vice versa where needs are satisfied.

However, the findings have often been compared by the interviewees to their former working place, which frequently have been blue chip companies from Austria, Switzerland, or Germany. The statements corroborate the previously mentioned insight that a main reason for passion is the different philosophy used to build the organisation, which focusses mainly on harmony (I21/Q23.9). For harmony, elements such as emotion and the focus on the employees and their needs need to be omnipresent within the organisation. That the organisation still succeeds in creating an organisation with passion, although it has existed for decades now, shows how the organisation is still described as young, open, new, and modern (I23/Q25.1) (I29/Q35.17). This also indicates elements such as vitality, improvement, restlessness with the status quo, and proactive working – elements that can also be used to describe passion.

An organisation that draws upon a philosophy of the kind introduced in this research and focusses on the needs of employees also has an organisational purport and is done for its own benefit. The organisation under scrutiny believes that if employees have a good and interesting work environment and if the employees like to go to work, where they can constantly experiment, work autonomously, and be creative, the employees automatically and frequently bring in new ideas because of their love for their work (i.e. passion) (I24/Q30.1) (I24/Q30.2), which enhances new knowledge output. Employees start to reveal interest and seek solutions and therefore also knowledge, which finally leads to more social interaction if the organisation permits it. Additionally, autonomy also involves making decisions and taking the responsibility for these decisions. This, as the findings have shown, also has a positive impact on passion, because each time an employee needs to do or decide on something, the upper echelon does not have to be approached (I5/Q6.3) (I18/Q20.5) (I24/Q30.21). In other words, they can ‘just do it’, which allows the employee to learn from the decision.

Furthermore, employees are also allowed to use company time for social interaction, approaching others for communication across the organisation, having fun, and so on, which are key triggers for passion. These amaze the employees and enhance their will to reciprocate with new ideas, improvements for the organisation, and enhanced effort.

It is to be reemphasised that although employees with passion also work in other organisations, they are mostly few and far apart. What is important for NDKM is a high concentration of employees with passion. Additionally, the findings show that in other similar organisations, elements such as an open organisation, good friendships, and flat hierarchies do exist, but not the combination of all the introduced and discussed elements that have drawn upon the founder's philosophy at a very high level and for decades.

Many employees have mentioned the importance of passion for their work and linked it to the founder's philosophy. This shows that very vital elements for this research are not merely presented and shown, but also taught and understood by the employees, such as having fun or bringing the best people together to create new and innovative solutions. The interviewees have emphasised through their answers that the founder's philosophy is the most important foundation for the organisation, which is what makes it different, and therefore that it must be maintained and improved frequently (I8/Q9.45).

Hence, all the findings introduced and discussed in this research have a very positive impact on the employees. It makes the actors within an organisation more open, communicative, and ready to approach others (I39/Q36.19). Essentially, it leads to a 'barrier-free' organisation (I4/Q5.15) filled with trust (I4/Q5.3) and many other positive elements where the slogan 'just do it' or its context is often mentioned (I9/Q10.6) (I22/Q24.35) (I2/Q2.38), transferred, and 'lived' at a very high level. This is important because it challenges the employees and triggers their curiosity in many ways and regarding many issues (I19/Q21.2) (I20/Q22.4).

It also seems that the awareness of all employees, and of the organisation itself, that they are *not perfect*, although they try to do everything with a high level of excellence, also positively affects passion because it provides the employees a kind of modesty (Observation/Q40.20). Modesty does not allow for arrogance, which is a negative barrier that inhibits internal and external information flow. Modesty can also be linked to understanding – the organisation understands that one couldn't possibly know everything and that only through a *collective* can innovation emerge, as knowledge is socially constructed.

To close the circle and to display the link to the beginning of this research, the organisation must, as has often been mentioned, enable autonomy. Hence, it is not just about providing resources but also about respecting the elements created by the employees that bear the hallmarks of the organisation (Original quote, 'es wird honoriert und wertgeschätzt, wenn man ... wenn das irgendwie unsere Handschrift trägt') (I8/Q9.29).

To create innovation, an organisation must think differently and be distinctive in comparison to mainstream organisations. Having an organisation fuelled by such a philosophy and passion is a good start.

9. Theory of Uniqueness – Third Research Question Answered

The first research question, which was about understanding the traditional and deliberate form of KM, has been answered through the two extensive, thematic and systematic literature reviews (see chapter 5). The aim of the second research question was to explicate the phenomenon of this research (NDKM) and to show how it manifests within a knowledge-intensive firm, which has been achieved through the thick description provided in chapter 8. Finally, this chapter is to answer the third research question.

The meaning of the theory of uniqueness has been introduced and discussed in the section 7.2.3. As previously stated, through the writing process and the extensive interpretation of the findings, ‘signifying relations’ (van Manen, 1990, p. 132) among different elements and patterns have been built, which can be described as the theory of this research. By means of the researcher’s bias, cultural background, education, lived experience, and so on that are used for the interpretation of the findings (i.e. the thick description), the ‘theory’ becomes unique. Therefore, the ‘theory of uniqueness’ is a summary of the interpreted key elements of the findings, which are supplemented with a short explanation in each case.

The vital fact that knowledge cannot be *managed*, which aligns with Senge (2002b) who observed that KM is ‘an awkward term’ (p. 56), is to be reemphasised at the outset. Through different discussions, it has been elucidated that knowledge, such as creativity or the phenomenon of this research (NDKM), is emergent, as the indirect influences of various elements are required for knowledge to emerge. Information, on the other hand, is manageable, but it enhances the difficulty of distinguishing between information and knowledge that often results in an unlucky trial to implement a traditional KM system such as an information technology like Wiki. An overview of the patterns and the key elements introduced has been provided below to make the vast amount of data manageable (see Figure 29: The 5 GPs and their key elements).

Pattern		Content				
1. DNA	The founder's impact and power		Communication and socialising			Environment
	Top-down approach, role model function and resources		Care, trust and positive values			Like attracts like
			Role Model Function			
2. The enablers – basic setting	Cultural framework	**Communication**	**The collective - Support, feedback and consulting**			**Experimental and failure**
			Support framework	**Feedback framework**	**Consulting framework**	
		Right dose of communication	Provided by organisation and employee	Allows for reflection, stimulates rethinking and recreating	Consulting for employee	Autonomy
		Freedom of speech	Service as behaviour			Climate of innovation
		Rituals and time	Autonomy		Organisation for employee	Pattern Breaker
		Communication technique /etiquette	We-thinking	Improves ideas & solutions (counter check)		Pre-requisite – no-anxiety culture
		Good working atmosphere	Time		Employee for organisation	Time and story telling
		Size of an organisation	Low social interaction barriers	Sharing lived experience		Acceptance from management
		Education	No anxiety to support	Arguments, feedback, respect and appropriate communication	Employee for employee	'Just do it'
		Structure	Relationship & respect			Prerequisite – environment of tolerance
			Employee & Organisation - same understanding to service			
	Knowledge strategy	Knowledge meaning for the organisation	Dwelling time of employees	Focus on employee and customer	Founder's philosophy (values) as strategic ingredients	Awareness for knowledge creation and sharing
	Organisational development	**OD basic**	**Elements of improvement**	**Triggers for NDKM**		
		Impact on employees' behaviour	Analysis from management, coaches, upper echelon, the whole organisation and random employees	Internal communication department		Recognition of individualism
		Dynamic system		Autonomous working		
		Inhibit harmonious system		Organisational aim and inner picture		Fun at work
		Organisational improvement behaviour		Growth		Sharing organisational information
			Employees are invited and heard	Problem of multi-technology		
			Focus areas for improvements	Satisfying curiosity		
			The I-K-T process	Knowledge sharing – safety and no-anxiety		
3. The connectors	**Structure**			**Relationship**		**Network**
	Hierarchy vs. heterarchy		Group-cell division	The quality of relationship	Relationship barriers	Planned and informal bringing together
	Career ladder vs. being seen as an expert		Distance	Personal barrier		
	Management 'bottom-up approach'			Sharing Time – gatherings	Structure and distance	Place and time
	Organisation size – group size					Sharing network
4. Catalyser for communication	Gatherings	Employee Information tools and software	Human resource management	Leadership and coach		Basics
5. Passion						

Figure 29. The 5 GPs and their key elements

The discussion of this research has shown that the elements used for NDKM are not new. This is expressed by a manager of the organisation under scrutiny with his quote that has often been mentioned: ‘What we do is not new ... and what we do is not always right … but we try to do everything on a very high level’ (Observation_Notes, p. 3). Analysing and interpreting the findings shows that philosophers such as Mead, Polanyi, Heidegger, Gadamer, Berger and Luckman have already developed key concepts about social reality, society, learning, communication, growth, and so on which can be found in the philosophy of the founder (DNA). It is certainly correct that some concepts are also found in other organisations, but the difference in those organisations might be the concentration of concepts and how they are established and experienced, which can be linked to the statement in the quote above that ‘we try to do everything on a very high level’.

However, it is worth emphasising that the order of the five general patterns listed in Figure 29 are important while building such a system because there must always be a pre-given concept or resource so that the next element can be implemented, which reiterates Polanyi’s (1966/2009) concept of reaching the peak of a pyramid.

The pattern ‘DNA’ is considered to be the foundation for this phenomenon because without the founder and the established elements that are important to him, the organisation would have another *character* and different values that could inhibit or reduce the possibility of NDKM.

The pattern ‘The enablers – basic setting’ is important, as the name indicates, in establishing a basic setting for NDKM and contains the following components: cultural framework, knowledge strategy, and organisational development.

Cultural framework not only contains the elements and values of the founder’s philosophy but it also extends them. This pattern is essential to distribute the highly crucial elements and values of the founder’s philosophy that also represent the organisation to all the employees. As the organisation under scrutiny is a fast-growing one that frequently employs new employees, the cultural framework facilitates the transportation of the essential values and elements so that NDKM can take place at a high level.

Knowledge strategy is about making the organisation aware that knowledge and everything else that is important in this regard (such as communication, sharing, and so on) are vital. This fact is demonstrated by the basic idea that knowledge is not only power but is also important for sharing. Furthermore, having knowledge as a strategic pillar within the organisation emphasises its importance and allocates the necessary resources for NDKM.

The pattern called *organisational development* develops the organisation with respect to the philosophy and values established and defined by the founder, and it also focusses on the employees and their problems and desires in order to create a setting that should minimise negative emotions and interpersonal barriers as well as enhance social interaction and communication.

The connectors is a pattern that contains the elements 'structure', 'relationship', and 'network'. These elements enhance the connection among all employees and across the organisation. The findings show that the values established by the founder (like 'support') are essential here as well, which clearly explains why the founder's philosophy is considered as a foundation.

Catalyser for communication comprises a vast number of elements that trigger communication. Although communication has been highlighted several times in different chapters and sections in this research, it was considered as essential to create the pattern 'catalyser for communication' to reemphasise the importance of communication. Through the founder's philosophy, structure, triggers, and so on, communication can take place at a high level. It is the *binder and the bridge* for social interaction and is therefore important for NDKM.

The last pattern called *passion* is emergent and draws on all the previously discussed elements. In fact, it is directly about the non-deliberate management of knowledge. It is worth demonstrating again, by way of quoting Goleman (2011), why passion is considered as the *management* element of this phenomenon. To recall, passionate people do the following according to Goleman (2011):

> seek out creative challenges, love to learn, and take great pride in a job well done. They also display an unflagging energy to do things better. People with such energy often seem restless with the status quo. They are persistent with their questions about why things are done one way rather than another; they are eager to explore new approaches to their work. (p. 14)

Certainly, using *passion* as the reason for the management of the intangible (i.e. knowledge) is a highly philosophical approach, but this is already well known because the tasks that one likes to do will always be performed at a high level of quality because it is a personal aim of the persons involved to improve their skills in this regard.

Moreover, reflecting on and summarising the *theory of uniqueness* of this phenomenon shows that NDKM is about a multitude of already well-known concepts and philosophical approaches that have an impact on the people of a society, which in this context refers to the employees within an organisation. Focussing on the employees and their wishes, desires, and problems as well as considering the element of *emotion* as an essential key factor or trigger to develop an organisation in a certain way and to reduce interpersonal barriers, apply concepts, and implement approaches at a high level will open the possibility of revealing passion. If passion emerges from many employees within an organisation, a suitable setting for NDKM can be deemed to exist.

The *theory of uniqueness* of this research is considered to be valuable for business because it can be used as a management guide and therefore has an impact on the formation of an organisation from the outset. It reveals important areas to focus on (5GPs) and the relationships and connections among different elements that lead to new thinking about how an organisation can be triggered so that knowledge creation and its transfer (i.e. NDKM) can emerge.

10. Prerequisites and Limits

Discussing and interpreting the vast number of findings plainly shows that financial resources and company size are two elements that are prerequisites not only because of their logical derivations revealed by reflecting on and interpreting different meanings, but also because they are directly and frequently mentioned by the interviewees and employees. Although some elements that have been introduced and discussed in this research can leave the impression that knowledge creation with NDKM can be implemented without considering the mentioned prerequisites, it is an entirely wrong idea.

Financial resources are important because all the introduced elements contain the component of time, and in this regard, ‘time is money’. Elements such as communication, discussions, support, consulting, social interaction, possibilities to withdraw, or the possibility to approach every actor across an organisation require time to be performed.

Additionally, an essential element of the organisation and a part of the organisational philosophy is *having fun*. This also indicates that sufficient resources must be there so that employees can work during normal working hours and hence are not under permanent time pressure that would not permit ‘fun at work’. It requires a slight *surplus* or generous planning of employee capabilities that requires more financial resources. If this does not exist, then communication, which is one of the key success factors for knowledge creation and its NDKM, cannot take place. Therefore, although communication is the most efficient and economical way to share, store, interpret, and transport information and knowledge, it also requires financial resources because of the time required.

Comparing NDKM with the traditional understanding of KM shows that NDKM, although it demands a slight surplus on employees (i.e. cost), is still more economical than the traditional understanding of KM. Traditional KM draws mostly on what is called a KM department or a position titled ‘Knowledge Manager’. This person interviews other people and tries to connect different kinds of knowledge. These attempts mostly constitute the unsuccessful stories of international companies who have tried to implement ‘KM’. In such cases, vast amounts of financial resources are invested for different IT systems, strategies, concepts, employees (Knowledge Managers), and in updating data stored in the IT systems without the desired success or benefit to create new knowledge. This finally leads to failure and perhaps worse situations within the organisation because of incompletely implemented changes such as flat hierarchy, new processes, or unused strategies. Therefore, the phenomenon of this research is not just sustainable and has a positive effect on the employees (i.e. passion), but is also more economical in the end with a higher output of new knowledge.

Furthermore, financial resources are not only essential because of the issue of time, but also because of the size of an organisation, which has an impact on the intensity of a culture, behaviour, and decision processes.

In the section ‘culture framework’, it has been discussed that the bigger a society or, in this context, the organisation is, the more problematic it becomes to implement and maintain a certain behaviour and therefore the basic element of NDKM. The right behaviour or culture is the very foundation for NDKM to take place, and maintaining the DNA elements within an organisation is about frequently triggering, teaching, and demonstrating these elements. For the phenomenon of this research, which is about knowledge creation and its NDKM, it must be done on a very high level. This clearly explains why financial resources are important, because it enables time and money to be invested into revealing awareness and behaviour for the founder’s philosophy – the very foundation of this phenomenon.

11. Conclusion

The outcome of this research not only contributes to a new perspective on KM but also indicates why organisations still struggle when they try to implement a KM system.

The two extensive literature reviews (thematic and systematic) have answered the first research question and revealed that KM has not only been a vital issue for experts and organisations for decades, but also has been mostly underestimated in its very complexity and essence. The ancient Greeks such as Plato discussed the issue of knowledge, and many philosophers and experts have followed suit since, which has led to a myriad of discussions, insights, and ideas regarding knowledge and KM.

Some authors such as Senge (2002), Allee (1997), and Tsoukas (2008) have clearly indicated through their discussions that there is a misinterpretation of what knowledge or knowledge management is. When it comes to business and KM, nearly all the experts and authors focus on and discuss only isolated or select elements that are important for KM or knowledge creation, which finally leads to an isolated perspective on this issue.

Senge has highlighted that KM is an 'awkward term' because one cannot *manage* knowledge, but rather an organisation should create an environment where people sit together and share. His discussion has already indicated that knowledge is emergent and explained that triggers should be placed so that knowledge can be created.

Another misinterpretation derives from the close relationship and meanings of information and explicit knowledge. Allee (1997) has explained that one's knowledge is another's information, and only the person who receives the information can determine whether the information is valuable or not. Closely analysing the existing literature on the impact of knowledge or information reveals that both have a similar impact on the receiver. These facts might be a reason why employees and managers still try to objectify and manage knowledge, which in turn leads to many unfortunate KM attempts based on information technology tools. As a result, many organisations, even international and valuable ones, still consider the sole implementation of information technology as KM. This behaviour is pervasive and might be natural due to the lack of insight regarding knowledge and information. This discussion also has a connection to Tsoukas (2008), who explained by quoting Polanyi, an earlier Austrian philosopher, that tacit knowledge can never be made explicit. This insight contradicts a famous approach known as the knowledge spiral from Nonaka and Takeuchi (1995) who have tried to make tacit knowledge explicit, which is another attempt to objectify the intangible.

Interestingly, the literature proposes that KM is in its fourth generation. The first generation was about content management, the second generation about information management, the third generation about saving knowledge from important employees, and the fourth generation is about constructing an organisational knowledge view. The findings of this research indicate that all four KM generations are about information management because even when KM is rigorously discussed within an organisation (i.e. fourth generation), it ends up in implementing an information technology system as a short poll has shown. This perfectly aligns with the previously mentioned statement that ‘my knowledge is your information’.

However, even if the current literature about KM and knowledge creation mostly discusses isolated topics regarding KM and knowledge creation, the insights are important. Nevertheless, there is a lack of external literature that considers knowledge, information, or the capacity of effective action (i.e. tacit knowledge) as emergent.

The second research question has been answered through the discussion and *thick description* of the findings that showed five general patterns (5GPs) on a macro level, which can be considered as essential from the outset to establish an NDKM system. The five elements named are DNA, enabler, connector, communication, and passion.

The pattern ‘DNA’ is the core and the origin of the NDKM system, which contains many values shown by the founder of the organisation under scrutiny. The patterns named ‘enabler’ and ‘connector’ facilitate, as the names indicate, an environment that supports NDKM and connects the most important assets within an organisation – the employees. Communication as a fourth pattern is emergent and most essential for sharing and searching information or explicit knowledge. It is also a precondition for the creation of new knowledge. ‘Passion’, which is the last pattern, is also emergent and manages the indefinable.

The outcome of this research displays essential NDKM elements on a macro and micro level and can therefore be considered to be a general management approach to building a strong organisation where knowledge is created on a high level and non-deliberately managed. It is worth emphasising that such an approach has an essential impact on the behaviour of the employee because the focus within a NDKM system is always on the employee, on both a macro and a micro level.

Through the journey of this research, it was clarified that KM is not merely a new fad that draws on already-existing management and philosophical knowledge and insights, but also that, because of the close relationship between explicit knowledge and information, KM becomes misinterpreted on what could enhance knowledge creation and its management. The researcher of this project also started with the basic idea that KM or NDKM is something like information technology. Through answering questions such as that of how understanding emerges and by immersion into the topics such as sociology, philosophy, education, or the essence of knowledge, a change of mindset began. It became clear that NDKM is not about information technology although it supports it, but is rather about emotion, trust, relationship building, objective realities, effective action, communication, environment, and passion. All these elements are about human action and behaviour and hence constitute the very essence of NDKM.

It is worth highlighting that a key element of this research was *time*. Gadamer (2010) had already explained that time (space-time) has a positive impact on true understanding. In this case, time not only allowed the researcher to be immersed into different knowledge areas such as philosophy or sociology but also allowed to reflect on the past findings with new lived experience and new insights. Understanding the importance of time automatically changes behaviour because it becomes clear that to fully grasp a situation, time is needed to reflect upon the issue from different angles, which is highly vital for decision making in business.

Time also allowed the researcher to reflect upon the book *Truth and method,* written by Gadamer (2010), in the context of the real situation in eastern companies. Nonaka and Takeuchi (1995) have explained that western and eastern philosophy consider knowledge differently. In western philosophy, knowledge is separated from the knower, which emphasises the significance of information technology. In eastern philosophy, the focus is on ‘to be’ which means to exist in a collective, which highlights the importance of relationships. However, time allowed the researcher to travel to China for business, and this in turn allowed to reflect upon the eastern versus the western philosophy (new lived experience). Because of the strong hierarchy within eastern organisation, communication, relationships, and the means of sharing ideas and information, the understanding of ‘to be as a collective’ must be different as compared to that of Europe. Nonaka and Takeuchi (1995) compared eastern life philosophy, which draws on Buddhism and Confucianism, with the western management philosophy, which is about managing and trying to separate (i.e. documentation) the knowledge from the knower. In short, they compared two different situations (i.e. the way to live and western management philosophy). Western life philosophy can also be about ‘to be as a collective’ as can be observed in Catholicism or other different religions. In fact, Berger and Luckman already showed in 1966 how society is constructed and that we all are an element of a certain collective, as society is developed by humanity and humanity is developed by society.

This research has been mind changing to the researcher due to the previously mentioned immersion into different areas of knowledge such as sociology, philosophy, and so on. Unfortunately, various discussions have shown that it is difficult to inspire managers to see the benefit of an NDKM approach. Many managers want to stick to the *old-fashioned* understanding of KM, which is about documentation and information technology because they can grasp the results and *show* something. Indeed, information technology is essential for overcoming the distance, but it does not create knowledge or enhance creativity and innovation. As soon as managers fully understand that elements such as knowledge, innovation, and creativity are emergent, and are deeply aware what ‘emergent’ really means, they might be open to the prospect of NDKM.

12. References

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13. Appendices

Table 12

Exclusion and Inclusion Criteria

Parameters	**Inclusion criteria**	**Exclusion criteria**
Literature type	Journals, studies (secondary literature)	Others
Language of publication	English	Others
Date of publication	Studies published from 2003 to 2013	Studies before 2000
Database	**EBSCO** (Business Source Complete, E-Journals, GreenFile, Humanities International Complete, Library Information Science & Technological Abstracts, Regional Business News) **and EMERALD**	Others
First search criteria (Boolean operator: AND) (only full text)	Knowledge creation (heading) and organisation (abstract)	Others
Second search criteria (Boolean operator: AND) (only full text)	Knowledge management (heading) and organisation (abstract)	Others
Outcome	Journals and case studies with a focus on knowledge creation within organisations	Journals and studies with a focus on information technology
		Journals and studies with a focus on KM strategies
		Journals and studies with a focus on implementation methods and techniques for KM

Table 13

Chosen Database inside EBSCOhost

Database	Description (types of research content found)
Business Source Complete	Business Source Complete is the world's definitive scholarly business database, which provides the leading collection of bibliographic and full-text content. As part of the comprehensive coverage offered by this database, indexing and abstracts for the most important scholarly business journals from as far back as 1886 are included. In addition, searchable cited references are provided for more than 1,300 journals.
E-Journals	The E-Journals database provides article-level access for thousands of e-journals available through EBSCO subscription services. For users with a valid subscription, EBSCO's SmartLinks technology provides direct links to publishers' content.
GreenFILE	GreenFILE offers well-researched information that covers all aspects of the human impact to the environment. Its collection of scholarly, government, and general-interest titles includes content on global warming, green building, pollution, sustainable agriculture, renewable energy, recycling, and more. The database provides indexing and abstracts for more than 384,000 records, as well as Open Access full text for more than 4,700 records.
Library, Information Science & Technology Abstracts	Library, Information Science & Technology Abstracts (LISTA) indexes more than 560 core journals, nearly 50 priority journals, and nearly 125 selective journals, and books, research reports, and proceedings. Subject coverage includes librarianship, classification, cataloguing, bibliometrics, online information retrieval, information management, and more. The coverage in the database extends as far back as the mid-1960s.
Regional Business News	This database provides a comprehensive, full-text coverage for regional business publications. Regional Business News incorporates coverage of more than 80 regional business publications that cover all metropolitan and rural areas within the United States.

Communication & Language	Asking the right question	Common language	Reflective communication	Expert language	Figurative language	Narratives	Conversation management/ manager	
Human Resource Management	Academics – well-educated, smart people	Level of education	Motivation Incentives Rewards Systems	Method: competency modelling				
Research & Development	Product development	Product concept model	Number of products or services	Exploration				
Environment	ba	Location						
Learning Organisation	Learning cycle/process	Learning to learn and learning on the job	Training	Learning mechanism	Problem solving	Single loop and double loop learning	Adaptive and generative learning	
Organisation basics	Distribution knowledge system – organisation strategy and project strategy	Promotion of interaction	Organisational structure and design (Architecture)	Knowledge vision				
Process	ISO 9001 process	Quality training	Process improvement techniques (e.g. Six Sigma, CIP, quality control circle	Communi-cation process				
Information technology	Flexibility of information distribution	Quick access to external resources (internet)	Social media					
Knowledge assets	KA input – well-educated people	KA input – diversity of knowledge stock	KA input – failure and success					
Knowledge community	Community of practice	Limited number of people	Self-management, autonomy, trust, group flexibility, and consensus	ICT , knowledge tools & data base supports CoP	Working groups and teamwork (collective learning and knowledge creation)	Project team strategy	Imagined communities	
Relationship/ types of relationships	Relationships of care (mutual trust, active empathy, access to help, leniency in judgement and courage).	Quality of relationships (care and trust)	Frequent customer contact	(Many) direct contact	Knowledge networks			
Culture	Care and trust	Trusting the source	Organisational policies	Forgiveness	Risk, warmth, and support	Ethical culture	Good atmosphere	Conversational etiquette
Leadership & Management	Support	Leadership style	Dialectical leadership model	Distributed leadership	Authority, autonomy, empowerment	Space	Climate of dialogue, working place harmony, cohesion, affiliation, moral	
Knowledge creation supporting mechanism	Exchange and combination of existing knowledge	Knowledge sharing	Timing	Knowledge access	Redundancy			

Figure 30. Matrix – knowledge creation levers

13.1 Literature Review - Research Core Elements

13.1.1 The philosophy of knowledge.

The question of what defines knowledge was already discussed by the ancient Greek philosophers and is still discussed today by different philosophers, authors, and experts.

The ancient Greek philosophers (Brunschwig, Lloyd, & Pellegrin, 2003; O'Brien, 2006), especially Plato (Nonaka & Takeuchi, 1995; Wheatley, 2002), tried to answer questions about the nature of knowledge, but there has been no single accepted definition yet (Christensen, 2003; Firestone & McElroy, 2003; O'Brien, 2006).

The current literature explains that the way knowledge is considered is coined either though the western or eastern philosophy (Nonaka & Takeuchi, 1995). *Western philosophy* draws from the so named ‘Cartesian split’, which is the separation of the knower (subject) and the known (object) (Nonaka & Takeuchi, 1995). This emphasises information processing as a key element for securing competitive advantage and innovation (Takeuchi & Nonaka, 2002a). Another character of western philosophy is its strong focus on individualism, or as Nonaka and Takeuchi (1995), phrased it, ‘the realization of the individual self as the goal of life’ (p. 31).

In *eastern philosophy,* less attention is paid to the Cartesian split (Nonaka & Takeuchi, 1995, p. 27). In eastern philosophy, ‘to be’ means to exist in a collective sense that emphasises the importance of relationships with others (Nonaka & Takeuchi, 1995; Takeuchi & Nonaka, 2002b). ‘Buddhism, Confucianism and major Western philosophies’ (Nonaka & Takeuchi, 1995, p. 27) do have an important impact on this philosophy where knowledge creation is considered as the key element for competitive advantage and innovation and not information processing (Takeuchi & Nonaka, 2002b).

Takeuchi and Nonaka (2002b) summarise the main distinctions between these two knowledge paradigms as shown in Table 14.

Table 14

Western Philosophy vs. Eastern Philosophy

Difference	Western philosophy	Eastern philosophy
View of Knowledge	Knowledge is data and information	Knowledge also contains emotions, values and hunches
Companies	Manage knowledge	Manage and create knowledge
Key-players are	Staff position	Everyone in the organisation; middle management is important

Note. Adapted from Takeuchi and Nonaka (2002, p. 184).

However, what is often used in the current literature is the explanation that knowledge is 'justified, true belief', which stems from the ancient Greek philosopher Plato himself. As will be explained in the next section, 'justified true belief' has also influenced, although differently, the eastern definition of knowledge. Due to this fact, only western philosophy is used to explain the history of knowledge in this section.

Western philosophy contains two important but contrary approaches to understanding knowledge sources (O'Brien, 2006), also called 'epistemological traditions' (Nonaka & Takeuchi, 1995, p. 21), which are generally divided into rationalism and empiricism (1995). Examining the literature on this issue shows different explanations regarding correct fragmentation do exist. A case in point is that of Kor and Orange (2011) versus Christensen (2003). The former explains that the important distinction between rationalism and empiricism finally leads to pragmatism, whereas the latter argues that empiricism and pragmatism are the same. This research follows several philosophers who emphasise a difference between the empirical and epistemological approaches.

The *rationalist approach*, also called 'perception based knowledge – or traditional epistemology' (Christensen, 2003, p. 26), can be acquired deductively (Nonaka & Takeuchi, 1995) or through intuition (Kor & Orange, 2011). This type of knowledge demonstrates that *a priori* (Kor & Orange, 2011; O'Brien, 2006) knowledge (already existing knowledge) does exist, which does not draw on sensory experience (Kor & Orange, 2011; Nonaka & Takeuchi, 1995) but rather on logic and memory (Christensen, 2003).

René Descartes was an important pioneer of this approach, and argued that all beliefs can be questioned ‘except the existence of the questioner’ (Nonaka & Takeuchi, 1995, p. 23); truth can only draw on real existence. He also explains that thinking is not dependent on the object (body or matter) and therefore that ‘true knowledge’ of human existence draws from ‘the mind and not the senses’ (Nonaka & Takeuchi, 1995, p. 24).

On the other hand, the *experience-based approach* is acquired inductively (Nonaka & Takeuchi, 1995) and holds that *a posteriori* knowledge (O’Brien, 2006), contrary to *a priori* knowledge, does exist and that knowledge draws only on sensory experience (Kor & Orange, 2011; Nonaka & Takeuchi, 1995). Obviously, the interaction between an object and a human must exist where the human has a vital impact on knowledge creation (Christensen, 2003).

John Locke was a pioneer of this approach and refuted Descartes’ approach by arguing that the human mind is like a ‘blank slate’ *(tabula rasa)* (Nonaka & Takeuchi, 1995, p. 24), which means ‘without any knowledge’; knowledge or ideas emerge through the stimulation of experience (Nonaka & Takeuchi, 1995).

There are some differences between the two epistemological approaches that are worth highlighting. Although empiricism considers the truth of *a priori* knowledge, they judge it as ‘uninteresting, uninformative, or tautologous’ (O’Brien, 2006, p. 26). Semantically, *a priori truth* is analysable, because this truth is expressed through words, meanings, and thoughts, whereas *a posteriori truth* is created and discovered. Synthetic truth does not simply consider the meaning of words but also the action, or rather ‘on how the world happens to be’ (O’Brien, 2006, p. 27). This is better explained by presenting the fact that humans eat apples to stay healthy or that cars use gas for driving. Apple and gas are not parts of a ‘human’ or a ‘car’, but we know from observations, that this is a synthetic truth (O’Brien, 2006).

O’Brien (2006) exemplifies both approaches simply and explains the difference by using a rectangular book. To define the colour of the book, we must ‘observe’ it or someone else must do it for us; justification of our belief about the colour is achieved by experience *(a posteriori knowledge)*. However, no perceptual sense is needed to know that a book has four sides. We know and understand only through explanations, arguments, and logical thoughts that a rectangle has four sides *(a priori knowledge)* (2006).

Different philosophers like Kant, Hegel, and Marx refute the sole use of rationalism or empiricism and argue that both, rather than just one, are necessary. For instance, Kant shows that knowledge only emerges when *a priori* and *a posteriori* knowledge work together (Nonaka & Takeuchi, 1995). Hegel and Marx similarly deem that both elements are important for knowledge; it is worth mentioning that although this is the ‘same basic thought’, they also have some slight differences (Nonaka & Takeuchi, 1995).

It may also be interesting to introduce the popular American philosopher Charles Sanders Peirce, who was especially essential for the development of the pragmatic approach. By using a ‘cat-example’, he explains why both approaches are important. The perception sense (a priori, rationalist) allows the cat to consider milk, which requires an active mind. The cat notices not only what is there but also what it is looking for (food, milk). Through empiricism, the cat acquires the knowledge of how to, for instance, open the cage it is in so that it can obtain the milk. Peirce explains (as cited in Mounce, 2002) that the cat’s reasoning ‘occurs in a context’ (Mounce, 2002, p. 15).

‘Without its hunger, it would have no problem; without its seeking to appease its hunger, there would be nothing to count as a solution’ (Mounce, 2002, p. 15).

Kor and Orange (2011) summarised the cat example perfectly and claim that pragmatism can be considered as a bridge between empiricism and rationalism ‘where they are mutually exclusive but are complementary to each other’ (p. 97).

However, as mentioned earlier, the term ‘knowledge’ is often contemplated as ‘justified, true belief’ (Chakravarthy et al., 2005; Gottschalk, 2009; Mishra, 2009; Wensley & Verwijk-O’Sullivan, 2000) and is introduced now.

The definition of ‘justified, true belief’ is from the traditional epistemic approach (Christensen, 2003) *(a priori)* and is also called the ‘tripartite analysis’ (Pritchard, 2010) of knowledge because all the three terms are essential for something to be considered knowledge, as shown in the following (O’Brien, 2006, p.11):

1. It is true that Xavier is Spanish.
2. I must believe that he is.
3. My belief must be justified.

This short example demonstrates that for knowledge to exist, it is not sufficient to just ‘believe’, but one must also ‘justify’ their beliefs (Christensen, 2003).

Unfortunately, this definition is not suitable for all situations, as O’Brien (2006) exemplifies by introducing an example of our usual way of thinking. For instance, we usually say ‘it is Tuesday’ because we *know* it is and we do not ‘believe it is Tuesday’. In this case, ‘knowledge replaces belief’ (O’Brien, 2006, p. 12). We are also able to say ‘I know the dish smells great’ or ‘I believe the dish smells great’, which shows that one can only claim the one or the other but not both; hence, ‘knowledge is incompatible with belief’ (O’Brien, 2006, p. 12). One can know something without belief, for example, that a rose is a flower (2006).

The philosopher Edmund L. Gettier was important regarding the above mentioned tripartite analysis of knowledge (Pritchard, 2010) and got a lot of attention due to his three-page essay, written in 1963, with the title ‘Is justified true belief knowledge?’ (O’Brien, 2006). He showed with different examples that the relationship between ‘justified, true belief’ and ‘knowledge’ is not always a necessary one (2006). Additionally, truth is sometimes drawn from knowledge but can also be arrived at by luck or based on knowledge that is false (Christensen, 2003; O’Brien, 2006; Seung, 1996). This is also displayed in the two terms ‘infallibilism’ and ‘fallibilism’. The former holds that justified belief leads to truth, whereas the latter posits that justified yet false beliefs are possible (Christensen, 2003).

Although the literature claims that Gettier tried to ‘refute’ the tripartite analysis, what he certainly only establishes is the following: ‘that should be concerned with a stricter sense of “justified”’ (O’Brien, 2006, p. 16). Seung (1996) explicates in this regard that knowledge should not only be believed but should also be true, which leads to a circular process and is linked to Socrates *(in Theaetetus)* who claimed that knowledge is indefinable.

The one who really refuted the tripartite analysis of the concept of knowledge is Timothy Williamson. He explains that justified, true belief draws on a ‘hybrid nature of knowledge’ (O’Brien, 2006, p. 17); beliefs are mental whereas truth is non mental. Williamson claims (as cited in O’Brien, 2006) that knowledge is an entirely mental concept – ‘a basic, indefinable, analysable, mental state’ (p. 18) which emphasises that knowledge cannot be divided into different elements such as shown above with the definition of ‘justified, true belief’ (Williamson, 2002).

Hence, knowledge ‘is central’ (Williamson, 2002, p. 5) for him, and beliefs and justifications are drawn from knowledge. In other words, instead of using beliefs and justifications to define knowledge, he places knowledge as a necessary condition for beliefs and justifications to emerge (Williamson, 2002). His discussion of ‘the tripartite analysis’, which ‘indirectly’ shows his rationale, is perfectly pinned down in the following statement:

> knowledge is a function of two variables, not of either one alone; whether one knows that it is raining does not depend solely on one's mental state, a state which is the same for those who perceive the rain and those who hallucinate it, but it also does not depend solely on the state of the weather, a state which is the same for those who believe the appearances and those who doubt them. (p. 5)

13.1.2 The difficulty in defining knowledge for practical use.

Obviously, since knowledge is considered to be an important asset for organisational success, a wide range of definitions have emerged, and they contain complicated explanations about accumulated human expertise or more structured definitions (Gottschalk, 2009). Hence, the aim of this section is to introduce the most common definitions of knowledge to obtain a better insight into the definitions used in the current KM literature, which finally should lead to their *limits* in practical use.

Although Williamson's approach to knowledge is interesting, the most popular and hence accepted knowledge definition is still 'justified, true belief' (O'Brien, 2006). In the current literature, 'justified, true belief' is often linked to Nonaka and Takeuchi's (Gottschalk, 2009) magnum opus *The knowledge creation company* (1995) (Firestone & McElroy, 2003). But Nonaka and Takeuchi (1995) have only adapted Plato's insight for their own definition of knowledge (Takeuchi & Nonaka, 2002a); interestingly, most KM literature pins down the definition of knowledge on 'justified true believe' (Gottschalk, 2009; Wensley & Verwijk-O'Sullivan, 2000) and does not highlight its difference to Plato's approach. In contrast to Plato, Nonaka and Takeuchi do not accept the strict focus on 'truthfulness' and the 'static, and nonhuman nature of knowledge' (1995, p. 58), which exist because of the logical nature of its process (tripartite analysis). For them, the focus on knowledge is set on 'justified belief' (Nonaka & Takeuchi, 1995; Takeuchi & Nonaka, 2002a), and hence they defined knowledge as ‘a dynamic human process of justifying personal belief toward the “truth”’ (1995, p. 58).

However, the literature review has revealed many definitions towards knowledge, which obviously contains elements of Nonaka and Takeuchi’s approach. Provided below are two examples to name but a few:

- ‘We define knowledge as beliefs that guide organizational action; it is causal understanding that may or may not fully reflect the realities of the environments a firm faces’ (Chakravarthy et al., 2005, p. 307).
- ‘Knowledge is a justified personal belief that increases an individual’s capacity to take effective action’ (Alavi & Leidner, 2002, p. 16).

In contrast, the definition from Davenport and Prusak (2000) is explained in a more complicated manner:

> Knowledge is a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluation and incorporating new experiences and information. It originates and is applied in the minds of knowers. In originations, it often becomes embedded not only in documents or repositories but also in organizational routines, processes, practices, and norms. (p. 5)

When the philosophical introduction of knowledge and the definitions of organisational knowledge mentioned above are considered, they highlight how complex it might be to fully grasp the meaning of knowledge and to explain it in logical terms (Davenport & Prusak, 2000). Additionally, the vast amount of different definitions and the constant emergence of new perspectives like those of Williamson render an easy and clear understanding of the term more difficult. It is especially difficult for managers and workers who normally do not possess an understanding about the nature and essence of knowledge to fully grasp and describe what knowledge is and is not. Hence, the definition of Davenport and Probst (2002) might be the more suitable approach and *ubiquitous* definition to bring close the meaning and power of knowledge:

‘knowledge can be described as the capability for effective action that is to be found either concentrated in individuals, or distributed throughout organizations, and which goes hand in hand with information about knowledge’ (p. 27).

However, tripartite analysis, Gettier cases, and philosophers like Williamson are considered to be vital in understanding the complexity and multitudinous facets of the essence of knowledge. Although it is very difficult, it is important to pin down the complexity to render the definition of knowledge understandable and manageable for those who must work with it – primarily managers and employees.

With regard to knowledge and its practical use, it is worth emphasising Davenport and Probst’s (2002) argument that defining or redefining the meaning of knowledge leads only to ‘unproductive discussions’ (p. 27). This statement is corroborated by the findings that elucidate the importance of discussing knowledge on a macro level (i.e. meaning, basic types, and elements of knowledge) instead of a micro level (i.e. redefining the essence and philosophy of knowledge). It is more vital to understand why knowledge is important for an organisation, or as is the case in the organisation under scrutiny, to realise that knowledge is for sharing rather than trying to redefine knowledge to grasp its essence.

Therefore, as mentioned, it is important for an organisation is to reduce the said complexity, which can be accomplished by first understanding the differences among *data*, *information*, and *knowledge* and between the most often used and mentioned *types of knowledge*, which are explicit and tacit knowledge.

Although the three different terms – data, information, and knowledge – are important for organisations (Sharma, 2008), some authors also view such an explanation for business practice as ‘peripheral’ (Skyrme, 2002, p. 70). To contradict these authors, defining knowledge only between tacit and explicit (Skyrme, 2002) does not answer the whole range of questions that might emerge in praxis. This statement is underpinned by the fact that employees and managers wrongly and interchangeably use the terms ‘information’ and ‘knowledge’ (Farhad et al., 2011; Nonaka, 1994; Sveiby, 2002) and is, as the findings have elucidated, also the reason why employees believe that KM is implemented with information technology such as a WIKI.

The differences among data, information, and knowledge is often shown in the information technology (IT) branch (Alavi & Leidner, 2002) and although one might claim that the differences are very subtle, they are essential (Davenport & Prusak, 2000). Like the term ‘*knowledge*, many experts have tried to interpret the exact meaning of *data* and *information*. Unfortunately, as is the case with knowledge, no single definition exists (Sharma, 2008).

Data is considered to be ‘structured records of transactions’ (Davenport & Prusak, 2000, p. 2) or an attribute of objects (Lin & Wu, 2005; Sharma, 2008). Data describes transactions (Davenport & Prusak, 2000), for instance, the exact time when a production order was finished, the list of employees of an organisation (Awad & Ghaziri, 2010), or the figures achieved by the sales department (Kenneth, 2010). Data is an important element in organisation and is mostly stored in computers, and therefore, organisations give it too much respect because it gives an ‘illusion of scientific accuracy’ (Davenport & Prusak, 2000, p. 3). It is important to understand that the term ‘data’ only describes a part of a transaction; it is a fact like a number and can also be understood as ‘raw material’ (Davenport & Prusak, 2000) used for analysis (Amidon, 1997; Awad & Ghaziri, 2010). Hence, data is in an unanalysed status (Kenneth, 2010, p. xiv).

Information is understood as a message normally transferred in written or spoken words. It is data that also has an impact on the ‘judgement or behaviour’ (Davenport &

Prusak, 2000, p. 3) of the receiver. For instance, it impacts a receiver during a decision process (Sharma, 2008). Certainly, data only transforms to information if it is connected with meaning; for instance, an employee list that also displays the departments of employees and their projects (Amidon, 1997; Awad & Ghaziri, 2010). It is analysed and evaluated data that serves 'to create understanding of a focal question or phenomenon' (Kenneth, 2010).

It is noteworthy that within an organisation, the employees and managers often use the term 'inform', but only the receiver can determine if it is really information, because it must have a useful impact on the receiver. Davenport and Prusak (2000) represent five characteristics that attach significance to data and transform it into information (see Table 15).

Table 15

Characteristics of Information

Type	Description
Contextualised	We know for what purpose the data was gathered
Categorised	We know the units of analysis or key components of the data
Calculated	The data may have been analysed mathematically or statistically
Corrected	Any errors have been removed from the data
Condensed	The data may have been summarised in a more concise form

Note. Compiled by Davenport & Prusak (2000, p. 4).

Information also has an essential impact on knowledge creation because it is 'created and organized by the very flow of information, anchored on the commitment and beliefs of its holder' (Nonaka, 1994, p. 15).

Knowledge is stored in humans whereas information is stored in messages and data as raw material mostly in computers. This introduction to data and information shows their logical connection to knowledge (Amidon, 1997), and both are important in everyday working life and lead to better decision making (Davenport & Prusak, 2000). By using these elements that are connected to cognitive ability (lived experience, working experience, and so forth), they are transformed to knowledge (Choo, 2002), which has a much bigger bearing on an organisation than simple data or information (Davenport & Prusak, 2000).

Compared to data and information, knowledge has a greater impact on decision making and action (Choo, 2002; Davenport & Prusak, 2000; Senge, 2002b), which also shows an important distinction among them (Senge, 2002b). Additionally, knowledge allows the evaluation and judgement of 'new situations and information' (Davenport & Prusak, 2000, p. 10). It also evaluates and judges itself, thus leading to new insights and finally to knowledge again (Davenport & Prusak, 2000).

Hence, easy and understandable definitions for employees and managers are required, and the two examples that follow might be exemplary in this regard:

- 'knowledge is viewed as a body of information, processes, and experience that centres on a particular subject. It is actionable information' (Awad & Ghaziri, 2010, p. 73).
- 'Knowledge is the combination of information with experience, context, and reflections to derive implications, tactics, and strategies on which to base decision' (Kenneth, 2010, p. xiv).

Corley and Gioia's (2005) discussion on knowledge and meaning is also noteworthy because it is in line with the quotes mentioned above. They observe that each piece of knowledge contains meaning. Knowledge is about 'what one knows' (Corley & Gioia, 2005) and meaning is the 'interpretation' of knowledge. Meaning includes how knowledge is associated with other knowledge or how knowledge is applicable to the knower; it is like a network of different pieces of knowledge (p. 628). Corley and Gioia argue that 'we can only understand what a piece of knowledge means if we can relate it to some other knowledge and its meaning' (p. 628).

Therefore, the two terms ‘syntactic’ (volume) and ‘semantic’ (meaning) are also essential for *knowledge* (Nonaka, 1994; Takeuchi & Nonaka, 2002a). Shannon and Weaver (1949), as cited in Nonaka (1994), explain that the volume (syntactic) of a message cannot be correlated to its meaning (semantic). He exemplifies this with a telephone bill, because a bill is also calculated according to its ‘volume’ and not its ‘meaning’ (Nonaka, 1994). Simply put, the volume of information is not as important as the meaning of it. Therefore, the semantic aspect of information is essential for knowledge creation because it contains meaning (Nonaka, 1994; Takeuchi & Nonaka, 2002a).

Thus, the differences among data, information, and knowledge are essential and can be summarised as follows (see Table 16):

Table 16

Research Definition of Data, Information, and Knowledge

Element	Definition	Example / Comment
Data	Records of transactions	List of employees
Information	Data with meaning	List of employees with department and loan
Knowledge	Dynamic human process of justifying personal belief toward the ‘truth’	Focus on justified belief (Nonaka & Takeuchi) and ***not*** on truthfulness (Plato); great impact on action

Although many more characteristics regarding knowledge emerged, such as encoded, embedded, event, procedural, tacit and explicit (Farhad et al., 2011; Gottschalk, 2009; Skyrme, 2002), there is ‘little agreement on a universal classification’ (Despres & Chauvel, 2000a, p. 79). Therefore, only explicit and tacit knowledge will be introduced in this research because of their importance in practice (Skyrme, 2002, p. 70) and because they are fundamental ingredients of the knowledge creation spiral, which will be presented in the next section.

‘Knowledge is both explicit and tacit’ (von Krogh et al., 2000, p. 6). Mishra (2009) argues similarly by interpreting Polanyi that ‘knowledge is either tacit or rooted in explicit knowledge' (p. 49). Regardless of managers often emphasising the importance 'of being creative' or of being able to 'think outside of the box' (Kikoski & Kikoski, 2004, p. 62), they first need to understand the difference between explicit and tacit knowledge to do so (2004). Polanyi (1966/2009) explains in this regard that humans can only express explicit knowledge that represents the surface of one's entire knowledge capacity (Polanyi, 1966/2009; Sveiby, 2002; Takeuchi & Nonaka, 2002a). Polanyi's (1966/2009) insight is often depicted and cited in his statement that 'we can know more than we can tell' (p. 4). Spender (2000) further diversifies Polanyi's statement by classifying people into those who are unable to express knowledge because of a 'lack of insight and verbal skills' and those who cannot do it as it 'goes beyond the possibility of knowledge' (p. 159).

However, e*xplicit knowledge* 'is about past events or objects' (Takeuchi & Nonaka, 2002a, p. 144). It is the knowledge that can be explained, put on paper, or into words, and can therefore be easily transferred through a discussion, dialogue, or written exchange (Choo, 2002; Kikoski & Kikoski, 2004; Nonaka, 1994; Skyrme, 2002; Takeuchi & Nonaka, 2002a). Although explicit knowledge constitutes the most commonly used type of knowledge in our life (Kikoski & Kikoski, 2004), only twenty per cent of it is transferred or stored in books or documents (Mishra, 2009).

Everything we study draws on explicit knowledge, and this type of knowledge is transferred in memos, reports, or product documentation at workplaces (Kikoski & Kikoski, 2004). Given that it is transferable, explicit knowledge is considered to be property of an organisation (Sharma, 2008). Grant (2000) holds explicit knowledge dear in this respect because it bears great 'potential for value creation because of its replicability potential' (p. 33).

In contrast, *tacit knowledge* is about the *present* (here and now). It is described as the knowledge of experience (Takeuchi & Nonaka, 2002a). In the existing literature, many authors describe tacit knowledge as the kind of knowledge that cannot be easily verbalised and is very specific to subject and context (Choo, 2002; Mishra, 2009; Takeuchi & Nonaka, 2002a; von Krogh et al., 2000). This depiction of tacit knowledge is the reason that it is also called the 'property of humans' (Kikoski & Kikoski, 2004; Sharma, 2008). However, explaining tacit knowledge as something that can be made explicit and verbalised, albeit not easy, would not be fully correct. This will be discussed in depth in the section 13.1.4, 'Organisational knowledge creation'.

Mishra (2009) observes in this respect that tacit knowledge represents 80 per cent of our knowledge. Kikoski & Kikoski (2004) convincingly argue with regard to the mentioned 80/20 rule between tacit and explicit knowledge that 'we live in a tacit world' (p. 68). They observe that many activities in our daily lives draw on tacit knowledge, such as walking, driving a car, having conversations with others, or analysing and making decisions. Because of its intangibility, ineffability, and complexity, the managers still have a problem accepting this type of knowledge; they consider it to be 'too mysterious' (von Krogh et al., 2000, p. 7).

Nonaka (1994) provides a more comprehensible explanation that is different from the aforementioned explanation of tacit knowledge (see also Polanyi) and postulates that tacit knowledge contains 'cognitive and technical elements' (p. 16).

13.1.3 The awkward term 'Deliberate Knowledge Management'.

It is important to explain the adjective 'deliberate' first, as it emphasises the difference between the phenomenon presently under scrutiny and the often-used term KM. 'Deliberate' stems from the Latin word 'deliberates' and means 'weighed carefully' (McDonald, Larrison, & Larrision, 1999, p. 104); it emphasises that something (e.g. methods, processes) exists because someone has planned it and not merely due to chance. KM is also the planned management of knowledge and reveals the association with the term 'deliberate' as redundant. The fact that this research might reveal how knowledge can be managed without purpose recaptures the meaningfulness of using the term ‘deliberate’. Hence, deliberate KM represents traditional KM, in which strategies and concepts are used to capture, create, and transfer knowledge. On the contrary, in ‘non-deliberate KM’, knowledge is created and managed without the purposeful use of explicit KM theories and methods.

The documentation on KM began very early in 1959 when Penrose was one of the first to consider the planning process and knowledge as the foundations of an organisation (Nonaka & Takeuchi, 1995). Generally, KM can be divided into four generations.

In the 1970s, the *first generation* of KM was about documenting and record management (DRM) and enterprise content management (ECM) (Tryon, 2012). In the 1980s, and still in the first generation, artificial intelligence and expert systems emerged, which supported the work of KM. Additionally the term KM became famous in the business community (Geisler & Wickramasinghe, 2009). Unfortunately, some managers and employees still think that KM is only about data storing. Although those elements are not to be underestimated and are significant for KM, managers believed in the past that the goal of KM would definitively be achieved with the implementation of such systems and that further work would be unnecessary (Tryon, 2012). But this definitely has not been the case.

The aforementioned methods led to the *second generation* of KM that drew upon information technology (IT). The problem with the first generation of KM was that the data had mostly been *far* from those who needed it. This was resolved through information technologies, for instance, through computers (Tryon, 2012).

The *third generation* was about the important knowledge that exists within a company and focused on saving the employee knowledge of those who left or retired. It also discussed making new ideas and thoughts available for everyone to enable a creation of new innovations. This generation respected the methods of the first and second generations, but it was much more advanced than the simple-connection information technology of the second generation (Tryon, 2012).

The *fourth generation* advocates concentrating on constructing an organisational knowledge view that draws upon the proposed knowledge inventory to show *which* knowledge is needed and *where*. Finally, after receiving the employee resources that contain the required knowledge, the organisations are to support this type of knowledge to make it accessible for everyone within the organisation (Tryon, 2012).

Interestingly, some authors like Foss and Mahnke (2005) claim that KM is just another trend that postulates a competitive advance; they compare it with management fads like business process reengineering or total quality management (Adamson, 2005; Foss & Mahnke, 2005). Similarly, Senge (2002b) argues, by citing his college experience, that KM could be just a new ‘sticker’ for already existing subjects.

Wiig (2000) places the origin of KM differently and outlines several authors who reveal that the current understanding of KM draws upon different roots, such as ‘historic efforts’ (p. 5) and the ‘20th century efforts to improve effectiveness’ (p. 5). The former contains issues such as psychology, economics, or social science, whereas the latter contains elements such as rationalisation of work, total quality management, cognitive sciences, or artificial intelligence. This perspective views KM not as a ‘simple’ renaming of an old-fashioned fad, but rather as an emerging conglomeration of different ‘intellectual roots’ (2000, p. 5) that stem from business, human behaviour, the philosophy of knowledge, and from different improvement methods like total quality management or learning organisation (2000).

Thus, KM has been developing over the last decades and hundreds of different definitions of it have sprouted in that time (Dalkir, 2005). As Scott and Earl (2000) have written, ‘there is no single or universal prescription for knowledge management’ (Earl &

Scott, 2000, p. 203). Given the plethora of existing KM definitions, the aim of this research is not to redefine the traditional meaning of KM or to outline many definitions and discuss their differences as many other authors and experts already have. This latter approach is, as already introduced in the last section, fully in line with Davenport and Probst's observation that this would only lead to an 'unproductive discussion' (2002, p. 27). Regardless of this, for the sake of clarity, the two following definitions should elucidate what traditional KM is:

- 'A set of management activities aimed at designing and influencing processes of knowledge creation and integration including processes of sharing knowledge' (Foss & Mahnke, 2005, p. 78).
- 'Knowledge Management is aimed at promoting knowledge process, such as the "localization" and "recording", "dissemination" and "accumulation" of knowledge, and doing so purposefully by means of various activities' (Enkel et al., 2002, p. 116).

These definitions herald a short discussion on the problem with defining KM. Analysing the term 'KM' leads to the interpretation that it must be about the 'management of knowledge', which is mostly linked to steps like the capturing, codifying, or sharing of knowledge (Dalkir, 2005) or to the process of undertaking the mentioned steps (Tryon, 2012; von Krogh et al., 2000). Senge (2002) refutes this line of thought and points out that the mentioned steps are part of *information* management and not *knowledge* management (Senge, 2002b). His insight into this research is considered very important, especially for the fourth generation. His description of the crucial distinction is as follows:

> I find that knowledge management is an awkward term, because I think the idea that knowledge is something you manage makes it like a thing. Capacity for effective action is not a thing. Further, you cannot transfer it - one person cannot get it and give it to another. It is not physical. If you know how to walk and I do not, can you 'give

> walking' to me? […] You can give information, but you cannot give knowledge. You can only create an environment where the other person can gain knowledge if they choose to do so. (pp. 56–57)

Although this quote is ten years old, it perfectly represents the ineffability and intangibility of knowledge – or rather, the tacit type of knowledge. Senge (2002) shows that an employee cannot *give* knowledge like a package to another person (Senge, 2002b). Some other authors like von Krogh, Ichijo, and Nonaka (2000) similarly indicate and claim 'that knowledge cannot be managed, only enabled' (von Krogh et al., 2000, vii). Takeuchi and Nonaka (2002b) demonstrate that eastern managers do not really believe in the practicability of managing existing knowledge. Their focus of innovation is tacit knowledge and not explicit knowledge (2002b), and this makes a rigid management of existing knowledge 'useless'.

Blair (2002) did not refute the entire understanding of current KM definitions like Senge did. Rather, he struck a balance between the current definitions of KM and Senge's line of thought. Blair considered the management of 'tangible assets' (2002, p. 1022) such as data and information as a part of KM, but he also emphasised that KM is more the 'active management and support of expertise' (2002, p. 1022).

However, the literature review for this research has revealed that the previously explained ideas regarding KM are not quite *popular*. 65 statements have been identified in the analysed papers that depict KM or explain what might be important for KM. None of the identified statements have discussed KM in a similar way or approached it from the 'impossible-to-manage' view. The 'impossible-to-manage' view is regarded as an interesting approach for this research, as the organisation under scrutiny does not deliberately manage knowledge. Drawing on this fact and taking Senge's valuable explanation into account leads one to conclude that the term 'KM' might be misunderstood in the world of management.

KM is not about managing knowledge, but is rather about managing (creating) an ‘environment’ (Senge, 2006) and using the appropriate methods to foster a place for knowledge creation and sharing; this idea is also echoed in Blair’s (2002) definition of KM.

13.1.4 Organisational knowledge creation.

There are many experts and researchers who have discussed and explained the knowledge creation process. Table 17 below provides an overview of a few of them.

Table 17

Some Knowledge Creation Process Experts

Experts
Kogut and Zander (1992)
Hedlund (1994)
Nonaka and Takeuchi (1995)
Crossan, Lane, and Withe (1999)
Boisot (1999)
Sanchez (2001)
Zollo and Winter (2002)
Nissen (2006)
Martín de Castro, López Sáez, Navas López, and Galindo Dorado (2007)

The literature review for this research has revealed that Nonaka and Takeuchi’s (1995) knowledge creation process, also named as *knowledge spiral* (Martín de Castro et al., 2007; Nonaka & Takeuchi, 1995), is widely accepted and often cited in the current literature. Therefore, Nonaka and Takeuchi’s (1995) approach is used here to introduce knowledge creation with the aim of providing an overall understanding. It would also be appropriate to note that Nonaka and Takeuchi’s (1995) knowledge creation perspective is often used as a fundament by other experts.

The organisational knowledge creation process devised by Nonaka and Takeuchi (1995) contains a combination of epistemologically and ontologically rooted dimensions (Martín de Castro et al., 2007; Nonaka, 1994; Nonaka & Takeuchi, 1995). The former dimension is about tacit and explicit knowledge, whereas the latter comprises of the movement of knowledge, beginning from an individual level to a higher level such as group, organisational, or inter-organisational knowledge

(Martín de Castro et al., 2007; Nonaka, 1994; Nonaka & Takeuchi, 1995). This means that the epistemological dimension shows the creation of knowledge, and by combining with the ontological dimension, it leads to organisational knowledge creation. Therefore, both the dimensions (epistemological and ontological) are brought together in the knowledge spiral (Nonaka, 1994); it represents 'how organisations articulate, organize, and systemize individual knowledge' (Dalkir, 2005, p. 56) or how knowledge can be transferred (Awad & Ghaziri, 2010; Nonaka, 1994).

The *epistemological dimension* contains the four different modes and processes displayed in Table 18 below. This process is referred to as the SECI process or the SECI model because of the four processes that it comprises of: socialisation, externalisation, combination, and internalisation.

Table 18

Mode and Process of Knowledge Creation

No.	Mode	Process of
1	Tacit to tacit	Socialisation
2	Explicit to explicit	Combination
3	Tacit to explicit	Externalisation
4	Explicit to tacit	Internalisation

Note. Adapted from Mishra (2009, p. 55); Nonaka (1996, p. 18-19).

Before introducing the four modes, it is essential to introduce Tsoukas (2005; 2008), who argues that the meaning of tacit knowledge is misunderstood, especially in management (Tsoukas, 2005). Nonaka and Takeuchi (1995) tries to show how tacit knowledge is made explicit, and they observe that 'tacit knowledge is knowledge-not-yet-articulated' (Tsoukas, 2005, p. 421).

Tsoukas (2005) claims, by quoting Polanyi, that this would be impossible because tacit knowledge or practical knowledge contains an inexpressible part; 'it is based on an act of personal insight that is essentially inarticulable' (2005, p. 421). This statement also refutes

Allee's (1997) statement that posits that 'we literally cannot know something without a word to describe it' (p. 147).

Polanyi (1966/2009) exemplifies the connection and argues that 'an explicit integration cannot replace its tacit counterpart […] The skill of a driver cannot be replaced by a thorough schooling in the theory of the motorcar' (2009, p. 20).

By going through the knowledge creation process (knowledge spiral), one may certainly understand that tacit knowledge is made explicit. However, Tsoukas (2005) interpreted this differently. By using the example of bread kneading, which is often used to explain the knowledge spiral (Nonaka, 2008, Nonaka, 1998), Tsoukas (2005), explains that the tacit knowledge of kneading bread, which cannot be grasped in words, is represented through the bread itself. This means that tacit knowledge displays the practical skills of kneading bread. What can be articulated or converted from tacit into explicit knowledge is the process itself; its 'rules, principles, maxims' (2005, p. 423). Polanyi (1962/2013) exemplify this perfectly (as cited in Tsoukas, 2005) and argue that rules of art can be useful, but they do not determine the practice of an art; they are maxims, which can serve as a guide to an art only if they can be integrated into the practical knowledge of the art' (2005, p. 423).

According to Polanyi (1962), knowledge contains elements such as focal awareness, subsidiary awareness, and the person (Polanyi, 1962/2013), or as Tsoukas (2008, p. 415) interprets and names it, 'subsidiary particulars, the focal target and the knower'. Subsidiary particulars are the cognitive, mental, and bodily tools that we use in the *background* when performing something *(tacit knowledge, effective action)*, whereas the focal target is the performed act (*explicit knowledge).* For instance, when we ride a bike, drive a car, or hammer a nail, we focus on the act itself (focal target), such as driving or moving the hammer to the nail. In the background, there are many subsidiary particulars that are used unconsciously, such as steering the wheel, using the accelerator properly, or moving the hammer in an effective circle to the nail. The knower acts as a 'mediator' between these elements. However, the use of knowledge would be impossible without these three elements (Tsoukas, 2008).

It is worth highlighting that focusing on subsidiary knowledge, i.e. tacit knowledge, does not mean that we *delete* the element of subsidiary awareness. The previously explained construction of subsidiary awareness, focal target, and knowledge always remains the same. If one is trying to focus on the subsidiary knowledge, the subsidiary particulars become the focal target and other subsidiary knowledge is used to analyse the situation (Tsoukas, 2008). Therefore, tacit knowledge will always remain tacit. Another person can only focus on one's subsidiary awareness and try to interpret it to make it explicit.

It is possible to better understand why tacit knowledge cannot be simply transformed into explicit knowledge by way of a vector system (Tsoukas, 2005). A vector (tacit knowledge), which is often used in mathematics and physics, is defined by its direction and size and can be multiplied or aggregated (Gross, Hauger, Schnell, & Schröder, 2004). 'We know the particulars by relying on our awareness of them for attending to something else' (Tsoukas, 2005, p. 425). Another possibility of representing tacit knowledge is through a network, as shown in Figure 31 below.

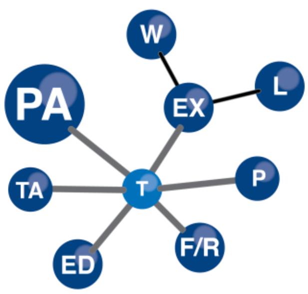

Figure 31. Possible network construction of a tacit knowledge

T = tacit knowledge; PA = parenting; EX = experience; P = passion; F/R = friends and relationships; ED = Education; TA = talent; W = work experience; L = life experience.

Figure 31 perfectly illustrates why tacit knowledge cannot be converted into explicit knowledge. A tacit knowledge element exists because of its different associations with our background. It is comparable to a vector system or knots of different past events, as shown in Figure 31. The combination of several highly individual vector elements or knots, such as education, parenting, or passion, leads to tacit knowledge. To transfer a specified tacit knowledge element into an explicit knowledge element, one would need to ‘copy’ the whole background, which is certainly impossible.

Though one might erroneously say that this is a very subtle and unimportant distinction, it must be understood that tacit knowledge cannot simply be transformed through a process of socialisation into external knowledge (Tsoukas, 2005).

Tsoukas (2005) also underpins the significance of discussing practical skills and tacit knowledge. By using instructive communication, like ‘look at this’ or ‘compare this with that’ (2005), one draws others’ attention to specific points. This is also in line with Kikoski and Kikoski (2004) who emphasise communication and questioning as important skills concerning tacit knowledge in the 21st century.

The following quote from Tsoukas’ address to the international conference *Managing Knowledge: Conversation and Critiques* in Leicester, 2001 (Tsoukas, 2001) (as cited in Tsoukas, 2005) perfectly summarises his thoughts regarding knowledge creation: ‘New knowledge comes about not when the tacit becomes explicit, but when our skilled performance - our praxis - is punctuated in new ways through social interaction’ (Tsoukas, 2005, p. 426).

Despite this insight, this section will represent the knowledge creation process as it is portrayed in the current literature without continually refuting the externalisation process, which perhaps is just a problematic description for an ‘interpretation process’.

Socialisation (tacit to tacit) is undertaken through communication and social interaction with others and is the easiest way to transfer knowledge; it typically happens in places like break rooms or cafeterias. Although it might be the easiest way to transfer knowledge, the problem is that it is seldom recorded (Mishra, 2009). An important aspect of this mode is that tacit knowledge can also be transferred without spoken words, for instance, 'by observation, imitation and practice' (Nonaka, 1994, p. 19), and it is often in action by experience, as the pure transfer of information is not sufficient (Dalkir, 2005; Nonaka, 1994, p. 19).

Combination (explicit to explicit) involves the combination of different pieces of explicit knowledge. This can be done, for instance, in meetings through telephone conferences. Explicit knowledge can be transferred, sorted, systematised, added, and combined, and hence new knowledge may emerge (Mishra, 2009; Nonaka, 1994).

Externalisation (tacit to explicit) makes tacit knowledge explicit (Nonaka, 1994) by using different techniques like metaphors, analogies, concepts, or hypotheses. If it is made explicit, it is easy to share (Mishra, 2009; Takeuchi & Nonaka, 2002a).

Internalisation (explicit to tacit), on the other hand, shows the opposite of externalisation. This mode internalises explicit information (Nonaka, 2005) and might lead to new knowledge. Such knowledge can be observed because it allows the knower, for instance, to do something better (Mishra, 2009).

However, it is worth contrasting the knowledge sharing efficiency of internalisation and socialisation. Internalisation, for instance, the study of a reclamation narrative (explicit knowledge), allows one to *transfer* less than 10 per cent of the knowledge from the one who has experienced the reclamation and written the narrative. On the other hand, socialisation (i.e. conversation) enhances the knowledge sharing efficiency up to 80 per cent and therefore emphasises the importance of knowledge creation (Lock Lee, 2002).

Knowledge will be created only when all four modes are managed as a dynamic and continuous process within a spiral (Mishra, 2009), which normally starts with socialisation by a group of employees.

Through interaction and use of hypotheses or metaphors, tacit knowledge is made explicit. It can then be combined and added to other external data, which is then learned (internalised), for instance, by the process of 'learning by doing' (Nonaka, 1994), which is presented in Figure 32 below.

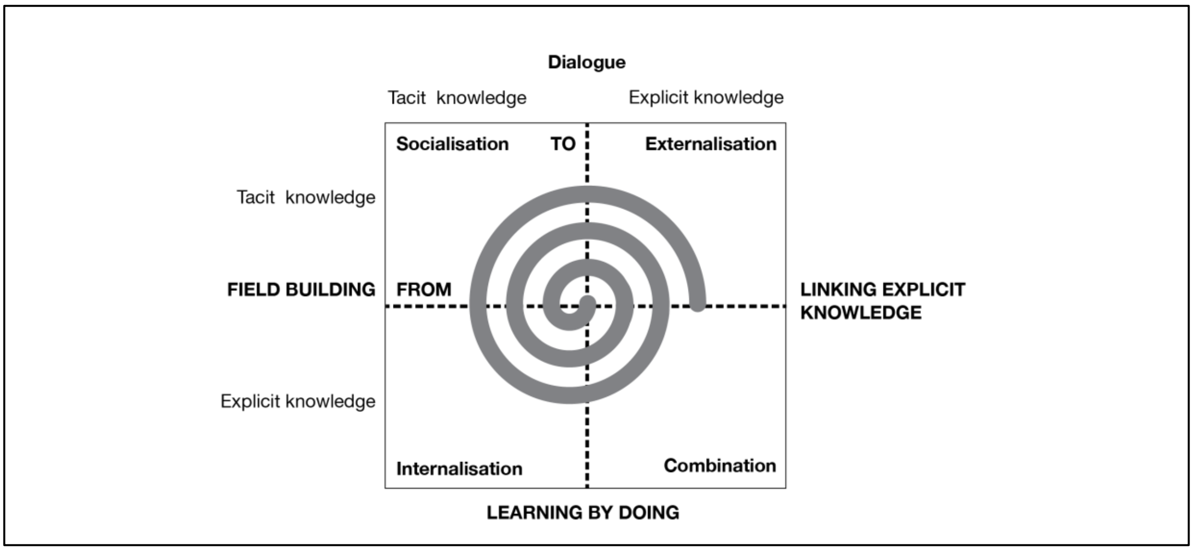

Figure 32. Nonaka and Takeuchi's knowledge creation spiral (SECI)
Adapted from Nonaka (1994, p. 19); Nonaka and Takeuchi (1995, p. 71); Nonaka and Takeuchi (2002, p. 140).

Nonaka and Reinmöller (2000) have adapted Nonaka and Takeuchi (1995) and Nonaka and Konno's (1999) understanding regarding their knowledge creation spiral. They have developed an easily understandable and comprehensive SECI model of knowledge creation and utilisation. It is worth representing this model because it clearly illustrates all creation and utilisation in the first glance (see Figure 33).

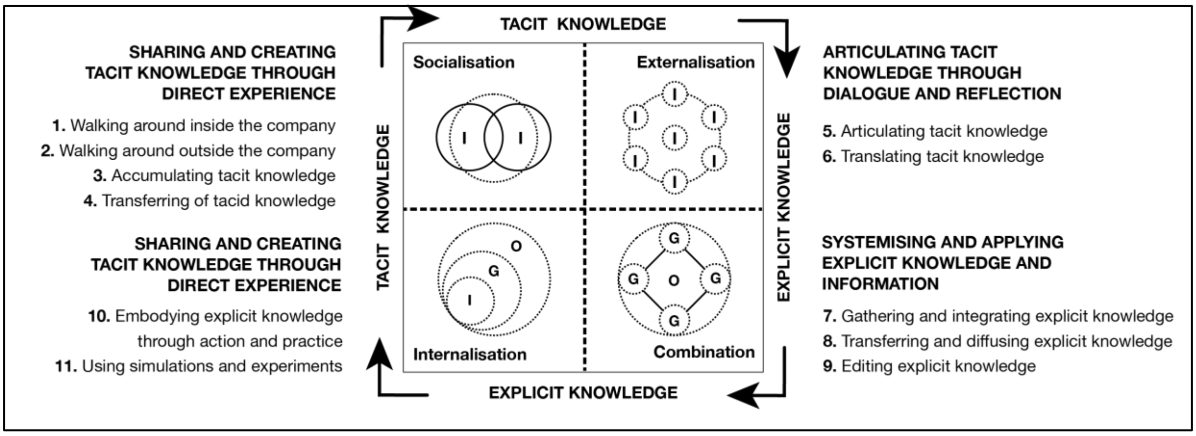

Figure 33. The SECI model of knowledge creation and utilisation

Compiled by Nonaka and Reinmöller (2000) through elements from Nonaka and Takeuchi (1995), Nonaka and Konno (1998) and Nonaka and Konno, (1999).

As explained earlier, the ontological dimension is about the movement of knowledge from an individual level to a higher level (Nonaka, 1994; Nonaka & Takeuchi, 1995). Obviously, organisational knowledge creation can emerge only through the knowledge of those who are working within an organisation (Takeuchi & Nonaka, 2002a). Hence, the foundation of organisational knowledge creation draws on the tacit knowledge of their employees. Through the four modes of knowledge creation that have been introduced, knowledge creation on a higher level is enforced within an organisation (see Figure 34).

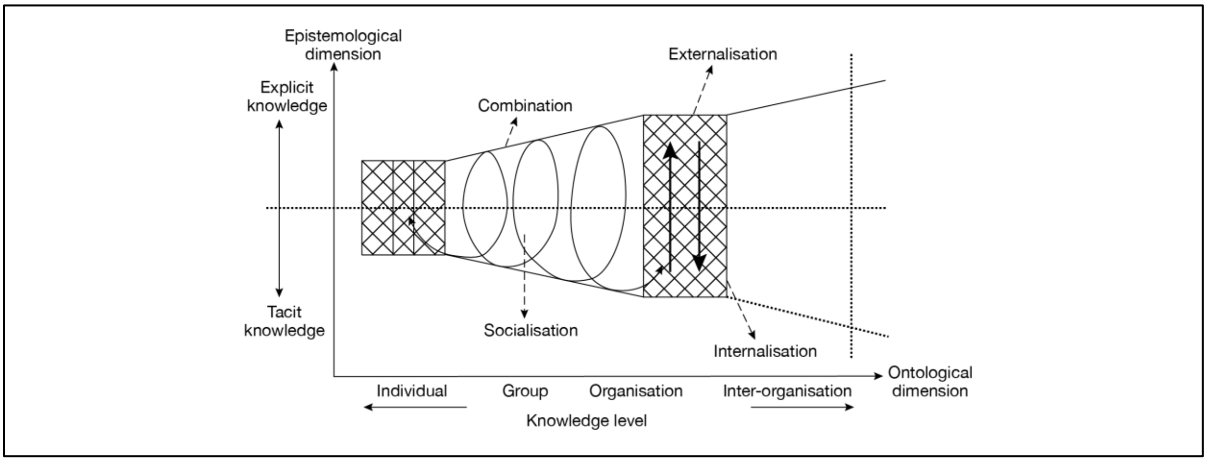

Figure 34. Spiral of organisational knowledge creation

Adapted from Nonaka and Takeuchi (1995, p.73) and Nonaka and Takeuchi (2002, p.159).

Nonaka and Takeuchi (1995; 2002) exemplify the process of organisational knowledge creation through an R&D example. In such a project, employees from different departments (e.g. Marketing, Research, Product Development) work together to develop a new product. Only a part of the explicit knowledge, which is required from the experts, can be transferred. Hence, socialisation and externalisation are essential to associate the explicit and especially the tacit knowledge of the experts (Nonaka & Takeuchi, 1995; Takeuchi & Nonaka, 2002a).

13.2 Systematic Literature Review

13.2.1 Communication and language.

The pattern that has been defined in section 13.1.4, 'Organisational knowledge creation' is *communication and language*. It has already been explained (see contrast between socialisation and internalisation) that communication and conversations bear the highest knowledge sharing efficiency (Lock Lee, 2002). This fact is underpinned by Taylor and Osland (2005) who assert that communication (2005) and language (Kikoski & Kikoski, 2004) are essential prerequisites for the creation and spread of knowledge (Davenport & Prusak, 2000; Taylor & Osland, 2005) In this regard, culture does have an immense impact on communication, as will be discussed later in the thematic pattern 'culture'. Language, also linked to culture (Plaskoff, 2005), is important because it causes 'shared activity' (2005, p. 165), and without language we would not be able to explain our experience or knowledge. Therefore, the statement that 'knowledge travels on language' (Allee, 1997, p. 88) perfectly outlines the importance of language for knowledge creation.

Drucker (2011) also underpins the importance of communication through his insight that organisations are held together by communicated information and feedback on action plans (Drucker, 2011).

While culture and language are important for communication, they can also hamper communication between individuals. Guaranteeing a high communication frequency within an organisation requires such ‘communication barriers’ to be resolved first (Szulanski & Cappetta, 2005).

The current literature shows that many authors emphasise the importance of communication within an organisation (Despres & Chauvel, 2000b; Kikoski & Kikoski, 2004; Stewart, 1997; von Krogh et al., 2000). Despres and Chauvel (2000) deem intensive communication as one of the most interesting features of knowledge generation (Despres & Chauvel, 2000b). Stewart (1997) considers communication and knowledge as constituting the new ‘source of wealth’ (p. 6), and von Krogh et al. (2000) highlight the importance of communication and underpin it by citing Henry Mintzberg’s study. Mintzberg reveals that managers spend 80 per cent of their time in talking to or communicating with others (von Krogh et al., 2000).

Authors such as Catherine Kikoski and John Kikoski have dedicated several books to communication (Kikoski & Kikoski, 1996; Kikoski & Kikoski, 2004) and foregrounded its importance for the success of organisations and knowledge creation (Kikoski & Kikoski, 2004). They specifically highlight the communication technique of ‘reflective conversations’ in their books and postulate that it is ‘one of the most significant advances in communication of recent decades’ (2004, p. 159). Reflective conversation draws on a dynamic process and requires ‘sufficient time to shift from talking; to listening; to, most importantly, reflecting’ (2004, p. 159). Reflective conversation allows new opportunities to evolve because this kind of conversation, drawing upon previously existing ideas and perceptions, stimulates the development of ideas and perceptions which are finally fused. This communication technique considers the knowledge, ideas, and perceptions of each employee within an organisation as highly valuable and as the essential requirements for new opportunities and innovations; reflective communication uses the collective intelligence (2004) of the organisation.

Because of the importance of communication for knowledge creation, von Krogh et al. (2000) suggest, apparently for group conversations, that the definition of a ‘conversation manager’ or ‘guiding principles for conversation management’ is necessary (2000, p. 131). The conversation managers are to ensure the quality and performance of a conversation. Additionally, they define roles for the participants and interrupt the conversation when necessary (2000).

Unfortunately, some leaders misinterpret the importance of communication and try to overfill the schedule of their managers and employees with supposedly important meetings. Interestingly, most of these leaders know and dislike the ‘meeting phenomenon’ that exists, especially in international companies where they sit for plenty of hours in a closed room with other managers each week. Many leaders complain about such situations because their daily business suffers and it is a meeting without any value at times (Cross, Parker, & Nohria, 2004). Therefore, it is recommended in this research that the following statement be borne in mind:

‘the quantity of communication in any situation has no necessary bearing on its quality’ (Cross et al., 2004, p. 49).

Organisations normally define their company language based on the headquarter location. English is often used as a second language (business language) to enhance communication, which is especially important for multinationals, again emphasising the importance of a common language for knowledge transfer (Despres & Chauvel, 2000b). The meaning of the previously mentioned statement regarding ‘speaking the same language’ is not only linked to the company language used, but can also be applied within a conversation (Nonaka & Takeuchi, 1995; Despres & Chauvel, 2000b) because ‘knowledge experts and users’ (Davenport & Prusak, 2000, p. 59) may speak differently according their background (Davenport & Prusak, 2000). Such situations often emerge when experts are trying to have a conversation with non-experts about their domain of knowledge. However, types of language can be generally divided into two categories: expert language and figurative language (Nonaka & Takeuchi, 1995; Despres & Chauvel, 2000b).

Most of us have faced *expert language* in some manner, perhaps at the university or in a dialogue with an expert, such as a doctor. Using health care as an example perfectly demonstrates the problem of expert language. The expert language mostly used by doctors or medical experts is difficult to understand because of the medical terminology used for explanations. The same phenomenon also presents itself within an organisation when an expert tries to communicate with a non-expert or, although less problematic, two experts from different departments try to communicate. Such situations can exclude others from communication and may cause a barrier to communication or even an obstacle to knowledge creation. Although everyone *can* achieve expert knowledge or vocabulary, it is ‘limited by opportunity’ (Despres & Chauvel, 2000b, p. 245) in practice. Therefore, ‘consistency in language’ (Allee, 1997, p. 103) strongly enhances communication among individuals (1997).

Figurative language is important with regard to tacit knowledge (Nonaka & Takeuchi, 1995) because it is, as explained earlier, inexpressible. Nonaka and Takeuchi (1995) exemplify this phenomenon by representing the professional sportsman and ‘Mr. Baseball’, Shigeo Nagashima, who used a lot of figurative language or body language on account of being unable to verbalise his movements (tacit knowledge) (Nonaka & Takeuchi, 1995). Figurative language also includes analogies or metaphors (Allee, 1997; Nonaka & Takeuchi, 1995). Bateson (1979) notes (as cited in Nonaka and Takeuchi, 1995) that a ‘metaphor is a way of perceiving or intuitively understanding one thing by imaging another thing symbolically’ (Nonaka & Takeuchi, 1995, p. 66). If one has a picture in their mind or a vision about a product and does not know how to express it (tacit knowledge), metaphors represent a useful method of putting this picture or vision into words. As a case in point, the company Matsushiate used the metaphor ‘Hotel bread’ to give a ‘hint of more delicious bread’ (Nonaka & Takeuchi, 1995, p. 66). This metaphor was powerful for them because everyone knew that the best bread then and there was made by a master baker who worked in the Osaka International Hotel. A metaphor may guide others to make tacit knowledge, packed in a metaphor, explicit (Nonaka & Takeuchi, 1995).

Tsoukas’ (2005) explanation relating to the impossibility of converting tacit knowledge into explicit knowledge considers methods like *verbal protocol* (Muthusamy, 2008). Verbal protocol is considered as a means to transfer tacit knowledge into explicit knowledge (Smith, 1992) by ‘capturing the thoughts’ of experts. Experts are remitted to ‘think-aloud’ (Awad & Ghaziri, 2010, p. 210) during a process in which they solve a problem, and the cognitive protocol is analysed afterwards (Awad & Ghaziri, 2010).

Linderman, Schroeder, and Sanders (2010) quote an interview in their research in which the interviewee stresses on the significance of ‘*asking the right question*’ (p. 704) to create knowledge. John T. Kirby (1997) similarly posits (as cited in Kikoski & Kikoski, 2004) that ‘the questions one asks themselves determine what answers one will produce’ (2004, p.133). Although both quotations highlight the importance of questioning, it is seldom considered as an important element for knowledge creation in the current literature. However, there are many types of questions, such as circular questions, hypothetical questions, or reflexive questions (Kikoski & Kikoski, 2004). Explaining the different types of questions would go beyond the scope of this discussion, but it is worth mentioning the three different functions of questions. Firstly, questions allow us to orient ourselves to new situations that enhance our knowledge. Secondly, asking questions to employees can ‘trigger unintended’ (Kikoski & Kikoski, 2004, p. 134) answers and hence also change or enhance knowledge. Thirdly, questions can ‘open up listeners’ (Kikoski & Kikoski, 2004, p. 134) so that employees participate in conversations that can finally change the listeners.

Another important communication technique is that of the narrative, a point that is emphasised in the statements such as ‘narratives and knowledge creation go hand-in-hand’ (von Krogh et al., 2000, p. 238) or ‘human beings learn best from stories’ (Davenport & Prusak, 2000, p. 81). The narrative is a useful method to transfer (Bartel & Garud, 2005; von Krogh et al., 2000) company or individual knowledge, experience, success, or failure (von Krogh et al., 2000). Concealed in this communication technique is the very valuable factor of ‘adaptability’. To be more precise, narratives interpreted by the author bear the meaning of the author, and each interpretation or reinterpretation of an author respects the interpreted situations and experiences as varyingly important. This fact gives rise to different interpretations or ‘adaptabilities’ of narrations that draw upon an author’s individual meaning, background, knowledge, and experience (Bartel & Garud, 2005). Therefore, narratives enable the conveying of personal experience or knowledge with a story, and the listener can create new knowledge and combine the story with their experience and interpret it differently.

This phenomenon echoes the ‘concept of perspective’, which is also referred to as the ‘concept of polyocularity’ (Maruyama, 1978, p. 83). This concept explains that different perspectives on, or meanings of, the same object (problem, situation, experience) exist because of the differences in individuals with different backgrounds.

13.2.2 Human resource management.

The next defined thematic pattern is *human resource management (HRM),* which is also recognised for having a major effect on the competitive advantage of an organisation (Amos, 2008; Porter, 2004). Sveiby (1997) similarly observes that ‘recruiting new employees is management’s most important investment decision and perhaps its most important strategic tool’ (Sveiby, 1997, p. 66). HRM is about the hiring, recruiting, development, motivation, and training (Porter, 2004) of employees, which shows clearly that it must bear an important impact on knowledge creation (Wang, Peters, & Guan, 2006).

Smith, Collins, and Clark (2005) explore the impact of education level on knowledge creation and reveal that ‘well-educated employees with varying functional expertise’ (Smith et al., 2005, p. 355) enhance the likelihood of exchanging their ideas and existing knowledge, which in turn gives rise to new knowledge (Smith et al., 2005). Prusak (2000) similarly states that the best way to transfer knowledge is to ‘hire smart people and let them talk to one another’ (Davenport & Prusak, 2000, p. 88). These quotes clearly highlight the fact that ‘smart people’ or ‘well educated people’ positively influence knowledge transfer and creation.

To restate an important point, each employee is a *carrier* of valuable knowledge and ideas. Their education, experience, and skills communicate and interact with those of others to either enhance or diminish the sharing and creation of knowledge.

In summary, being proficient in different skills gives leverage to knowledge creation. Consequently, ‘skill-improvement’ (Yahya & Goh, 2002, p. 464) must be an HRM focus (2002). Skill improvement, like training or education, is revealed to be an important HRM practice (Goel & Rastogi, 2011) and foregrounded as vital for human resource development (Wang et al., 2006). This awareness might be the reason why international companies like Toyota consider the ‘multi-skilled worker’ (Nonaka & Reinmöller, 2000, p. 108) or ‘skill accumulation’ (Nonaka & Reinmöller, 2000, p.108) as essential for their organisations. A notable concept in this respect is ‘competency modelling’ (Grant, 1997), which is an appropriate HRM method to identify the required set of skills and knowledge for a position and also serves as a guide to focus on the necessary training and education (Grant, 1997).

Sveiby (2002) argues that employees, together with their training, skills, and education, must be the most important ‘element’ for an organisation because each idea or process, all tangible and intangible assets, and structures stem from them (2002). Hence, it can be posited that the success of an organisation largely depends on the employees recruited. This statement bears truth and is simply explained by alluding to success stories of companies that always start with an idea or a vision of a manager or employee, such as Henry Ford (Ford Motor Company) or Bill Gates (Microsoft).

Despite the obvious importance of HRM to knowledge creation, less attention is paid to HRM in the current literature on knowledge creation or KM (Scarbrough & Swan, 2005). This fact is interesting because, as has been shown in the previous discussion, the importance of the employees' skills is already recognised and is often postulated as *the* key element for knowledge creation or competitive success. A reason for the underestimating of HRM might be that it is still understood as the simple management of people (Teece, 2000) or as Amidon (1997) calls it, 'people-centricity' (p. 51). People centricity guarantees that the employees with the required set of skills and knowledge are provided to the company at the right time (1997). In contrast, KM is promoted as the management of the 'intellectual property' (Teece, 2000, p, 146), which includes developing, transferring, and managing organisational knowledge assets (2000). Takeuchi and Nonaka's (2002) reflections about the western and eastern KM approach is interesting in this regard. They observe that in the western approach, knowledge is mostly created by a few key managers, information processing, internal consultancy, or HRM. On the contrary, the eastern approach considers knowledge creation as a 'joint accomplishment' that draws upon the interaction between each level of management (Takeuchi & Nonaka, 2002b).

Although the eastern approach is powerful and valuable for this research, HRM is treated as having the same import. The previously explained distinction between KM and HRM might be correct, but it also reduces the need for HRM. To clarify again, the aim of HRM is to select employees with specified knowledge and skills who should create new and valuable knowledge and innovations. In other words, if there are only employees with a lack of communication skills or with no valuable knowledge, it will hardly be possible to enhance knowledge creation performance. This fact is also underpinned by a study that Wang, Peters, and Guang (2006) undertook with a German research group. Their interviewees emphasise the importance of HRM because of the difficulty of finding and attracting 'well educated' or 'smart people' (Wang et al., 2006). These findings are corroborated by Sveiby (1997) who also has highlighted the problem of recruiting capable employees; additionally, the 'recruiting decision' a manager makes can 'increase or reduce its competence and other intangible assets' (1997, p. 66).

Especially in small and mid-sized companies, where new employees are mostly recruited by the heads of department, the missing HRM makes many things difficult (i.e. employee selection and development). Additionally, the pressures of cost and time as well as the lack of experience or knowledge of how to recruit new employees leads to incorrect decisions. If the managers do not focus on the right type of knowledge required for future success and instead only focus on elements such as costs, it may hamper organisational growth or cause the cost of non-conformity. The researcher's experience has shown that small-sized organisations struggle to become mid-sized organisations because of their *wrong human resource focus*. Accordingly, they would forego much potential profit and the chance to take the 'next big step' in the history.

Motivation and reward or incentive systems related to HRM have often been mentioned in the existing literature. In the year 1930, Kurt Lewin, who is considered as the father of the psychological approach, explored and introduced motivation, among other elements, (Allee, 1997) as important for success at work. The current study from Abzari, Shojaei, and Forouzan (2012) elucidates a similar idea – that 'motivation is a key factor for knowledge management success' (p. 28).

Since knowledge and experience are possessed by individuals, it is impossible to force the sharing of (valuable) knowledge (Davenport & Probst, 2002). Thus, motivation is not only important but also difficult (2000). Motivation, like incentives or rewards, positively influences the willingness to perform in a team and therefore also affects knowledge creation (Un & Cuervo-Cazurra, 2004).

Normally, employees do not like to share their knowledge that is achieved through hard study, work, or experiments (Despres& Chauvel, 2000b) because they are frightened to lose their status or become expendable. Another reason is the 'fear of abuse' (2000b, p. 261). If people frighten or abuse their colleagues, it certainly impedes knowledge sharing and hence the chance of new innovations as well. In this line, it is worth emphasising that there must be a possibility for workers to make mistakes so that the 'fear of abuse' is reduced and an 'environment of tolerance' can be created. This is vital because, for instance, a project team can learn and improve (e.g. a process) by drawing upon the analysis of such failures (Despres & Chauvel, 2000b). Wiig (2000) notably summarises management experts like Drucker or Sveiby and Lloyd and argued that 'the whole person must be considered' (p. 4) to achieve competitive excellence in human behaviour. Wiig mentions several elements like personal satisfaction, feeling of security, or motivation that gives rise to the behaviour necessary for competitive excellence and a high KM performance (Wiig, 2000).

Abzari et al. (2012) mention the two different classes of motivation (Abzari et al., 2012) in their study, suitably divided into extrinsic (physical) and intrinsic (spiritual) motivation (Abzari et al., 2012; Osterloh, Frost, & Frey, 2002; Ryan & Deci, 2000).

Extrinsic motivation exists for each activity that is conducted to accomplish a separate or additional outcome (Ryan & Deci, 2000). This kind of motivation is believed to have a positive effect on the knowledge creation process (von Krogh et al., 2012). Examples of extrinsic motivation are as follows: pay increase, salary increase, reward payment, and performance-based payments (Abzari et al., 2012).

Intrinsic motivations, on the other hand, are used to create permanent employee satisfaction (Ryan & Deci, 2000). In this regard, Abzari et al. (2012) outline different examples from several authors; for instance, glorification and appreciation from employees, employee participation, job progress opportunities, social interaction, and organisational culture are all types of intrinsic motivation (Abzari et al., 2012). Ryan and Deci (2000) stress on the significance of intrinsic motivation, even though most people are motivated through extrinsic motivation. However, the two classes of motivation should not be considered separately (Osterloh et al., 2002, p. 68).

The literature review has revealed different perspectives about the importance of incentives and how to use them. Many authors only emphasise the importance of rewarding their employees when they participate in knowledge creation or KM. However, there are also experts who highlight the necessity of penalising employees if they repeat already-reported mistakes (Deng-Neng, Ting-Peng, & Binshan, 2010). These experts link the term 'penalising' with 'responsibility' and explain that the 'carrot and stick concept' would teach the employees correctness, enhance their awareness for quality, and also leverage their will to share and create new knowledge (Deng-Neng et al., 2010).

Davenport (2002) suggests that if one shares knowledge, they should be rewarded for the invested time. This also disguises the problem that if one is considered to be knowledgeable or an expert who shares valuable knowledge, other employees will often be tempted to solicit the said expertise. This may lead to frustration for the expert because of the loss of time or the resulting slow progress of their own projects (2002). In the same vein, Lesser and Prusak (2003) warn against individual reward and incentive systems because they can cause a knowledge sharing barrier (Lesser & Prusak, 2004). Although individual rewards may hamper knowledge creation due to their individualism that leads to scanty relationships (Lesser & Prusak, 2004), it is also considered as a mistake to completely exclude individual incentives, especially when the team success depends on it (Foss & Mahnke, 2005). Individual motivation is important for knowledge sharing and creation (Abzari et al., 2012) and there is a difference between *motivated* employees and the *unmotivated* employees who would seek recognition from the work of others.

Leaders do have an important impact on the motivation of their employees (Eppler & Sukowski, 2000; Lesser & Prusak, 2004), because they can engage in ‘publicly acknowledging collaborative work’ (Lesser & Prusak, 2004, p. 55) and can reward or promote those who invest their time into sharing their expertise to help others (Lesser & Prusak, 2004).

Leaders and managers have a profound impact on the creation of organisational culture, which in turn has an impact on motivation and knowledge creation. As explained earlier, no one can be forced to share ideas and experience or to communicate with others. It is therefore incredibly important to create a culture that reduces fears of sharing and enhances teamwork (Farhad et al., 2011). The organisation must have the insight that ‘collective ideas’ (Farhad et al., 2011, p. 65) are better than individual ones. Cultural values not only impact knowledge sharing or creation, but they also impact how KM is respected and used within an organisation (Alavi et al., 2006).

In addition to this, defining a knowledge vision (higher order goals) (von Krogh et al., 2012) is another leadership merit that also has a positive impact on the employees and motivates them to participate in KM (2012). Linderman, Schroeder, Zaheer, and Choo (2003) underpin this statement, though for process management, and observe (as cited in Linderman, Schroeder and Sanders, 2010) that ‘goals serve as regulators of human action by motivating the action of organisational members’ (p. 699). Therefore, a *knowledge vision* or *knowledge* *goal* represents a vital method to guide and motivate employees to share their experience and knowledge, and thus create new ideas. Despite its positive effect on knowledge creation, von Krogh et al. (2000) simultaneously hold that a knowledge vision would have a ‘low impact on tacit-knowledge sharing’ (p. 9).

Von Krogh et al. (2000) use the case of a consulting firm and represent a possible ‘motivation process’ that is anchored within the HRM. This process draws on ‘frequent and formalized conversations about personal expectations’ (von Krogh et al., 2000, p. 256). Another possibility to motivate is to create a self-motivated organisation where employees understand the importance of sharing their knowledge (Amidon, 1997). Each employee must understand the multi-functionality of experience and knowledge and its usability for different departments and situations. Employees, well-educated and armed with different skills, are then motivated upon recognising how their knowledge is used, respected, and rewarded (Amidon, 1997; Tiwana, 2000).

Therefore, an *understanding* about KM, knowledge sharing, and the process of knowledge creation positively impacts the behaviour and habits of employees, thus finally enhancing the development of new knowledge. This is also echoed in Tseng and Fan’s (2011) study that reveals that the positive view of employees about KM, realised by showing its benefits, increases KM activities (Tseng & Fan, 2011) and hence knowledge creation.

Worth mentioning in the discussion of this pattern is the German neurobiologist and medical scientist Dr Gerald Hüther and his contrary but very useful and interesting insights regarding incentives and rewards systems. Hüther is a specialist in brain research, and he asserts that ‘trying to motivate others is, in terms of the brain, nonsense’ (Quotation translated from German into English) (Hüther, 2009, p. 159). He explains that any type of motivation focuses on forcing employees to do what managers or leaders want them to do, like the dressage of tigers. If no motivation exists anymore, no (high) performance will emerge, or in other words, *the tigers would not move*. Additionally, employees become a mere copy of the managers and their perceptions. Unfortunately, *drilled* employees do not work autonomously with responsibility and self-design. Instead of drilling employees, they should be invited and motivated to learn through as many experiences as possible. The key factor for managers is to support rather than drill employees and to give them new opportunities so that fun, enthusiasm, and passion for their work can emerge. Hüther (2011) discusses the issues of 'enthusiasm' and 'passion' in depth in his book *Was wir sind und was wir sein könnten* and reveals, by using the example of children, the vitality of both the terms regarding learning and knowledge creation for humans. Hüther associates this to the joy of discovery and openness to experience that always releases emotions that activate the emotional part of the brain. This happens to an infant 20 to 30 times a day. Therefore, the joy of experience leads to enthusiasm and passion to discover and create knowledge. Notably, this only works if the infants are not discouraged or forced by others. Negative feedback like 'you are walking like a duck' or 'you are singing like a crow' (Original quote, 'Du watschelst wie eine Ente, […] Du singst wie eine Krähe') (2011, p. 96), especially through related parties such as friends, severely hampers discovery and knowledge creation. Such negative feedback also exists within an organisation; therefore, we need an environment with relationships of trust and security to become discoverers (Hüther, 2011).

Goleman (2011) has explained how one can distinguish motivated people from employees driven by rewards:

> The first sign is a passion for the work itself – such people seek out creative challenges, love to learn, and take great pride in a job well done. They also display an unflagging energy to do things better. People with such energy often seem restless with the status quo. They are persistent with their questions about why things are done

> one way rather than another; they are eager to explore new approaches to their work. (p. 14)

Key phrases like ‘creative challenges’, ‘love to learn’, or ’energy to do things better’ are attributes that automatically lead to change, and therefore, to new knowledge. Hence, having passion at work can be considered as vital for business.

At this point, Hüther’s discussion about the *‘collective loss of enthusiasm’* (Original quote, ‘kollektiv unsere Begeisterungsfähigkeit verlieren’) (2011, p. 109) is also worthy of a brief introduction. This often takes place within families, organisations, and society, and can lead to a loss of enthusiasm, passion, joy of discovery, creativity, and hence also knowledge creation. In such a situation, the functionality of society or organisations still exists, but they do not grow, or as Hüther has said, ‘they do not live again’ (Quotation translated from German into English) (Hüther, 2011, p. 109).

Hüther shows that the reanimation of a collective loss of enthusiasm and passion cannot take place through adults who have already lost their enthusiasm and passion for discovery. He instead links enthusiasm to infants and argues that they show us the essence of life, or in other words, ‘what is really important in life’. Hüther’s logic makes sense in the infant–adult relationship and also shows the difficulty for organisations: An organisation that is facing a collective loss will have its discovery and knowledge creation hampered (Hüther, 2011). In such a case, the reanimation of collective loss can only take place through the *adult*, who is in this case the leader of an organisation. Due to this fact, the vital role of leadership and management is emphasised again in this section. Negative decisions, behaviours, and passions of leaders or managers may infect a department and may also lead to a contamination of the whole organisation. If leadership and management are used correctly, the resuscitation of collective enthusiasm and passion for discovery and knowledge creation is possible.

Howsoever, using traditional motivation systems like incentives and reward systems is regarded by Hüther (2009) as a vicious circle, because once an organisation introduces rewards, its employees *need* incentives to be motivated, which in turn means that the employees would not work without incentives (Hüther, 2009). Therefore, incentives may improve motivation in the short term, but the employees motivated through passion, enthusiasm, autonomy, support, and inspiration will create the ultimate benefit for an organisation in the long term.

13.2.3 Research and development (R&D).

The heading mentioned in a study, 'Knowledge and R&D: A Symbiotic Relationship' (Parikh, 2001, p. 28), succinctly illustrates the importance of knowledge for R&D and vice versa. R&D uses the existing knowledge of a firm and creates new knowledge, which in turn gives rise to new innovations and organisational success that then serves as new 'existing knowledge' (Parikh, 2001). Therefore, it is appropriate to posit that the focus of R&D is to 'come up with new knowledge – new ways of doing.' (Davenport & Prusak, 2000, p. 58).

Nonaka and Takeuchi (1995) have observed that an R&D member is a 'knowledge specialist' (p. 153) and creates 'well-structured explicit knowledge' (p. 153). This knowledge is held in patents, innovations, or findings and is hence suitable to be stored in computers (1995) and easy to be transferred to others (Davenport & Prusak, 2000). In this regard, Liu and Tsai (2007) have revealed, through statistical analysis, that if employees are willing to share information and experience, it positively affects new product development.

Although knowledge creation or knowledge management is mostly tied to R&D, it would be a mistake to reduce the scope of KM only to this department. Valuable ideas should 'come from everywhere in the enterprise' (Amidon, 1997, p. 10). It must be an organisational 'upper aim' to support employees and their ideas and to use their ideas for excellent service or new products and innovations (Amidon, 1997). Many organisations separate R&D so that they can engineer new innovations without any pressure, or as Davenport and Prusak (2000, p. 58) expresses it, ‘the freedom to explore ideas’. But *separation* and *distance* always intensify the problem of transferring or sharing new knowledge and innovations. To reduce or overcome this problem, managers can frequently hold meetings between R&D (Davenport & Prusak, 2000).

However, KM gurus Nonaka and Takeuchi (1995) have used several product development examples in their book *The knowledge creating company* to illustrate the knowledge creation spiral (1995). This highlights how important product development is to create new knowledge (Nonaka, Toyama, & Nagata, 2000b). In this regard, Hänninen and Kauranen (2006) have used the product concept (conceptual knowledge assets) as a foundation for their research to discover whether a multi-model concept would enhance cross-functional knowledge creation. A product concept is the first step within a product development process and is hence essential. In this concept, new knowledge is created by drawing on the ideas and knowledge solicited from customers or employees (Nonaka & Takeuchi, 1995; Nonaka et al., 2000b)**.** Knowledge is conveyed through metaphors, analogies (Nonaka & Takeuchi, 1995), images, symbols, or languages (Nonaka et al., 2000b). These serve as important guidelines for the development of a new product (Leonard-Barton & Hull, 1996; Nonaka et al., 2000b).

Before moving on, it is worth mentioning Takeishi (2001), who reveals that communication has an important impact on the quality of engineered products (Takeishi, 2001). Enhanced communication or ‘routine communication’ (Un & Cuervo-Cazurra, 2004) among experts or product development teams increases knowledge sharing and subsequently knowledge creation.

Smith, Collins, and Clark (2005) have showed an interesting association between knowledge creation capability and product development. They confirmed their hypothesis through a field study from 72 companies with regression analysis and showed that the number of new products and services demonstrates the knowledge creation capability (Smith et al., 2005). If organisations set out (or determine) to enhance the number of innovations and new products, they automatically must undertake a *kind of change* to accomplish such a goal. Pursuing this path leads to new processes, tools, techniques, and so on. The organisation, or rather the development department, *learns* how to use different and appropriate techniques to enhance its capacity to produce new products and to enhance new knowledge creation.

In addition, it is also important to strike a balance between exploration and exploitation to enhance and maintain knowledge creation. Not only is knowledge creation (exploration) clearly essential, but the *use* of foreign knowledge and experience (exploitation) from alliances, suppliers, and so on, is also vital to leverage knowledge creation (Amir-Aslani, 2009).

13.2.4 Environment.

Someone's environment is all the circumstances, people, things, and events around them that influence their life' (Collins, 2009, p. 520).

This definition serves as an appropriate entry point to introduce the topic of environment. Given that employees normally spend more time at work than at home during a day, and given the truth of the above-mentioned quote, an organisational environment is clearly essential for employees. The existing organisational environment *influences* employees and has an impact on knowledge creation, work, and innovation. Therefore, in order not to hamper knowledge creation, an appropriate environment must be present.

Leonard (2002) observes that employees 'inhabit' the organisation, or the organisation's environment, and create within this environment their own system (user system) to achieve their goals (2002). Helmut Volkmann's vision of 'Xenia – the knowledge city' (von Krogh et al., 2000) is in this vein as well. Volkmann explains that a knowledge city is a place where visitors 'can get easy access to existing knowledge. Thus, they can meet their objectives faster and create new knowledge' (2000, p. 168). He has used his vision of an ideal place or an *ideal environment* to boost visionary thinking in different workshops, such as a situation in which the aim is to decipher what is required to make an organisation more innovative.

A city provides humans everything they need – like stores, places for entertainment, as well as places to meet friends and to live contentedly – theoretically, it is an ideal place to inhabit. But they also need an orientation among different geographical and social situations (von Krogh et al., 2000) to successfully accomplish their 'daily business', and this can be compared with Leonard's user system.

However, an environment does not merely support employees to create new knowledge. Nonaka and Takeuchi (1995) mention Gibson (1979) and Norman (1988) who postulated that knowledge is not only carried by humans but also lies 'in the external world in the forms of things, others, and situations' (Nonaka & Takeuchi, 1995, p. 93). This understanding is especially important for R&D, as incorporating and using developed products into the business environment would reveal new information and could lead to new ideas and knowledge. Gibson (1979) explains in this regard that different information, such as the 'seat-feeling', can only be conveyed when the chair is used (Gibson, 1979**).**

The concept of 'ba' can be presented in relation to the previously mentioned 'ideal place' or 'ideal environment'. Ba serves as such a place or 'platform' for knowledge creation (Nonaka et al., 2000b) where employees share 'time and space' (Nonaka et al., 2000a; Nonaka et al., 2000b), which in turn gives rise to relationships (Nonaka & Konno, 1998). Despres and Chauvel (2000) similarly observe that ba 'is the space for dynamic knowledge conversion and emerging relationships' (p. 60).

Nonaka and Konno (1998) have adapted the concept from the philosophers Kitar Nishida and Shimizu (Nonaka & Konno, 1998), and have integrated it as an important element for the knowledge creation process (SECI) (Despres & Chauvel, 2000a; Makino & Inkpen, 2005; Nonaka et al., 2000b). Knowledge creation is context specific, as it depends on ‘who participates and how they participate’ (Nonaka et al., 2000a, p. 14). Furthermore, knowledge creation needs a place or ‘a physical context’ (Nonaka et al., 2000a, p. 14).

Given that interactions and relationships emerge and exist across an organisation at any time and location, it would be a mistake to boil down ba to a special location or to a face-to-face meeting (Makino & Inkpen, 2005; Nonaka et al., 2000b; von Krogh et al., 2000). The concept of ’ba’ is not defined by a specific space; it ‘unifies the physical spaces, virtual spaces, and mental spaces’ (von Krogh et al., 2000, p. 178) (Nonaka & Konno). Nonaka and Konno (1998) exemplify the different spaces as follows: physical spaces are such spaces as an office, business location, or break room; virtual spaces are such as typified in the spaces within the telephone, video conference, or email; mental spaces contain shared experience, ideas or ideals (Nonaka & Konno, 1998). These examples clearly show that there are not only relationships among employees but also between the employees and their environment (Nonaka et al., 2000b).

In addition to the different types of ba, there also exist different levels of ba that can be merged to a *holistic ba*, which is also called ‘*basho*’ in Japanese. Ba is given through a team at the employee level, whereas an organisation serves as a ba for the team level. At the top of this pyramid is the market, which serves as the ba for the organisation (Nonaka & Konno, 1998); this relationship makes it clear that inside and outside relationships do exist. While ba can admittedly set boundaries on how employees see ‘the outside as inside’, employees benefit highly from these relationships, because relationship enhances the viewpoint of the employees (Nonaka & Toyama, 2003).

It is also important to bear in mind that the space or the environment cannot be separated from knowledge creation (Despres & Chauvel, 2000a). Von Krogh et al. (2000) capture this perfectly in the quote below.

> The essential thing for all managers to remember is that all knowledge, as opposed to information or data, depends on its context. You might say that knowledge is embedded in *ba*, and that supporting the whole process of knowledge creation requires the necessary context or 'knowledge space'. (p. 7)

Knowledge is converted into information if the ba is extracted. Ba is not necessary for information, because information can easily be stored and transferred without ba, for instance, by means of a computer (Nonaka & Konno, 1998). In other words, information cannot be interpreted without ba (space, place), which is essential to transforming information into knowledge. Nonaka and Toyama (2003) summarise these facts by outlining that 'knowledge cannot be created in a vacuum' (p. 6).

These valuable definitions and explanations show that ba must become a key ingredient for every organisation. A well-developed ba supports knowledge creation more than any sole focus on the knowledge creation process can (Despres & Chauvel, 2000a). Investing in ba might also enhance organisational profit, because the organisation will then become a place where employees spend time (von Krogh et al., 2000), and such a situation would support and boost communication – a foundation for knowledge creation.

Although the term 'key ingredient' was used in the last paragraph to emphasise the importance of ba, von Krogh et al. (2000) caution that it is important not to overemphasise the element of management. A well-developed ba undoubtedly supports knowledge transfer, but it should be noted that knowledge transfer and creation do not constitute the sole management and planning of an organisation's structure (von Krogh et al., 2000). Correspondingly, von Krogh, Nonaka, and Reichsteiner (2012) point out that ba does not necessarily need a manager or a 'central leader' (von Krogh et al., 2012) as, for instance, in the case of an 'informal meeting' (von Krogh et al., 2012); ba can also emerge spontaneously.

Moreover, ba also has a supportive influence on learning (Makino & Inkpen, 2005), which is also important for knowledge creation as will be explained in the pattern named 'learning'.

The concept of ba is subdivided into four types and are associated with the already introduced SECI process (see section 13.1.4 Organisational knowledge creation). Each step in this process needs its own ba.

Originating ba is linked to socialisation, which is the first step in the knowledge creation process. At this step, communication and social interaction are used to transfer tacit knowledge. Therefore, eliminating each type of interpersonal barriers among employees is an essential first step to accomplishing knowledge transfer (Nonaka & Konno, 1998). Watzlawick, Beavin, and Jackson (1982) observe (as cited in Birkenbihl, 2004) that communication contains a content level and relationship level, wherein the relationship level dominates the content level. A relationship dominates the content of a conversation because a positive or at least neutral relationship enables a transfer of information, knowledge, or messages without distractions or *interpersonal barriers*. If there are any extant barriers like fear, nervousness, enviousness, or jealousy (Birkenbihl, 2004), distractions emerge in the transfer of knowledge. Due to this fact, employee relationships automatically play a central role in the efficient transfer of information, knowledge, or messages. Considering this insight as a foundation for relationships and communication is useful for establishing successful face-to-face meetings (Birkenbihl, 2004), which in turn are essential for tacit knowledge transfer.

Watzlawick, Beavin, and Jackson's thoughts are echoed in Nonaka and Konno's (1998) definition of *originating ba*. Nonaka and Konno (1998) define originating ba as a place where employees share ‘feelings, emotions, experience and mental models’ (Nonaka & Konno, 1998, p. 46) (Despres & Chauvel, 2000a; Makino & Inkpen, 2005) and indicates the importance of good relationships. Watzlawick et al. (1982) also bestowed a higher status upon interpersonal relationships because they dominate the efficiency of tacit knowledge transfer.

Interacting ba is linked with the externalisation process wherein tacit knowledge is converted into explicit knowledge (Despres & Chauvel, 2000a). It is essential for this ba to find and select the right mix of employees, knowledge, and experience (Nonaka & Konno, 1998). Dialogue and communication also play also an important role in enabling a transfer of mental models and skills into explicit knowledge (Makino & Inkpen, 2005; Nonaka & Konno, 1998) as, for instance, in the case of a concept (Nonaka & Konno, 1998). Nonaka and Konno (1998) highlight that interacting ba is not only about sharing mental models but also about ‘reflect and analyse their own’ (Nonaka & Konno, 1998, p. 47) mental models.

Cyber ba is linked to combination (Nonaka & Konno, 1998) and, as the name evinces, is about the ‘space of interaction in a virtual world’ (Despres & Chauvel, 2000a, p. 62). Cyber ba is used to merge new explicit knowledge with existing (recorded) explicit knowledge and to distribute it within an organisation. Information technology is, because of its astonishing rate of development, considered to be a highly efficient option to support this process (Nonaka & Konno, 1998). This enables the sharing of concepts that emerge in the ‘interacting ba’ across or within an organisation (Makino & Inkpen, 2005).

Exercising ba is associated with the internalisation process that supports the transformation of explicit knowledge into tacit knowledge (Makino & Inkpen, 2005; Nonaka & Konno, 1998). This ba is about continuous learning and exercising of concepts, for example, through training with senior managers. The use of explicit knowledge through different job situations enhances the tacit knowledge of employees (Nonaka & Konno, 1998).

Although this section has highlighted the vitality of ba, a study has revealed that employees are mostly ‘tied to a physical location’ (Rezgui, 2007, p. 171). This renders the creation of ba difficult and hampers the relationships between the employees and the environment, thus contradicting the previously shown importance of socialisation. As explained earlier, socialisation may enhance knowledge transfer to up to 80 per cent (Lock Lee, 2002) and should therefore be necessarily considered while developing ba.

13.2.5 Learning organisation.

The meaning of the term ‘learning’ is elaborated similarly in western and eastern thought. In eastern and western thoughts, the term means ‘study’ and contains an element of what is interpreted as ‘constantly’ or ‘lifetime’ (Senge, Charlotte, Ross, Smith, &Kleiner, 1994). In this regard, Senge has observed that ‘human beings are designed for learning’ (Senge, 2002a, p. 20). This statement echoes the previously mentioned characteristic of learning and argues that learning begins with birth and continues throughout one’s life (Allee, 1997).

This also explains why learning is associated with knowledge change (Senge et al., 1994; Sanchez, 2001). Youngsters became adults through learning. Their minds, behaviours, and decisions (knowledge) change over time and are strongly influenced by lived experience and their interactions with other humans (Sanchez, 2001). Sanchez (2001) holds that learning is ‘a change in our beliefs about causal relationships in the world and our organization’ (Sanchez, 2001, p. 6). Senge (1994) has described learning as a ‘fundamental shift of mind, individually and collectively’ (Senge et al., 1994, p. 18). A learning organisation trains its employees regarding change. This results in employees who can handle change better in their environment, and it also creates change in how the employees try to accomplish work objectives (Senge, 2006; Senge et al., 1994).

A learning organisation is also important to enhance, create, and stimulate new knowledge. Employees need to learn what they must do before they can start being active thinkers (Senge et al., 1994).

Although the term ‘learning’ already contains an iterative character (study and lifetime), the term ‘learning circle’ is often used as a foundation for a learning organisation (Allee, 1997; Sanchez, 2001; Senge et al., 1994); certainly, this term is used to underpin the importance of lifetime learning. However, there are different interpretations of what a learning cycle means.

Senge’s (1994) learning cycle comprises of three pairs of elements: skills and capabilities, awareness and sensibilities, and attitudes and beliefs. This cycle indicates that enhancing skills and capabilities change awareness and sensibilities, which also leads to new attitudes and beliefs. Because of this change, employees consider their environment differently and this in turn increases their capabilities (Senge et al., 1994).

Sanchez (2001) discusses five learning circles, the first of which is the *individual learning cycle*. Individuals, or employees in this case, are the essence of each organisation because of their beliefs and knowledge. An interpretive framework transfers individual knowledge and beliefs to an organisation. Second, the *individual and group learning* cycle represents the learning among individuals and groups through interaction. Third, the *Group learning cycle* is about using capabilities (knowing why) and routines (knowing how) to create and enhance new knowledge. Fourth, the *group and organisation learning* cycle is the interaction among different groups about the know-how and know-why within an organisation. Finally, the fifth cycle is named the *organisation learning cycle*, and it is about groups or individuals who aim to embed created or new knowledge into an organisation through, for instance, different goals or visions (Sanchez, 2001).

Allee (1997) has created a learning cycle with the following sections: doing, reflecting, conceptualising, and planning. ‘Doing’ comprises action or experience. ‘Reflection’ is, as the word already shows, about observation and contemplation regarding action or experience. ‘Conceptualising’ is about creating mental models and concepts, and ‘planning’ involves the change of behaviour that renders future action possible (Allee, 1997).

Learning can also be compared with training because they both contain the aim of improvement and knowledge creation. Farhad, Kjairuddin, and Roohangiz (2011) highlight that employees must be trained in different areas to enhance knowledge creation. They list areas like teamwork, sharing knowledge, accomplishing goals, identifying and solving problems, and learning about how to reflect about their work (Farhad et al., 2011). In this respect, Nonaka and Reinmöller (2000) show that reflections about observations are essential for knowledge creation. Through reflection and observation, hypotheses and new ideas can emerge that give rise to new knowledge when they are transposed and tested (Nonaka & Reinmöller, 2000).

Learning or training has a positive effect on knowledge sharing and knowledge creation. It allows employees to appreciate what they can accomplish by way of new knowledge and gives rise to an understanding of the importance and value of knowledge sharing and knowledge creation. Wang and Ahmed (2003) similarly explain that the learning mechanisms used in a learning organisation are the tools to achieve ‘incremental innovation’ (Wang & Ahmed, 2003, p. 12).

It is to be noted that if employees are not trained on the importance of knowledge sharing and how it takes place and what it means for the organisation, it will most likely result in knowledge creation barriers (Rezgui, 2007).

This fact is already recognised by many organisations and management schools, and it is what has caused concepts like the continuous improvement process (CIP) to become popular. Continuous improvement stems from Japan (Kaizen) and is an iterative method to 'eliminate waste in business processes' (Kumiega & van Vliet, 2008, p. 271). In *New Society of Organizations*, Peter Drucker (1992) showed that an organisation must be in a permanent change to remain innovative (i.e. knowledge creation) and he mentioned the CIP as a vital element for doing this.

Moreover, CIP can be compared to the 'dynamic capability' of a firm. Zollo and Winters (2002) defined dynamic capability as 'a learned and stable pattern of collective activity through which the organization systematically generates and modifies its operating routines in pursuit of improved effectiveness' (Zollo & Winter, 2002, p. 340), whereby the learning mechanism influences the dynamic capability. Interestingly, Bayat (2006) reveals that continuous improvement can be considered to be a form of organisational learning (Bayat, 2006) and not merely as an element of organisational learning. This implies that upon implementing CIP, an organisation automatically turns into a learning organisation. CIP can also be treated as a 'problem solving' process. Problem solving is very vital for organisational learning and has an impact on 'cognitive flexibility' (Muthusamy, 2008, p. 148) (Grohmann & Colombelli, 2012).

In this regard, Senge's (2006) introduction includes two important learning organisation layers, which are *adaptive learning* and *generative learning*. *Adaptive learning*, also called imitative learning, (Stopford, 2001) serves as a prime layer or first step in creating a knowledge organisation (Senge, 2002a) because it 'maintains survival' (Shipka, 2006, p.148). This type of learning uses present problems as a catalyser for learning but follows clear guidelines received from the top management (Stopford, 2001). This progression optimises and boosts the existing competence and enhances the knowledge within the organisation (Chiva, Grandío, & Alegre, 2010).

Generative learning, on the other hand, is ‘learning that leads to creating the future’ (Shipka, 2006, p. 148). The employee or learner is not a sole receiver of information, but rather an ‘active thinker’ in the learning process (Sharma, 2008). To be an active thinker in a learning process means to be a member who does not follow a given and explicit process. This leads to open boundaries regarding ‘learning creativity’ and is the reason why experimentation is used to create understanding (Stopford, 2001).

These two layers do not exist separately within an organisation. They are complementary and are what ‘enhances our capacity to create’ (Senge, 2006, p. 14).

13.2.6 Organisation basics.

Different papers show that organisations and their structures play an important role in knowledge creation. Therefore, the aim of managers should be to create a supportive organisational structure where employees can easily share and discuss ideas and experiences. Such a structure would also positively impact reflective thinking and problem solving, which are what influences the creation of innovation (Farhad et al., 2011).

Un and Cuervo-Cazurra (2004) use Tsoukas’ (1996) idea that firms are distributed knowledge systems. Tsoukas (1996) explains that knowledge systems draw upon the different resources that a company must use as well as the services and routines that are created through the resources. Based on this, he further explains that organisations are distributed knowledge systems, as the employees only own local knowledge that partly develops by means of external resources. In addition to this, the entirety of the organisational knowledge cannot be retrieved from a single employee, as ‘it is not possessed by a single agent’ (1996, p. 22). However, Un and Cuervo-Cazurra (2004) establish by way of their research that the promotion of interaction is essential for distributed knowledge systems. They analysed 38 American companies, and their findings revealed that the complementary organisational and project team strategies positively promote knowledge creation because of social interaction.

Organisation strategy is about management theories that support and motivate employees for social interaction so that knowledge creation can happen at any time. *Project team strategy* is about management theories that support and motivate employees from different parts of a knowledge system (organisation) so that they can interact among one another to create knowledge as soon as the type of knowledge that should be developed is clear (Un & Cuervo-Cazurra, 2004).

Considering von Krogh, Nonaka, and Rechsteiner's (2012) discussion about the form of organisations shows that an organisation is not defined only through processes structure and building, but also by means of the relationships and social interactions among employees. Organisational forms are inherently dynamic and can change when employees face new tasks or the existing relationships are dissatisfactory for the employees (von Krogh et al., 2012). Organisational forms and the combinative capabilities of a firm have an essential impact on the absorptive capacity of an organisation. Absorptive capacity is associated with the previously explained distributed knowledge systems and is about the ability to select valuable external knowledge and absorb it into a firm (van Wijk, van Den Bosch, & Volberda, 2005). Different research studies reveal that organisational forms have an essential impact on knowledge creation (Nonaka et al., 2006).

However, organisation forms that draw on social interaction are in line with the N-form heterarchy or the hypertext organisation form. These forms are considered to be valuable in KM and are introduced by KM experts like Hedlund (1994), Nonaka (1994), and von Krogh et al. (2012).

Heterarchy is the opposite of hierarchy, and the latter is viewed as an organisation form that hinders knowledge creation (Nonaka et al., 2006) because of its vertical and deep structure that, for instance, makes communication in all directions more difficult. Heterarchy derives from Hedlund (1994) who holds that the forerunner of the N-form organisation, the so-called M-form (multidivisional) organisation, is typically hierarchy based. On the other hand, the N-form organisation draws upon heterarchy. Thus, Hedlund's (1994) outlining of the N-form and M-form organisations (see Table 19 below) shows the difference between hierarchical and heterarchical organisations and explains the meaning of N-form organisations (Hedlund, 1994).

Table 19.

N-Form vs. M-Form

	N-Form	M-Form
Technological interdependence	Combination	Division
People interdependence	Temporary constellations, given pool of people	Permanent structures, changing pool of people
Critical organisational level	Middle	Top
Communication network	Lateral	Vertical
Top management role	Catalyst, architect, protector	Monitor, allocator
Competitive scope	Focus, economies of depth, combinable parts	Diversification, economies of scale and scope, semi-independent parts
Basic organisational form	Heterarchy	Hierarchy

Note. Compiled by Hedlund (1994, p. 83).

Crucially, the N in the N-form organisation stands for 'new and novelty' (Hedlund, 1994, p. 82). Because of the displayed points in Table 19. , the N-form organisation is considered to be more suitable for efficient KM. It is worth highlighting that although heterarchy is valuable for efficient KM, hierarchy is still considered as important. Nonaka, von Korgh, and Voelpel (2006) mention field studies that have revealed that many organisations use both organisational forms (2006). Another study shows that hierarchy may have an interesting impact on ideas and innovations: Ideas may change or grow when they are brought up from the bottom to the top within a hierarchy. The different perspectives and the combinations of new ideas emerging from the different management levels can, with the right process, accomplish and ensure innovations for a long duration (Rezgui, 2007; Seshadri

& Shapira, 2003). On the other hand, hierarchy is also deemed to be counterproductive for knowledge sharing and knowledge flow. In the age of network thinking, it is more important to teach employees how to leverage, share, and create knowledge rather than merely manage them (Khanbabaei et al., 2011). To achieve this aim, a flat or participatory type of structure with open communication is considered to be more appropriate (Rezgui, 2007) than a rigid hierarchy.

Nevertheless, Nonaka and Takeuchi (1995) combine and introduce the forms of heterarchy and hierarchy to illustrate the hypertext organisation. The hypertext organisation draws upon the following layers: project team, knowledge base, and business system. Each of these layers is connected to one another. The business system layer is the basis or central layer and contains a hierarchical form of organisation. The project layer, in contrast, takes on a heterarchical form. The knowledge base layer uses the created knowledge from both other layers and recategorises and recontextualises it. The knowledge base layer is not an organisational element but instead is incorporated into organisational culture, vision, and technology to guide employees in their challenge to create new knowledge (Nonaka & Takeuchi, 1995; van Wijk et al., 2005).

On the contrary, however, some experts claim that complicated organisational structures are not necessary to accomplish successful knowledge creation, but rather that ‘triggers’ like enough time, space, and leaderships are the success factors (Khanbabaei et al., 2011).

Not only does the structure within an organisation have an impact on knowledge creation, but the architecture of the building does too. This phenomenon is represented by von Krogh, Ichijo, and Nonaka in their book *Enabling knowledge creation* (2000). They show that open architecture ‘encourage[s] people to meet, interact and communicate’ (von Krogh et al., 2000, p. 39). The top managers are not separated from the rest of the company, and so they are ‘visible and accessible’ (von Krogh et al., 2000, p. 39) for everyone, which in turn has an impact on the structure of an organisation.

However, many authors (Goel & Rastogi, 2011; Matsudaira, 2010; Rezgui, 2007; von Krogh et al., 2012) recognise a knowledge vision as vital for an organisation. A knowledge vision inspires (Goel& Rastogi, 2011) and motivates (von Krogh et al., 2012) employees to transfer and hence also generate new knowledge. Although a knowledge vision does not directly affect the sharing of tacit knowledge, it supports the process. A knowledge vision makes employees aware of the need to utilise knowledge and thus enhances knowledge transfer. It is also an essential element of the concept of ‘justification phase’ (von Krogh et al., 2000). Such a vision can exist in different forms within an organisation. Some managers name it knowledge vision, while others disguise it and integrate it within the management philosophy or the corporate values (von Krogh et al., 2000).

13.2.7 Organisation processes.

Organisation processes are discussed separately because much attention is focused on them in the current literature. Although the term ‘process’ is often used in KM, especially in association with the knowledge generation (i.e. knowledge creation) process, to focus solely on the creation process of knowledge would be too partial, as there are many processes within an organisation that highly influence the creation of new knowledge.

Since the beginning of the eighties, a famous quality management process emerged named ISO 9000, which might be viewed as the forerunner of KM. The three important pillars of ISO 9000 are continuous improvement, complete integration of employees’ experience, and knowledge and leadership to create an environment that motivates and supports employees (Schmelzer & Sesselmann, 2008). These elements are also the elements of KM. Lin and Wu (2005) show in their research that ISO 9001: 2000 can be used to manage created knowledge and that this underpins the previously mentioned statement that

ISO might be a forerunner of KM (Lin & Wu, 2005). Yahya and Go (2002) similarly argue that quality improvement must be prevalent before an organisation can turn into a knowledge organisation (Yahya & Goh, 2002) where the focus is set on improvement and knowledge creation.

Moreover, continuous improvement is not only a key ingredient of the ISO process but is also often coequal with knowledge creation. Nonaka, von Krogh, and Voelpel (2006) present knowledge creation as a continuous process where employees solve problems, or as they state it, 'overcome individual boundaries and constraints' (2006, p. 1182) by achieving a new view on a situation and generating new knowledge. In this regard, Linderman, Schroeder, and Sanders (2010) reveal through their study that process improvement techniques are a main component of their knowledge creation framework. They introduce their proposition through a discussion in which they show that changing or improving routines leads to learning and knowledge creation (Linderman et al., 2010). Organisational improvements of routines are best known through the famous concepts like the quality control circle (Lin & Wu, 2005) or the continuous improvement process (CIP). Both concepts are aimed upon the improvement that draws from a defined process that also includes the distribution of the 'improvement knowledge'. However, they present Six Sigma as a suitable technique for knowledge creation in their study because such tools help with understanding and solving problems (Linderman et al., 2010). Six Sigma is considered to be a tool that enhances social interaction because it serves as a 'common language between organisational members with diverse backgrounds' (2010, p. 701).

Lawton (2002) makes a related argument that process improvement 'should be a cornerstone of knowledge management' (p. 291) because improved processes lead to enhanced learning and finally to better results, services, and performance (Lawton, 2002).

Another important process for knowledge creation is the knowledge distribution process. Abzari, Shojaei, and Foruzan (2012) outline in their research that the transfer process of knowledge has some parallels with the communication process. The distribution and transfer of knowledge is ranked as one of the most difficult processes within KM and therefore also within knowledge creation (Abzari et al., 2012).

13.2.8 Information & communication technology (ICT).

Farhad et al. (2011) explain that communication highly influences the knowledge creation and transfer processes (2011). Knowledge that can be communicated is explicit and ICT is used to create explicit knowledge and distribute it (Nonaka & Reinmöller, 2000). ICT systems are not the only way to transfer or share knowledge, but the vast development of ICT is considered to be vital (Coakes, 2006) because of their ‘efficiency, effectiveness and velocity’ (Nonaka & Reinmöller, 2000, p. 93). ICT is especially suitable to support the transfer or ‘flow’ (Allee, 1997) of implicit and explicit knowledge (Coakes, 2006) and does not store documents or explicit knowledge (Allee, 1997). In addition to this, the access to external knowledge assets, through the internet for instance, is quick and easy and can highly affect individual knowledge creation (Corso et al., 2003).

Due to this fact, ICT is regarded to be a key component for knowledge creation (von Krogh et al., 2000). The created ICT environment is named cyber ba (von Krogh et al., 2000), as has already been explained in the previous discussion titled ‘environment’.

Returning to the point made about the difficulty to distribute, transfer, or communicate knowledge for knowledge creation, it is clear that the communication process is not only important but also difficult and IT enables the supporting, coordinating, and enhancing of communication. Typical and ‘traditional’ ICT tools are mails, online conversations, and the new tools such as Facebook (Farhad et al., 2011; Yasmin, 2001). Facebook is a form of Web 2.0, also known as social media. In relation to this, Sinha (2012) claims that social media creates an environment for informal knowledge creation (Sinha, 2012). Such tools are now linked with devices such as computers, smart phones, and tablets. This breaks the erstwhile boundaries of communication and allows users to communicate or send messages in an instant without being tied down to a specific place. This possibility reduces response time and strongly supports the creation of ideas and knowledge. As explained earlier, ideas or new knowledge sometimes emerge through an ‘aha! moment’, or when no light is cast on tacit knowledge. In such situations, the new communication and information technologies allow one to document or distribute ideas or new knowledge instantly.

ICT is further divided into ‘push’ and ‘pull’ systems. Push systems distribute information in real time, whereas with a pull system the user searches for information. For knowledge creation, the push system is not always suitable because the user gets unrequired information (Coakes, 2006; Stein & Ridderstråle, 2001). This is why organisations exchange the ‘need to know’ strategy (push) with the ‘need to find out’ strategy (pull) (Stein & Ridderstråle, 2001).

However, ICT must also align with the aims of the company strategy. Despite the sharing, transferring, or distributing of knowledge being important for knowledge creation, many employees do not see the direct value of doing it. This fact, when combined with a missing communication and information technology vision as well as an inappropriate IT, hampers flexibility and the transfer of knowledge that finally affects knowledge creation (Adamson, 2005).

Muthusamy (2008) points out that efficient human-computer interfaces and e-learning environments are necessary to transfer knowledge from employees to an organisation and vice versa. Extranets and e-businesses are named as examples. Muthusamy also claims that data warehousing, data marts, and data mining enable a creation of knowledge. This would be a caveat to the previously explained ‘knowledge pyramid’ (e.g. data, information, and knowledge) that holds that only information can emerge with the interpretation of data (Muthusamy, 2008).

However, a diversity of ICT enables and enhances knowledge creation. Nonaka et al. (2006) quotes the study of Chou and Wang (2003) who have revealed that the diversity of ICT systems supports and facilitates ba. This enables organisational knowledge creation, for instance, through supporting teamwork (Nonaka et al., 2006). Diversity in ICT systems also enhances the flexibility of information distribution, which is seen as an intangible asset for organisations (Mihi Ramirez, Garcia Morales, & Bolivar-Ramos, 2011). The importance of diversity in ICT is also bolstered by an aim of KM, which is to provide the ‘right information to the right people to the right place’ (von Krogh et al., 2000, p. 26). ICT allows this aim to be accomplished, but diversity in ICT additionally enhances its efficiency.

Mihi Ramirez (2011) claims that ICT systems positively influence organisational performance, but only when ‘knowledge expressed as information’ (Mihi Ramirez et al., 2011, p. 1066) (i.e. explicit knowledge) is used to improve existing services and processes (Mihi Ramirez et al., 2011). Teece (2000) and von Krogh et al. (2000) rebut this statement and point out that information transfer cannot be knowledge transfer. Taking this explanation to be correct, the phrase ‘knowledge expressed as information’ must be incorrect. Information is about content, whereas knowledge is about context and linked to action (Davenport & Prusak, 2000; Teece, 2000; von Krogh et al., 2000). The unclear understanding of knowledge and information that has been pointed to might be a reason for excessive attention being focused only on ICT (von Krogh et al., 2000).

Moreover, it is worth highlighting that ICT systems in themselves are not the solution for knowledge creation. ICT does help transform data into information (Davenport & Prusak, 2000), and it enhances and simplifies the flow of information (Teece, 2000). It is therefore a supportive system, but it is useless without the carrier of knowledge (Coakes, 2006). Researcher's lived experience and the authors from the current KM literature concur that with the implementation of ICT systems or the creation of a cyber *ba*, the employees will automatically create and share knowledge among each other. In fact, the systems, such as workplace Wiki, are seldom used (Seemann, De Long, Stucky, & Guthrie, 2002). Davenport and Prusak (2000, p. 5) capture this fact perfectly with their statement that 'having a telephone does not guarantee or even encourage brilliant conversations'. Hence, KM and knowledge creation must be practised with a socio-technical approach. A socio-technical approach considers employees and their social interaction along with ICT systems to be important for knowledge creation (Coakes, 2006; Stein & Ridderstråle, 2001). It is thus clear that the sole and large investments in ICT systems do not improve or enhance knowledge creation, but rather that the investment in employees is invaluable for triggering tacit knowledge transfer (Abzari et al., 2012).

13.2.9 Knowledge assets (KA).

Organisations already understand that the development, use, and protection of KA awards creativity and distinction to competitors, which in turn leads to a competitive advantage (Teece, 2000). Nonaka, Toyama, and Konno (2000a) define KA as 'firm specific resources that are indispensable to create values for the firm' (p. 20). Knowledge assets are quite different from material assets, as using material for a product normally reduces the material, while employing knowledge enhances knowledge. The knowledge transferred from A to B does not reduce the knowledge of A and only enhances the knowledge of B (Davenport & Prusak, 2000). If organisations are unable to develop KA, this may hamper potential profit or make it difficult to survive market change (Nonaka et al., 2006); this concern underpins the importance of KA for firms. Additionally, KA is the basis for

Nonaka's knowledge creation process (SECI) (Lin & Wu, 2005; Nonaka et al., 2006; Nonaka et al., 2000a; von Krogh et al., 2012).

Moreover, developing KA must be a chief focus of each organisation because, unlike employees, KA cannot be easily replaced (Teece, 2000). Therefore, organisations must invest time and resources to create and enhance their KA (Nonaka et al., 2000a). Nonaka and Toyoma (2005) emphasise that the knowledge to create knowledge, such as the 'organisational capability to innovate' (p.429), is particularly essential. Organisations wrongly focus excessively on the more 'tangible' knowledge such as patent, technology, and brand (Nonaka & Toyama, 2005).

KA comprises the inputs, outputs, and moderating factors used for the knowledge creation process. (Lin & Wu, 2005; Nonaka et al., 2000a; von Krogh et al., 2012). Generally, KA is subdivided into experimental, conceptual, systematic, and routine assets (Lin & Wu, 2005; Nonaka et al., 2006; von Krogh et al., 2012).

Experimental KA is shared tacit knowledge that is drawn on common experience, skills and know-how. Experimental KA is additionally subdivided into emotional (i.e. care, love, trust), physical (i.e. facial expressions, gestures), energetic (i.e. sense of existence, enthusiasm, tension), and rhythmic knowledge assets (i.e. improvisation, entrainment). *Conceptual KA* is explicit knowledge that is transferred through images, symbols, and language. Conceptual KA contains concepts held by customers and employees; these include ideas about design, product concepts, or brand equity. As this type of KA is explicit knowledge, it is easier to capture than experimental KA. *Systematic KA* is also explicit knowledge, but it is systemised and packed like documents, manuals, and patents. This type of KA can be easily transferred because of its packed form. *Routine KA* is tacit knowledge and is found in the routine processes of an organisation and in the know-how and organisational culture that help to accomplish daily business. Because routine KA is practical, training and sharing play an important role in it (Chou & He, 2004; Nonaka et al., 2000a; von Krogh et al., 2012).

Noteworthy in this regard is Chou and He's (2004) research that explores which facet of KA best supports the different parts of the knowledge creation process (SECI). To recall, SECI stands for socialisation, externalisation, combination and internalisation. Chou and He arrive at the following conclusions: socialisation is best supported by routine KA; externalisation by conceptual KA; combination by experimental KA; internalisation by conceptual KA (Chou & He, 2004).

Different factors concerning input KA have a vital impact on knowledge creation and are therefore discussed further in the following pages.

Some of the reviewed authors quote different experts who claim that 'experience' plays an important role in KM or knowledge creation (Amir-Aslani, 2009; Lin & Wu, 2005). Smith, Collins, and Clark (2005) use this theory for their research and explore which type of knowledge stock (input assets) is most useful for knowledge creation. Their research reveals that experience is unrelated to knowledge creation, but the years of education and functional heterogeneity (i.e. greater diversity) positively affect knowledge creation because they make employees more open to new ideas (Smith et al., 2005). Experience alone does not guarantee effective knowledge creation.

However, many organisations, especially learning organisations, understand that another valuable input for KA are failures. In a related observation, Farhad et al. (2011) note that knowledge is created not only through successes, but also through failures. Importantly, an appropriate organisational culture is essential to use failure as an important KA input. If an employee is blamed for a mistake, knowledge creation would be hampered. Using failure as a springboard for knowledge creation is strongly associated with the CIP, because a CIP use a problem or failure as start for improvement.

13.2.10 Knowledge community.

Although knowledge is possessed by individuals, organisational knowledge creation emerges through interactions among other knowledge carriers. Sociologists have shown that reality, knowledge, and thoughts ‘are constructs generated by a community of like-minded peers’ (Despres & Chauvel, 2000a, p. 57). This underpins the importance of communities for knowledge creation.

The number of participants is vital for knowledge creation within a community because having many participants hampers the efficient sharing of tacit knowledge due to, for instance, social interaction barriers or enough quality time to discuss an issue with all the participants. A group with five to seven members, or what is known as a micro community, is considered as the most effective (von Krogh et al., 2000). In a similar vein, Un and Cuervo-Cazurra (2004) quote Nonaka and Takeuchi (1995) to establish that knowledge creation requires ‘multidirectional interaction among people with diverse knowledge’ (Un & Cuervo-Cazurra, 2004, p. 29). Knowledge creation within a community draws not only on explicit knowledge but also on tacit knowledge, and sharing tacit knowledge is facilitated by small groups of employees (2004). A case in point is that of face-to-face meetings for a workshop. If many employees participate, it is difficult to efficiently share ideas, thoughts, and tacit knowledge, whereas small groups facilitate an effective sharing of ideas and tacit knowledge.

Von Krogh et al. (2000) quote Schutz (1967) and Wenger (1998) and explain that what specifies a micro community is the social interaction or, more precisely, the ‘face to face interactions’ (von Krogh et al., 2000 p.153) within the micro community, and the increasing understanding about the behaviours, personalities, and interests of the participants. Communities can be created by everyone within an organisation and they can also be self-organised. Because anyone can create such a community, everyone can participate. As already explained in the section on the pattern ‘knowledge assets’, diversity is highly valuable for the knowledge creation process; therefore, participants like customers, suppliers, engineers, workers, or top managers may participate in the communities. Promoting these communities as enjoyable or incentivising them enforces relationships and *consistence* within the participants. Though knowledge diversity is important, the community needs something in common that makes gathering a meaningful activity. In a similar vein, Lawton (2002) uses the theory of the energy flow structure development, also known as self-organisation, to establish that a community only exists as long as a common aim or concern exists (Lawton, 2002).

Correspondingly, the existing relationships within a community are very vital for the sharing of tacit knowledge. If a community dissolves or is bankrupted, not only the relationships but also the valuable tacit knowledge sharing and knowledge creation are lost. *Damaged* relationships are difficult or often impossible to heal. Due to this, it must be an aim of each top manager and leader to maintain communities and give them the possibility to grow so that knowledge creation can take place and new knowledge can prosper (von Krogh et al., 2000).

A form of a micro community is the community of practice (CoP). CoP creates new knowledge through the sharing of working experience and tacit knowledge. CoP emerges through the similar interests, aims, or working domains of its members (von Krogh et al., 2000). Due to their overall aim, knowledge is created where the ‘outcome is given’ (i.e. aim, similar interest, and so on); for instance, an aim might be to improve a working process and thus finally creates new knowledge (Foss & Mahnke, 2005). A characteristic of CoPs is that they are informal meetings of people from similar professions (Lawton, 2002). If the relationships within CoPs are useful for the participants, they will give the CoP a name and frequently arrange for the sharing and creation of new knowledge (von Krogh et al., 2000). An interesting discussion is presented by Nonaka et al. (2000, 2003) that illustrates that CoP and the concept of ‘ba’, although they appear to be similar at first glance, have some important distinctions (Nonaka & Toyama, 2003; Nonaka et al., 2000a). These are displayed in Table 20 below.

Table 20.

Outlining and Comparing Concept of ‘ba’ with CoP

Concept ba	Community of Practice (CoP)
Living place where new knowledge is created	Living place where participants learn the embedded knowledge in the community
Learning occurs in any community	Ba needs energy to become active and create knowledge
Boundaries are set through task, culture, and history – it needs an identity	Boundaries are fluid and can change quickly – quality here and now
Change mainly occurs at the micro (individual) level	Changes occur at the micro and macro levels – participants change both themselves and the ba
Membership is fairly stable – participants belong to the community	Membership is not fixed – participants come and go

Note. Adapted from Nonaka et al. (2000, p. 16); Nonaka et al. (2003, p. 7).

Analysing Nonaka’s distinction between ba and CoP may lead to the conclusion that CoPs are suitable only for learning and not for knowledge creation. But Nonaka (1994) also explicitly foregrounds the importance of CoP for the ‘overall knowledge creation process’ because social interaction is important to develop ideas (Nonaka, 1994). Brown and Duguid (2001) also argue that CoPs are important for the ‘development, maintenance and reproduction of knowledge’ (p. 202). Additionally, they highlight that CoP allows the creation of practical knowledge (2001); this shows that within a CoP, embedded knowledge is not only shared and learned but also enhanced through new knowledge creation. Alavi and Leidner (2001) recognised CoP, among other elements, as a ‘catalyst’ for knowledge creation and Retna and Ng (2011) reveal in their study that CoPs ‘facilitate the creation, sharing and utilisation of knowledge in an organisation’ (p. 55).

Furthermore, Khanbabaei, Lajevardi and Kohsari's (2001) findings from a study with 384 participants show that trust, self-management, and individual autonomy are especially important for knowledge creation within working groups because it has a positive impact on the knowledge transfer. Likewise, Yahya and Goh (2002) argue that group flexibility and consensus would enhance knowledge transfer and knowledge creation. For the sake of completeness, heterogeneous and complementary skills are more important for knowledge transfer and integration than for knowledge creation (Khanbabaei et al., 2011). Information and communication technology (ICT) such as knowledge tools, database, and communication support highly reinforce and facilitate CoP (Coakes, 2006).

Brown and Duguid (1991) show two main distinctions between working groups and communities. They observe that groups are defined and therefore are 'bounded entities' (1991, p. 49) whereas CoPs or communities are more 'fluid and interpenetrative' (1991, p. 49) because communities also use external knowledge assets. The other distinction is that communities are emergent and influenced by their actions. Working groups, in contrast, are not emergent but rather are 'fixed', because the participants are defined and created to accomplish a definite aim or goal (1991). Notably, working groups can lead to CoPs when relationships among employees become informal (Khanbabaei et al., 2011).

Although it has been previously explained that only communities use external knowledge assets, the organisation that is explored by Grohmann (2012) uses internal and especially external knowledge resources like consultants, professional expertise, and knowledge from successful organisations to learn from them. The findings certainly show that groups may also include external knowledge assets, but with the difference that they also try to accomplish the same predefined goal as the group does. Grohmann highlights that the differences between existing and new (external) insights, perspectives, and knowledge enable the creation of new and valuable knowledge. The differences make it possible to undertake a project differently, which in turn gives rise to learning and new knowledge creation (Grohmann & Colombelli, 2012). Khanbabaei et al. (2011) revealed in the subject presentation for their research that working groups are already considered to be a valuable option to grasp the tacit knowledge of employees within an organisation. But they also underline that the mere creation of working groups does not guarantee knowledge creation. As mentioned previously on page lxxiii, elements like trust or autonomy are essential ingredients for knowledge creation within a working group (Khanbabaei et al., 2011).

Another form of a work team is what is referred to as a ‘project team’. Un and Cuervo-Cazurra (2004) reveal through their research that the project team strategy creates an environment that enhances and facilitates knowledge creation. The project team strategy contains methods and tools for managers that should encourage and hearten employees from different parts of an organisation to collaborate and create new knowledge. The used methods and tools comprise a reward system, integrative socialisation, and routine and communication (2004). Project teams are comparable to LWGs, as a team of different participants tries to accomplish a predefined goal in both cases. Social interaction among the participants invites the generation of new knowledge, which mainly translates to new products and innovations for project teams.

Finally, the term ‘imagine-communities’, used by Nonaka et al. (2006), must be discussed. Imagine communities trigger and guide knowledge creation and are drawn on the belief or supposition that knowledge or innovation is created in other groups but without communicating with them (2006). Although this appears to be unimpressive and unimportant, the principle of imagine-communities already and often manifests in organisations even though mostly non deliberately. For instance, when a department tries to answer the question of what the next step of a competitor might be, contemplation about the matter automatically guides knowledge creation.

13.2.11 Relationship and network.

The importance of relationships for knowledge sharing and knowledge creation has often been mentioned in this literature review, especially in the previously discussed pattern of ‘community’, which underpins and clearly shows the importance of relationships for knowledge creation.

Adamson (2005), in his research, sent a questionnaire to 20 blue chip companies in the UK, and the findings reveal that managers already consider the ‘managing of relationships’ (p. 993) as vital for KM and hence also for knowledge creation.

Smith, Collins, and Clark (2005) show in their literature review that ego networks, or relational contacts (i.e. relationships), have a vital impact on knowledge creation capability (2005). The quality of relationships is especially essential for knowledge creation. As a ‘relationship serves as a conduit for knowledge’ (Szulanski, 1996, p. 36), a ‘good’ quality allows for quick access to the needed knowledge (1996).

In this regard, experts such as Nonaka et al. (2006) and von Krogh et al. (2002) state that the efficiency of knowledge creation is enhanced when strong relationships among employees exist and draw upon care. Relationships of care are compilations of elements like mutual trust, active empathy, access to help (helping behaviour), leniency in judgment, and courage (Nonaka et al., 2006; von Krogh et al., 2000). This aligns with the human relation theory, developed by Mayo (1933) as cited in Nonaka and Takeuchi (1995), which holds that human factors like morale or a ‘sense of belonging’ to a group is important and enhances productivity by creating and improving practical knowledge (Nonaka & Takeuchi, 1995).

In their study, Deng-Neng, Ting-Pen, and Lin (2010) use ecology to analyse relationships between species and their environment and observe that social interaction takes place more often among communities and people who are near to each other.

Reflecting on their discussion and adapting it for this research shows that employees who are physically near to each other communicate more frequently and have greater contact, which enhances information and knowledge transfer and the possibility for new knowledge creation. But the study of Deng-Neng, Ting-Pen, and Lin (2010) also indicates that employees, leaders, and managers tend to use only the relationships within the *direct environment* to reflect, share, and transfer knowledge. This can guide knowledge creation in a single direction because the relationships involved are among the same actors with a specified set of knowledge. Although such relationships are essential, they can also hamper new knowledge creation. For instance, if an organisation, depending on the product family, became international, it is not enough to consider only the trends and desires of the home market (direct environment). They also need to create relationships with other markets to understand and reveal what those require. Such a situation also manifests within an organisation, and new relationships are an opportunity to transfer new insights and knowledge that might lead to change, improvement, and new knowledge creation.

Worth reemphasising here is the importance of ICT, which can bridge the difficulty of distance. Corso, Martini, Pellgrini, and Paoluici (2003) analysed 127 Italian small and mid-sized companies, and their findings reveal that all 127 companies use ICT to transfer and share knowledge and information within the organisation. 71 companies use technical software such as computer-aided design (CAD) to share (i.e. communication) information and knowledge externally along the supply chain.

Nonaka and Toyama (2005) similarly argue that organisations should emerge and evolve together rather than as separate entities (2005). Again, this highlights the significance of relationships among different and varied employees (inside and outside an organisation), customers, and suppliers.

In a similar vein, Grohmann and Colombelli (2012) quote Kissimmee and Prusak (1998) and show why relationships are so important for knowledge creation: ‘When you begin to mix people with different views, it turns the discussion richer’ (2012, p. 40).

Different perspectives that draw from different education and culture enable the transfer, understanding, and creation of new and valuable knowledge. But the foundation for such social conditions is constructed out of relationships that must be based upon care, trust, and access to help (Nonaka et al., 2006).

Smith et al. (2005) discuss the issue of ‘direct relationships’ and use Nahapiet and Ghoshals’ (1998) insight to explain that managers with many direct contacts ‘will be able to obtain information faster, access richer sets of data, and draw from broader sets of referrals’ (Smith et al., 2005, p. 349). Smith et al. (2005) sent a questionnaire to 72 companies to ask whether they consider the above-mentioned statement as correct. The findings reveal that the companies concur that the amount of direct contact has vital impact on knowledge creation.

But care and trust are not enough to transfer and create new knowledge. Muthusamy (2008) discusses and points out in his paper with the title *Minding the cognition: toward a strategic knowledge management for competitive advantage* that it is also essential to ‘distribute and receive information synergistically’ to all participating parties (p. 151). If relationships are merely ‘uni directional’, they can rupture with time or lead to flawed information (Muthusamy, 2008).

A construct of many direct and indirect relationships is also known as a network. Davenport and Prusak (2000) associate networks with the transfer of information, which is a key ingredient for knowledge creation, and divided them into hard and soft networks. Hard networks are characterised by visible and defined infrastructures, such as an address or a mailbox. Soft networks, on the other hand, are spontaneously transferred notes or articles (2000).

Hansen (2002) argues (as cited in Smith et.al, 2005) that networks are vital for knowledge creation, as they inform the participants where the knowledge resides within the network and enhances the knowledge flow (Smith et al., 2005; van Wijk et al., 2005). This statement aligns with Yasmin (2001), who has discussed the case of the company Tulip, and highlighted that the management of the case believes that a social network is the foundation for successful organisational learning.

13.2.12 Culture.

Abzari, Shojaei and Forouzan (2012) discuss organisational culture with respect to incentives and observe that in some resources, 'sound culture' (p.31) is considered to be one of the most important elements for knowledge sharing and creation (Abzari et al., 2012; Lawton, 2002). Nonaka and Takeuchi (1995) describe an organisational culture as a volume filled with the beliefs and knowledge shared by employees (von Krogh et al., 2000). Additionally, they stress on the significance of culture for knowledge creation and indicate that a big part of our knowledge 'has been learned as culture from older generations' (Nonaka & Takeuchi, 1995. p. 54).

Organisational culture must provide an environment where passion, trust, and confidence exist, which would motivate employees to share and produce knowledge (Abzari et al., 2012; Amir-Aslani, 2009). It is specifically 'trust' which has often been mentioned in this literature review as an important element for relationships among employees and the sharing of knowledge, which thus significantly affects the transfer of knowledge (Khanbabaei et al., 2011; Lesser & Prusak, 2004). Trust is therefore regarded as the main precondition for (tacit) knowledge sharing (Khanbabaei et al., 2011; von Krogh et al., 2012). Allee (1997) captures this perfectly in the following manner: 'The key elements of a knowledge culture are a climate of trust and openness in an environment where constant learning and experimentation are highly valued, appreciated, and supported' (p. 212).

However, the importance of trust can be reduced depending on the extent to which organisational policies, regulations, and control support knowledge creation. (Khanbabaei et al., 2011). Nevertheless, Lesser and Prusak (2004) emphasise that if knowledge is difficult to codify (i.e. tacit knowledge), then trusting the competence of the source is vital for knowledge sharing. Despite a culture of trust existing within an organisation, employees can be averse to sharing knowledge because they think their experience and knowledge are not important or they do not like to engage others' attention. Communities of practice, group discussions, and training classes are possible methods to integrate all the employees and allow them to share their experience and knowledge (Lesser & Prusak, 2004).

Yahya and Goh (2002) outline the works of different experts and show that 'forgiveness' is an element that is important not only for learning but also for KM. In this regard, they quote Pfeffer and Sutton (1999) who note that 'knowledge comes from doing' (Yahya and Goh, 2002, p. 465). Implementing a culture of action must consider the possibility of reasonable mistakes and therefore also a culture of forgiveness (2002). Leaders especially and strongly influence the development and design of an appropriate culture for knowledge sharing and creation (Linderman et al., 2010). Tseng and Fang (2011) also discuss culture with respect to KM in their literature review and demonstrate 'that risk, warmth and support' (p. 328) are important for a good culture. In their discussion, they also point to ethical culture and assert that it is the 'most significant antecedent for knowledge management behaviour' (p. 328). Without a good ethical culture, knowledge hoarding emerges, and this shows that a proper ethical culture is essential for knowledge transfer, sharing, and creation (Tseng and Fang, 2011).

If a sound culture and ethic do exist, a good atmosphere for KM can emerge. Zarraga and Bonache (2005) (as cited in Khanbabaei et al.,2011) show that a good atmosphere is a trigger for knowledge creation. Within such a good atmosphere, employees tend to participate more in social interactions and share valuable tacit knowledge to generate new knowledge (Khanbabaei et al., 2011). As already discussed, tacit knowledge creation in particular emerges through conversations and social interactions. In the same vein, von Krogh et al. (2000) discuss the significance of conversational etiquette for knowledge creation because ‘not only what is being said is but how it is said’ (p. 134) is also important. A conversational etiquette, adequately anchored and positively accepted within an organisation, can further propel knowledge creation conversations (von Krogh et al., 2000).

13.2.13 Leadership and management.

Many people mistakenly believe that leadership and management are the same. Essentially, they are two different ways of action. ‘Management is about coping with complexity’ (Kotter, 2011, p. 38), and good management leads to a degree of order and systemisation so that no chaos can emerge. On the other hand, leadership is about change and, to be more accurate, about coping with change. In this decade, both are important for the complex and quickly changing business environment (Kotter, 2011). Plaskoff (2005) similarly holds that managers must work *for* the employees (practitioners) with the aim of establishing a knowledge-enabling environment to foster communities that encourage employees to participate in knowledge creation (Plaskoff, 2005).

Given that organisational learning (OL) is a fundamental element of knowledge creation, Scarbrough and Swan’s (2005) argument that leadership is important for creating the right OL environment can also be applied to knowledge creation.

Nonaka et al. (2006) mention that experts such as Nonanka and Takeuchi (1995) or von Krogh et al. (2000) have shown that leadership has a significant impact on knowledge creation, and Allee (1997) explains that leaders function as role models for knowledge sharing.

Lindermann et al. (2010) reveal through their case analysis that leaders have a significant effect on knowledge creation because of their impact on process management. Additionally, the authors define organisational culture and organisational design as the elements that leaders have the most impact on to enhance knowledge creation (Linderman et al., 2010). Likewise, Abzari et al. (2012) show in their discussion that the support of excellent managers with regard to allocation of resources, leadership, and presentation of education count as the most prominent factor for KM success (Abzari et al., 2012). Allocating openness and space also enables a gaining of new experience and a transformation of ideas into new knowledge (Grohmann & Colombelli, 2012).

In his research, Goleman (2011) argues that emotional intelligence (EI) is essential for leadership. Goleman also posits that the higher the rank of the manager, the more important EI becomes. Although leadership EI is not directly analogous to knowledge creation, good leadership is, as already mentioned, closely associated with knowledge creation. Therefore, Goleman’s four EI components are noteworthy and are shown in Table 21 below.

Table 21.

Emotional Intelligence Components

EI Component	Definition	Hallmarks
Self-awareness	Knowing one's emotions, strengths, weaknesses, drives, values, and goals – and their impact on others	Self-confidence, realistic self-assessment, self-deprecating sense of humour, thirst for constructive criticism
Self-regulation	Controlling or redirecting disruptive emotions and impulses	Trustworthiness, integrity, comfort with ambiguity, and change
Motivation	Being driven to achieve for the sake of achievement	A passion for the work itself and for new challenges, unflagging energy to improve, optimism in the face of failure
Empathy	Considering others' feelings, especially when making decisions	Expertise in attracting and retaining talent, ability to develop others, sensitivity to cross-cultural differences
Social skill	Managing relationships to move people in desired directions	Effectiveness in leading change, persuasiveness, extensive networking, expertise in building and leading teams

Note. Compiled by Goleman (2011, p.4).

Some of the components have already been introduced and named as levers for knowledge creation; this underpins the importance of leadership for knowledge creation. Although leadership EI is not associated with knowledge creation, group EI is positively linked to knowledge creation. Druskat and Wolff (2001) (as cited in Yahya and Goh, 2002) observe that an atmosphere of trust and efficiency that supports knowledge creation emerges through group EI (Yahya & Goh, 2002). Correspondingly, the decisions and behaviours of managers and leaders significantly affect an organisation. Goel and Rastogi (2011) note that managers and leaders act as role models and have an essential impact on knowledge sharing. Through their position and authority, they can indicate to others the importance of sharing knowledge to create new knowledge (2011). Yang (2007) (as cited in von Krogh, 2012) positively associated leadership styles like 'innovator', 'moderator' or 'facilitator' with knowledge sharing. It is worth reemphasising that the leadership styles that are aligned with morals, work place harmony, cohesion, and social interaction are more fruitful than strict organisational policies (von Krogh et al., 2012). Therefore, implementing and enhancing the willingness of knowledge sharing within a firm must be an aim of leaders and managers (Goel & Rastogi, 2011). To boost knowledge sharing within teams or working groups, diversity in leadership is advocated.

Adamson's (2005) research has defined attributes that should be inherent in, and displayed by, knowledge managers. Although leadership is a part of being a knowledge manager, the term 'knowledge manager' is unsuitable. An examination of the existing literature reveals that many studies have already shown that managing and creating knowledge should be an aim for everyone within a firm and not only for a knowledge manager. This insight is introduced in the year 1999 in a famous and legendary work with the title 'Knowledge-worker productivity: The biggest challenge' written by Peter Drucker, who has showed the importance of 'transferring' manual workers into knowledge workers for future competitive capability (Drucker, 1999). Therefore, the following attributes (see Table 22) for personal KM should not only be absorbed by the knowledge managers, but also by all the employees within an organisation. The whole organisation should be educated in this regard so that the suggested attributes can emerge.

Table 22.

Ranking of Knowledge Manager's Personality Attributes

KM Personality attributes	Rank
Enthusiastic, Tolerant, Interested in Change	1
Curious, Able to deal with stress, Pragmatic, Sociable	2
Goal oriented, gives others credit, does not dwell on problems, Optimistic, even tempered	3
Energetic, highly motivated, Moderate, not driven by self-glorification	4

Note. Compiled by Adamson (2005, p. 994).

Leadership regarding knowledge creation is comprehensively discussed by von Krogh et al. (2012). They outline different experts and authors and compare the traditional ‘centralized leadership’ with what is called the ‘distributed leadership’ approach, the latter of which has been getting increased attention in the past years. Distributed leadership draws upon the idea that leadership roles, responsibility, and activity should be *distributed*. Von Krogh et al. (2012) highlight ‘authority’ and present it as a key element in leadership theory. Through their review, they show that distributive leadership enables an exchange of authority between employees and managers. Although authority is often linked to hierarchy or rigid structures, *exchanging authority* epitomises the essence of social interaction. Exchanging or distributing authority gives rise to diffused growth, training, and education regarding leadership (von Krogh et al., 2012), and this finally leads to more autonomy for the employees.

Von Krogh et al. (2012) show in their discussion that autonomous environments are essential for the knowledge creation process, like the already explained SECI (2012). In the same vein, empowerment is regarded as a driver for knowledge creation. Equipping employees with more authority gives them the opportunity to innovate or explore (i.e. knowledge creation) (Yahya & Goh, 2002).

Carson, Tesluk, and Marrone (2007) claim (as cited in von Krogh et al., 2012) that distributed leadership roles enhance team effectiveness, which also means there is better social interaction and therefore better knowledge creation. Additionally, distributed leadership facilitates a coexistence of autonomy and individual leadership with centralised top management leadership without impeding one another (2012).

Gary Hamel (2012) is a management expert who has written an article with the provoking German title ‘Schafft die Manager ab!’ (Translated into English as ‘Abolish managers!’). Because of the provoking title, people hastily misinterpret the real meaning of his article, mistakenly thinking that a new trend is to exclude middle management, which in turn would render the already-introduced and valuable middle-up-down management process for knowledge creation (SECI) impossible. Nonaka and Takeuchi (1995) especially emphasise the importance of middle managers by defining them as ‘knowledge engineers’ who bridge the gap between the ‘visionary ideals of the top and the often chaotic market reality of those of the front link of business’ (p. 154).

Moreover, the actual reason for Hamel’s article was to recommend a new approach to managing organisations as compared to the traditional hierarchical management methods. Hamel observes that with the growth of a firm and through the expanding hierarchy, management costs increase incredibly and an organisation becomes inflexible and armed with a complicated and long decision-making process. Although the article is not directly linked to knowledge creation, it underpins the insight of von Krogh et al. (2012) about the importance of distributed leadership and the possible coexistence of traditional and distributed leadership. Such an approach leads to a more flexible and autonomous organisation with short decision methods, better communication, and reduced management costs. Notably, Hamel also emphasises the importance of autonomy, but only if it is combined with responsibility. If both are non-existent, anarchy will emerge within an organisation. He also explicitly mentions different ranks of employees and a defined process for investments that shows, although minimally, that some kind of hierarchy does exist (Hamel, 2012).

In addition to this, a study by Kahnabei et al. (2011) reveals that leadership within a team would not additionally support or enhance knowledge creation, transfer, or integration. Likewise, Lado and Wilson (1994) (as cited in von Krogh et al., 2012) claim that leadership might have an unintended negative influence for tacit knowledge. Leaders try to implement an environment for knowledge creation with elements like knowledge vision, knowledge creation, culture, or incentives. These elements can manipulate employees' behaviour and hamper or block their learning (von Krogh et al., 2012).

The study of von Krogh et al. (2012) also cites Cabrera and Cabrera (2002) and Osterloh and Frey (2000) and argues that knowledge creation can be hampered; for instance, a fear to share knowledge or the non-existence of motivation can restrain knowledge creation. This idea can be associated with Gill's (2006) statement (as cited in von Krogh et al., 2012) that claims that many authors do not pay enough attention to the importance of motivation, inspiration, and empowerment for knowledge creation (von Krogh et al., 2012). As has already been discussed (see section 8.2.4.1.3, 'Human ressource management'), inspiring or motivating employees to share knowledge enhances knowledge creation and can potentially dispel the fear of sharing knowledge.

However, Muthusamy (2008) discussed in his paper that managers should establish a 'climate of dialogue' (p. 151) that is built on social rules, verbal protocols, and different communication channels to facilitate knowledge sharing and knowledge creation. According to him, these elements are regarded as critical to develop a knowledge organisation.

13.2.14 Knowledge creation supporting elements.

The previously explained patterns certainly have an essential impact on knowledge creation. However, there are many other elements that might be interesting to discuss because of their supportive characteristics for knowledge creation or because they can be postulated as preconditions for knowledge creation.

Smith et al. (2005) highlighted by quoting Kogut and Zander (1992) that knowledge creation depends on the ability 'to exchange and combine existing information, knowledge, and ideas' (p. 347). Smith et al. (2005) similarly perceive the importance of exchange and combination for the knowledge creation capability of a firm. However, according to the researchers, well-educated employees with different knowledge and expertise enhance the possibility of combining and exchanging knowledge and ideas.

Correspondingly, Leonard-Barton (1995) observes that a method for intensive knowledge exchange includes strategic alliances (1995). Essentially, to facilitate and therefore to increase exchange is to standardise and harmonise information such as using the same language (Amir-Aslani, 2009).

Returning to the already-elaborated concept of knowledge sharing, it is considered to be one of the most critical KM processes among individuals for creating new knowledge 'and achieving learning' (Lock Lee, 2002, p. 406). Sharing knowledge triggers knowledge creation in *an indirect way*. Gaps of requisite knowledge are revealed through communication and sharing, and the awareness of such gaps leads to new knowledge creation (Wensley & Verwijk-O'Sullivan, 2000).

Sharing of knowledge mostly takes place through *tacit to tacit* communication and also through *explicit to tacit* transformation (Lock Lee, 2002). Due to the importance of communication for knowledge sharing, it is necessary to have a common language. Without a common language, employees would not understand each other, which in turn would make the sharing of knowledge impossible. Additionally, the absence of a common language negatively affects trust, which is essential for knowledge sharing (Davenport & Prusak, 2000). Seshadri and Shapira (2003) state in their paper that timing is an important determinant of knowledge creation. The combination and use of ideas need to take place at the right time. But the right timing is a complex issue, and Seshadir and Shapira (2003) exemplify this with the case of a manager who has waited too long and missed opportunities and through situations where 'delays' led to new innovations. Drawing on their findings, Seshadir and Shapira (2003) infer that delays are important for evaluating ideas. Speeding up the process or trying to avoid delays reinforces the possibility of overlooking great ideas, which also hampers knowledge creation.

Another important element for knowledge creation is getting access to new knowledge or different knowledge. Abzari et al. (2012) quote Newman and Conrad (1999) in this regard and observe that knowledge creation contains activities like entering or obtaining new knowledge. Smith et al. (2005) reveal through their research that the possibility to get access to rich sets of data is enhanced in proportion to the amount of direct contact with others. Additionally, direct contact also speeds up the access to knowledge (Smith et al., 2005) and ICT is used to accomplish quick and easy access (Corso et al., 2003). Easy access to knowledge is also supported by proximity to others because it provides direct contact and a high frequency of interaction (Deng-Neng et al., 2010). A problem for the access to knowledge is the working place of employees. Rezgui (2007) reveals that employees are mostly tied to physical locations, which usually are their offices. Therefore, access to knowledge must be incorporated into the work place. Unfortunately, the technical possibilities of incorporating access to knowledge are limited (Rezgui, 2007). In a separate vein, Alipour et al. (2011) deem redundancy as a condition for knowledge creation. Nonaka et al. (2006) cite different experts and authors that discuss the issue of knowledge redundancy. They demonstrate that redundancy is essential for knowledge creation because a vast stream of tacit knowledge, for instance, is necessary to efficiently develop a product or engineer a project. However, Grant (1996) points out that too much redundancy can ‘offset the advantages of specialisation and division of labour’ (Nonaka et al., 2006, p. 1183).

13.3 Phenomenological Hermeneutics

13.3.1 Phenomenology explained.

As is often stated in the current literature, the term ‘phenomenology’ stems from ancient Greek and is a combination of the terms *phainomenon* for ‘phenomenon’ and *logos* for the ending ‘-ology’ (Heidegger, 1927/1996; Langdridge, 2007; Palmer, 1969).

Phainomenon is defined ‘as what shows itself in itself, what is manifest’ (Heidegger, 1927/1996, p. 25). This definition contains and highlights the character of appearance, which Heidegger sees (explained in Macann, 1992) as the basic concept of phenomenon. Obtaining deeper insights into this concept is essential because the appearance of a phenomenon can disguise ‘the real’ itself or, as Heidegger (1927/1996) explained it, a phenomenon can ‘only look like’ (p. 25) something.

MaCann (1992) discusses Heidegger’s basic concept in his book *Martin Heidegger: Critical Assessment* and points out the importance of *Erscheinen* and its two different meanings ‘appearance’ and ‘appear’. Although this concept is commonly played out, the explanation of *appearance* and *appear* can be confusing. A simple example is that of human beings who can recognise sickness by getting a rash or fever (appearance) despite the sickness itself not appearing; it only represents itself through the outward manifestation of the rash or fever (Heidegger, 1927/1996).

This example shows that appearance (appearing) is never self-showing. In other words, appearance (e.g. rash, fever) is only feasible because of the self-showing of something else (e.g. sickness) (Heidegger, 1927/1996). MaCann (1992) outlines and interprets Heidegger perfectly in this regard by noting that ‘appearance, as the appearing “of something” does not mean showing itself; it means rather announcing itself through something which does not show itself, but which announces itself through something which does show itself’ (p. 97).

Applying these explanations about *appearance* and *appear* onto a phenomenon reveals that a phenomenon never shows itself, or as Heidegger (1927/1996) has said, 'phenomena are never appearances' (p. 26). On the other hand, Heidegger extends this statement and asserts in the same vein that each appearance relies on or draws upon a phenomenon (1927/1996).

Bearing Heidegger's concept in mind makes new, different, and valuable perspectives on a phenomenon possible. Understanding the essence of this concept allows one to seek the real 'reason' for something, which causes an appearance such as a phenomenon.

However, *to appear* is also linked to the term *logos,* which at times is interpreted in different ways to mean speech, reason, rationality, sense, meaning, definition, relation, ground, argument, principle, or account (King & Llewellyn, 2001; Sembera, 2007). Heidegger refutes this broad definition and shows that the genesis of *logos* lies in the ancient Greek verb of *logos,* which is *legein* (i.e. to speak, to tell, or to say) (Risser, 1999; Schalow & Denker, 2010; Youm, 1995). By challenging the Greek meaning of *legein,* Heidegger demonstrates that another meaning of *legein* is 'lie and lying' (as cited in Bornedal, 1997, p. 75) or laying out, lying before, and laying there (Risser, 1999; Youm, 1995). Additionally, Heidegger links the Greek word *legein* to its Latin translation *legere*, which means 'gathering' or 'collecting' (Youm, 1995). Both the elements, 'laying before' as well as 'collecting', are essential for Heidegger's definition of *logos*. Bornedal (1997) astutely explains that 'laying before' means 'to perceive the world as it is (lying), to perceive the world in its being: "the sea lies before us, and the mountains"', which now also shows the connection to the term 'to appear' (p. 75). At this point the general meaning of *legein* (to speak, to tell, or to say) becomes important because to speak about something that is 'laying before' us allows things to appear (i.e. to depict something) (Bornedal, 1997).

Heidegger's concept has its second crucial element in 'collecting', which does not describe the simple gathering of elements, but rather the accumulation of elements that lie in front of us in their original being (Heidegger & Frings, 1923-1944/1994).

Drawing on these explanations, *logos* is defined as 'the process that gathers entities into unconcealment' (Schalow & Denker, 2010, p. 178). On the other hand, *logos* is also defined as 'the original of saying of being that makes human language possible' (Schalow & Denker, 2010, p. 178), which clearly reemphasises the significance of 'talk' (Heidegger, 1927/1996; Palmer, 1969; Sembera, 2007).

In this regard, Palmer (1969) interprets Heidegger's meaning of *logos* as follows: 'let something appear […] conveyed in speaking' (p. 128). Therefore, the combination of *phainomenon* and *logos* (Phenomenology) means the following: 'things become manifest as what they are, without forcing our own categories on them […] it is not we who point to things; rather, things show themselves to us' (p. 128).

The essence of *logos* also reveals its link to hermeneutics, as will be shown below. The fundamental relevance of *logos* is that a message or idea can be conveyed through speech, which presupposes understanding, and this aligns with the key element of *hermēneuein,* which is interpretation. When something 'appears to one as itself", one can interpret it because of their understanding and not due to the mere consciousness of a human being (Heidegger, 1927/1996; Palmer, 1969).

However, in this research, 'phenomenology' is first and foremost a concept of method which deals with the 'how' regarding the content of a research and not the 'what' (Heidegger, 1927/1996). This concept shows a possibility about how the subject matter of ontology (being) shows itself (Heidegger, 1927/1996; King & Llewellyn, 2001).

The question concerning the subject matter in ontology is worked out by using phenomenology (Heidegger, 1927/1996; Schalow & Denker, 2010). On the two approaches, Palmer states as follows: ‘Ontology must become phenomenology. Ontology must turn to the process of understanding and interpretation through which things appear; it must lay open the mood and direction of human existence; it must render visible the invisible structure of being-in-the-world’ (Palmer, 1969, p. 129).

How something appears or becomes manifest is different for each human and depends on one’s lived experience, which is a central idea to modern phenomenology and represents Husserl’s concept ‘life-world’ (*Lebenswelt*) (Holloway & Wheeler, 2002). Husserl’s life-world explains the world in which we live with an ‘intentional horizon of consciousness’ (Palmer, 1969, p. 179). Although his concept of life-world respects the collective of human beings and the being-with-others (Gadamer, 2010), it is not a socially structured concept but instead is a scientific-critical one (Held, 2003). Husserl considers the life-world as fundamental or as the root of everything, which is thus also fundamental for every scientific endeavour (Gadamer, 2010) because ‘there is a prescientific realm of experience from which and through which everyday activity arises’ (Natanson, 1973, p. 128).

Although Heidegger criticised Husserl (Gadamer, 2010), he also respected him. Nevertheless, the most important difference between the two thinkers lies in the way they describe experiences in everyday life (life-world). Heidegger moves beyond Husserl and does so from an outside point of view without losing contact with the life-world and experience (Overgaard, 2004). This difference will become clearer later in this section when the basis of Husserl’s and Heidegger’s phenomenology is discussed.

Schalow and Denker (2010) similarly observe about life-world that ‘life is essentially experience’ (p. 109) shown in meaningful structures that are interpreted by dint of phenomenology (2010).

This short explication about life-world makes it obvious that phenomenology is not only interesting, because one can consider things in the way they appear through lived-experience, but also enables one to recognise things in different ways due to the unfailingly diverse, individual, and unique lived experiences that are conceived through life, history, education, experience, and so on.

13.3.2 Phenomenology – the basics of hermeneutics.

A useful way to start this section would be to briefly explain the history of phenomenology, which is subdivided into the *preparatory*, *German* and the *French phases* (Cohen et al., 2000; Holloway & Wheeler, 2002). Each of these phases contains concepts that are vital in relation to phenomenology, and hence it is worth introducing them.

In the *preparatory phase*, Franz Brentano (1838–1917) (Holloway & Wheeler, 2002) and his student Carl Stumpf (1848–1936) are important figures (Munhall, 1994; Streubert & Carpenter, 2011). The concept of intentionality was a core element of Brentano's philosophical accomplishments, and it is regarded as a 'central concept in philosophy of mind' (McIntyre & Smith, 1989, p. 147).

Intentionality is defined as 'a way of describing how in consciousness the mind directs its thoughts to an object' (Holloway & Wheeler, 2002, p. 171). Furthermore, Streubert and Carpenter (2011) observe that 'intentionality means that consciousness is always consciousness of something' (p. 75). Events which pop up in our mental lives like thoughts, perceptions, fear, and love (McIntyre & Smith, 1989; Zahavi, 2008) never stand only for themselves. Such events are always 'of or about' (McIntyre & Smith, 1989, p. 147) something; for instance, when one thinks about a car, the thought is of the car, or when one fears a spider, the fear is about the spider (Zahavi, 2008, p. 665). In this vein, Priest (1991) insightfully elaborates that 'it makes no sense to say there is perception but no perception of something or other (even if the perception is an illusion or hallucination)' (as cited in Holloway, 2002, pp. 171–172).

Brentano, the founding father of the concept of intentionality, asserts that intentionality exists only for mental states. To be more explicit, he explains that '*all* mental phenomena are intentional and *only* mental phenomena are intentional' (McIntyre & Smith, 1989, p. 148); this allows him to distinguish mental or psychical phenomena from physical phenomena (Kockelmans & Husserl, 1994).

However, Husserl, who was a student of Brentano (Drummond, 1990), has conceptualised intentionality by drawing on epistemology as opposed to Brentano's concept that is rooted in physiology and neurology (Zahavi, 2003). Although Husserl uses Brentano's concept of intentionality as a starting point for his own theory of intentionality, he criticises Brentano's concept as misleading and his expressions such as 'enter consciousness' as improper (Drummond, 1990, p. 15). Husserl especially refutes the first part of Brentano's theory and shows by virtue of the example of moods or depressions that such mental acts are not always about something. Additionally, Husserl exposes the problem of Brentano's relationship of the mental state and an object (extra-mental thing, event) (McIntyre & Smith, 1989). Husserl explains that intentionality is *existence independent,* and he uses examples such as a child who thinks about Santa, a person who thinks about the flying horse Pegasus, or a person who hallucinates a fata morgana. All these examples contain objects that are not 'real'. That intentionality is *concept dependent* is also important for Husserl's theory of intentionality. Not only is the object important for intentionality, but also the concept is important to the object. McIntyre and Smith (1989) adequately exemplify this and write that Oedipus 'desired to marry the Queen although he did not desire to marry his mother' (p. 151). This quote clearly shows that although it contains just one object, which is Oedipus' mother (who is also the queen), it includes two possibilities for understanding the meaning of the sentence (concept).

On the other hand, Stumpf, who also was important for the preparatory phase, developed experimental phenomenology, which reveals connections to a perceived object by means of experiments (Cohen et al., 2000). For Stumpf, phenomenology is a 'pre-science' (de Boer, 1978, p. 43) and he asserts that phenomenology is not only physical but also psychical in nature. Therefore, he establishes the connections among the elements such as 'how a phenomenon appears', 'the object' (physic) and the 'function' (psychology) (de Boer, 1978) as displayed in Figure 35 below.

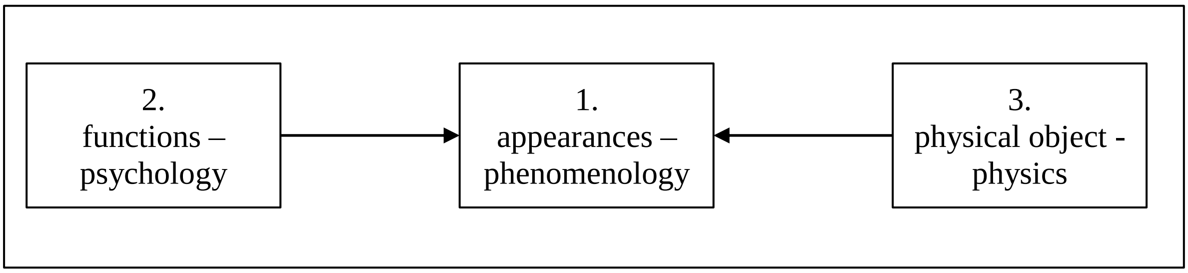

Figure 35. Stumpf's theory of phenomenology

Adapted from de Boer (1978, p. 43).

Stumpf divided his theory of phenomenology into three elements. The first is the appearance of the phenomenon, which contains the 'sensory and imaginal data' (Sarker, 1994, pp. 20–21) such as form, design, and colour. The second comprises the functions like 'perceiving, grouping, conceiving, desiring and willing' (Sarker, 1994, p. 21). and the third is the relation (experience) to the physical object, which emerges immediately upon seeing it (Sarker, 1994). Separating these elements is important for Stumpf because he reveals that functions are changes when a phenomenon suddenly arises. Sarker (1994) cites Boring (1996) who easily illustrates the significance of this by providing the example of analysing a taste blend where the disguised phenomenon (i.e. a taste or a flavour of something) surfaces suddenly. In this example, the function changes whereas the phenomenon remains the same. The other possibility is that the phenomenon does not change but the function does. For instance, when the sun goes down and a room gets darker, the recognition that the room is getting darker (through perception) does not happen immediately but rather in steps over time, therefore it is the function that changes (1994).

The *German phase* includes significant philosophers like Edmund Husserl (1857–1938) and Martin Heidegger (1889–1976). Husserl is considered as a pioneer of phenomenology on account of his thoughts and concepts; he suggested the implementation of phenomenology as the basis of science and philosophy (Streubert & Carpenter, 2011). Husserl has developed important concepts like 'reduction' (also called 'bracketing' or 'eidetic reduction'), intersubjectivity, life-world (*Lebenswelt*) (Cohen et al., 2000; Moustakas, 1994), and phenomenological intuition (*Anschauung*) (Holloway & Wheeler, 2002). Reduction, also called bracketing, is used by Husserl to exclude prejudice and was derived from mathematics (Cohen et al., 2000). The aim of this concept is to obtain a 'pure and clear phenomena' (Bassett, 2004, p. 157), which literally means to define, exclude, or bracket out prejudices and beliefs. Without an effect from these elements onto a phenomenon, a researcher can 'see' the phenomenon in its pure essence (Holloway & Wheeler, 2002, p. 173). Intersubjectivity refers to different subjects that share the same world as a community (Cohen et al., 2000). Husserl argues that intersubjectivity is important to *confirm* subjective experience, such as a phenomenon. It is necessary to have an 'external measure to differentiate what is a "merely subjective" experience and what is a subjective experience *of* a genuine (i.e. real) objectivity' (Russell, 2006, p. 164). Life-world is a concept that has become essential for modern phenomenology and is about the lived experience of a human being (Holloway & Wheeler, 2002); Wolff (1975) observes that with this concept, 'phenomenology of existence meets sociology of knowledge' (p. 10). Life-world draws on lived experience and is built through all the natural or scientific human actions that are mostly forgotten by humans. Holloway and Wheeler (2002) assert that 'human beings do not often take into account the commonplace and ordinary; indeed, they do not even notice it' (p.

174) Hence, phenomenological research helps to make one aware of this life-world; it is an 'opening up' (Luft, 2011, p. 72). Husserl's concept of 'intuition' (*Anschauung*) is about the close association of experience and imagination (Holloway & Wheeler, 2002). Hintikka (1995) describes intuition as what is 'directly known to us' (p. 86) and exemplifies this with the following example that has been devised by Locke (intuitive truth): 1 + 2 = 3 (1995). Experience has a real connection to an object or an event, whereas intuition can 'occur in imagination or memory' (Holloway & Wheeler, 2002, p. 173).

Although Heidegger was Husserl's assistant from 1919 to 1923 and rigidly followed Husserl's roots, he disagreed with Husserl regarding his concept of temporality. Taylor (1994) asserts that Heidegger's distinction within the concept of temporality is the 'main break from Husserlian phenomenology' (as cited in Holloway, 2002, p. 174). For Husserl, the *now* (present) is important as an orientation point, which is contrary to Heidegger who used the *future* as an orientation point. Brough and Blattner (2009) capture Heidegger's notion of temporality in this manner: 'who I am is not primarily a matter of what I have done, nor primarily consist in what I am like just now, but rather resides in who I am trying to be' (p. 132).

The *French phase* was pioneered by Gabriel Marcel (1889–1973), Jean-Paul Sartre (1905–1980), and Maurice Merlau-Ponty (1908–1961). Jean-Paul Sartre who called himself an existentialist and not a phenomenologist because of his existential-analytic concepts is considered as the key player in this phase (Cohen et al., 2000). Holloway and Wheeler (2002) highlight the often-quoted Sartrean dictum that 'existence precedes essence' (p. 176), which emphasises that consciousness and behaviour (existence) already exist and precede the character (essence).

Besides the historical subdivision, there is also a division within the different schools, which are referred to differently in the current literature. Sometimes they are defined in

Husserl's phenomenology approach and hermeneutic philosophy (Ray, 1994) or in descriptive (Husserl's phenomenology) and interpretative phenomenology (hermeneutic phenomenology) (Todres & Holloway, 2010). This research uses as guides the three major schools of phenomenology, which are divided into the Duquesne school (Husserl), interpretation of phenomena (Heidegger hermeneutics), and the Dutch phenomenology of the Utrecht school (Merlau-Ponty, Sartre) (Cohen et al., 2000; Cohen & Omery, 1994; Holloway & Wheeler, 2002).

The *Duquesne School* is so named because this type of phenomenology was used in the Duquesne university and draws on Husserl's eidetic reduction (bracketing). It promotes describing a phenomenon (Holloway & Wheeler, 2002) with the aim to 'describe the things in themselves, to permit what is before one' (Moustakas, 1994, p. 27). This means that a researcher describes the very nature of the phenomenological structure as it appears to the researcher (van Manen, 1990) by means of bracketing (Cohen & Omery, 1994).

As already mentioned, Husserl is generally accepted as the 'father' of modern phenomenological philosophy (Alvesson & Sköldberg, 2009; Østergaard, Dahlin, & Hugo, 2008; Wolff, 1975). His main point was the discovery of 'meanings and essences in knowledge' (Moustakas, 1994, p. 27); in other words, he was interested in understanding the structure of the life-world (lived-experience) (Cohen et al., 2000).

Life-world is often exemplified by the concept of a chair. A chair, or any other object, is always shown with one-sidedness; this means that if we stand behind the chair, the front is not available to our sense perception and vice versa. However, according to Mingers & Willcocks (2004) when we approach this chair, or any other object, we never recognise its 'one-sidedness' (p. 60) but rather its 'fullness of being' (p. 60). With an object that is as simple as a chair, we know what it looks like, we know that we can sit on it or stand on it, and so on. When we move to the chair we are not surprised that there is not just one side or that it is three-dimensional (Mingers & Willcocks, 2004; Vessey, 2009). This can similarly be applied to a person, as we are able to recognise a person just by observing their back, which means that we can recognise a person with ‘very little sensory information’ (Vessey, 2009, p. 527). Husserl’s phenomenology explains in this regard that through our lived-experience with different chairs in different places and situations, an ‘already there sense’ (Mingers & Willcocks, 2004, p. 60) of chairs exists in our mind. We are thus able to recognise it to be a chair and not something else (2004).

In other words, ‘all objects must conform to experience. Knowledge of objects resides in the subjective sources of the self’ (Moustakas, 1994, p. 44), and this is what Husserl defines as ‘transcendental’. Transcendental is ‘that which is going beyond what is strictly immanent, i.e. directly given to consciousness’ (Nenon, 2008, p. 434). Mingers and Willcocks (2004) astutely note that ‘for Husserl the transcendental is the active, directed, on-going life of consciousness that is the necessary condition for our on-going experience of the world to be meaningful as such’ (p. 61).

Heidegger’s *interpretative phenomenology* marks a radical change from Husserl’s phenomenology because for Heidegger ‘being in the world’ *(Dasein)* is the essence of his understanding (Wolff, 1975). This concept contains the interpretation of the phenomena by means of Heidegger’s hermeneutics (Cohen et al., 2000; Holloway & Wheeler, 2002; Palmer, 1969) and hence the name ‘hermeneutic phenomenology’.

Heidegger (as well as Merleau-Ponty and Jean-Paul Sartre) follows an existential view (Mingers & Willcocks, 2004). He states in his book *Being and Time* that because of human existence a certain understanding (historically formed, accumulated through the experience of encountering phenomena) is available and allows one to recognise the ‘fullness of being’. The individual and hence different experience leads automatically to different possibilities of how the ‘appearing of being’ might arise (Palmer, 1969). Alvesson (2009) describes this in the following manner: ‘We are placed in the world as the element of possibility in reality. We have built-in possibilities, thus freedom […] If individuals are free, then they are also free to choose’ (p. 117).

However, while Heidegger and Merlau-Ponty ‘are interested in how things and phenomena come to “think themselves” in us’ (Østergaard et al., 2008, p. 96), Husserl is, as already explained, engrossed in the understanding of things drawn on consciousness (Østergaard et al., 2008). The previously mentioned quote which states that ‘things and phenomena come to “think themselves” in us’ is linked to the always and already given unique lived experience of a human being in their world (Jung, 2001; Palmer, 1969).

Therefore, Heidegger’s phenomenology is about existence and is hence linked to ontology (Introna & Ilharco, 2004; Schalow & Denker, 2010). This is echoed by van Manen (1997) who observes that it is an ‘ontological-existential study of human lived experience’ (as cited in Walker, 2011, p. 19). It is noteworthy that temporality (being in time) has become an important factor for ontology although it was never investigated as such. Heidegger (1927/1996) holds that temporality is important because it is ‘separating the regions of being’ (p. 16) that become manifest through its temporal character. This explains its link to historicity (Heidegger, 1996) and the horizons, as will be shown later.

In the same vein as the previous quotation is Palmer’s (1969) statement that ‘hermeneutic is still the theory of understanding, but understanding is differently (ontologically) defined’ (p. 130), which highlights the reason why Heidegger named it *Hermeneutic Phenomenology*. It claims that the theory of understanding (hermeneutics) has always considered how understanding emerges in human existence (phenomenology) (Palmer, 1969). Such a definition of ‘understanding’ with an ontological character is not obvious. Max Weber (1864–1920), for instance, used the term ‘understanding’ (*verstehen*) as a method in social research (Giddens, 1993; Hall, 1981). For Weber, understanding is a necessary concept for studying human or social science and contains ‘general social and other scientific laws’ (Hall, 1981, p. 132) to explain a law-like phenomenon. Weber’s concept is linked to explanation and not to interpretation, which means that subjective actions are explained through objective understanding (Hall, 1981; Whimster, 2007).

However, an important aspect of Heidegger’s approach that is contrary to Husserl’s is that he views presuppositions as already given: ‘It is naive to assume that what is “really there” is “self-evident”’ (Palmer, 1969, p. 136). Heidegger claims that by approaching a text the reader considers it as a text or, for instance, a poem, which is then read and interpreted within the horizon of interest and experience and not outside of it (Palmer, 1969).

The *Dutch phenomenology* (Utrecht school) combines elements of the descriptive (Husserl) with those of the interpretative (Heidegger) approach (Cohen et al., 2000; Cohen & Omery, 1994; Holloway & Wheeler, 2002; van Manen, 1990) and is often used in empirical education research (Cohen et al., 2000). This approach is also called hermeneutic phenomenology (Cohen et al., 2000). It is descriptive because it aims at some object where the description tries to show it as it is. It is also interpretative because it ‘mediates’ (van Manen, 1990, p. 26) between the description of something (interpretation) and the thing named, or as van Manen (1990, p.26) puts it, ‘it mediates between interpreted meanings and the thing toward which the interpretation points’.

Moreover, this phenomenological approach aims at describing the essence of how a person experiences their world. The findings should bring others closer to this world (van Manen, 1990), which also entails a description of the ‘internal meaning structures’ (van Manen, 1990, p. 10) of one’s lived experience. Hence, questions of how something works would not be answered; rather, what for someone is the essence and meaning of work (van Manen, 1990) would be the question focussed upon. This should enable an understanding of what it means to be in the world of the person described; ‘it is the search for the fullness of living, for the ways a woman possibly can experience the world as a woman, for what it is to be a woman' (van Manen, 1990, p. 10).

Against this backdrop, Heidegger's school of phenomenology is used in this research to interpret phenomena and to achieve understanding. Husserl's phenomenological approach, *the sole description* of a phenomenon with its structure as it appears (Husserl's phenomenology), is not considered to be fruitful in revealing the very nature of the complex phenomena under scrutiny. Understanding cannot draw only on descriptions that may be compared with a *screenshot* of a social situation, because it does not allow one to answer and understand the *why* and *how* questions of this research. The starting point of the Dutch school, which is often used for research in education, does 'construct an animating, evocative description (text) of human actions, behaviour, intentions, and experiences as we meet them in the life world' (van Manen, 1990, p. 19) It is not the aim of this research to attempt to understand what it means to be in the world; rather, the aim is to understand how and why this phenomenon is possible. Additionally, van Manen (1997) argues that the Dutch school of phenomenology is not useful for case study research because case studies try to explain a current state of affairs that 'might change drastically over time' (van Manen, 1990, p. 22). This obviously does not fit when compared with the aim of the Dutch school to come closer to one's world and lived experience that do not change over time. It is also worth emphasising that an essential element of the Dutch school is the use of meaning questions. Using such questions allows a person to 'act more thoughtfully and more tactfully' (van Manen, 1990, p. 23) regarding different situations in life. Not only are the questions asked in this research and its findings different compared to Heidegger's approach, but the starting point is different as well. While the transcribed interviews used in this research admittedly represent a kind of lived experience, it would be wrong to compare it with the deep description about the essence of one's lived experience that is developed for the Dutch school of phenomenology. This fact also underpins why the Dutch school of phenomenology is not suitable for this research.

Therefore, Heidegger's approach of hermeneutic phenomenology is used 'to understand a particular phenomenon and the scientific interpretation of phenomena appearing in text or written word' (Streubert & Carpenter, 2011, p. 84). His concept of phenomenology (how something appears to one) and hermeneutics (how one comes to an understanding of what appears) is considered to be very vital and will be introduced in the next section.

13.3.3 Hermeneutics – the understanding process of phenomenology.

Hermeneutics should not be considered as a separate methodology, but rather as a part of phenomenology. As mentioned in the previous section, the aim of hermeneutics is to explore how understanding emerges. Phenomenology is about *how something appears to us*; in other words, interpreted action or experience is where hermeneutics is assigned to an 'objective status' (Collin, 1997, p. 139) for further interpretation. These objects, held in textual form, are used as starting points to reveal phenomena and different methods have emerged in history in this regard.

With respect to the chosen phenomenological approach, not only Heidegger but also Gadamer and Ricoeur are regarded as important philosophers who have influenced understanding in hermeneutics. Yet the roots of hermeneutics can be traced back to Schleiermacher (1768–1834); hence, a short sketch of the different hermeneutic methods would help to understand the differences and should lead to the best approach for this research.

Schleiermacher is titled as the father of the classic hermeneutic theory (Prasad, 2002). His aim was to interpret a text to grasp and recover the author's originally intended meaning, which was divided into a grammatical (objective) and a psychological (subjective) part. He used the grammatical part to understand and interpret a text (Myers, 2004; Palmer, 1969).

Additionally, he used it to reconstruct the historical context or word meaning of an author (West, 1979). The psychological part was used to reconstruct or reexperience the mental and creative process of the author (*Identitätsphilosophie*) 'to develop an empathic understanding' (Prasad, 2002, p. 15). Schleiermacher claims that the interpreter can reveal hidden elements in the text that are unknown to the author due to the greater creativity of the interpreter (West, 1979).

Dilthey defines hermeneutics as the epistemology of the human and social science (*Geisteswissenschaften*) because his aim is to understand (Prasad, 2002) through the interpretation of man's inner life (Palmer, 1969), whereas the aim of natural science (*Naturwissenschaften*) is explanation (Prasad, 2002). He claimed that life and experience contain the same knowledge and the combination of it, *lived experience*, is a part of historical understanding. This kind of knowledge and understanding is already given and enables one to understand the expressions of life in literature (Pillay, 2002). Dilthey was not interested in a person (man's inner life) but rather in their social-historical world; the individual is the centre of history (Scott, 1977). He argued that the grasping of this world is possible through interpretation and understanding of expressions of life.

However, he acquired his hermeneutical thinking from Schleiermacher (Palmer, 1969). Dilthey's understanding is a purely cognitive understanding, which he considered as elementary and at the root of all social and human science (Grondin, 2002). Hence, Dilthey, similarly to Schleiermacher, regards interpretation and understanding as an 'empathetic grasping, reconstruction and reexperience by one human mind (namely, the interpreter's) of the mental objectification (e.g., text, legal structures, historical processes, etc.) produced by other human minds' (Prasad, 2002, p. 15) which also represents the *hallmark* of *classic hermeneutics*.

Schleiermacher and Dilthey's epistemological focus on hermeneutics (understanding) (Prasad, 2002) is totally different to Heidegger and Gadamer's view on hermeneutics, which draws on existential philosophy.

Heidegger was the forerunner on existential philosophy and he explains that understanding is 'a know-how, an ability, a capacity, a possibility of our existence' (Grondin, 2002, p. 38) and not greatly drawn on a cognitive process (Grondin, 2002). A text shows a specific meaning, but the words used in the text also conceal a meaning, or as Palmer (1969), phrases it, 'it is not something man gives to an object; it is what an object gives to man' (p. 134). Hence, for Heidegger, understanding is woven into the context of a text and interpretation is the tool to reveal it. This means that interpretation is not the effortless and easy exposition of the meaning of a text, but rather the going *behind the text*. In this line, Heidegger (1929) explains (as cited in Palmer, 1969) that hermeneutics must illuminate the hidden meaning of a text or why the text was written in a certain way and perhaps the unspoken thoughts (text related) of the author. Palmer outlines the aim of Heidegger's hermeneutic view into the following points: '(1) doing violence to the text, and (2) understanding the author better than he understood himself' (1969, p. 147). The interpreter of a text cannot understand the author better, but the interpreter can understand the text differently and assume or rather interpret the real meanings of the author's intention, which are captured in the text (Palmer, 1969). This requires a going back in time to see the world with the eyes of the author, or as Thiselton (2009, p. 217) says, it needs a 'being there' to understand the meaning of a text, which is then interpreted in the present. It is therefore a 'repetition and retrieval of the original event of disclosure' (Palmer, 1969, p. 147).

Gadamer is primarily linked to Heidegger because he was Heidegger's student (Binding & Tapp, 2008; Jung, 2001). Yet, he developed his own approach to hermeneutics (Jung, 2001) by drawing on Husserl and Heidegger later. Although Gadamer followed

Heidegger in many points, he shied away from his direct existential hermeneutics (Grondin, 2002; Shalin, 2010) (interpretation of ‘what is there’, cleared up, and sorted out of being) (Grondin, 2002), and thus used the notion of practical understanding. ‘It is always a possibility of my understanding that is played out when I understand a text’ (2002, p. 38). Contrary to Heidegger, Gadamer’s hermeneutics aims to understand the text and not the intentions and thoughts of the author; this represents the main break with Heidegger’s hermeneutics. Additionally, Heidegger was interested in understanding the intention of the author from their world (past) whereas Gadamer is interested in understanding the text (past) in the present world (Gadamer, 2010; Palmer, 1969).

Paul Ricoeur considers different concepts like those of Heidegger, Gadamer, or Husserl as important to him, especially with regard to theological hermeneutics (Ray, 1994; Thiselton, 2009). Contrary to Gadamer, he regards ‘explanation’ (*Erklärung*) and understanding (*Verstehen*) as essential elements of his concept of interpretation (Thiselton, 2009). Ricoeur contemplates a text as a construction of human action and he used ‘explanation’ to ‘prevent distortion or illusion in understanding’ (Thiselton, 2009). Palmer (1969) translates Ricoeur’s (1965) definition of hermeneutics (as cited in De l’interprétation, 1965) from French into English and posits that hermeneutics is ‘the theory of rules that govern an exegesis, that is to say, an interpretation of a particular text or collection of signs susceptible of being considered as a text’ (1969, p. 43). It is highly valuable in the case of a historical text (e.g. biblical text) to explain the text first with the aim of avoiding false interpretation and understanding (Thiselton, 2009).

However, Gadamer’s hermeneutical approach is chosen for this research because Heidegger and Ricoeur’s way of understanding (hermeneutic) is not considered as suitable to explain the phenomenon under scrutiny. Heidegger’s approach, which is to understand the intentions, thoughts, and world of an interviewee, is considered as too *weak* to fully grasp the essence and meaning of a phenomenon. As shown previously, Ricoeur's understanding draws on the explanation of a text to prevent misunderstanding. This approach uses 'semiotics and structuralism' (Thiselton, 2009, p. 250) to analyse the different meanings of the used words, which is valuable in interpreting the meaning of an antique text, but not in revealing the essence of the phenomenon of this research. Additionally, although Ricoeur respects Gadamer in many ways, he criticised him for being too 'uncritical' because Gadamer's hermeneutics enables reflection on a phenomenon through different perspectives; but for Ricoeur, this is 'inadequate for the task of criticism' (Thiselton, 2009, p.251). This critic may be correct regarding theological (historical) hermeneutics, but not for this research. This is because different views, as they are used by Gadamer, allow one to understand the very essence of the phenomenon in a new way that draws on different perspectives. Additionally, a historical text is vastly different from a transcribed interview or observation and does not need explanation regarding its symbolic, semiotic, or signs. It needs more an understanding and interpretation of the meaning of the text towards the phenomenon.

13.4 Interview Example_15

Legende: A = Autor / T = Teilnehmer / 13:04 (Beispiel) = Zeit

A: Also, alles normal im Dialekt reden. Um was es geht, weißt du eh. Gut, die erste Frage, mit welchen Worten, mit welchen Eigenschaftswörtern, mit welchem Satz würdest du die Firma [Firmenname Forschung] beschreiben? Was bedeutet die Firma [Firmenname Forschung] im Speziellen für dich?

T: Verein.

A: Ok, wieso?

T: Auch von der Struktur her, weil wir so flach hierarchisch unterwegs sind, weil Verantwortung so stark weitergegeben wird, weil Entscheidungen von den Mitarbeitern durchgeführt werden und nicht in irgendwelchen dunkeln Kammern, was so ganz anders ist, als ich es bis dato in anderen Firmen erlebt habe. Und was ich auch noch mitbekommen habe ist, dass ich in Topmanagement–Meetings drinnen war. Die haben über Dinge geredet, wo ich mir gedacht habe, dass ich jetzt eigentlich rausgehen müsste, weil ich das ja gar nicht hören darf. Aber sie haben einfach so geredet und ich war dabei. Das war … ja, bist du halt dabei, hörst du halt mit, ist kein Problem.

A: Wenn du jetzt deinem Kolleg erzählen müsstest, wenn er dich fragt: „Hey, wie ist es bei der Firma [Firmenname Forschung], was bedeutet es für dich?“, was würdest du dann sagen?

T: Wie meinst du? Wie ist es für mich? Zum Arbeiten?

A: Wie ist es für dich, bei [Firmenname Forschung] dabei zu sein?

T: Ich gehe jeden Tag mit einem guten Gefühl in die Firma … (wird unterbrochen) … Dass ich mit einem guten Gefühl in die Firma gehe und ganz wenig fremdgesteuert bin. Also sprich, ich glaube, dass Selbststeuerung ein sehr großer Faktor für Stress ist und ich meine jetzt damit nicht die Arbeitslast, sondern ich meine psychischen Stress. Doch dadurch, dass ich selbst viel gestalten kann, ist es ein positiver Stress, den ich von der Arbeitsauslastung habe.

A: Das ist jetzt eine ganz komplexe Erklärung dafür, aber wenn du sagen würdest, wie es ist, bei der Firma [Firmenname Forschung] zu arbeiten?

T: Schön.

A: Würdest du einfach sagen schön und es ist wie ein Verein?

T: Schön, wie ein Verein und ich bin mir sicher, ich wüsste jetzt keine Firma mehr, wo ich hingehen könnte, weil ich komplett verdorben bin für den Markt. Also, die einzige Auswahl, die mir bleibt, wenn ich hier entweder selber gehen würde oder gekündigt würde, wäre, dass ich mich selbständig mache. Ich würde wahrscheinlich nichts mehr finden.

A: Ok, was im Speziellen magst du an der Firma [Firmenname Forschung]?

T: Hm?

A: Was im Speziellen magst du an der Firma [Firmenname Forschung]? Was sind so die Pros und Cons, die deine Arbeit beeinflussen?

T: Was sind die Pros und die Cons bei der Firma [Firmenname Forschung]?

A: Deine Pros und Cons, die deine Arbeit beeinflussen. Von denen wo du sagst: „Hey, weil es das gibt, kann ich supertoll arbeiten, schnell, dann haben wir Qualität.“ oder „Die Sachen gibt’s, die stören …“

T: Aufgrund der flachen Hierarchien kann ich sehr schnell Entscheidungen treffen. Sobald diese Entscheidungen mehrere Leute betreffen, dauert es immer sehr lange.

A: Das ist deine Schlussfolgerung. Ja, aber ist es auch so vorhanden?

T: Ja, es ist so.

A: Also sprich, der Vorteil ist die flache Hierarchie, der Nachteil ist, dass mehrere Leute entscheiden und das behindert dich?

T: Es dauert länger, es dauert länger.

A: Ok, gibt es sonst noch irgendetwas, von dem du sagen würdest: „Das ist speziell wegen dem.“

T: Ja, Politik ist vielleicht eine Geschichte, wo für mich … Wir sind so transparent bei allen Sachen, aber natürlich gibt es auch bei uns Politik und das behindert mich ... auch, wo ich es nicht weiß, da stoß ich an eine gläserne Wand wo ich nicht weiß, warum das so ist.

A: Hast du da ein Beispiel für Politik? Was meinst du mit Politik?

T: Ja, wenn irgendwelche Strukturen auf einmal da sind, wo in 80 oder 90 Prozent vom Unternehmen sind und auf einmal stoß ich irgendwo hin, wo es komplett anders ist. Das gibt’s bei uns natürlich auch.

A: Ok. Wie würdest du die Kultur und Umgebung in der Firma [Firmenname Forschung] beschreiben? Fördert es deine Kreativität ..., das Teilen von Informationen?

T: Ich glaube, ich bin, seit ich bei [Firmenname Forschung] bin, besser geworden. Die Firma hat mich besser gemacht. Die Firma hat mich besser gemacht in meiner Performance, die Firma hat mich sogar besser gemacht als Mensch.

A: Ja, aber wie würdest du die Kultur und die Umgebung beschreiben? Fördern sie deine Kreativität?

00:05:00

T: Ja, absolut. Ich habe ja alle Freiheitsgrade. Es fördert meine Kreativität, dass ich nicht verkrampft irgendwo da sitzen muss, sondern wenn es einfach nicht geht, gehe ich weg und wenn ich eine gute Idee habe, komme ich wieder her. Ich kann machen was ich will. Du kennst die Situation, wir haben da einen Gedankenpfad auf dem Dach oben und unser Organisationskonzept, so wie wir organisiert sind, das ist eigentlich auf dem Dach bei uns entstanden. Die haben Konzepte ausgearbeitet und dann sitzt du vor dem Computer und denkst dir auf einmal: „Scheiße, ich komme nicht weiter!“ Du bist einfach in einer Einbahnstraße drinnen. Dann gehe ich rüber zu einem Kollegen und sage: „Bitte mitkommen!“ Dann kommen sie mit und dann sind wir aufs Dach hinauf und haben vielleicht ein bisschen geredet. Ab und zu hat er einfach nur zugehört und du merkst: „Ah, genau!“ Dann gehst du wieder runter und bist wieder frei, bist aus der Einbahn draußen.

A: Hast du da einfach x-beliebige Kollegen mitgenommen oder hat es da einfach (wird unterbrochen)

T: Nein, es war in dem Fall gerade die Organisationsentwicklung. Das kann ich jetzt so nicht pauschal sagen, es ist themenrelevant. Wenn ich jetzt da die Organisationsentwicklung anschaue, bin ich ganz viel zum [Name Mitarbeiter] gegangen. Wenn ich andere Themen gehabt habe, bin ich halt zu anderen Leuten gegangen, wo mir dort mitgeholfen haben.

A: Und die gehen auch einfach ohne Probleme mit oder sagen sie: „Du, komm lieber morgen nochmal!“ oder …

T: In der Regel ist es nie ein Problem, wenn er nicht gerade in einem Meeting eingeteilt ist zu sagen: „Du bitte, hast du für mich eine Stunde Zeit?“ Da sind die Leute sehr großzügig mit der Zeit, wo sie sagen: „Ok, mach ich.“

A: Haben sie das bei dir auch schon mal gemacht?

T: Andauernd.

A: Also du gehst genauso mit ihnen hinauf und sie genauso mit dir. Machen das andere Leute auch so oft? Oder ist es eher so, dass du sagst: „Das ist eher mein Ding.“

T: Also mein Ding ist es, auf das Dach hinaufzugehen und es gibt für andere, andere Dinge, oder? Viele treffen sich bei der Kaffee-Ecke, viele … Dann gibt’s einige, wo ich oft sehe, die treffen sich unten. Die nehmen sich einen Kaffee und hocken sich gern ins Atrium runter, weil ihnen die Atmosphäre dort passt.

A: Woher würdest du sagen ... oder, wenn du das jetzt einfach einmal so aus deinen Erfahrungen herausziehen müsstest ... aus welchen Bereichen kommen die Leute auf dich zu?

Ist das eher kontextspezifisch? Oder sagst du da kommt auch einmal jemand aus der Buchhaltung und sagt: „Hey [Mitarbeitername], hast du einmal Zeit?“

T: Es … Also, grundsätzlich kommen aus allen Bereichen aufgrund von den Aktivitäten viele auf mich zu, weil ich sehr breit aufgestellt bin, von dem was ich mache. Aber ich habe natürlich … Es ist alles „eine Glockenkurve“ auf eine gewisse Häufigkeit und die meisten kommen auch entwicklungsrelevanten Geschichten. Aber ich habe gerade letzte Woche ein Meeting gehabt mit Marketing, Sales und Vertrieb, da ist der [Name] gekommen und hat gesagt: „Ich mache einen Workshop und eigentlich würde ich mich gerne selber einbringen in dem Workshop.“ Dann hat er zwei Fragen gehabt. Erstens: „Könntest du mir das bitte moderieren?“ Und zweitens: „Wie sollen wir uns den Tag gestalten?“... Und dann habe ich es mit ihm erarbeitet.

A: Würdest du sagen, die Situation, dass Leute von anderen Bereichen auf Leute zugehen, die jetzt nicht gerade speziell in dem Bereich tätig sind, aber aufgrund von ihrer Aktivität auch helfen oder reflektieren können, gibt es das öfters in der Firma?

T: Ganz viel. Grad was so den Titel „Partnerschaftliche Beratung“ angeht. Das wird bei uns ganz großgeschrieben. Das war ein Thema, wo ich schon einmal mit dir geredet habe, dass wir eigentlich so wenig Consulting wie möglich von Externen haben möchten. Einfach aus dem Umstand heraus, die können uns nicht so gut kennen, wie wir uns selber und wir können aber nicht alles wissen. Aber im Normalfall ist es so, dass wenn wir einen Consultant holen, der uns hilft, das zu machen. ... Also, er nimmt uns die Arbeit zum Teil nicht ab, sondern er macht sie uns. Ahhh ... falsch ... er zeigt uns, wie das zu machen ist und wir machen es dann selber. Also, wir holen das Know-how herein, dass wir es dann selber machen können.

A: Seit wann macht ihr das schon so?

T: Ich glaube 2009 ist der Paradigmenwechsel da gewesen.

A: Wie ist das Empfinden oder das Resultat, von dem was wir da gemacht haben, für dich? Wie würdest du das beschreiben?

T: Outstanding.

A: Was für einen Effekt hat das?

T: Ich würde jetzt fast sagen ... Ich würde den Begriff von dir hernehmen ... Selbstverliebtheit.

A: Würdest du sagen, dass die Qualität der Beratung in der gleichen Form stattfindet?

T: Ich würde es anders sagen. Ich glaube, ich würde es unter dem Titel „verstanden" … würde ich es zusammenfassen. Du kennst sicher die Situationen, du bist in der Firma und ein Berater kommt her und dann erzählt er dir irgendetwas. Und der Großteil der Geschichten wird schon passen.

00:09:40

Das meiste wird schon passen, aber er wird nie … , das Passen wird sich auf siebzig Prozent vielleicht beschränken. Und er kann nicht mehr haben, weil er das Unternehmen nicht kennt, weil er die Kultur nicht kennt, weil er nicht jeden Tag drinnen sitzt und weiß, wie arbeitet man zusammen. Er hat die Erdung da nicht. Wenn das aber jemand von uns macht, dann kann er von Haus aus ... ist das Potenzial schon viel höher, um viel höher zu gehen und andere Fragen zu stellen, wo sich die Leute dann sagen: „Ah, der hat mich verstanden."

A: Woher bekommt denn derjenige das Wissen, das sich ein Externer jetzt vielleicht angeeignet hat, weil er in anderen Unternehmen viele Sachen gemacht hat oder ein Experte ist?

T: Ok, das ist jetzt eigentlich ganz einfach. Also, es gibt zwei verschiedene Sachen, die wir hier haben. Als Beispiel möchte ich da wieder den [Name Mitarbeiter] anführen, wo er 2011 die Aufgabe gekriegt hat: „Wir möchten einen neuen Strategie-Prozess." Was hat der [Name] gemacht? Er hat sich Bücher gekauft zum Einlesen. … Also, er hat versucht, belesen zu werden und er hat sicher auf der anderen Seite geschaut: „Was gibt es für Consultants?“ Dann hat er sich umgeschaut und dann hat er ein, zwei angeschaut und dann hat er einen gefunden, wo er gesagt hat: „Ah, mit dem kann ich auch menschlich und der ist fachlich gut.“ Und er hat sich immer mit dem Consultant getroffen und hat gesagt: „Wie soll ich das machen?“ Dann haben sie zusammen das Konzept erarbeitet. Und am Anfang ist es natürlich sehr hoch getaktet gewesen und mit dem trifft er sich auch jetzt immer noch. Das kannst du dir vorstellen wie eine Gesprächsberatung. Und jetzt ist … Das Intervall wird jetzt immer größer, weil wir die Kompetenz im Haus haben. Der [Name] hat jetzt die Kompetenz im Haus. Es zeigt sich zum Beispiel, dass er das jetzt in anderen Firmen auch machen kann. Er ist auf diesem Fachgebiet kompetent auf diesem Thema geworden.

A: Macht ihr das in anderen Bereichen auch öfters so? Gibt es mehrere wie [Name], die sich Expertenwissen aneignen und es ins Unternehmen einbringen?

T: Nein, das ist in vielen ... Also, das ist im technischen Bereich und so weiter auch so. Wir machen sehr viel Research-Arbeit. Was auch angeht ... Ein Beispiel auf technischer Ebene, wir müssen jetzt gerade schauen, wie man wireless unsere Geräte steuern kann, über Bluetooth oder über WiFi. Und da gibt’s sicher Experten am Markt, die das bereits haben. Aber wir haben uns die Arbeit angetan, dass wir jetzt halt zwei Uniabsolventen angestellt haben und die steigen in das Thema ein. Die haben ein Bündel an Kontakten bekommen, wo sie anrufen können, aber sie müssen sich ins Thema einarbeiten.

A: Ok und die bringen nachher das Wissen ins Unternehmen und dadurch ..., danach hat jeder so und so diesen Berater ... und Funktionalität hat ...

T: Es ist zum Beispiel so, die sind jetzt in [Ort] ... sind die tätig und das Thema wireless ist ja für mich genauso relevant. Und jetzt grad der [Name], der vorher reingekommen ist ... Da habe ich jetzt den Link hingelegt und gesagt: „Hey, ihr müsst euch austauschen!“ Und es funktioniert, das passt.

A: Würdest du sagen, dass diese Beraterfunktionalität von allen [Firmenname Forschung] Mitgliedern aufgenommen wird und dementsprechend gelebt wird oder zum hohen oder großen Anteil?

T: Ich würde das jetzt… Ja, weil es in gewissem Maße schon fast Führung ist und wir sind eine flache Hierarchie und Führung wird ja nicht weniger, nur weil sie flach ist. Jeder muss in einem gewissen Maße in eine Führungsrolle in seinem Spezialistentum hineinschlüpfen, um das Ausmaß der Führung, das jedes Unternehmen braucht, wahrnehmen zu können.

A: Weil wir gerade beim Bereich Hierarchie sind ... Du bist vorher bei der Firma [Firmenname 1] tätig gewesen. Was würdest du sagen, sind so die gravierenden Unterschiede zwischen der Firma [Firmenname Forschung] und der Firma [Firmenname 1] oder deinen vorigen Arbeitgebern, einfach grob gesagt?

T: Also, das kann ich zusammenfassen, das ist bei allen gleich gewesen. Ich will jetzt nicht bei [Firmenname 1] sagen und [Firmenname 2] ist es genauso gewesen. Vorher war es so, der Chef kommt her und sagt: „Du, mach mir das Projekt, mach mir das!“ Dann bist du an Konzepten am Arbeiten, hast ein gewisses Teilwissen nur. Danach präsentierst du es dem Chef, der Chef nimmt es mit, geht in das Projektsteuerungs-Meeting mit deinen Informationen. Natürlich sind es nicht alle Informationen. Da drinnen wird dann ganz wichtig etwas besprochen unter allen Abteilungsleitern. Da sitzen nämlich sieben, acht oder neun andere drinnen, wo das Teilwissen haben. Dann entscheiden sie auf Basis dessen etwas, kommen wieder zurück und dann wird das Ergebnis präsentiert und mit dem kannst du weiterarbeiten. Das hat mich angeschissen. Und bei [Firmenname Forschung] war das, vom ersten Tag an schon, komplett anders. Bei [Firmenname Forschung] kommt man her und sagt: „Das ist deine Arbeit, mach es!“ Vertrauen, dass man das gleich am ersten Tag schon macht ... Also, du kommst mit einem Vorschuss Vertrauen in die Firma hinein und du wirst auch von den anderen sofort aufgenommen.

00:15:00

In einer anderen Firma hätte das eigentlich gar nicht funktioniert, wenn nicht wir Sachbearbeiter uns informell hinter dem Rücken von den Chefs zusammen abgesprochen hätten. Hätte aber sicher nicht so gut geklappt, weil es nicht gewünscht war, eigentlich ... und da wird es übergeben: „Mach das, du bist dafür verantwortlich, es muss passen! Fertig!“ Es war auch am Anfang, erinnere ich mich noch, da habe ich einfach die Angewohnheit gehabt, dass ... Ich war es von früher so gewohnt ..., alles, was ich entscheide, was ich mach, muss über den Tisch vom Chef. Und dann nach zwei, drei Monaten schaut mich mein ..., ich will jetzt nicht das Wort Chef verwenden ..., mein Coach schaut mich so an und sagt: „Hör jetzt auf damit, ich muss das nicht sehen ..., mach es selber.“ Und da kommen wir wieder zu dem Link zurück ..., was ich vorher gesagt habe, wo ich gesagt habe [Firmenname Forschung] es hat mich besser gemacht. Du musst dir vorstellen, wenn alles was du entscheidest über den Tisch vom Chef muss, was hat das für einen Effekt? Er schaut das an und im Normalfall hat er immer etwas: „Das musst du ändern, das musst du ändern!“ Zum Teil weiß er Informationen nicht, zum Teil hast du Informationen nicht. Da gibt es einfach eine natürliche Abweichung, die da ist. Das ist einfach so. Und … das macht dich fauler mit der Zeit, weil wenn du etwas erarbeitest und du weißt genau, der Chef geht eh darüber, dann kannst du eigentlich eine kleinwenig höhere Fehlerquote hineinlegen. Am Schluss wird es sowieso passen. Du delegierst die Verantwortung somit auch an den Chef zurück. Du nimmst dies nicht mehr selber wahr und dann hast du einmal einen Fehler drinnen und dann kommt der Chef zurück: „Der kommt mir dauernd mit Fehlern daher!“ Also muss er noch stärker kontrollieren, oder? Wenn ich aber noch stärker kontrolliere, wirst du dich noch mehr zurücklehnen und sagen: „Naja, ich kann eh nichts mehr selbst entscheiden, weil alles was ich sage passt ja schon nicht mehr.“ Das endet in einem Misstrauen, das habe ich auch bei vielen Firmen erlebt. Da hatten wir hochkompetente Leute, die haben selbst nichts mitgemacht und haben sogar den Tagesablauf ... sind sie am Tag zum Chef gegangen: „Ich mache danach das, das und das.“ ... Haben den Tag durchpriorisiert. Denn, das waren Diplom–Ingenieure, wo ich mir denke: „Hallo, geht’s noch?“

A: Würdest du sagen, das was ihr hier macht - bei [Firmenname Forschung] - hängt auch von den Leuten ab oder könnte das eigentlich jeder machen?

T: Nein, das ist eine systemische Geschichte. Du kannst jeden … jeden fit machen, aber man muss schon etwas sagen, da legen wir schon sehr viel Wert darauf, die Leute müssen kompatibel sein zum System und zu unserer Kultur.

A: Würdest du sagen, dass du eine Leidenschaft hast, bei der Firma [Firmenname Forschung]?

T: Absolut.

A: Was löst deine Leidenschaft aus?

T: Ich fühle mich zuhause.

A: Weißt du zufällig, ob die Firma [Firmenname Forschung] explizite Wissensgenerierung oder Wissenstransfer praktiziert wird? ... sichtbar ...

T: Nicht explizit als Thema … Aber solche Geschichten sind in jeder Überlegung, glaube ich, drinnen.

A: Hast du ab und zu das Gefühl, dass du das Rad neu erfinden musst? Hast du schon einmal solche Situationen erlebt?

T: Wird sicher vorgekommen sein, aber mir fällt jetzt nichts ein.

A: Also sehr gering?

T: Sehr gering.

A: Jetzt einmal eine größere Frage. Stell dir vor, du musst mit einer neuen Idee aufkommen, eine Strategie, ein Konzept ausarbeiten oder einfach eine Lösung für ein Problem haben und du darfst ... fängst mit dem an ... und dann fehlt dir einfach ein Informations– oder

Wissensanteil, dass du das eigentlich in dementsprechender Qualität durchführen kannst. Wo kriegst du das Wissen her, damit du deine Ziele erreichst? Da gibt es verschiedene Möglichkeiten, wie Task-Force, Expertenwissen. Oder unterstützt dich deine Arbeitsumgebung oder hast du einfach die Zeit zum Reflektieren?

T: Ganz einfach … Ganz einfache Geschichte. Machen wir es an einem praktischen Beispiel durch. Ich habe letztes Jahr das Site-Management von [Ort] übernommen und ich habe das Coaching von zehn Leuten übernommen. Normalerweise fängt man an mit ein, zwei oder drei an und ich habe gleich zehn bekommen. Weder Führungserfahrung noch Site-Erfahrung. Ich habe eine betriebswirtschaftliche Grundausbildung. Es ist aber im Prinzip viel mehr, was ich da durchführe. Ich mache den Jahresabschluss,

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ich mache die Gehälterauszahlung, ich mache Geschäftsführertätigkeiten bei unserem Standort.

A: [Ort]?

T: Ja. Und ich habe eine Grundausbildung und das war es! ... Engagement ... Ich bin natürlich auf allen Sachen blank ... weiß nicht, wie funktioniert das mit der Abrechnung, die Firma … der Übergabe von Informationen. Wir haben die Firma ja dazugekauft und damals war der damalige Firmengründer noch da. Ich habe von ihm die Tätigkeiten übernommen, die waren eher mau und bin dagestanden. Was tue ich? Ich bin zum Ersten gegangen, was Coaching angeht und da habe ich sofort Weiterbildungsmaßnahmen von HR gekriegt. Ich bin zu einem Coaching unserer Firma, wo ich weiß, dass er ein ausgezeichneter Coach ist. Das ist der [Name]. Ich habe dem [Name] die Situation geschildert und habe ihn gebeten, ob er mein Mentor sein könnte. Und dann hat er sofort ja gesagt ..., und das findet so statt, dass ich jede Woche bei ihm eine halbe Stunde auf einen Kaffee vorbeigehe und ihm die Woche erzähle - was ist passiert. Und er erzählt mir natürlich auch ein wenig - was ist passiert, auf was muss ich achten, was habe ich für ein Gefühl. Ich reflektier das Ganze eigentlich mit ihm. Oftmals hört er mir einfach nur zu und dann sagt er: „Hey, auf das musst du aufpassen, auf das musst du aufpassen.“ Er hat mir schon öfters gesagt: „Hey [Name], pass auf dich selber auf.“ Dann hatte ich eine Situation, eh in dieser Woche, wo ich eine zwischenmenschliche Krise gehabt habe zwischen zwei Leuten. Ganz schwierig ..., gerade als neuer Coach. ... Scheiße! Bin natürlich zuerst zum Mentor gegangen - zum [Name] - und habe gefragt: „Wie löse ich das?“ Er so: „Man Scheiße ..., ist blöd. Gehe zum [Name], der hat eine Mediationsausbildung und kann dir dort weiterhelfen.“ Also dann bin ich zum [Name] gegangen und habe gesagt: „[Name], ich brauche dich. Ich habe dieses und dieses Problem.“ Ich bin eine halbe Stunde bei ihm gesessen, wir haben einen Ablauf definiert ..., passt. Ich habe das heute durchgeführt ..., problemlos gewesen.

A: Würdest du sagen, das ist jetzt dein ganz spezieller Werdegang in so einer Sache oder hast du das Gefühl, dass andere Leute das genauso machen?

T: Ich habe den Vorteil, dass ich ein sehr breites Netzwerk bei der Firma habe, dadurch dass ich Aufgaben habe, wo ich mit vielen Bereichen schon Kontakt habe. Ich weiß aber aus meinen Tätigkeiten, was das Patentwesen so angeht, dass sehr viele Leute kommen und Fragen stellen. Gerade beim Patentwesen hatten wir einen neuen Projektleiter ... ich habe ihn noch nie gesehen, da ruft er mich an und fragt: „[Name], du, kannst du mir etwas helfen?“ Was dort auffallend ist, die Leute haben keine Angst davor Fragen zu stellen und dass man sich dann denkt: „Da könnte ich mich bloßstellen, weil ich es nicht weiß.“ Bei vielen Firmen ist es ja auch so ..., man muss den starken Mann mimen, man weiß alles ... Das kommt bei uns überhaupt nicht vor. Jeder fragt jeden. Es ist sich niemand zu schade.

A: Haben viele bei euch so ein großes Netzwerk?

T: Ich bin mir sicher, dass ich sicher einer bin, der ein sehr, sehr großes Netzwerk hat. Aber das Netzwerk kommt mit der Erfahrung in der Firma, wo du natürlich viele kennenlernst.

Und dazu muss man sagen, ich bin eingestiegen, als wir 320 Leute waren. Jetzt sind wir 640. Ich bin mitgewachsen. Aber was ich sehr leicht merke ist, wie leicht neue Mitarbeiter in das hineinwachsen.

A: Werdet ihr da gezielt gefördert im „Networking“ mit anderen?

T: Nein das ist … Nein das ist … Wie soll ich sagen? Wenn ich etwas übergebe, wie zum Beispiel die [Name Mitarbeiter] ist schnell gekommen, dann ist es selbstverständlich, dass ich es in die Hand nehme und ihr zeige: „Hey, das musst du mit dem bereden und das musst du mit dem reden.“, dass ich mit ihr zusammensitze und dass ich sie vorstelle. Und wenn ich jetzt sehe, wie die [Name Mitarbeiter] sich nach vier Monaten im Unternehmen bewegt, muss ich sagen: „Für vier Monate hat die schon ein saugeiles Netzwerk.“

A: Außergewöhnlich für dieses Unternehmen oder sagst du: „Habe ich in anderen Unternehmen schon gesehen?“ Weißt du die Schnelligkeit, die …

T: Die Schnelligkeit und da hätt ich fast das Wort „assimiliert“ verwendet ... Wie schnell neue Leute in unser System

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hineingezogen werden und ich sage jetzt einmal so ... Wenn ich das organisch irgendwie sage ..., wenn ein Neuer hinzukommt, dann reißt das natürlich eine Wunde auf, irgendwo. Wo etwas fehlt, wo der drinnen ist und diese Wunde fast narbenfrei weg ist, das ist unglaublich schnell ..., unglaublich schnell. ... Dazu kann ich auch auf ein Beispiel zurückgreifen ... da sind wir EFQM auditiert worden und da haben wir Assessoren da gehabt, die sind durchgegangen und die haben jegliche Leute gefragt. Die haben den Mund nicht mehr zubekommen, was jeder von denen ..., die haben … Im EFQM-Report ist drinnen gestanden, es ist unglaublich, wie sich jeder reden traut, auch Leute, wo aus der HTL kommen, wo frisch sind. ... Keiner hat eine Scheu zu reden, keiner hat eine Angst. Also die Angstfreiheit war zu spüren, Kompetenz war zu spüren und was unglaublich ist, wie viel jeder weiß ..., war irre.

Ein gutes Beispiel dafür ist der [Name Mitarbeiter] gewesen, der war ein halbes Jahr da, die haben ihm Fragen gestellt in einem Detailierungsgrad drinnen, wo ich selber nachdenken musste und er hat die richtigen Antworten gegeben. Da bin ich selber staunend daneben gestanden. Das ist bei uns total einfach.

A: Ok, gibt es bei euch Prozesse, wo Wissen, Informationen und Ideen im Unternehmen verteilt werden?

T: Wissen, Ideen und Informationen. Ja, klar. Das gibt es in jeglicher Form bei Abstimmungsmeetings, natürlich - du hast heute was gesehen, das war ein Site-Meeting - oder bei Mittwoch-Meetings. Dann haben wir in der Business Unit solche Meetings, „Panels“ nennen wir dies. Also, wir haben zwei verschiedene Geschichten. Wir haben Informationsmeetings und wir haben Entscheidungsmeetings. Das mit den „Panels“ haben wir noch nicht angeschaut. Da sind wir jetzt gerade am Erarbeiten dran, dass wir die „Panels“ dort haben. Und das wird angeschaut: Wer muss informiert werden und in welcher Runde wird das entschieden? Und es wird aber auch transparent ..., möchte man das in Zukunft noch darstellen. Im Moment ist es noch inhärentes Wissen von jedem Mitarbeiter.

A: Und warum sind zwei Mitarbeiter aus einem anderen Bundesland in [Ort 2] eingesetzt worden? Hat das einen tieferen Grund gehabt oder hat man einfach …?

T: Ganz klar, um Schnittstellen … um zur Schnittstelle A das Ganze hinzukriegen, weil wir das Netzwerk gehabt haben. Das war explizit ein Grund, warum man mich ausgewählt hat, weil man gesagt hat: „Du hast ein gutes Netzwerk bei [Firmenname Forschung].“ Und da geht es eben genau darum. Finance legal und so weiter, da bin ich drinnen gewesen und darum hat man mich dorthin genommen. Der [Name Mitarbeiter] hat ein gutes Netzwerk was die Hardwareentwicklung angeht und darum ist er im Projekt auch für das eingesetzt worden. Also, wir sind da, um die Brücke zu schlagen, um … Sagen wir es anders, um die Vernetzung ... die synaptische Vernetzung im Hirn herzukriegen.

A: Ok, wenn du Entscheidungen treffen musst, jetzt hier in [Ort 2] oder in [Ort 1], was verhindert schnelle und gute Entscheidungen oder was sind Gründe für schnelle und gute Entscheidungen?

T: Gründe für schnelle und gute Entscheidungen sind, dass man uns die Entscheidungen machen lässt, dass es gewünscht ist, dass wir Entscheidungen machen und - wenn es eine Fehlentscheidung ist - dass uns nicht gleich der Kopf abgerissen wird, sondern es wird angeschaut ... Es ist wichtig, dass es eine bewusste Entscheidung war und dass es nicht dem Zufall überlassen worden ist oder geschlampt worden ist. Und dann ist es kein Problem, wenn wir da eine Fehlentscheidung haben. Angstfreiheit habe ich vorher schon erwähnt ... großes Thema. Was verhindert Entscheidungen? Was verhindert Entscheidungen? … Ich selber, ich darf zu jeder Zeit Entscheidungen treffen. Meine eigene Blockade, wenn dann ... Ich kann immer etwas entscheiden, ob das auf Akzeptanz trifft oder nicht ist eine andere Frage.

A: Darf jeder bei euch in der Firma [Firmenname Forschung] jede Entscheidung treffen oder gibt es da Absprachen?

T: Ich meine, es wird nicht akzeptiert werden ... Also, das was ich jetzt gemeint habe mit Akzeptanz ..., wenn die Hardwareentwicklung eine Entscheidung treffen würde, wie sich [Firmenname Forschung] strategisch weiterentwickelt, dann kann er das treffen,

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es wird keine Relevanz haben.

A: Und wenn aber ein Hardware-Entwickler ohne Rücksprache mit seinem Coach was entscheidet?

T: Das passiert jeden Tag.

A: Gibt es da irgendwelche Grenzen oder ist das einfach im Hardwarebereich dein Projekt? Du musst entscheiden und hast Verantwortung?

T: Du bist im Projekt … Ich glaube, das ist… Ich glaube, das ist ein systemischer Ansatz, den wir haben. Führung wird bei uns als Dienstleistung verstanden. Der Coach muss seinen Mitarbeiter fähig machen, um Entscheidungen zu treffen und er muss ihm jegliche Information geben, damit er eine Entscheidung treffen kann. Und jetzt gehen wir her ..., es sind zwei Leute dran, jetzt zum Beispiel die WIFI Geschichte und da war die Aufgabe herauszufinden, was besser ist. Und sie werden einen klaren Vorschlag machen. Das ist der Auftrag von ihnen gewesen und sie haben alle Informationen gekriegt, die sie brauchen. Und sie werden jetzt aber wahrscheinlich keine Entscheidung darüber treffen, was dann am Schluss eigentlich eingesetzt wird. Das wird ein anderes Gremium machen. Aber sie sind ganz klar mit dabei und werden eine Empfehlung abgeben und die Wahrscheinlichkeit, dass die Empfehlung von ihnen durchgehalten wird, ist groß. Aber jetzt sind wir genau in dem Punkt drinnen, da betrifft es viele Leute - es wird länger dauern. Dort wird eine Entscheidung lange sein.

A: Philosophische Frage. Du hast eine „bezaubernde Jeannie“ und kannst dir alles wünschen. Gleiche Situation wie vorher, du musst eine Lösung für ein Problem oder ein neues Konzept oder Idee ausarbeiten. Was würdest du dir wünschen? Alle Möglichkeiten hast du, außer die Lösung an sich selber. Dir fehlt wieder ein Wissensanteil. …

T: Zeit.

A: Du würdest dir Zeit wünschen?

T: Ja.

A: Ok, kannst du dich an deinen letzten, jobbezogenen Aha-Effekt erinnern? Beziehungsweise warum Zeit?

T: Warum Zeit? ... Bei uns im Unternehmen ... Wir …, wenn man in die Organisation hineinhört und man jeden Tag drinnen ist ... Wir möchten schneller sein, wir möchten innovativer sein. Es ist echt eine große Selbstkritik, die wir bei uns haben und wir sehen, was wir alles nicht können, obwohl wir Selbstverliebtheit haben. Aber wir wissen nicht, wie wir im Vergleich zu anderen sind. Und der Glaube daran ist, was könnte man besser machen, was könnte man schneller machen. Und darum Zeit. Also, Zeit so gesehen, dass man mehr am Tag erreicht.

A: Ok, aber die Frage war ja, wenn dir ein Wissensanteil fehlen würde?

T: ... ein Wissensanteil fehlen würde?

A: Damit du diese Idee ausarbeiten kannst oder die Lösung für ein Problem.

T: Ok! … Ja, dann würde ich mir trotzdem Zeit wünschen, zum Teil auch von anderen Leuten, damit sie mir mehr Zeit geben könnten.

A: Ok, also, dass mehr Ressourcen eigentlich vorhanden wären, wo mit dir reflektieren könnten, zum Beispiel?

T: Jetzt in dem Projekt, das ich jetzt habe, ja.

A: Kannst du dich an den letzten, jobbezogenen Aha–Effekt erinnern und zufällig sagen, wo das war? War das in einer Diskussion, alleine zuhause in der Badewanne, beim Fahrrad fahren oder beim Sport machen?

T: Letzte Woche bei dem Workshop mit Marketing und Sales, wo ich gesehen habe, wie sie sich selber sehen. Marketing und Sales ist so eine Gruppe, wo sehr autonom unterwegs ist, anders unterwegs ist, als der Rest vom Unternehmens. Und da habe ich einen Blick von außen ein wenig gehabt, dadurch dass ich den Workshop moderiert habe und der Aha–Effekt war: „Ah, so sehen sie sich!“

A: Also ist es eher in einer Umgebung gewesen, wo du beeinflusst worden bist, von den Informationen anderer Leute, durch Gespräche und durch Diskussionen?

T: Mhm (= Ja).

A: Hast du ab und zu auch Aha–Effekte, wenn du alleine bist oder ist die Tendenz meistens immer so, meistens in Diskussionen mit anderen?

T: Selber alleine ausschwitzen ist ganz eine schwierige Geschichte, aber das muss ich bei [Firmenname Forschung] nicht.

A: Hast du in der Umgebung der Firma [Firmenname Forschung] die Möglichkeit, kreativ zu sein und neue Ideen auszuprobieren?

T: Ja klar.

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Ich kann etwas ausprobieren und wenn ich nach einer Weile sage: „Ah, das ist jetzt doch nicht so gut gewesen!“, dann mache ich es halt anders.

A: Wirst du auch von deinen Kollegen unterstützt?

T: Ja, sehr.

A: Sehr?

T: Ja.

A: Also du bekommst jederzeit die Aufmerksamkeit deiner Coaches, Kollegen und Mitarbeitern, wenn du neue Ideen hast, wo du sagst: „Hey, das geht jetzt eigentlich gar nicht in dieses Projekt hinein oder gar nicht in den Bereich, aber da könnte man was machen.“

T: Ja, ich meine, das ist natürlich ein Thema. Ich meine ... Zum Beispiel haben wir jetzt im Qualitätsmanagement ... Wir haben da so ein Bild 2020, wie wären wir da gern und da haben wir uns zusammengesetzt. Das ist auch so eine Geschichte. Es wäre unmöglich in jeder anderen Firma. Da haben wir aus vier Standorten ... sind wir fünf Leute und alle haben wir gesagt: „Hey, da müssen wir etwas machen in die Richtung.“ Und da haben wir einfach einen eintägigen Workshop gemacht, ohne unsere Coaches zu fragen. Wir haben es einfach gemacht. Das ist in einer anderen Firma unmöglich. ... Von Berlin heruntergeflogen, von Erlangen hinübergekommen ... Jetzt haben wir uns einen Tag zusammengesetzt. Da ist keiner zur Rechenschaft gezogen worden und da haben wir gesagt: „Ok, wir müssen uns da zusammenraufen und wir müssen schauen, wie wir das weitermachen.“ Und da haben wir einen Punkt, wie sehen wir uns 2020. Da haben wir ein gemeinsames Bild erarbeitet, wie wir uns 2020 sehen und ich weiß, dass da jetzt jeder in die Richtung einen Samen setzt.

A: Bist du in dem Fall, obwohl du jetzt Coach bist und Verantwortlicher für [Ort 2], als „Qualitätler" bei der Firma [Firmenname Forschung] in [Ort 1] zuständig?

T: Ja, aber nicht mehr so operativ, wie ich es war.

A: Aber trotzdem kannst du Akzente setzen oder wirst beratend immer wieder hergezogen?

T: Ja.

A: Hat das irgendwelche positive Auswirkung, dass du eigentlich so breit gefächert bist?

T: Absolut. Ich meine, was Qualitätsmanagement angeht, das sind so Geschichten, das ist eher eine Consulting Aufgabe und dort … das weiß ich auch aus dem Gespräch mit dem [Name], von unserem Geschäftsführer, dass der ein Bild im Kopf hat. Ich hoffe ich sage das jetzt richtig und nicht falsch. Er ist sich sicher, dass man Consulting innerhalb einer Firma braucht. Typische Consultingaufgaben, Reorganisation, Qualitätsmanagement, Task Force, partnerschaftliche Beratung und so weiter. Und was ihm da vorschwebt ist, dass es Leute sind, die die Expertise haben, dass es Leute sind, die es gerne tun, aber dass es Leute sind, wo größtenteils das nicht machen im täglichen Bedarf, sondern dass die siebzig, achtzig Prozent - ich sage - „normale Tätigkeiten" machen, administrative Entwicklungstätigkeiten und so weiter. Aber da wird ihnen ein Pensum von zwanzig bis dreißig Prozent zur Verfügung gestellt, wo sie so konsultative Tätigkeiten ausführen können. Und dort sieht er den größten Wert. Das sehe ich auch, weil die sind gerne da, die sind mitten drinnen. Und das bin ich jetzt im Rahmen von Qualitätsmanagement natürlich auch.

A: Sind viele so breit aufgefächert? Weißt du, mit verschiedenen Themen, die sie früher ausgeführt haben und jetzt sind sie in anderen Bereichen?

T: Ich sage jetzt, mehr als in normalen Firmen. Ja, das widerspiegelt sich auch in unserer Struktur, das mit den verschiedenen Aktivitäten. Darum kannst du ja nicht sagen ... Darum …

Ich wehre mich komplett gegen die Rollenbezeichnungen, man ist das oder man ist das. Sondern, wenn du jetzt mein Portfolio anschaust ..., wenn ich jetzt bei mir hineingehe, was mache ich bei [Firmenname Forschung], dann sieht das so aus ... Da steht in meinem Portfolio drinnen ..., ich bin im Qualitätsmanagement, habe eine Aktivität was Qualitätsmanagement angeht. Da ist auch Organisationsentwicklung drinnen. Ich habe eine Aktivität was Moderation angeht, ich habe eine Aktivität Site-Management [Ort 2] und ich habe die Aktivität Project–Dealing und ich habe eine Aktivität Patentwesen, weil ich für das Patentwesen bei [Firmenname Forschung] auch zuständig bin. Aber ich habe jetzt aufgrund von den Aktivitäten, wo ich da angenommen habe in [Ort 2] ..., haben wir einen Externen geholt, der das administrativ durchführt. Und das ist auch ein Grund, warum ich im Qualitätsmanagement und Patentwesen noch drinnen bin. Ich kann jetzt nicht ... jetzt bin ich da dran und das einfach fallen lassen. Ich fühle mich verpflichtet, dass ich dort natürlich sie fit mache, die anderen, wo das jetzt übernehmen, damit sie es so gut wie möglich selber machen können. Es könnte sein, dass ich - in naher Zukunft - diese Aktivitäten nicht mehr habe ..., kann sein.

A: Aber du sagst, dass solche Situationen eigentlich schon öfters stattfinden?

T: Andauernd, und bei [Firmenname Forschung] das ist dort auch Karriere. Bei [Firmenname Forschung] da ist immer ein bisschen Kritik, man kann bei [Firmenname Forschung] keine Karriere machen aufgrund der flachen Hierarchie. Ein Grund für mich zu [Firmenname Forschung] zu gehen ist, wenn ich das jetzt reflektiere, Karriere. Und zwar Karriere

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nicht in einem Rollenverständnis, was Hierarchien angeht, sondern Karriere in einer leicht … in einer Art und Weise, wie ich leicht meine Aktivitäten ... das was ich tue, wie ich mich selber verändern kann ... wie leicht es ist, sich bei [Firmenname Forschung] zu ändern. Es ist nämlich unglaublich, das ist es für alle. ... Also, es ist … habe ich noch nie in einem

Unternehmen gesehen, dass sich der Satz an Aktivitäten so schnell und so leicht verändern lässt, also eine Tätigkeit herausfällt, dafür nehme ich etwas anderes. Da gibt es ganz viele Beispiele, der war zuerst Softwareentwickler, dann war er Produktmanager, jetzt ist er Area Sales Manager. Das sind jetzt Rollen, was ich gesagt habe, aber die Tätigkeiten meine ich damit.

A: Finden in der Firma [Firmenname Forschung] Expertendiskussionen und Präsentationen von Erfolgsstorys statt oder ähnliches?

T: Ja, Review-Meetings, klar.

A: Und die finden wöchentlich oder monatlich statt?

T: Ich kann keine fixen Intervalle sagen und ich glaube auch ... fixe Intervalle sind themen- und gruppenspezifisch, wie sie das machen.

A: Ok, aber da kommen nachher auch Marktinformationen bis zum Management durch?

T: Ja klar, ganz viele solche Geschichten, ganz, ganz viele.

A: Ok, wie werden dann eigentlich Störungen, Probleme oder Reklamationen in deinem Bereich gehandhabt, falls es das überhaupt gibt? Ich meine es gibt ja den Continuous Improvement Prozess, arbeitet ihr damit auch oder ist das eigentlich …?

T: Ja klar.

A: Ok, arbeitet ihr, nach dem Prozess an sich selber auch mit den vier Schritten, die es da gibt oder ist das eigentlich …?

T: Also ich muss sagen, was unser Reklamationswesen angeht, ist ein „Dach-Report“ der Stand der Dinge. Haben wir noch nicht angewendet. Aufgrund von der Größe, wird das wahrscheinlich jetzt kommen, dass wir das machen. Aber ich glaube, das sind gerade solche Geschichten, da muss man aufpassen. Es sind viele Sachen größenabhängig.

A: Bist du eigentlich eher ein Typ, der sich dann in der Pause zurückzieht oder gern mit den Kollegen die Mittagspause teilt?

T: Absolut gern mit anderen zusammen ist.

A: Also ich meine ... Vorhin haben wir gerade kurz gesagt ..., du hast ein großes Netzwerk. Du hast viele Arbeitskollegen, würdest du aber sagen ..., du hast sehr viele gute Freunde oder nur viele Arbeitskollegen?

T: Es ist mehr als ... „Kollegen". ...

A: Wenn du das jetzt einfach mal von deiner Sicht der Dinge aus ... Würdest du sagen, viele deiner Kollegen haben ebenfalls sehr viele gute Freunde drinnen oder sind das für sie nur Arbeitskollegen?

T: Ich möchte das an zwei Beispielen aufhängen. Wenn ich jetzt … Ich habe genau diese Diskussionen diese Woche gehabt. Da ist es auch darum gegangen, was weißt du über deine Kollegen, wie hängst du auf, ob das ein Kollege ist oder ein Freund oder irgendetwas dazwischen. Da muss ich sagen, ich weiß sehr viele private Sachen über die meisten Leute. Wir machen auch viele privaten Sachen und das ist natürlich auch etwas Vertrauenbildendes. Ich weiß, dass ein [Name Mitarbeiter] eine 80 m^2 große Eisenbahnanlage in seinem Keller hat. Ich weiß, dass der [Name Mitarbeiter] irre gern kocht und was er gerne macht. Ich weiß, dass der [Name Mitarbeiter] ein beherzter Feuerwehrmann ist und viele wissen über mich, was ich auch gerne tue. Und auch die Leute, wie wir sie da am Standort ausgesucht haben ... Wir sind jetzt zu zehnt da. Sechzig Prozent haben sich davor schon gekannt und es sind Freunde und die kennen sich und daher weiß ich, dass es auch gut funktioniert.

A: Ok, würdest du sagen, dass bewusstes Managen und Planen von Wissen, also Wissensgenerierung und Wissensverteilung ... würde das in deinem Job helfen oder würdest du eher sagen, dass die Situation, wie sie jetzt schon vorhanden ist, Kultur, Struktur und Leute das ist, was dir mehr helfen würde?

T: So wie wir es haben, so sollte es bleiben. More of the same ...

A: Die zweite Frage. Würdest du sagen das Bewusstmachen von Wissensmanagement könnte die Leute beflügeln, mehr Wissen zu transferieren oder mehr in dem Bereich zu tun?

T: Ich würde sagen, wenn man ihnen bewusst machen würde, dass unsere Kultur und die Art und Weise, wie wir zusammenhängen, dass das einen Business Value hat und dass das Wissensmanagement ist, das Bewusstsein zu schaffen im Unternehmen ... würde sehr gut tun. Weil viele Sachen sind einfach ganz schwer quantifizierbar ..., das ist so selbstverständlich untertags und die kriegen gar nicht mit, dass das Wissensmanagement ist, dass es Informationsmanagement ist ..., dass das einen Business Value hat. Und das Bewusstsein dafür schaffen, dass es das wirklich ist und nicht

00:45:00

nur einfach Kaffeetratsch oder sonst irgendetwas. Ich meine, ein Beispiel dafür ist die Entscheidung für die [Firmenname Forschung] Küche, die wir haben. Das ist ein kleines Tool, um Leute aus verschiedensten Bereichen zwei Stunden zusammenzubringen, dass sie sich kennenlernen und dass sie Netzwerke schaffen ... eines von vielen Tools.

A: Würdest du sagen, die Technik, die ihr verwendet - Telefon, Kommunikation, jetzt im Bereich von Informations- und Wissenstransfer - ist top oder könnte sie noch ein Quäntchen besser sein? Oder fehlt überhaupt irgendetwas?

T: Ich glaube wir sind auf dem technisch neuesten Stand ... das passt. Wie du die Diskussion heute gesehen hast vom Site-Meeting, ist … nichts übertrifft die direkte Kommunikation.

A: Ok. Und … (wird unterbrochen)

T: Also, wir sind … Obwohl wir top Technologien haben, ist es furchtbar limitierend.

A: Ok. Du bist in deinen vorigen Unternehmen in Projektteams drinnen gewesen. Wo sind so die Key-Unterschiede zwischen Projektteam [Firmenname Forschung] und Projektteam alt?

T: Früher waren das so Pseudoprojektteams. Da hat man das ausgerufen: - also in den anderen Unternehmen - „Ah, wir sind ein Projektteam!“, weil es so fancy war und auch jede

Firma Projekte hat. Aber es hat absolut nicht dem Anspruch entsprochen, was ein Projekt ist. Es ist auch nicht so durchgeführt worden, es ist nicht so eingeläutet worden, es ist nicht so gemacht worden. Die ganzen Phasen von einem Projekt sind komplett negiert gewesen. Also, eine Formingphase, eine Durchführungsphase, eine Endphase, ein Teambuilding ... hat es alles nicht gegeben und wir haben da jetzt nichts Neues erfunden, bei [Firmenname Forschung] ... aber wir machen vieles, was jeder weiß ..., was wir machen sollten. Aber wir trauen uns, das zu tun, weil wir wirklich daran glauben, dass es einen Wert hat. Und in vielen Unternehmen, wie wir es vorher hatten: „Ah so eine Formingphase, also da brauchen wir nicht so viele Leute. Das kostet nur Geld. Das können wir schon so ..., das geht schon so ..., und das geht auch schon so ..., das müssen wir nicht machen.“ Da hat man immer das schnelle Geld im Prinzip gesehen, wenn man das jetzt nicht macht. Es mag auf den ersten Anschein effizient sein, aber es ist nicht effektiv und das, was man bei uns nicht tut. Wir glauben an solche Geschichten. Wir haben ein Vertrauen in solche Geschichten.

A: Würdest du sagen, bei euch gibt es ein starkes „Wir–Denken“?

T: Ja, „Schwarmdenken“.

A: Spürst du ab und zu noch so Gruppendenken? Weißt du, so Abteilung links und Abteilung rechts?

T: Ja, gibt es schon noch.

A: Würdest du sagen, dass die ähnlich wie bei den vorigen Arbeitgebern sind oder ist das einfach vorhanden aber kaum sichtbar?

T: Ja, vorhanden, kaum sichtbar.

A: Wenn die Firma [Firmenname Forschung] einmal mehr Mitarbeiter hat, was ist da die Herausforderung betreffend dieser Kommunikation, die ihr jetzt so exklusiv durchführen könnt?

T: Es klein zu halten.

A: Ok und wie kriegst du am Besten heraus - wenn du wieder die Situation hast ... du brauchst Informationen - wer diese Informationen explizit haben könnte?

T: Ich glaube, das ist … Die Grundvoraussetzung ist, wie setze ich Teams zusammen. Ich kann nicht nur Junge zusammenhocken, wo keine Erfahrung und kein Netzwerk im Unternehmen haben.

A: Ist richtig, aber jetzt gehen wir davon aus, da weiß es niemand.

T: Was, hier?

A: Ja, jetzt hast du Jung und Alt zusammen und die Information kriegst du heraus. Wie würdest du weiter vorgehen?

T: In Workshops austauschen, themenspezifisch. Ich würde andere einladen.

A: Also du würdest auf [Name] zurückgreifen?

T: Mhm (= Ja).

A: Und angenommen, du würdest jetzt den [Name] fragen und er würde es auch nicht wissen, was tätest du dann?

T: Ein anderes Beispiel. Wir haben die Situation: Die [Name Mitarbeiter], die gerade hereingekommen ist, die macht bei uns Buchhaltung, Lohnverrechnung ein bisschen ... und so weiter. Ich zeige es dir. So ich lese jetzt eine Mail vor. Und ich weiß nicht, was die alles machen, das sind Themen, wo Office Management angeht, wo den Koch angehen, wo das Cleaning angehen und so weiter ... keine Ahnung. Und … Und ich kann es

00:50:00

ihnen gar nicht zeigen und wir machen auch viele Sachen. … Wir machen viel in [Ort 1], viele Sachen, die wir hier gar nicht brauchen. Das ist mir aber alles gar nicht bewusst. Jetzt habe ich die [Name] angerufen und gesagt: „Du, wir sollten der [Name] ein paar Sachen zeigen und sie sollte auch die Leute kennenlernen.“ [Name] ist acht Stunden in der Woche da, das ist fast nix, 20 Prozent. Ich habe die [Name Mitarbeiter] angerufen und gesagt:

„Könnte man da etwas machen?“ „Ah, ja gut, das haben wir schon öfters gemacht von andere Standorten auch“, war Janines Antwort. Und ich so: „Ah, cool! Was braucht ihr? Sie hätte gerne irgendwelche Themen, die sie interessieren.“ So, dann habe ich sie gestern angeschrieben, wir haben einen Termin ausgemacht und ich schreibe sie an: „Hallo [Name Mitarbeiter], anbei die Topics, die für [Name Mitarbeiter] relevant sind, es geht um Travel Arrangements, Reisekostenabrechnung, Introduction in Clary Services, das ist Massage ... und so weiter. Ich möchte sehen, dass sie weiß, was wir hier machen, Office Supply und Literature, Catering Services, [Name Mitarbeiter], Introduction to clean services and provide room services. Was das bei uns bedeutet Office Management Services, Leistungsüberblick. Was macht das Office Management bei uns und überhaupt? Financial Services, Buchungen, Handkasse, Aktzapter - vielleicht kommt Aktzapter als ERP-System nach [Ort] - und Lohnverrechnung. Bitte gib mir Bescheid, um welche Themen ich mich kümmern soll?“ Und ... ich habe eine Einladung gesendet. Heute Morgen komme ich in die Firma, hat sie diese Einladung von mir an fünf andere weitergeleitet und hat sie informiert und das Mail ist zurückgekommen: „Hi [Name], du brauchst dich um nichts zu kümmern. Judith übernimmt die Koordination und erstellt einen Tagesplan. Sollte von eurer Seite noch etwas offen sein, bitte einfach melden. Liebe Grüße [Name]“

A: Ok, also das ist eine Möglichkeit, wie du an Informationen kommst. Aber wenn du jetzt projektspezifisch etwas brauchst und angenommen wieder das Beispiel [Name] anrufen und [Name] sagt: „Puh, ich habe keine Ahnung“, wie geht denn das nachher weiter? Ist das eher so ein Durchtelefonieren bis du in die richtige Position hinkommst?

T: Bei mir jetzt wahrscheinlich nicht, weil ich das Netzwerk habe. Ich weiß meistens den Richtigen, aber sonst ist es ein Durchtelefonieren ... ja, meistens.

A: Und wenn du durchtelefonierst, würdest du eigentlich immer dementsprechende Unterstützung kriegen oder eher nicht?

T: Ja klar, da sagt mir jeder: „Ah, du musst den anrufen, der kennt sich dort gut aus.“

A: Ok. Wo in der Firma [Firmenname Forschung], triffst du meistens Leute?

T: Wo?

A: In [Ort]. Oder hast du getroffen.

T: Im Gang ... und halt in organisierten Meetings, in Meetingräumen.

A: Ok.

T: Wobei, was ich erleb … Was ich, wenn ich jetzt so wenig in [Ort 1] bin, wenn ich mal nur aufs Klo gehe, bleibe ich meistens viermal stehen.

A: Ok und warum das?

T: Weil ich immer jemanden sehe, wo ich brauche oder jemand mich sieht, wo mich braucht.

A: Und das ist zurückzuführen auf die Konstruktion von diesen Glasbüros?

T: Ja klar. Weil jeder jeden sieht.

A: Du bist eigentlich relativ oft in vielen Meetings an einem Tag und hast du da überhaupt noch Zeit dementsprechend zu arbeiten oder sind die Meetings nur Informationen, wo nachher ...?

T: Was ist arbeiten? Ist ein Meeting arbeiten?

A: Ich weiß es nicht.

T: Ich erinnere mich da an ein Gespräch mit dem David Kelly von Worthingten Zylinders ... und da hat er gesagt: „Also ich sehe mich jetzt nicht in einer Führungsposition als Projektleiter und als Coach und als Sites-Manager.“ Und er hat mich gefragt: „Was ist Führung?“ Dann sage ich: „Was ist Führung?“ ...

00:53:00

und so weiter. Dann schaut er mich an: „Zu siebzig Prozent ist Führung Kommunikation.“ Also, wenn siebzig Prozent meiner Tätigkeit Kommunikation sein muss, dann arbeite ich in diesen Meetings.

A: Ok, aber werden dann da drinnen Aufgaben verteilt?

T: Ja ganz klar, wir haben ja ein sehr stringentes „To do–Tool“ bei uns.

A: Hast du dann auch genug Zeit, diese Aufgaben abzuarbeiten oder bist du überhäuft mit Daily Business, zusätzlichen Aufgaben von Meetings und so weiter?

T: Das ist jetzt halt immer so eine Sache. Der Tag hat 24 Stunden. Das ist etwas, ich muss priorisieren. Wenn ein Tag mehr Stunden hätte, würde ich mehr Sachen machen, Punkt.

A: Aber es steht dir niemand auf die Zehen, wenn etwas länger dauert oder sonst irgendetwas?

T: Nein.

A: Ok. Ja, dann habe ich eigentlich alle Fragen schon durch.

00:55:00

T: Ich meine, wenn etwas länger dauert … ich meine, das geht ja in Richtung Controlling, auch oder? Ich habe jetzt gerade so eine Situation in unserem Projektteam gehabt und wir haben da wahrscheinlich drei, vier Wochen verschissen, weil eine Entscheidung nicht gut verlaufen ist, weil Informationen nicht richtig geflossen sind und so weiter. Hat zu Unmut geführt, hat dazu geführt, dass wir in der Konstellation was geändert haben. Ich habe ein Gespräch geführt, mit diesen Leuten und wir haben einen Weg gesucht, - gemeinsam dann - wie wir weiter vorgehen, dass so ein Verlust nicht nochmal stattfindet.

Also da würde ich nicht sagen, dass ich auf den Zehen gestanden bin, aber wir haben das Problem gesehen und aufgrund dessen haben wir etwas anpassen müssen.

A: Wie kompensierst du Businessverlust?

T: Businessverlust? Was meinst du damit?

A: Ja. du hast einen Spezialisten in deinem Team, der sehr wichtig ist. (wird unterbrochen)

T: Ok, stopp, ich weiß, was ich sage. Ein gutes Beispiel, [Name Mitarbeiter]. Er war der Mastermind von einem ganz wichtigen Produkt bei uns und er hat eigentlich eine Rolle auch gehabt. Er hat mehrere Rollen gehabt, wo man bei uns nicht will. Er war Projektleiter, Produktmanager und im Verkauf noch tätig, absolutes Key-Knowledge. Und das will man nicht, dass einer so viel auf einmal hat, weil wenn dem etwas passiert, stehen wir da. Von heute auf morgen an einem Herzinfarkt gestorben. Die Überlegung war, stampfen wir das Produkt ein, dass es keiner weiß. Fakt ist, man hat ein Team eingesetzt, also mehrere. Man hat das nicht mit einem kompensieren können. Man hat ein Team eingesetzt und gesagt: „Bitte schauen, dass ihr das Produkt weiter auf den Markt bringt, dass ihr es weiterbringt und so weiter!" Und die haben es geschafft, sich sämtliche Informationen zu organisieren. Wie auch immer, ich habe keine Ahnung woher, aber sie haben alles hergebracht, sodass das Produkt jetzt erfolgreicher ist wie vorher. Ja, das sind Key-Ressourcen.

A: Schaut ihr aber jetzt gezielt, dass ihr Wissen dementsprechend verteilt?

T: Wie nochmal?

A: Schaut ihr gezielt darauf, falls so etwas wieder passieren würde, dass da ein fließender Übergang ist?

T: Das haben wir damals auch schon geschaut. Es hat sich einfach aus der Situation heraus ergeben. Da sind wir sehr bewusst, wie wir ein Team zusammensetzen und so weiter. Also gerade wie die Teams zusammengesetzt sind, wer wohin geht und so, das sind sehr bewusste Entscheidungen bei uns. Aber das ist dort halt nicht anders gegangen. Das war halt so und ist natürlich auch gewissen Zwängen unterworfen.

A: Ich habe jetzt schon oft gehört, dass in anderen Unternehmen genauso nette Menschen, offene Menschen vorhanden sind, die wo gerne reden und auch in Projektteams so gut zusammenarbeiten wie eigentlich hier. Warum funktioniert es bei euch noch besser als wie bei anderen? Was würdest du sagen?

T: In Projektteams zusammen arbeiten?

A: Allgemein ja, ich meine es gibt viele Menschen, die kommunikativ und offen sind, die in anderen Unternehmen arbeiten, [Firmenname 3] und so weiter. Da funktioniert es aber nicht ganz so toll, wie bei euch.

T: Also, es gibt verschiedene Sachen. Wir vernetzen uns viel mehr. Das ist mir einfach aufgefallen auch gegenüber von [Firmenname 1]. Die Vernetzung, die Verzahnung, dass man einmal einen Tag spendiert und sagt: „Boah, kostet Geld ein Tag. Fliegt mal da her oder da her.“ Aber es bringt es nach hinten hinaus. Es entspricht unserer Kultur, der Austausch oder dass man am Anfang von einem Projektteam einen Kick-Off Workshop macht. Drei Tage auf einer Hütte, da gibt’s nicht viele Firmen, die sowas machen und das ist bei uns eine Selbstverständlichkeit.

A: Und wenn du jetzt nochmal eine Stufe tiefer gehen müsstest. Was ist die Ursache für all das?

T: Der [Name Gründer].

A: Ok, wunderbar.

T: Der [Name Gründer] hat … ist der Firmengründer gewesen. Ihm hat alles gehört und er hat unsere Kultur gesät, gepflegt, herausgebracht. Er wollte, dass wir mit einem Vorschuss Vertrauen hereinkommen. Er wollte, dass man sich austauscht. Es ist ja … Unser Logo sind ja zwei Gänsefüße, die stehen für offene Kommunikation.

01:00:00

Es ist von ihm herausgekommen. Er war der Erfinder unserer Kultur.

A: Wenn jetzt jeder, immer wieder kommen würde mit dem Gleichen. Weißt du, offene Kultur bedeutet auch, dass ich immer wieder fragen kann.

T: Ja, halt ich meine, ich würde schon irgendwann mal sagen: „So ist es gut, musst du aufschreiben.“

A: Ok, aber es ist eine sehr hohe, wie sollen wir das jetzt nennen …

T: Toleranzschwelle.

A: Ok, bis endlich mal einer sagt: „Du hey …“

T: Ja.

A: Alles klar.

13.5 Interview Example_23

Legende: A = Autor / T = Teilnehmer / 13:04 (Beispiel) = Zeit

A: Mit welchem Eigenschaftswort oder mit welchem Satz würdest du die Firma [Firmenname Forschung] beschreiben? Was bedeutet die Firma [Firmenname Forschung] für dich ..., wenn ein Freund fragt: „Wie ist es für dich, bei der Firma [Firmenname Forschung] zu arbeiten?“...

T: Die Firma ist daran interessiert, dass die Kolleginnen und Kollegen einen guten und spannenden Arbeitsplatz haben. An sich ..., dass man, wenn man gerne arbeitet ..., sozusagen ... gut hineinentwickeln und auch ... Beiträge für die Firma ... bringen kann, die man glaubt selber, dass die gut sind ... für die Entwicklung. Und deshalb hat man diese Freiräume ..., Kreativität, damit man eigentlich schon etwas aus sich selber heraus holen kann ..., was man glaubt ..., was man in sich trägt. ... Dazu ... gibt es den ... notwendigen Freiraum ... und ... gleichzeitig auch die notwendige ... kriegt man auch ein Stück weit die Eigenverantwortung zu spüren ..., selber das nutzen kann..., oder eben nicht nutzt ...

A: Was würdest du sagen ..., was magst du so richtig an der Firma [Firmenname Forschung]? Was sind so die Pros und Cons? Oder von was sagst du, das beeinflusst deine Arbeit im Guten und im Schlechten?

T: Was mag ich an der Firma ..., ist die Offenheit für ..., ist Wege zu gehen, die irgendwie zu Lösungen führen ..., dass man von der Konzeption her ..., sehr frei ist ..., und sich immer wieder überraschen lässt ..., von ..., Vorschlägen und Ideen ..., und nicht so sehr ..., zu stark traditionsgebunden ist. ... So nach dem Motto: „Es hat sich halt schon bewährt, x-fach ..., das machen wir jetzt halt so.“

Und dazu ist..., vor allem bei mir - bei meiner Person, dass ich durch das ... eigentlich immer wieder gefordert bin, zu überlegen: „Was könnte man da wirklich Interessantes draus machen?“ Und ich kombiniere dadurch verschiedene Disziplinen ..., kombiniere verschiedene Situationen und dass die Firma [Firmenname Forschung] ..., also stellt das bereit ..., dass ich die Möglichkeit habe, mit Personen ..., die Personen relativ gut zu kennen ... in der Organisation, wenn ich will ..., kennen zu lernen..., also ein bisschen nachzuforschen, wer macht was und mich mit denen zu verbinden. ... Also mit denen zu vernetzen. Das heißt ... ein konkretes Beispiel ist, jemand..., wenn er einen Vortrag haltet oder eine Aktion macht ..., aus meiner Sicht irgendwas Interessantes ..., was er da macht ..., dann spreche ich den da an. ... Bau mir dann so intern ein Netzwerk auf ... und der nimmt sich dann in der Regel etwas Zeit für das Ganze. ... Dass heißt er ist nicht ... Ich höre den selten..., dass er sagt: „Das ist ganz toll ... aber tut mir leid.“ ... Sondern ... da bekommt man ein Feedback. ... Das heißt: „Ja, ich denke über das nach ..., ich mach da mit“ ... Es ist eine gewisse Grundbereitschaft da ..., anrege jeden Mitarbeiter mitzugehen. Und umgedreht geht es mir selber auch so ..., dass man mich anspricht und dann, dass ich dann sozusagen ein Stück ... des Weges mit dem mitgehe ... in jeder Form und eigentlich im Sinne der Firma ... machen kann, weil ich denke ..., das bringt der Firma insgesamt etwas.

A: [Name], du hast ja den Doktor in Biologie? ...

T: Nein, kein Doktorat. ...

A: Aber was hast du gemacht?

T: Biologie.

A: Du hast Biologie studiert ... und hast doch auch noch etliche Jahre Berufserfahrung. Wie viel Jahre Berufserfahrung hast du denn, wenn ich fragen darf?

T: Das ist eine gute Frage. Ich habe während des Studiums immer gearbeitet. ... Ich würde sagen ... ca. 25 Jahre oder so. ...

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A: Und was für Tätigkeiten hast du vorher gehabt? ... Ich glaube ... oder wie lange bist du bei der Firma [Firmenname Forschung]? ... Ich glaube 10 Jahre, richtig?

T: Ja also, ich war einmal in der Gründerzeit dabei ..., also so bei den ganz Anfängen. ... Habe dann die Firma verlassen ..., hab dann bei der [Firmenname 4] gearbeitet, in der Schweiz. ... Dort ... auch als Organisationsentwickler ... mit unterschiedlichen Bereichen. ... Aber dort habe ich auch zu tun gehabt ... mit einer kleinen Forschungsgruppe ... und war dann aber auch mit Produktmanagement-Aufgaben konfrontiert ..., weil das war durch die Kleinheit ... so. ... Hab dann aber immer wieder die Möglichkeit gehabt ..., im größeren Konzern punktuell bei der einen oder anderen Stelle mitzuarbeiten ... innerhalb der Organisationsentwicklung. Das war einfach vom Konzern her etwas anders strukturiert. ... Habe dann auch in dieser Zelle drinnen verschiedene Tätigkeiten gemacht ..., unter anderem Produktmanagement-Themen. Und ... bin dann aber von der Firma [Firmenname Forschung] ... gefragt worden - wo das größte Veränderungsprojekt überhaupt der Firma angestanden ist, im Jahr 2007 - ..., das Projekt zu machen ... und bin dann wieder zurückgegangen.

Ja, das war ein sehr reizvolles Projekt. ... und das habe ich dann übernommen und mache seither das Change Management. Und bin nach diesem erfolgreichen Projekt ... Das ist schon erfolgreich aus meiner Sicht gelaufen ..., man muss davon ja ausgehen, dass die Firma [Firmenname Forschung] schon seit ... Jahren versucht hat ..., dieses Change Projekt durchzuführen ... und jedes Jahr sozusagen ..., sag ich mal quasi nicht erledigt hat ..., abgebrochen hat ... oder nie angegangen ist. Ich habe das mal recherchiert. Vor meiner Zeit ... ist es viele Jahre immer wieder auf der Top-Ziele Liste gestanden. Dann hat der [Name Mitarbeiter] mich gebeten, dies zu machen und dann habe ich die Chance gehabt, wirklich mit der vollen Ressource reinzugehen und hab das auch durchgezogen. Nach diesem Projekt bin ich dann beauftragt worden die Strategie-Entwicklung zu machen. Das war bei [Firmenname 4] wie gesagt Organisations-, etwas Qualitäts- und eben auch Produktmanagement. Davor habe ich unter anderem gearbeitet im ... Sozialbereich ... und ich habe ... für ... ich möchte sagen in der Summe ... alles zusammen gerechnet über verschiedene

Projekte ... sicher ... 1,5 oder 2 Jahre mit behinderten Menschen gearbeitet mit verschiedenen Schwierigkeitsgraden ... oder mit spastisch-gelähmten Kindern in Wien. ... Das hat sich aus dem Zivildienst gegeben, den ich gemacht habe. ... Bin in dem Anschluss dann dort hängen geblieben ..., ein bisschen ... und... das war eigentlich so eine Station. Ja ... , auf der Biologie habe ich bis jetzt immer nur Projekte gemacht. ... Hab ich auch aktuell jetzt ..., so kleinere Projekte wie mit der ETH Zürich über Zugvogel Zugforschung. Da mache ich so ... Einträge. ... Und das ist aber immer so ... Das ist ein bisschen hobbymäßig gelaufen. ...

A: Wenn du jetzt einmal den Arbeitgeber ... [Firmenname Forschung] mit deinen früheren Arbeitgebern vergleichen würdest ..., was sind da für dich ... die signifikantesten Unterschiede?

T: Signifikanter Unterschied ... ist die Führung. ... Also, dass bei [Firmenname 4] ..., hab ich mein Chef, der war sozusagen Leutnant der Schweizer Armee, der hat sehr streng und sehr hart geführt und ... Also, es hat trotzdem ... wie es halt so ist ... es ... es war nicht immer so einfach. ... Was noch so ein Unterschied war, ist die Frage, wie man zu Information kommt. ... Ein Beispiel, ich habe während der Leica aufgrund von verschiedenen Themen gebeten, dass ich eine Coaching Ausbildung machen möchte. ... Hat man mir nicht genehmigt, ... Mein Chef hat damals gesagt: „Das braucht man nicht! Und für was auch?“ ... Und ich ..., ja ich möchte es trotzdem machen. ... Dann hat er gesagt ... ich müsste das und das machen. ... Dann habe ich gesagt: „Das ist schade um die Zeit für mich ..., ich möchte das machen.“ Dann hat er gesagt: „Ich genehmige es nicht!“ ... Also das ist ein richtiger Unterschied zu [Firmenname Forschung]. ... Dann hat er gesagt: “ Wenn der Personal Chef, wenn der ja sagt, dann kannst du es machen.“... Und er hat gewusst, er sagt nicht ja ... und ich habe mir dann zur Aufgabe gemacht, dass ich beim Personal Chef vorgesprochen habe ... und dachte mir: „Ich probiere das jetzt einfach mal.“... und hab es dann genehmigt bekommen. ... Das hat er mir dann eigentlich nie richtig verziehen ..., das hat mir ein Arbeitskollege erzählt..., das nervt ihn total, dass das gegangen ist. Und ich habe dann im Zuge der Coaching Ausbildung ... die Aufgabe auch gehabt, zum zwei oder drei Personen innerhalb der Organisation zu coachen ..., also privat und auch in der Organisation. ... Und dort habe ich den Abteilungsleiter der Produktion gecoacht, dem ist es nicht so gut gegangen. Und das hat er dann ... Er hat das dann privat ... gesagt: „Ja, mach das für mich.“ ... Und das hat mein Chef dann irgendwie erfahren ... und da war er dann auch wieder sauer ..., wie ich jetzt dazukomme mit ihm so zu reden. ... Ich sagte dann: „Ja, es ist nur eine Ausbildung. “ ... Und er meinte: „Nein, es geht über das hinaus.“ ... Das ist sozusagen verboten ..., das zu machen. ... Wir haben uns dann blöderweise im Kaffee getroffen. Dann... Das gibt’s ... Er hat sehr stark bei der Leica viele positive Dinge geführt und sehr enge Grenzen gehabt und in diesen Grenzen hat man schon Freiräume gehabt. ... Aber bei [Firmenname Forschung] ist das so, dass man das eigentlich gar nicht kennt ..., dass die Grenzen erst dann auftauchen, wenn Konflikte kommen, größere Unstimmigkeiten. ... Dann ist man eher im Korsett, wo man sagt: „Ok, jetzt wird es richtig eng!“ ... Da braucht es dann plötzlich viel Zeit und ja ...

00:11:31

A: Das ist jetzt stark. ... Kann ich mal sage auf die Hierarchie und auf den Vorgesetzten ..., waren da auch irgendwelche signifikanten Unterschiede bei den Arbeitern bzw. den Kollegen an sich selber?

T: Ja, die Kollegen sind ... nur am Rande interessiert. ... Man ist irgendwo in der Leistungskette drinnen ..., dass man sagt ..., dass man ... Für mich war es nicht so einfach in der Leica Partner zu finden, die mir geholfen haben, irgendwas zu realisieren ..., weil die ... sehr vorsichtig waren ..., weil sie sich nicht die Finger verbrennen wollten ... und... Ein Beispiel, ich habe dort kurzfristig müssen ... ein Krisen Management leiten. ... Das heißt es hat dort ein größeres Problem gegeben, in den USA. ... Da war ich plötzlich per Befehl ... Krisen Manager. ... Da hab ich gesagt: „Nein ..., da gibt es einen Besseren.“ Da hat dann der

Chef gesagt: „Das ist ein Befehl! ...Also da müssen wir gar nicht diskutieren. Das machst du.“ ...Dann habe ich das gemacht und da habe ich gewusst, da gibt es eine Schlüsselperson ..., die mir hilft dies zu verstehen. Das war der Chef- Einkäufer. ...Dann bin ich zu dem hin ... und der hat zu mir gesagt: „Weist du was, ich helfe dir bei dem, wenn du das so und so machst ..., aber wenn man diesen Supplier, auf den man losgegangen ist ..., wenn du dem richtig an den Kragen gehst ..., dann kannst ...“. Dann hat er so einen Stapel genommen: „Dann kannst ... der ganze Stapel der da steht, den stell ich dir gleich auf den Tisch hinüber.“ Da habe ich gewusst ..., das mach ich lieber nicht ..., weil er hat richtig viel gegackert ... und er hat mir gedroht ..., also in Freundschaft: „Ich ... stell dir den Stapel hin, wenn du dem Supplier X ... in Boston was machst.“ Mein Chef hat dann gesagt, ich muss das in Boston runterfahren ... diesen Vertrag. ... Und dann hab ich mich entscheiden müssen zwischen meinen Chef und meinem Chef- Einkäufer... und hab mich dann für den Chef- Einkäufer entschieden ..., weil ich mir dachte: “Das geht gar nicht ..., weil das schaffe ich nicht mehr.“ Und das sind schon Mechanismen ..., da habe ich schon hart gekämpft. ... Also, das kenne ich bei [Firmenname Forschung] überhaupt nicht ..., weil bei [Firmenname Forschung] würden alle drei am Tische sitzen ... und sich gegenseitig irgendwie versuchen zu helfen. ... Also ... so grob gesagt. ...

A: Wie würdest du denn die Kultur und die Umgebung der Firma [Firmenname Forschung] beschreiben? Fördert das deine Kreativität, dieses Teilen und Verteilen von Ideen oder Erkenntnissen?

T: Also, die Kultur ist sehr inspirierend ..., das heißt, man fühlt sich so in einem eleganten Raum, sag ich einmal. Das heißt, man kann sich ..., man hat auch etwas was mir nun wichtig ist. ... Es geht etwas um Ästhetik, auch. ... Es ist nicht nur alles dem Nutzen untergeordnet ..., sondern hat auch eine ästhetische Form für mich, wo etwas Künstlerisches Platz hat. Die

Kunst in dem Sinn ... Diese ... Das wird durch die Firma vorgehalten ..., sag ich mal ..., positiv vorgehalten. ... Man kann das abgreifen ..., wenn man das will.

Also, man kann sich das einfach nicht einrichten ..., ich habe natürlich durch meinen Job gehabt ..., wenn viele Bereich in der Kultur..., die völlig anders laufen als wie zum Beispiel aktuell oder so. Das heißt, das ist sehr vielschichtig ... und ... würde sagen, wir haben sehr viele verschiedene, kleine Kulturen..., wo in einem Unternehmen ..., ich möchte nicht sagen Sub-kulturen ... aber so Gruppen, die ... Es gibt Leute, die sich eher so im Expertentum zurückziehen ... und in der Firma wenig partizipieren aber ... denk doch auf andere Art. ... Das merk ich auch. ... Ich hab sicher die Chance im Beruf und im Job mit sehr sehr vielen Leuten in Kontakt zu sein ..., in allen Bereichen ... und merk, wie ich mit denen sprich. ... Also da gibt es so ..., was weis ich ... Letzthin war ich mit unserem Mathematiker Mittagessen ... und das ist einfach so, da redet man überhaupt nicht über das Kulturzeugs ..., sondern da redet man irgendwie ..., und da merk ich, das ist nicht angebracht ..., das interessiert ihn einfach null. ... Und andere wieder, die sind wieder ... komplett ..., die gehen da auf in dem ... in diesem ... Umfeld. Ja ..., das ist sehr unterschiedlich. Ich glaube beides hat Platz. ... Es ist vielleicht eine Möglichkeit ... Ich hab auch mal ein Kunstprojekt gemacht in der Firma ..., wo ich etwas Kunst ausgestellt habe, in der Firma. ... Da war schön zu beobachten, wie sich die unterschiedlichsten Typen bei dem Kunstwerk getroffen haben ... und beide haben gleichzeitig gesagt: „Was ist das den das für ein Scheiß!“ Aber die sind ..., die haben sich dann dort wieder getroffen ... und haben über etwas Nächstes gesprochen, wo ... Und das sind die ..., das ist das, was [Firmenname Forschung] bereitstellt ..., dass es immer wieder Möglichkeiten gibt, sich zu treffen und das nutzen auch die Leute ..., egal ob es im Sport oder im Gym ist ... oder eine Musik Veranstaltung. Ein Beispiel ..., und ich habe sicher schon viele Dinge gemacht ..., aber ein Beispiel ist gewesen und das hat bei der ... Mitarbeiterzufriedenheits-Analyse hat sich gezeigt, dass sich Frauen..., grundsätzlich das

Unternehmen kritischer beurteilen wie Männer. ... Und dann hat es ... Interviews gegeben ... und dabei ist man darauf gekommen ..., dass es ganz unterschiedliche Thematiken sind. ... Es gibt also kein Muster ..., warum Frauen das schlechter beurteilen. Die einen haben einfach ... das gehabt, die anderen das. ... Und das was ich gemacht habe ..., da ist man auch zu mir gekommen, da gibt es eigentlich nichts.

00:17:11

Jede hat zwar was ..., dort und da. ... Aber es ist nicht so, dass die [Firmenname Forschung] das ... Problem hat ..., dass die Frauen das so zum Ausdruck bringen. ... Und was sollen wir trotzdem machen? ... Dann habe ich ein Konzert veranstaltet, wo nur ..., klassisches Konzert, wo nur Komponistinnen aufgeführt worden sind und das Konzert ist von Frauen bestritten worden, also ein kleines Frauen Quartett. Die haben nur Komponistinnen gespielt ... und im Intranet hat man es genannt: „Zur Anerkennung der Leistung von Frauen gibt es dieses Konzert für Frauen..., dürfen aber auch Männer mitbringen." Und das ist so was wie ... Da hab ich extrem viel Zuspruch bekommen ..., via E-email. ... Die haben gesagt, sie können zwar nicht kommen aber sie finden es als eine total coole Idee. ... Und ... das ist bei [Firmenname Forschung] ... fällt mir so spontan ein ... so eine Möglichkeit. ... Man macht trotzdem was ..., man nimmt es trotzdem auf ... und versucht so etwas, eine eigne Sache, zu machen, welche kommunikativ wieder interessant ist. ... Und das ... macht man nur, weil man sich ein bisschen ..., interessiert ist ..., dass es sich weiter entwickelt ... in der Organisation. ...

A: Also würdest du sagen, dass grundsätzlich ..., man hat ... aufgrund von der Kultur und Umgebung sehr stark die Möglichkeit ..., sich kreativ zu entfalten. ...

T: Ja, man kann ..., also wenn man dazu Lust hast ..., ist man eigentlich schon da angehalten ..., dass man sich da kreativ so verwirklicht. ...

A: Weißt du zufällig ... Wird innerhalb der Firma [Firmenname Forschung] ... explizit Wissensgenerierung oder Wissensverteilung betrieben? ...

T: Die Firma ... gibt, glaub ich, diesen ... gibt ein Raster, dass wir im Gang oder im Besprechungsraum ..., dass man etwas die Besprechungen überzieht ..., dass man am Gang steht und sich etwas verplaudert ..., dass man eigentlich einen Haufen von Dingen, die eigentlich von der Arbeit ablenken ..., würd ich mir sagen ..., in dem man da irgendwelche Sachen auf dem Tisch liegen lassen hat ..., einen Bleistift mit „Alles Gute zum Geburtstag" und was auch immer ..., dass wir eigentlich nur Ablenkungen vom Arbeiten ..., laden wir dazu ein, etwas verschwenderisch ... zum sein mit dem Ganzen. ... Man will damit aber, glaub ich, nicht sagen ..., dass man verschwenderisch sein sollte ..., sondern dass man etwas ... Ja, man lädt dazu ein, das Ganze etwas kreativ anzugehen ..., weil das Menschenbild von [Firmenname Forschung] ..., das was [Firmenname Forschung] ein bisschen versucht zu fördern ist das Menschenbild ..., dass der Mensch halt ... nicht nur ... acht Stunden oder mehr in der Firma verbringt und eigentlich ... eine schöne Arbeit, in der sich eine gewisse Sinnstiftung birgt..., eine sehr schöne Geschichte, ist eine sehr wertvolle Geschichte an sich. Das heißt ..., man gibt sozusagen ... während der Arbeit auch Möglichkeiten, dass sich Menschen auch wirklich weiterentwickeln können, von sich aus..., ohne dass wir wissen oder dass ich weiß, was das ist. Ich sehe das bei mir in meinem Beruf so ..., dass ich manchmal Leute Dinge frage, wo ich sage..., ob es das..., das fragt ... Das sind einfach Dinge, wo ich sage: „Ok!" ... Die sind einfach sehr persönliche Dinge, wo ich sage: „Kannst mir einfach mal sagen, wie würdest du das machen?" und dann bemühe ich mich zu sagen: „Ok..., so und so." ... Das geht ..., weil die Leute, die solche Dinge fragen, da merkst schon ..., die haben überhaupt keine Angst davor, dass man sie kündigen könnte oder dass irgendein Problem da ist. Die wollen es einfach nur wissen. ... Es ist einfach von da her ... sehr ...

00:21:07

A: Aber explizit ... Wissensgenerierung und Wissenstransfer wird das nun direkt durchgeführt oder eigentlich eher indirekt durch die kleinen vielen Dinge, die es gibt? ...

T: Ja, es gibt ein gewisses Angebot ... an Grundinformationen ..., Einführungsveranstaltungen ..., Intranet und so gibt es ..., so eine Wissensverteilung. ... Das sind ... Da gibt es etwas ... Es wird zu einem Vision-Statement, wenn man das so entwickelt hat, sehr aufwendig teilweise ..., aber auch sehr persönlich von Führungskräften weitergetragen. ... Da tut man schon so aktiv etwas ..., Bedürfnissee zu ermitteln. ... Kommunikation spielt da ... schon etwas eine große Rolle. Aber jetzt so ... passive Zugriff auf Daten ... ist tendenziell ... Da entsteht da etwas um die Leute herum ..., die generieren irgendwelche Daten ..., legen das wo ab ..., sharen das irgendwie. ... Es gibt einen Kollegen ... von mir, der hat gesagt: „Wir brauchen ein Wiki aufgebaut!“ ... Ich hab mir gedacht: „Ja, machs. ... Du wirst schon sehen. Was du gemacht hast, das wird schon halt niemand nutzen. ... Dann stirbt es wieder.“ ... Das ist eigentlich egal. ... Ich sag immer: „Wenn es dir geholfen hat, dann ist es gut gewesen.“ ... Aber nicht so, dass man das nachher evaluieren würde ..., hat es nun was gebracht oder so. ...

A: Würdest du sagen ... oder hast du ab und zu das Gefühl, dass du das Rad neu entwickeln musst? Das du was gemacht hast, von dem du sagst: „Das hat jemand anderes schon mal gemacht.“, oder umgedreht: „Hätte nicht sein müssen.“

T: Ja, ich sag mal ... das gibt es. ... Manchmal wundert man sich ... Es ist so... Dadurch dass man gewisse Themen ..., wo man das Gefühl hat, da hat man schon Erfahrung oder da kennt man auch die ganzen falschen Tricks bei solchen Unterfangen ... und dann hat man das Gefühl, und das ist aber natürlich ... Bei 700 Leute ist es so, dass ich manchmal sehe, dass sich jemand ... beauftragt wird, mach das oder mach das ... für die und die Sache. ... Und ich denk mir...: „Mann, ist etwas heiß!“ ... Also, dann habe ich das Gefühl, dass der Auftragsgeber ... sich nicht ganz bewusst ist ..., dass da ..., dass es nicht ganz egal ist, wer das macht ..., weil eben diese Person vielleicht dort gerade keine Erfahrung hat. ... Ich sehe ... Also, mir ist das schon passiert ... Ich habe Leute gesehen, wo über Change Management ein Buch gekauft haben und dann ein Projekt gemacht haben ... und dann muss ich sagen: „Alles gut, schön und recht!“ ... Aber wenn es eine gewisse ... Hürde oder Schwierigkeiten drinnen hat oder beiträgt ..., dann denkst du: „Der erfindet das Rad wieder neu, im Moment“. Da fühlt man sich ... etwas ... Ja ..., ist dem nicht klar, dass man da eigentlich zumindestens ein paar Leute im Unternehmen kontaktiert und zumindestens mit denen ein Vorgespräch führt und sagt: „Um was könnte es da gehen?“ So dass die sagen: „Musst einfach das und das sicherstellen ... für diese Geschichte.“ Und nicht, dass man das selber macht. Und da hab ich manchmal das Gefühl ..., dass..., Personen einfach etwas anstarten, weil sie es cool finden ..., irgendwie ... eine Kundennutzen Analyse zu machen und machen die einfach. ... Also, mir hat einer erklärt, dass er ein System entwickelt, wo er ..., bei Kunden draußen strategische Dinge abzufragen. ... Und dann hat er das erzählt ... und ich habe mir gedacht ..., er spricht von einer klassischen „so und so Analyse“ ... oder weis ich ... eine Kundennutzen Analyse. ... Und dann denk ich mir: „Ja ..., das ist ...“ Also, da hat man schon das Gefühl, da zieht schon Zeit ins Land. Auf der anderen Seite ... muss man hier wieder sagen ..., es ist uns schon fast wieder egal ..., wenn sich jemand drei Tage lang im Excel irgendwas zusammen programmiert ... und im Nachhinein ... gibt es im Nebenbüro einen ... „Du, lass das stehen ..., weil ich mach das schon seit vier Jahren.“ Also ..., von dem leben wir ein bisschen. ...

00:25:17

A: Findest du das grundsätzlich gut oder findest du das eher verschwenderisch?

T: Das ist sehr schwierig zu sagen. ... Ich finde es eigentlich gar nicht so schlecht, weil ... Im Grunde genommen ... Und ich sehe das bei mir..., wo ich sagen würde ..., das erfordert eine ordentliche Planung ... Wenn zum Beispiel ..., in einem Krisenherd..., dass man dies sieht, dass man das ordentlich vorbereitet ..., und irgendwo zügig abfahrt und so ... Wenn ich sehe, dass das jemand ... unprofessionell da herum macht ..., lass ich es etwas ... Ist halt so. ... Selber ist man ..., hat man auch nur ein paar Tage zum Arbeiten ... und dann ..., ja dann lebt man mit dem Ganzen. ... Ich denk mir manchmal: „Das eskaliert schon dann ... oder sonst ist es schon wieder gut gegangen.“ Und immer so fair bleiben gegenüber den anderen. Wenn man sagt ... Wenn ich mir denke, wie ich meinen ersten Fall gelöst habe ..., dann verzähl ich dann lieber auch nicht ... was ich gemacht habe. ... Da ist da so ein bisschen ... Man braucht einfach eine gewisse Toleranz ... gegenüber Personen, die sich dann quasi wichtig machen. ... Irgendwas, wo ich dann sagen muss ...:“ Jetzt ist eigentlich gar nicht so schlecht.“ Also ..., da bin ich eher auf der positiven Seite, obwohl ..., es mich ab und zu mal kurz kränkt ..., weil ich sage: „Das geht gar nicht, oder? Das ist einfach nur doof!“ ... Aber ein Beispiel ist, wenn jemand neue Strukturen aufsetzt und einfach ... verbreitet, weltweit und ... Einer meiner besten Kollegen .... Du weißt, wir schauen das immer zusammen an und wir sagen: „Das geht gar nicht. ... Sollen wir gleich was trinken gehen oder ...?“ Das ist dann so das Problem ..., das man dann hat. ... Aber auf der anderen Seite sage ich dann immer wieder...: „Das ist halt so in der Biologie..., dass Stimuli..., der Organismus grundsätzlich einfach abhängig ist von der Umwelt.“ ... Was die Umwelt bringt ..., was an... an Einflüssen da ist..., damit sich der Organismus am Leben hält..., muss er halt clever agieren. ... So ein bisschen klassische Impulse ..., die von überall her schießen ... und die halten uns ... und halten mich etwas auf Trab. Und muss auch sagen, von da her... ist es eigentlich zusehends für mich kein Problem.

A: Stell dir einfach mal vor, du musst eine neue Strategie ausarbeiten ... oder eine Lösung für ein Problem suchen ... und ... du fängst damit an, dies auszuarbeiten ... und du kommst nicht weiter, weil es fehlt dir einfach ein bisschen Information oder Wissen oder sonst was. Wie gehst du da vor, um dieses Ziel zu erreichen? Es gibt ja immer die Möglichkeit von Beratern.

T: Das Erste ... Wenn es wirklich mal um was Schweres und Wichtiges geht, ist es so, dass ich mich wirklich frei beweg ..., also eine Trennung mach zwischen innen und außen in der Organisation. ... Ich habe eben die Frage ...Die Frage teile ich mit verschiedenen Personen ... in unterschiedlichen ... Und dazu pflege ich ein recht intensives Netzwerk ... außerhalb der Firma. ... Und es ist also unabhängig mach ich das. ... Das kann genau so sein, dass ich meine

Frau was frage ... genau so wie einen Freund aus Wien, der vielleicht ein Strategieexperte ist ... und unterschiedliche Altersstufen. ... Ich kenne sehr viele ... junge Leute ..., Studenten. Da habe ich viel Kontakte ..., vor allem aus verschiedensten Berufsgruppen. ... Also mein Bruder ... zum Beispiel, der ist als ... Künstler genau so wie ich. ... Ich pflege auch diesen Kunstbereich ... und da frag ich einfach etwas quer hinein. ... Und das hat aber auch die Möglichkeit, dass das in der Firma ist ... und da versuch ich ..., irgendeine Idee herauszubekommen und was Strategie und Lösungsfragen betrifft ..., sogar wenig in der Firma frage, weil..., ich ja für die Firma oft eine Lösung suche ..., die neu und frisch ist ..., state of the art ..., die nicht so bekannt ist. ... Und ich lebe etwas bei meiner Arbeit von dem ... Zuspruch des innovativen ... Change- ... oder Strategie Konzepts ... „Konzepte Smiley“. (Autor) glaubt, dass die Kommunikation sehr stark daran hängt, ob wissensbegierige Leute auch etwas suggeriert bekommen. Sie sagen: „Ups, das war jetzt interessant auch von der Methode“. Und die hat einen unglaublichen Einfluss auf die Wahrnehmung ..., auf die ..., wie Personen Themen beobachten ... und wie sie sich damit befassen. ... Weil ich kann genau die gleiche Frage ... und genau die gleiche Lösungsidee ... mit einer geringeren Aufmerksamkeit ... betrachten oder mit einer hohen ... und das sind zwei unterschiedliche Dinge. ... Deshalb versuche ich oft einmal ..., Dinge von außen nach innen zu bringen.

00:31:03

Und ... damit es für die Firma nutzbar ist ..., das so ... genau ..., eine Wahrnehmung zu bekommen.

A: Du hast vorher gesagt, du hast keine Grenzen ... innen und außen. ... Siehst du das auch viel bei deinen Kollegen ..., dass die ... eigentlich sehr offen sind und sehr viel mit Kollegen und Freunden außerhalb vom Unternehmens Kontakt haben, um Lösungen auszuarbeiten? ...

T: Ja. ... Das ist so ein bisschen eine ... So das ist so wie eine Clique. ... Ich habe zu namhaften Firmen Kontakt ..., Kontakt zu Leuten im Bereich Strategie ... und da tauscht man sich ... Also ..., ein Freund von mir ist Strategie ... interner Strategie Berater von [Firmenname extern] in Stuttgart ... und das ist so ... er sagst dann: „Das schreibst mir dann nicht hinein. Das ist einfach für deine Information.“ Da kann ich schon einmal ... eine PowerPoint von der Vorstandssitzung bekommen. ... Da hab ich dann zehn Slides, die ich dann am nächsten Tag halten muss ... und der sagt: „Bitte, lies mir das mal durch!“ Einfach so ... und der weiß aber von mir, dass ich keine Ahnung habe. ... Er fragt einfach nach: „Lies es mal durch!“ ... Ich lese das einmal durch, da bin ich 10 Minuten dran und schick ihm dann zurück: „Lass das Slide 7 einfach weg ..., würde ich. Und bei Slide 8, da weiß ich nicht genau, was willst da eigentlich?“ Und dann bekomm ich ein Mail zurück: „Hab ich gemacht. Slide 7 habe ich weggelassen. Vielen Dank, das war super.“ ...Oder eben ... Das ist etwas, wo man sich zum Teil sehr vertrauliche Daten zum Teil aushändigt. Aber... aber mehr in den Netzwerken sind ... nicht daran interessiert, das zu verstehen ..., was es für ein Zweck für die Firma hat ..., sondern wir sind daran interessiert zu verstehen ..., ob diese Lösung, diese Idee, welche die Kollegin oder Kollege anstrebt ..., ob das zu seinem Ziel führt. ... Und das vergesse ich eigentlich auch, was mir da Leute sagen. ... Und ein anderer Kollege aus einer anderen, größeren Vorarlberger Firma hat mich gefragt: „Wie kann ich Compliance Manager ..., das bei uns nun eingeführt wird ..., wie kann ich das machen, dass die Vorgesetzten das ernsthaft weiterführen?“ Dann sag ich ... Dann spricht man da über sehr vertrauliche Dinge oft, aber wir denken nicht darüber nach ..., etwas zu wissen über eine Firma, sondern ... das muss man pflegen ..., dass bedarf eines gewissen Vertrauensnetzwerkes ..., weil ... mit diesen Daten kann man auch ... ungute Dinge machen ..., könnte man sich Vorteile schaffen ... und das ... und das gilt auch nach innen, übrigens. ... Also in der Firma selber ... und da muss man ..., sich immer wieder ... also in die Richtung muss man immer sehr diszipliniert sein ..., dass man da einfach niemand verbockt ..., nichts verbockt ..., nichts vergrämt. ... Dann bekommt man auch sehr viel zurück. Ja also, wenn mich Leute fragen: „Wie schaut es bei euch aus?“, dann weiß ich ..., dann sag ich das dem einfach ..., weil den interessiert es einfach nur von der Idee her. Oder, wenn du mich jetzt fragst, wie es gestern war oder vorgestern ..., dann sag ich es dir, weil ich weiß ..., du bist einfach interessiert an der ... ganz generell..., wie man mit so was umgeht ... und das ist wichtig.

A. Siehst du diese Vorgehensweise auch viel bei deinen Kollegen, dass du jetzt mit dem Networking von außen nach innen ...

T: Das kann ich jetzt nicht so einschätzen aber ich denke, eher nicht. ...

A: Wie wird eigentlich Wissen, Informationen oder Ideen innerhalb der Firma [Firmenname Forschung] verteilt? Gibt es da bestimmte Prozesse? Wird das überhaupt gemacht?

T: Wissen wird verteilt viel über Sitzungen ... über Besprechungen. ...

A: Besprechungen haben bei uns eine relative gute Agenda, immer. ... Und die Zielsetzungen sind immer besser ... über die Jahre als Beobachter moderiert ... entweder vom Einladenden oder wirklich mit der Moderation. ... Und ..., das ist auch selber meine Sache gewesen ..., dass ich wirklich wahnsinnig viel moderiert habe, eine Zeitlang. ... Und ... dort drin hat man dann gezielt versucht, das Wissen zu dokumentieren ..., zu besprechen und zu definieren ... und ich glaub, dass der größte Austausch vom Wissen ... in diesen Besprechungen ... stattfindet.

00:35:51

A: Ist das vielleicht auch ein Unterschied zu deinem vorherigen Arbeitgeber? Siehst du da im Bereich Meetings und Kommunikation ...

T: Ja absolut. ... Also das ist ein guter Punkt ... im Unterscheidungsmerkmal ..., weil bei uns ist eine Besprechung in der Regel ... eine wirklich sich auf einen ... gewissen Wissenstand zu bringen, gegenseitig, wo man dann etwas Schritt setzen kann ..., gesichert ..., weil es ist ja unglaublich viel Annahme und Wissen ... herum. ... Auf welcher Annahme begründet sich, was der sagt und auf was kann ich bauen..., für den nächsten Schritt? ... Das wär so meine

Sache ..., das wird bei uns wirklich immer wieder probiert ... und nachgefragt. ... Und ... Oder in der Strategie verfolg ich sehr stark, was müssen wir entscheiden..., ist die Frage und welches Wissen brauchen wir dazu, dass wir entscheiden können ... und wie bekomme ich dieses Wissen damit man entscheiden kann. Das mach ich sehr stark in der Strategie ... und ... durch das haben wir keinen Datenpool ... und kein Wissensansagen. ... Aber was wir haben müssen ist ..., ist in kurzer Zeit ein Zugriff zu schaffen, wo Leute wirklich diese Wissensgeschichten ausgraben. ... Das ist ein eigenes Thema ... und aber immer gezielt auf eine Fragestellung hin. ... Wär nicht so allgemein und dann sagen, wenn ich mal eine Frage haben würde, dann könnte ich es mal abfragen. ... Und der Unterschied zu den anderen Firma ist ..., dass man dort eigentlich Besprechungen mehr genutzt hat ..., um sich etwas abzuchecken ..., zum Schauen, was man alles erledigt hat und froh war, wenn man wieder auskommt ..., weil man das mehr so als Hindernislauf anschauen kann. ... Man musste sich wiedermal zeigen, um sich dann wieder zu verkriechen. ... Und ... dort hat man meistens eine gute Figur gemacht. ... Ist so etwas ein Unterschied. ja?

A: „Bezaubernde Jeanie“ sagt dir sicher noch was. Stell dir vor, du musst eine Strategie ausarbeiten und Problem lösen und du kommst nicht weiter und durch die „Jeannie“ könntest du dir alles wünschen was du willst. ... Das Einzige, was du dir nicht wünschen kannst, ist die Lösung per se - aber sonst alles. Was würdest du dir wünschen, damit du schnell und qualitativ hochwertig diese Lösung, Idee oder Strategie ausarbeiten könntest? Was wäre da so dein Wunsch?

T: Ich hab dort ... Also, ich kann das machen ..., das klingt jetzt etwas blöd ..., weil es ist so ..., ich kann verschiedene Leute anrufen..., ich habe die Zeit dazu..., den ganzen Tag. Ich kann auch in meiner Position jetzt - und das hängt nun mit meinem Chef zusammen - ... ich kann sogar ein Berater anrufen in Zürich ..., oder sonst wo ... und gegen Geld. ... Dem sage ich: „Ich hätte gerne drei Beratungsstunden um den Preis.“ und kann drei Beratungsstunden einholen. ... So ... Weil ich das einfach denke, der ist gut und kann mir ein paar Tipps geben. ... Also, ich kann das einfach einholen auch gegen Bezahlung. ... Das ist ein wichtiger Punkt für mich ..., dass ich da nicht limitiert bin. ... Das mach ich hin und wieder. ... Ich habe auch in vielen schwierigen Situationen ein Berater angerufen und ihn gefragt, ob er ein Coaching machen kann ... für mich wegen dem. ... Bin hingefahren, hab ihm 200 Euro in die Hand gedrückt und hab das gemacht ... Das hat mich einfach weitergebracht..., weil ich ... Und ich bin ..., wenn ich bestimmte Zeitschriften möchte oder ein Buch ... Also, ich bestelle relativ doch ein paar Bücher jedes Jahr. ... Dann bestelle das, ohne dass ich nachfrage und dann hab ich das dann bereit. ... Hab auch zwei Zeitschriften, die nur ich selber lese ... im Unternehmen. Die hat sonst niemand. Das sind Zeitschriften, die ich extrem schätze. ... Und die habe ich ..., denen muss ich nicht nachlaufen. ... Die habe ich auch in meiner Tasche in der U-Bahn dabei ... und ... bin eigentlich von dort her sehr gut versorgt. ... Ich wüsste nicht, was ich ..., was mir fehlt. ... Wenn es größer wäre ..., dann kann ich eigentlich zu meinem Chef gehen ... und ihm sagen ... Und das ist ihm auch sehr sehr wichtig, finde ich. ... Dann muss ich ihm das Anliegen sagen: „Ich hab da was ..., ich möchte zum Beispiel unbedingt die Firma in den USA besuchen, weil ich habe ein wahnsinniges interessantes Konzept, wo ich einfach mit meinen Kolleg durchspazieren möchte. Kann ich das machen?“ Das würde ich anfragen, dann würde ich auch ziemlich sicher ein “ yes“ bekommen.

00:40:54

A: Also man könnte behaupten, du bist wunschlos glücklich? ...

T: Ja, ich bins eigentlich, was mein Beruf betrifft ..., muss ich sagen. ... Das klingt vielleicht blöd, aber es ist wirklich so. ...

A: Würdest du behaupten, das trifft auf andere auch zu oder bist du da so ein spezieller Sonderfall?

T: Ich glaub, es hängt mit dem zusammen, dass... Das hängt sicher mit dem zusammen ..., mit Themen, die du schon abgearbeitet hast und ... die in der Organisation längerfristig Bestand haben. Das sieht man ja gut ... und da hast du den Vorteil... als interner Organisationsentwickler..., da hast du den Vorteil ..., dass das was du gemacht hast schon ... also bleibt schon etwas erhalten. Du hast natürlich, wenn es verbockt hast ..., hast du das Gleiche natürlich umgekehrt. Aber dadurch bekommt man einen Zuspruch indem man dem, der die Frage hat - wenn der das machen will - dann hat er was vor. ... Und ... ich habe schon Projekte gemacht ..., also heiße Projekte, wo ich sagen muss ..., da..., also, wo ich ein Projekt gemacht habe mit einem Kollegen ..., vom Marketing. ... Da haben wir einen Film gedreht, der einfach als U-Boot ... Das hat niemand gewusst. ... Ich hab nur gewusst, dass wir solch einen Film eigentlich bräuchten. ... Und er auch. Und wir haben uns zusammengesetzt und haben das gemacht. ... Der Film hat 100 000 Euro gekostet. ... Als ..., wo ich die Rechnung gesehen habe, habe ich ihm gesagt: „Die Hälfte übernehme ich.“ und er sagte ok die andere Hälfte übernimmt er. Und dann haben wir es unterschrieben und in dem Moment habe ich gewusst, die Rechnung geht jetzt in die Buchhaltung und in dem Moment habe ich zu ihm gesagt: „Jetzt müssen wir uns darauf gefasst machen, dass wir uns selbständig machen können.“ ... Und den Film haben wir ..., also ein Film zur Unternehmenskultur ..., haben wir konzipiert und drehen lassen ... und dann habe ich ... also, wir haben es wirklich dann mit der Angst zu tun bekommen. ... Und das sind natürlich Erfahrungen, die sind wirklich etwas speziell. ... Also mit [Name], weiß nicht, ob du mit dem geredet hast ..., hab ich das gemacht. ... Das hat uns natürlich auf Ewigkeit verbunden, das Projekt. ... Nur ... eines ist klar gewesen ..., wo ich zum Chef gegangen bin und gesagt habe: „Ich glaub, ich habe den Bogen überspannt“, und er sagte: „Um was geht es? ... Geht es da um einen Film?“ Dann sagte ich: „Ja genau.“... Dann hat er es schon gewusst ... und dann hab ich gesagt ...: „Ja ..., 100 000 Euro haben wir ausgegeben.“ ... Das hat er nicht gewusst. ... Dann sagte er: „Das ist in

Ordnung, weil erstens ist es saugut geworden und zweitens ..., habt ihr es für die Firma gemacht.“ ... Und dann hab ich gefragt: „Was wäre gewesen, wenn der Film nicht so gut geworden wäre?“ Denn das Risiko haben wir absolut gehabt. ... Dann hat er gesagt: „Das wäre auch in Ordnung gewesen. ... Dann hätte ich gesagt, du hast es auf jeden Fall probiert und gut gemeint“ ... Und dann hab ich gesagt: „Da war halt ..., das ist alles auf dem Prüfstand.“ ..., Aber auf Basis von solchen Aktionen, die ich zum Teil schon gemacht habe ..., ich habe mit dem [Name] zum Beispiel..., muss man sagen..., man bekommt Vertrauensbonusse. ... Die sollte man sich dann natürlich nicht ... verbocken wieder. ... Aber ... das hat es schon gegeben. Wir haben damit sicher auch andere Leute motiviert, dass man sich was trauen kann..., ohne dass man gleich Angst haben muss ..., dass man sich..., von der Firme entfernt wird.

A: Kannst du dich an deinen letzten jobbezogenen Aha-Effekt erinnern? Und in welcher Umgebung das war? ...

T: Einen Aha- Effekt habe ich gehabt ..., letzte Woche. ... Also, ich habe jede Woche einen (gemeinsames Lachen) ... aber doch sehr oft in meinem Beruf, weil ..., weil das für mich ein ganz wichtiger Punkt ist, dass ich bei meinem Klientel Aha Effekte auslösen möchte ... und dann sollte man selber auch mal einen haben. ... Aber letzte Woche war es, bei dem ..., Wisthel Council Projekt in Wien ..., haben wir ..., hat es irre Aha- Effekte gegeben, was Leute so sagen über die Firma ... und - ich am Rande - bin nur Zuhörer gewesen. ... Haben feststellen müssen: „Das geht gar nicht ..., was der sagt.“ Und hab etwas mitgefiebert ... und hab dann doch ein Aha-Effekt gehabt ..., indem ich das Aushalten habe müssen ..., nicht einzugreifen ... und am Schluss, nach 1,5 Tagen zu sehen: „Aha, also das war nun schon interessant. Das hätte ich eigentlich echt nicht gesehen.“ Und das hat sich ..., das hat es letzte Woche bei dieser Erarbeitung bei dem neuen Value Statement über den Zufallsgenerator

Leute auszuwählen ... - das ist auch von mir entwickelt worden ..., oder designed worden - ..., das hat einige Aha-Effekte ausgelöst ..., bei mir selber, ja. ...

00:45:54

A: Wo ist denn das ... passiert, der Aha-Effekt? Meistens in der Firmen-Umgebung mit deinen Kollegen oder im Beisammensein mit anderen oder eigentlich eher, wenn du mit dem Fahrrad heimfährst ... oder wenn du alleine bist?

T: Eher so das Letztere.

A: Also eher, wenn du zurückgezogen bist?

T: Ja.

A: Aber in dem Fall, wenn du in Diskussionen bist... oder mit anderen Leute diskutierst, kann es genauso passieren?

T: Ja, das kann auch passieren aber ich bin ..., das ist jetzt glaub ich eine Persönlichkeitsstruktur ..., ich bin halt grundsätzlich von meiner Art her ein sehr introvertierter Mensch ..., gewesen zumindest. ... Mich hat die Botanik interessiert, weil ich habe mir gedacht: „Die Pflanzen sprechen nicht so viel.“ ... Das war wirklich auch ein Punkt. Dass ich in dem Beruf gelandet bin ..., wo eigentlich relativ viel gequatscht wird ..., ist eigentlich..., weiß ja selber nicht so genau, warum das so ist. ... Aber für die wirklich interessanten, wichtigen Dinge ... liebe ich das Schweigen. ... Das muss ich dir einfach sagen. ... Ich bin ein ... rechter Fan von diesem Schweigen ... und da ist für mich der Aha- Effekt oder eher der Genuss. Also, ich sehe es dann so ... Ja..., das ist eher dann mein Gebiet. ... Aber natürlich kann das sein, wenn wir zwei ... quatschen, durch deine Worte, durch das Zuhören ..., dass ich plötzlich sage: „Ups ..., da ist eigentlich noch ein interessanter Gedanke!“

A: Was ich da so rausgehört habe ..., ich denke mal das ist so ..., wenn du neue Ideen hast, bekommst du, bekommst sicher ..., vor allem du in deiner Position ..., die komplette Aufmerksamkeit deiner Vorgesetzten. Sehe ich das richtig?

T: Ja, da kann ich nicht klagen.

A: Denkst du, dass es eigentlich generell so bei euch in der Firma ist ..., dass man den Ideen der Mitarbeiter sehr viel Aufmerksamkeit ...schenkt?

T: Schwierige Frage ... Ich glaube schon ..., dass es eine Grundbereitschaft gibt..., dass man versucht, dass... dieser Creation- Prozess, sag ich mal ...,wo Mitarbeiter neue Dinge bringen ..., dass glaub ich sehr viele wissen, dass der sehr viel drinnen steckt ... und das es eine wichtige Geschichte ist ..., deshalb auch eine gewisse Aufmerksamkeit bekommt. Wie weit man nun wirklich zuhört und das wirklich ... so..., dass der Sprecher was davon hat ..., also sprich ..., hat einen echter Zuhörer für sein Anliegen..., bin ich mir nicht ganz so sicher. ... Also, da würde ich sagen ..., das würde ich eher nicht überbewerten ..., da sind wir wahrscheinlich durchschnittlich.

A: Finden bei der Firma [Firmenname Forschung] Expertendiskussionen oder Präsentationen von Erfolgstories statt? Ist das so gang und gäbe bei euch oder ist das etwas, das nicht gemacht wird?

T: Ja, was ich natürlich in meiner Arbeit viel mache, - und das kann ich nur von mir selber sagen - wenn mir jemand sagt: „Mach mal ein Seminar über Entrepreneurship!“, dann sag ... ich: „Ok, dann mach ich das“ ... Dann sag ich: „Erzähl mir mal so eine richtige Geschichte, wo das Entrepreneurship so richtig live war!“ ... Und durch das hab ich immer best practice ... Ansätze, auch ... weil ich auch der festen Überzeugung bin, dass es das in der Firma alles sehr viel gibt und dass man das im Kleinen und Großen schon macht und ... da sich das schon jetzt...Sonst generell ist es so ..., glaub ich, dass wir gute Leistungen und interessante Konzepte weitertragen. Dadurch, dass wir so ... Mittagspausen pflegen und so ..., schon einen etwas offenen Umgang haben ..., ist es so ..., dass man manchmal schon das Gefühl hat ..., dass man ein Feedback bekommt, wo es heißt: „Du ich habe gehört, du warst letzte Woche dabei und das ist ja super gelaufen. Warst du da auch dabei?“ Das bekommt man mit ..., dass man sich da schon etwas austauscht...

00:50:31

Wie gut? Ich glaub das dies plus und minus ist, weil die ... Kritik, was alles schlecht gelaufen ist ... und so ..., ist halt ..., hat auch ein anderes Gewicht. Einer Kritik müssen schon sehr viel positive Dinge gegenübergestellt werden, damit es wieder in einer Balance ist. Und ..., wenn es dich vielleicht interessiert ..., kann ich dir ein Beispiel erzählen, was ich heuer gemacht habe ... wo ich selber sagen musste..., dass hat mir sehr saugut gefallen. ... Mit von der Idee was du da fragst, ist nix gewesen. ... Wir haben eine „Great Place to Work“ Befragung zurückbekommen. ... Da war ich eingeladen, für die Manager ... in der Secondary ein Seminar zu machen für das Thema ... „Great Place to Work“. ... Und das habe ich gemacht ... und das Ziel war ..., zu analysieren, was wir besser machen können aufgrund vom Feedback. ... Dann habe ich mir das kurz angeschaut ..., vom Seminar. ...Dann habe ich festgestellt, dass alles eigentlich auf einem extrem hohem Niveau ist. Also, wir sind im Jahresziel oder was auch immer da in Österreich und so. ... Und dann habe ich das Seminar so gestartet, dass ich sie gefragt habe: „Ihr ..., ihr habt vor zwei Jahren den Wert 80 oder 82% gehabt ..., Index mit allen Werten dahinter. Heute habt ihr 84 % ..., also 2% Steigerung ... in zwei Jahren?“ ... Und dann habe ich sie gefragt: „Mal ganz ernst, könnt ihr mir das erklären, wie ihr das geschafft habt?“ ... Weil das ist nichts anderes gewesen wie ..., das musst einfach mal machen ..., 82% auf 84% Steigerung ..., mit den ganzen Schwierigkeiten, die wir die letzten zwei Jahre in der Firma hatten ..., diese Herausforderungen. ... Dann habe ich mir erklären lassen, - und zwar eingehend - wie sie das geschafft haben und nicht ..., und ich nicht gesagt habe: „Warum ..., oder wie können wir von 84% auf 90% kommen?“ ... Und ich habe nur ein Feedback bekommen, von einem geschätzten Kollegen, der hat mir dann einfach schon so gesagt ..., dass hat ihm irrsinnig gut gefallen ..., dass man einfach zum Ausdruck bringt ..., was an positiven Leistungen überhaupt generell einfließt ..., dass man überhaupt auf 80 kommt. ... Also, was ich sagen will ..., mit diesem „guten Beispiel " und so ..., und das war sehr schön ..., weil da hat man sich nicht nur über die Probleme unterhalten ..., sondern darüber, was man eigentlich geleistet hat, positiv.

A: Du hast eine sehr, sehr unterstützende ... Funktion bei der Firma [Firmenname Forschung]. Wenn da Leute zu dir kommen, egal von welchen Positionen, und auf dich zurückgreifen und sagen: „Hey [Name], kannst du mir da helfen?" Wie jetzt da in dieser Diskussion, willst du, dass sie da viel mit Stories kommen ..., wenn sie eine Lösung suchen, dass sie erzählen: „Du da hab ich mal das gemacht." oder: „Das gehört so oder so!" Oder ist das eher passiv? ...

T: Nein, die kommen schon mit ..., nun ja, ist schwer zu sagen. ... Also ..., es ist die volle Bandbreite zwischen ..., von: „Ich haben überhaupt keine Ahnung!", ... von den Tränen, sag ich mal ..., bis hin zu den komplett euphorischen Konzepten ... muss ich ehrlich sagen, gibt es alles. ... Bei mir ist es eher gefragt ..., das professionelle Umgehen mit der Grenze zwischen Firma und privat und das ist ..., ich mein, du weißt es selber auch ..., das ist die Frage des Psychologisierens und so ..., dass man da oft hineinschlittert..., dass es halt..., das sollte man eigentlich vermeiden ..., beziehungsweise das sollte man nicht machen in der Organisation. ... oder das „Family-Zeugs" ..., wo eigentlich ..., das passt gar nicht, weil das mit der Firmenrealität nichts zu tun hat. ... Vor allem wenn man wirklich eine Frage hat oder Dinge wissen will ..., das ist dann mein Job, dass dies richtig angerechnet wird, dass man darauf hinweist, was die Organisation leisten darf und kann und will und was sie nicht kann. ... Da kann man schon darüber sprechen ..., aber dann muss man sagen: „Diese Lösung, die du da hast, kommt nicht aus der Organisation, sondern die kommt von wo anders her." ... Und das kann ich ..., mach ich schon. ... Sonst, ja, ist die volle Bandbreite und manchmal sind es Geschichten und manchmal sind es nur ... irgendwelche Fragen.

00:55:27

A: Ihr seit ja ISO zertifiziert. Denkst du, dass dieses Qualitätsbewusstsein ..., das man eigentlich erst zu einem späteren Zeitpunkt eingeführt hat ... bei der Firma [Firmenname Forschung] ... irgendeinen Einfluss auf das gesamte Unternehmen hat - in der Denke, in der Art und Weise - oder hat das nur ... in der Montage ... und Produktion einen Einfluss?

T: Die Frage ist gut ..., weil insofern ... Ich glaub, dass wir sagen ... Oder ich bin ..., sagen wir so, ich bin lange Qualitätsmanager gewesen ..., das habe ich ja abgeben. ... Qualität definiert sich bei mir sehr stark über die Qualität der Kommunikation ... an sich. ... Das heißt, man muss sich vorstellen ..., schau mal dein Beruf an oder meinen ... oder schau mal ..., ich hab auch mein Chef schon mal gefragt: „Wie viel Prozent am Tag kommunizierst du ... an einem normalen Arbeitstag?“ ... Da kommen recht hohe Werte raus ..., weißt. ... Kommunikation im Sinne, wie wir zwei jetzt oder dass man ein E-Mail schreibt ..., das gehört dazu. ... Und wenn den hohen Wert nimmst ..., kann man sagen, wenn die Qualität in dieser 80 % Kommunikation gut ist ..., muss das dann einen ziemlichen Einfluss haben, auf die Organisation ..., in der Effizienz, in der Effektivitäts-Struktur. ... Wenn ich deutlich bin ..., wenn ich Dinge auf den Punkt bringe ..., wenn ich Dinge ordentlich analysiere ... oder wenn ich eben die richtige Frage stelle ..., dann muss das was bringen. Denn ..., weil..., und das ist für mich eine ganz Top-Priority Geschichte ..., das ist bei mir geworden in meiner beruflichen Entwicklung, dass es eine ... Ich habe immer die größte Gaude. Ich merk ja ..., kommunikativ läuft es. ... Das ist immer sehr scharf und sehr elegant ... und wird präzise und auch ... und da ist ganz wichtig ... und wenn ich keine Vereinbarung habe mit Unterschrift ..., aber eine mündliche Vereinbarung ..., die hält, mit der kommunikativen Basis dahinter, das ist Qualität für mich. ... Und zum Kunden hin natürlich, dass eine ordentliche ...

Kommunikation stattfindet. ... Das find ich wichtig. ... Und diese anderen Themen wie..., Ausstattung ... Wie ich schon gesagt habe, mir ist wichtig diese Ästhetik ... die Qualität von ... Was ich zum Beispiel hasse, sind so diese Marketingkonzepte ..., wo so... Blätter, die jeder hat. ... Da bin ich ..., also, da sind für mich die eigenen Kunstwerke, die ein Unternehmen kreiert ..., Artefakte ..., wichtig ... und das ist Qualität ... oder... und natürlich ... die Produktqualität ist eigentlich ein Teil davon. ... Es definiert sich sehr stark über das. ...

A: Aber dann könnte man grundsätzlich behaupten ..., das Qualitätsdenken - auch stark geprägt durch diese ISO Zertifizierung - zieht sich durch das gesamte Unternehmen durch und beeinflusst die Art und Weise, wie die Mitarbeiter miteinander umgehen, ...kommunizieren und arbeiten. ...

T: Ich würde sagen, die ISO Zertifizierung ... leistet da keinen Beitrag dazu. ... Die Zertifizierung macht diesbezüglich gar nichts. ... Die ist eigentlich nur ..., also ..., ist eigentlich nur ein Zeugnis ..., wo man abfragt, ob es diese paar Dinge erfüllt ..., aber hat mit der eigentlichen Qualität - wie das [Firmenname Forschung] ..., wie ich das verstehe - gar nichts zu tun ..., außer, dass es den Namen ... vor sich herträgt ..., das es ein Qualitätszertifikat ist. ... Es ist nichts anderes ..., also für den Kunden ..., ein Schein, der auch noch ..., das ..., eben nur ein Schein ist ..., wo oben steht: „Wir sind ISO zertifiziert.“, ... und nichts anderes ist wie, wenn der Schlosser ... bei einem Haus, bei der Abnahme einen Zettel schreibt: „Alle Leitungen sind dicht“.

A: Also, ohne diesen Prozess würde es genauso... qualitativ hochwertig sein?

T: Ja genau. ... Natürlich ... ist es notwendig ..., dass man in einer Firma Rechts-Register hat. Natürlich ist es notwendig, dass man Abläufe definiert. Natürlich ist es notwendig ..., dass man weiß ..., du weißt ..., dass man gewisse Dinge festschreibt. Aber das alleine ..., das ist halt nur ein Teil. ... Das ISO Werk ist belanglos..., für das was wir unter Qualität verstehen.

A: Bist du eigentlich eher ... der Typ, der sehr gern die Mittagspausen ... mit Kollegen innerhalb der Firma teilt ... oder bist du eher oben alleine am Arbeiten und am Lesen?

T: Ja also, ich lese am liebsten in der Mittagspause ein Stückchen von einer Zeitschrift oder ... ich gehe nach Hause. Also, ich bin in der Mittagspause am liebsten nicht in der Firma.

A: Würdest du behaupten ..., dass du ein großes Netzwerk innerhalb des Unternehmens hast ... und - da ist es nun wichtig - würdest du auch behaupten ..., es sind nur Arbeitskollegen oder - verglichen mit dem vorherigen Arbeitgeber - eher ... gute Freunde?

01:00:40

T: In der Firma...?

A: Ja.

T: Ist es ..., geht es eher in die Richtung von Arbeitskollegen. ... Es gibt einzelne ..., die ..., wo in die Richtung gehen ..., mit denen mache ich meistens was anderes. ... Das ist so wie in Berlin ..., wo ich ..., der ist zwar nicht mehr bei uns ... aber wir haben uns immer super unterhalten und haben dann am Abend ..., getroffen und haben dann musiziert oder so. ... Das ist was anderes ..., das gibt’s. ... Aber sonst ist es eher der Arbeitskollege ... und ... bin eigentlich - genau genommen - gar nicht so interessiert ... an einer freundschaftlichen Verbindung ... in der Firma. ... Außer ..., durch Ausnahmen ergibt sich das einfach ..., weil da kannst du nicht darüber. ... Das hängt ... sich aber mit einem weitergehenden Interesse zusammen.

A: Und wenn du das vielleicht auf die Beziehung herunterbrechen würdest? Würdest du sagen, dass die Beziehung zu einem Kollegen, einem Arbeitskollegen wesentlich besser ist, wie in der Firma Leica, wo du vorher warst? Oder sagst du: „Da gibt es eigentlich keine Unterschiede.“

T: Da würde ich nun gar nicht so viel Unterschied machen. ... Also ... dass ... die Firma [Firmenname Forschung] ..., ist schon etwas ... Also, da ist es leichter ... Zugänge zu bekommen ... und ... einfacher. Aber das sagt nichts über den Wert aus. Also ..., bei Leica war es nicht so einfach ..., trotzdem möglich gewesen. ... Man hat dann halt etwas mehr ... Ja ...

A: Bekommst du, wenn du ein Mail schreibst ..., eine relativ schnelle Antwort ... oder ist es etwas, das ziemlich zäh ist ... aufgrund der Workload deiner Arbeitskollegen?

T: Ich bekomme eigentlich extrem schnelle Feedbacks ... Und wenn es nur ist ..., so wie z.B. gestern Abend: „Kann dich leider nicht zurück telefonieren. ... Bin noch in einem Meeting. ... Probiere es morgen nochmal“ ... Es ist eher so ..., also ..., wir tun sehr viel mit den Leuten chatten. ... Das ist ein Stil, den ich eigentlich pflege ..., als wie..., das hat so ein Chat-Charakter und etwas ... und das ist, wie wenn man es unter Kollegen macht ..., dass es so ... mit eigenen ... Ich tu so gerne eigene Kreationen finden ..., dass es auch noch lustig ist. Zum Beispiel habe ich in Wien ..., hat es eine Begebenheit geben in der Schlussbesprechung. ... Nur als Beispiel ..., das mach ich eigentlich ... Also ..., das mögen die Leute auch, glaube ich..., das ist immer witzig. ... Weil wir haben eine Schlussbesprechung gehabt im Museumsquartier in Wien ... und dann haben meine Kollegen ..., da sind wir am Tisch gehockt zu viert und zu fünft ..., hat der eine einen kleinen Cappuccino bestellt ..., der eine einen kleinen Espresso ..., so picky fein ..., so richtig nett ... und ich hab einen Eiskaffee bestellt. ich Depp. ... Ich hab mir einfach gedacht, den esse ich jetzt ... und dann haben alle so ein feines Tässchen gehabt ... und ich habe so ein Becher vor mir gehabt ..., weißt eh ..., mit 12 Schirmen oben ... und Keks ... und so eine Platschen ..., wo der Eiskaffee dagestanden ist. Hat alles nur noch gebrüllt ..., denn ... weil das einfach nicht gepasst hat. ... Und dann ..., nur ein Beispiel ..., dann wollte ich den Eiskaffee essen und kaum hab ich angefangen ... hat wieder alles gebrüllt vor Lachen. ... Das war fast unmöglich, diesen zu essen und ist mich nachher schon selber angegangen. ... Und ... jetzt bekomm ich ... zum Beispiel ... Da habe ich ein paar E-Mails bekommen ..., wegen dieser Wien Geschichte ..., wo wir da am

Weiterarbeiten sind. ... Und dann bekomm ich halt ..., dann schreib ich halt zurück: „Das war super..., die zweitägige Veranstaltungen ...Vielen Dank an meine Kollegen, Also die ..., die da mitgearbeitet haben." ... Und dann noch ...: „Wenn der Eiskaffee nicht alles vermasselt hätte... am Schluss dann." ... Und jetzt ..., momentan ist der Eiskaffee ..., das ist der Klatsch. Und ja, so ist es ... und das ist aber das eher das E-Mail, wo aber denn schnell geht. ... Deshalb find ich immer jederzeit ... und ... „Kap der guten Hoffnung" ... und dann und alles ... Und das pflege ich ein bisschen. ... Und die sammle ich dann übrigens auch ..., wenn ich so ein E-Mail bekomme. ... Da habe ich dann eine Plus-Box ..., die tu ich nicht löschen ..., sondern das ist meine Plus Box. ... Wenn ich lachen muss, dann hau ich sie rein ... und wenn ich mal einen schlechten Tag hab ..., dann schau ich in die Plus Box rein. Dann weiß ich ..., dass ... So ist es. ...

A: Aus dem was du gesagt hast reflektiere ich jetzt einfach mal raus ..., dass du permanent immer in einer Form der Weiterbildung bist ... aufgrund deren du Magazine liest ..., Diskussionen mit anderen hast, etc. Würdest du sagen ..., dass du innerhalb eines Jahres auch regelmäßig Kurse belegst, damit du dich in gewissen Punkten weiterentwickeln kannst?

01:05:30

T: Ja, aktuell ..., mach ich ja die ... Bin jetzt im ersten Abschnitt ... Habe ich gemacht für ..., Wirtschaftsmediation in Bern. ... Und da habe ich jetzt gerade Mitarbeiter Gespräche gehabt. ... Bin aber noch nicht dazu gekommen ..., da hab ich eigentlich vor den zweiten Abschnitt zu machen ..., mit einer Vertiefung ... für... einem Gebiet ..., wo mich interessiert. ... Und da bin ich dann ... Das sehe ich als ..., das habe ich auch meinem Boss gesagt ..., das ist für mich ..., das was mich längerfristig interessiert, ist Konfliktmanagement in der Firma. ... und das taugt mir und da will ich mich weiterbilden und da bin ich dran. ... Mach ich jetzt sogar ein Seminar für die Firma. Schon ..., da hat er mich schon gefragt ..., ob ich das mach und da bin ich dran ... und das ist zurzeit ... Nun ja, und es gibt aber nur das. ...

A: Aber es wird dann aktiv gefördert, vom Unternehmen?

T: Ja ... genau. ...

A: Würdest du sagen, du hast Leidenschaft bei deinem jetzigen Job?

T: Ja.

A: Kann man die Leidenschaft auf das zurückführen, auf diese Freiheit ..., diese Unkompliziertheit von der Firma [Firmenname Forschung] ..., die sie dir bietet?

T: Ja ..., die gründet sich etwas aus der ... Ich muss sagen..., das ist so ein bisschen eine Interaktion. Wir haben einen neuen Mitarbeiter aus Südafrika ..., der fängt bei uns an als Innovationsleiter von der Primary ... und der war ... eingeladen im letzten Strategie-Meeting ... und den habe ich dann begrüßt ... und dann habe ich das alles abgehalten und dann habe ich ihm noch das Protokoll geschickt ..., nach Südafrika runter und dann bekomme ich eine E-Mail, wo drinnen steht: „Vielen Dank für die Moderation ... usw.“ ... Und überhaupt ... würde er sich sehr freuen, mich kennenzulernen ..., weil die Kollegen ..., würden so und so und so von mir sprechen. ... Und das ist so, dass dieses Feedback ..., das ist insofern so ..., dass mir das wieder Leidenschaft zurückgibt. ... Man hat ... Es tut sich so etwas wie ... Man ist verpflichtet ..., eigentlich das Beste zu geben. ... Und man will immer ... Die Leute sagen immer: „Wenn ich den etwas machen lass, der macht dir was.“ Die lassen sich ein bisschen auf das ein und ich selber versuch halt, am Boden zu bleiben und nicht zu sagen: „Ah das ist super!“, sondern eher so: „Lass uns das mal probieren!“ Man bekommt eine gewisse Leidenschaft hinein ..., weil es halt so ..., es sind so Workflows ..., wo man ... ganz interessante Ideen bekommt mit Kollegen ..., wo die weiterkommen und dich auch weiterbringen. ... Und durch das ..., wenn die eigentlich ... Oder meiner Meinung nach, ist es eigentlich so ..., dass ich irgendwas schaffe, dass ich so viel Zuspruch habe ... in dem Workshop drinnen. Von der Art ... Also, die fragen nicht: „Warum machst du das?“, ... und: „Warum ist das da gelb und das grün?“ ... Du kennst das, oder? Sondern die lassen dich machen und da bist du natürlich freier ... und die profitieren vielleicht davon, von dem dass du ... dich da wirklich hineinhängst. ... Und umgedreht auch ..., oder? ... Ich sehe, dass die ..., dass die das und das machen ... und die Art und Weise wie sie diskutieren. ... Und das gibt so eine leidenschaftliche ... Situation, was die Kommunikation betrifft. ... Wenn ich dann sehe, dass jemand nach längerer Zeit dann plötzlich ... sagt ..., wo er dann sagt: „Eigentlich geht es um das und das und das.“, und du merkst, es passt so richtig gut jetzt ..., für alle und für ihn ..., dann hab ich eigentlich schon ..., ist eigentlich schon meine Arbeit, wo ich sage das ist dann ... wirklich, was mich interessiert. ... Und das ... ist das. ... Das hat so einen gewissen Touch ... und ... es geht nicht ganz ohne leidenschaftliche ..., ohne dieses emotionale Eingebunden-Sein. Also, es ist keine akademische ... Distanz. ... Von da her ... muss ich sagen ..., muss ich sagen, es ist ein reines Dialog Phänomen ... für mich.

A: Wenn du jetzt weißt ..., zum Beispiel ... du bist in der Situation, dass du was ausarbeiten musst ... und du ... weißt, dass in der Firma [Firmenname Forschung] sehr viel Wissen vorhanden ist ..., auch sehr viel Erfahrung ..., durch die ganze Jahre ..., durch die schlauen Leute, die eingestellt werden. ... Wie findest du raus, wer im Unternehmen ... die gefragte Information haben könnte? Wie gehst du da vor?

01:10:20

T: Das ist ganz schwierig ..., weil es ist wirklich so, dass man überrascht ist. Also, sagen wir mal ein Beispiel. Ich habe ..., dieses ..., diesen Prozess ... der Werte-Entwicklung da vorgeschlagen ... und das auch so durchgeführt. Und da habe ich ... in der Geschäftsleitung gesagt: „Dafür brauche ich einen Projektleiter.“ Und dann habe ich gesagt: „Ich möchte gerne den [Name Mitarbeiter] haben. “...Und dann haben die gesagt: „Warum der [Name Mitarbeiter]? ..., usw. ... und dann habe ich gesagt: „Ich mach es mit dem [Name Mitarbeiter] oder gar nicht“ ... So quasi ... und dann sie wieder: „Wieso?“ ... Dann hab ich wieder gesagt: „Der [Name Mitarbeiter] ..., ist eigentlich ein Soziologe ... und das ist eigentlich das was wir da machen und hat sehr viel mit dem zu tun und der Benno ..., der versteht das.“ ... Und dann haben die gesagt: „Was? Der versteht das? ... Das kann ja jeder machen, hart gesprochen.“ Und dann sag ich: „Ja genau.“ Der Faktor ist, warum weiß, ich dass der das kann? ... Das ist darum entstanden, weil der [Name Mitarbeiter] ..., der war mal bei mir im Büro ... und hat einfach ..., der hat neu angefangen und hat sich vorgestellt ... und ich habe mir Gott sei Dank etwas Zeit genommen und hab gefragt was er so macht und so. ... Und dann hat er mir Zeug erzählt und ich dachte mir: „Hey Mann, das ist ja irre!“ Und dann haben wir sofort eine Diskussion gehabt. ... Dann habe ich gewusst ..., diesen Mann kannst du anzapfen! Und das ist genau so passiert. Aber schau ..., das ist ein bisschen ein Zufall gewesen. ... Das hätte wirklich sein können, dass ich es einfach nicht weiß ..., schlicht weg nicht weiß. ... Und ich kann dir eines sagen ..., ohne den Mann ..., diesen Prozess da durchzuführen ..., der wäre dann wirklich nicht so gut gewesen. ...

A: Nehmen wir an, du kennst den [Name Mitarbeiter] nicht aber du willst unbedingt jemanden, der in dem Bereich ... tätig ist. Was würdest du dann tun?

T: Ja, dann hätte ich wahrscheinlich viel selber machen müssen ... und hätte es aber nicht so gut können, nicht so gut geschafft ..., einfach durch das Projekt ... einfach nicht so gut hergebracht. Ich will nicht sagen ..., vielleicht wäre es gar nichts so aufgefallen ..., dass kann es schon sein. ... Aber weißt du, wir gehen jetzt schon davon aus ..., dass man solche neuen Konzepte ..., solche „State of the Art“ Dinge ..., hab ich eben das feature drinnen, dass sie eben neu sind ..., aber dass sie auch gut gemacht sein müssen ...sonst verhaut man es einfach. Und da bin ich im Nachhinein auch froh ..., dass dies so gegangen ist. Aber auf deine Frage hin ..., ist das ein bisschen ein Glücksfall gewesen ..., weil ich nicht wirklich weiß ..., was die Leute so können, außer das ich es halt vermute. Und dann frag ich sie halt ... und es geht, aber nicht immer. Also, es ist ein bisschen eine reine ...

A: Aber du würdest jetzt nicht einfach mal durchtelefonieren oder ein E-Mail streuen ... mit: „Hey Jungs! ... Ich brauch was. ... Hab da was.“ ...

T: Nein, auf diese Idee wäre ich nie gekommen ..., um so eine Abfrage zu machen, wer weiß was. ...

A: Ok ..., viele deiner Kollegen aus dem Technik-Bereich, die sagen, sie nehmen einfach das Telefon in die Hand und telefonieren sich durch bis sie da sind, wo sie ... hinkommen zu dem, wer das wissen kann. Denn irgendjemand in der Firma [Firmenname Forschung] sagt: “Ah, geh zu dem oder zu dem.“ Und dann sei es wie eine Kette, bis sie dort ankommen.

T: Ja, also das tue ich weniger. ... Bei mir hängt das zusammen, weil ich halt ..., weil ich mich mit so viel Leuten in Workshops treffe ..., dass ich weiß, was die machen und denken ... und dann brauch ich das vielleicht nicht ganz so ... Aber ja ..., unter dem Strich ... fällt sicher viel unter den Rost. Da bin ich überzeugt, dass der einfach nicht weiß ..., dass der eine die und die Fähigkeiten hat ..., obwohl die man jetzt ganz genau brauchen könnte. Weißt, so richtig ..., das muss ich sagen ..., da bin ich ein bisschen ..., so gefühlsmäßig unterwegs. ...

A: Wo, würdest du dann sagen, findet bei dir die Wissensgenerierung statt? Eher ... beim ... Erfahrungsaustausch ..., beim Verknüpfen von Erlebten ... oder nimmst du eher das ... Erlebte, das Autoren in ein Buch hineingeschrieben haben? Oder ist es einfach beides?

T: Generell..., also Wissensgenerierung kommt aus der ..., dass man sich beschäftigt mit der Literatur. ... Ich lese eigentlich schon regelmäßig. ... Dann ist es die Diskussion ..., vor allem mit Personen, die völlig andere Disziplinen verfolgen. Also ich muss sagen ..., ich treffe mich wahnsinnig gerne mit alten Kollegen ... aus der Biologie ..., aus der Philosophie ... und mit meinem Bruder, der ist Kunstprofessor. Und das sind Leute, mit denen gehe ich auf Aufstellungen. ... Und das ist das, was mich wirklich interessiert. ... Diese ... Einfach zu wissen, was andere machen. ... Einfach jene, die nichts mit dem zu tun haben ... und das inspiriert mich total in dem Beruf. ... Also, im Beruf lese ich ein bisschen was ... und hab das eine oder andere ..., wie es zu [Name]..., der Berater in Wien. ... Den lern ich kennen ..., wie der arbeitet ..., schau dem auf die Finger ..., hab einen Kontakt ..., telefonier mit dem, ab und zu. ... Und haben auch gesagt, dass wir einen Artikel schreiben, gemeinsam und so. ... Das ist ein bisschen ... Aber sonst, tendenziell ... eher ... so Dinge, welche gar nichts zu tun haben mit dem Beruf. ... Das ist für mich das Interessanteste.

A: Würdest du behaupten, Wissens-Management ... per se ..., also sprich, eine Abteilung mit einem bis zwei Mann ... in der Firma [Firmenname Forschung] ..., würde dir oder anderen helfen ..., den Job besser zu machen ... oder dem Unternehmen besser zu werden?

01:16:18

T: Ich könnte mir vorstellen, wenn eine Person ..., so ... ein bisschen spezialisiert ist, wenn er so rundum geht ... und sagt: „Wo könntest du, in welcher Qualität ..., eventuell was dazu sagen? Wo hast du Interessen ..., wo du auch eine aktive Diskussion führen kannst und... was ist so dein Erfahrungshintergrund ..., wo könnte man ...?“ Also ich könnte mir vorstellen ..., dass jemand auf eine Wissenslandkarte das auch zeichnen könnte ..., wo auch einen gewissen zusätzlichen Nutzen bringen könnte. ... Das mag sein. Das würde zum Beispiel, wenn jemand so ein Projekt machen würde ..., dann würde ich dieses befürworten.

A: Dann würdest du sagen ... Ihr habt ja immer so headings wie z.B.: „Das ist das Ziel für das Jahr 2014“ ... so Schwerpunkte. ... Würde das Bewusstsein schaffen bezüglich Wissenstransfer und Wissensgenerierung für das Gesamtunternehmen ..., dass jeder eigentlich so das „Hütchen des Wissens-Managers“ aufgesetzt bekommt. Wäre das eher etwas, was dem Unternehmen helfen würde, anstatt dieses ...“out-gesourcte“. ... So fast ...

T: Ja, ich glaube, dass wir ..., dass wir eh etwas versuchen ... Das ist ..., das steht sogar in der Mission drinnen. ... Es ist so, dass wir dieses aktive Wissen teilen. ... Das ist es, was die Firma unterstützt und machen möchte. ... Und dass wir vor allem Mitarbeiter einstellen, die besser als jemand selber ..., und von dem was zu lernen ist. ... Und diesen aktiven Teil, dieses

Wissen zu teilen ist eigentlich ein wichtiges Prinzip in dieser Firma. ... Und von dort her sollte das eh jeder machen, so gut er das machen kann ..., und von sich preisgeben, wo er eventuell ... was einbringen kann. ... Wahrscheinlich ist das aber ..., hat das andere ..., hat es das eine oder andere Feature auch noch drinnen, dass man sagt ..., wie’s halt so ist ..., dass man zu gewissen Fragen das Netzwerk leichter ansteuern kann ..., dass man sagt ..., wenn es zum Beispiel ein Facebook geben würde bezüglich Wissen zum Beispiel..., dass man sagt, ich habe so ..., das wäre ganz interessant. ... Auf der anderen Seite ... kommt man etwas in die Zwickmühle ..., dass halt dann verschiedene Leute ... aufspringen ..., dass wenn man oft einmal einen gewissen Wissens-Pool hat, dass man diesen auch für sich in Anspruch nimmt ..., weil das ist auch begrenzt. ... Man will natürlich ..., man ist ja froh, wenn man einen guten Auftrag bekommt ... und ist jetzt nicht unbedingt ... und ich muss dir jetzt eine ganz ehrliche Antwort geben ..., ganz junge Mitarbeiter und Mitarbeiterinnen, die kommen und fragen mich: “Du machst da das und das.“ ... Und die beobachten das ... und das würde sie extrem interessieren: „Wie ..., wie bist du dahin gekommen? Und wie kann ich das machen?“ Und da gebe ich ... und ich weiß nicht, ob man das so verwerten kann ..., aber ich gebe da den Hinweis, dass man ..., sagen muss ..., dass man z.B. die Aufträge annimmt ... und dann zuerst mal selber durchführt. ... Wenn man das jedem erzählt oder ..., dann ..., verstreust du sozusagen die Fokuspunkte ..., die wo du eigentlich selber machen willst. ... Das heißt, beim Einstieg ... ist es ... nicht immer so lustig, alles zu verteilen. ... Oder wenn man eine gute Methode hat etwas Lässiges zu machen, dann sag ich manchmal: „Nimm das und mach das so!“ Also Idee ... Und versuch das zwei- bis dreimal zu machen, bis man die Person kennt ..., dass man dann weiß: „Ok, der macht das gut“ Und der fragt dich wieder im Unternehmen ..., dann kannst du da wachsen und mit der Zeit, wenn du da viele hast wie mich ..., dann ist es einfach zu sagen: „Ich kann das nicht machen, mach bitte du das!“ Aber wenn jemand anfängt ..., dann ist es gut ..., dass es sich vielleicht ..., dass Betriebsgeheimnis auch etwas schützt. Dass ist eben ..., das hängt mit dem zusammen, dass jemand eine Chance hat, dort in den Bereich hineinzukommen. Und wenn ich nun jemand habe, den ich sehr schätze ... und ich weiß: „Ok, das ist voll der nette Typ“, ... und ich weiß ..., wie der [Name Mitarbeiter] ..., der sich echt total interessiert ..., dem gebe ich echt gerne Wissen weiter. ... Der kann mich alles fragen ..., der ist manchmal lustig unterwegs ..., aber ich mag den. ... Der macht Dinge, die ich vielleicht nicht so gut kann ... und wenn der mich was fragt ..., dann nehme ich mir immer Zeit ... und gebe ihm das Beste, was ich sagen kann. ... Und andere? ... Da sag ich: „Weiß nicht, ob dir das hilft?“ Da sage ich: „Jaaa...!“ Weißt, das sind so Leute ..., die wollen solche Dinge abchecken ..., aber nicht wirklich daran interessiert sind. Aber das ist auch nur eine Annahme ..., dann bin ich auch etwas oberflächlicher ... und dann sag ich: „Jaaaa ... mei, mach dann halt mal!“ Man tut das teilweise gezielt ..., weitergeben ..., weil man die besten Themen als gewisse Kostbarkeiten ansieht. ... Das ist für mich ganz wichtig, dass eine gewisse Fragestellung bei bestimmten Themen eine Kostbarkeit ... darstellt, wenn man diese Frage stellt ... oder wenn man das beantwortet oder wenn man das versucht zu machen. ... Und diese Kostbarkeiten tut man nicht aller Welt streuen, sondern sehr gezielt. Das ist halt eher so ..., dass ist mir auch schad um die Zeit ist, ehrlich gesagt. Wenn irgendjemand kommt und sagt: „Wie machst du das? Könntest du ... mal Training machen für das und das?“ Dann sag ich: „Jaaaa ..., kann ich schon mal machen!“ ... Kommst dann halt auch nicht mehr dazu. ... Aber wenn dann jemand schon kommt wie [Name Mitarbeiter] vor drei bis vier Wochen und sagt: „Ich hab da einen relativ steilen Auftrag an Land gezogen und ich möchte diesen da machen, weil ich will das machen!“ Und ich habe ihr auch schon gesagt: „Mach du das einfach!“ ... Und ..., aber wenn mal wirklich schwierige Sachen da sind, dann helfe ich ihr. Das ist nicht das Problem und sie hat das nun angenommen und gesagt ..., sie sieht sich auch nicht mehr ganz darüber ..., in der Auftragserfassung. ... Und jetzt habe ich am Montag und Dienstag ... mit ihr auf dem Workshop, ich hab ihr gesagt: „Ich hab es dir versprochen.“ Und jetzt gehe ich mit ihr mit und jetzt haben wir das heute noch besprochen. ... Und jetzt möchte ich einfach, dass sie das gut hinbringt ... und ich bin einfach dabei, damit nichts passiert. ... und sie ist..., total top. Aber sie ..., aber das tue ich nur bei Leute, die wollen es echt gut machen und die wirklich was machen. Und dann nehme ich mir einfach diese zwei Tage frei zum Helfen. Und das ist ..., das hat ab und zu mit Verschluss zu tun, dass man nicht alles preisgibt ... und ... mein Chef hat auch schon gefragt: „Wie machst du das?“ Dann sag ich: „Du ..., das ist ...“ Da ist ja dann die Spannung heraus ... und dann sagt er: „Ok!“ ... Das ist so ein Hin und Her. Aber grundsätzlich sollte es jeder so machen, ja. ...

01:24:08

A: Was würdest denn du sagen ..., was ist das größte Hindernis für den Informationstransfer zwischen den Mitarbeitern eines Unternehmens.

T: Da spielt die Angst vermutlich eine Rolle. Die Angst, dass man mit dem, was man sagt ..., dass man damit was macht. ... Und verbunden etwas mit der Vertrauensbasis ..., dass man mit dem, was man sagt ..., dass man mit dem ordentlich umgeht, ... Und ..., und die sogenannte Verwertung ..., und ich glaub das hat ... den gewissen Sinn ..., dass das Unternehmen in eine sinnvolle Richtung gesteuert wird. Und eine gewisse Angstfreiheit ... also nicht die Abwesenheit von Angst, dass meine ich nicht, aber eine Angstfreiheit dabei ... ist förderlich, damit du überhaupt das machst.

A: Würdest du sagen, in der Firma [Firmenname Forschung] ist Angst..., ist von der Angstfreiheit sehr gut...?

T: Ich glaub, dass [Firmenname Forschung] es geschafft hat, die Angst in einen Bereich zu bringen ..., wo sie definitiv an einem Arbeitspunkt ist ..., wo sie zwar - nach meiner Meinung - unbedingt stehen bleiben muss. ... Nicht dass man es weg bringt ..., aber es ist an einem Arbeitspunkt, wo man sagen kann ..., es spielt etwas mit dem ..., also es ist spielerisch. Also, man kann mit der Angst umgehen ..., dass heißt, man kann sich da auch nach vorne tasten ...

und das finde ich ganz spannend ..., dass man das auch was riskiert und kommunikativ auch und vom Wissen her ..., sich da ..., dass Wissen dadurch hereinkommt. ... Da kann ich einfach Wissen aufnehmen und bin daran interessier ..., an dem ganzen Transfer ..., und ich glaube dass man da einen guten Arbeitspunkt hat. ...

T: ...und wenn die Organisationen als Organismus etwas anschaust ..., ist es ja so ..., dass man sagt ..., dass die Organisation an sich im Großen und Ganzen eine gewisse Sinnhaftigkeit bietet, ... Das ist vielleicht, wie ich dir gesagt habe, dass mit den drei Punkten: Sinn ..., Verstehen und Ändern. ... Wenn diese drei im Zusammenspiel eine gewisse Stimmung erzeugen ..., eine „Atmosphäre“... eine „coherence“ ..., eine Stimmigkeit, dann ist es so..., wenn man das als Lebendiges ..., eine ... Lebendigkeit anschaut ..., will man das eigentlich erhalten. ... Weil es macht keinen Sinn ..., das Leben zu zerstören. ... Etwas Lebendiges ..., wenn man es als gut empfindet ..., das ist ja auch das Interessante aus der Psychologie was oft passiert, dass man in dieser ..., in diesem „Resilienz Thema“..., wo man das oft sieht, ist das ..., dass man oft mal als Mensch ..., Leute die depressiv sind ..., ja alle, die in die andere Welt driften ..., und das alles nicht mehr gilt ..., wo eigentlich immer die Frage ist: „Wie kann ich mein Leben beenden?“ Und es ist ganz interessant, dass man in einer Organisation ..., wenn man diese erlebt, dass man eigentlich grundsätzlich die Organisation erhalten möchte ... für sich, weil man ja da drinnen ein Teil ist. Dann denkt man auch viel über die Organisation nach und macht solche Initiativen. Also, man versucht ..., die Organisation nicht zu schädigen ..., einfach gesagt. Und wenn man was macht ..., dann will man diese höchstens „challengen“ oder herausfordern ..., damit sie lebendigt bleibt, in dem Sinn, dass sie nicht einschläft. Das sind solche Effekte ..., wie ich das eher interpretiere. ... Wenn du bei 700 Leuten es schaffst ..., dass eher der größere Teil versucht es am Leben zu erhalten als zu zerstören, dann hast eigentlich schon ein guten „drive“ drinnen. ... Wobei ich sagen will ..., wenn du Leute darunter hast, die das kaputt machen wollen ..., dann ist es auch gerade recht für mich. Dann sag ich nämlich: „Die paar haltest du auch gerade noch aus, den die erhalten dich auch wach.“ Nicht zu vergessen, dass es auch diese ... schwierigen Dinge gibt. ... Das ist nicht das Problem für mich. ... Es ist aber nur die Frage, ob die Größenordnungen halten kannst ... oder..., genau so wie bei politischen Parteien, zum einfach nur zu sagen: „Die haben keine Berechtigung.“ ... Weil sie haben die Berechtigung immer zu zeigen ..., dass den anderen vielleicht ..., was dir da jetzt gar nicht passt, was die da sagen ..., die Aufmerksam machen..., dass es dies auch gibt und auch immer geben wird. Die Frage ist nur ... Das Kritische ist nur ..., wenn sie gewisse Themen oder Größenordnungen bekommen ..., eine gewisse in der Organisation, dann ... kann das sein, dass es mit der Kreativität - was wir besprochen haben - plötzlich zurückgeht, weil ..., es nicht mehr geht ..., weil es macht kein Sinn mehr sich ..., fun oder zum Spaß haben ..., weil es ist einfach nicht mehr lustig ist. ... Das ist diese Leidenschaft ..., würd ich auch noch verbinden mit dieser ... „Willingness“ ... für ..., in das Leben zu investieren.

A: Meinst du, ihr werdet das immer noch schaffen wenn ihr 500 Mitarbeiter mehr habt und wirklich Richtung Großkonzern rennt? Weißt eh ..., diese flache Hierarchie ..., Passion ..., Kommunikation usw. Wir wissen ja, ihr seid wirklich kommunikativ. ...

01:30:11

T: Ja ..., hmmmm ..., da ist ein Versuch ..., ich glaub ..., dass wir noch durch einige Erfahrungen durchgehen müssen und ..., idealerweise ..., sollten die Erfahrungen uns auch stärken ... und auch in dieser Richtung stabilisieren. Und dann denke ich schon, dass wir das schaffen können ..., ja.

A: Also Schwerpunkte habt ihr ganz andere ..., wie in anderen Firmen ..., also in der Organisationsentwicklung ..., Kommunikation ... usw. ...

T: Klar, es ist immer schön in einer Organisation zu arbeiten ..., oder in einem Projekt oder Konzept zu arbeiten, wo ..., wenn man will ..., wo einfach ..., wo du das Gefühlt hast ..., dort bin ich auch dabei ..., irgendwo. Etwas was die Gesellschaft ... oder die ... Überhaupt interessant ist der Ansatz ..., zum Beispiel, dass die Leute daran arbeiten, wie die Demokratie ... verbessert werden kann. Das ist mega-schwierig, ansonsten hätte man dies schon lange gemacht. Also ..., dass ist dann immer so, dass man sagt ..., man kann ja daran arbeiten und die Leute ..., die das tun in den unterschiedlichsten Bereichen oder zur Friedenssicherung ... oder und das ist meine Sache ..., ich sag: „Das interessiert mich etwas ..., dass man eine sehr sinnstiftende Arbeitswelt hat." ... Das ist halt vielleicht gesellschaftspolitisch so ..., wenn ich sage ..., wenn du ..., in einer Gesellschaft gute Arbeitsplätze hast..., viele gute ..., also wie wir es vielleicht auch suchen ..., was Besseres kann es gar nicht geben. Da hängen Familien dran, da hängt Zufriedenheit dran ..., da hängt die Gesellschaft dran. ... Und da ist eine Weiterentwicklung ..., die ich oft sehr schön sehe ..., wie Mitarbeiter bei uns..., einfach sehr schön möglich..., indem sie sich wohlfühlen und einfach auch Mensch sein können. Und auch ..., wie auch bei dem „random counceling" in Wien ..., da haben sich 24 Leute getroffen ..., durch einen Zufallsgenerator gewählt, weltweit von 700 Leute. ... Ich meine, da war eine Putzfrau dabei ... und daneben ist ein Mitarbeiter mit 25 Jahre vom Sales von der ersten Stunde von [Firmenname Forschung] gesessen ..., high sophisticated. ... Und die zwei sitzen nebeneinander. Aber was mir extrem gefallen hat, ist dass die miteinander sprechen können und zwar ... auf eine super Art ..., mit einer ernsthaften ... Anmerkenden. ... Und ... ich hab ja gesagt ..., dass man das immer wieder butzt. Also ..., das ist so ..., dass wo deine Fragen gewesen sind mit dem leidenschaftlichen ..., hat für mich mit Folgendem zu tun ...

A: Also, das ist ein bisschen typisch für [Firmenname Forschung] ..., nicht? ... Diese Offenheit und der Respekt ... oder der respektvolle Umgang innerhalb der Firma. ... Aber das, was du gestern gesagt hast ... „Fun at Work"..., das man das eigentlich nicht so ... Also, wie hast du das genannt ..., dass man zwar den Gedanken übernehmen kann ... aber sonst ... Also, ich bin schon der Überzeugung, dass der Spirit ..., die Ansicht selber, also das „Fun at Work"

... Ich mein, dass sieht man ja nicht ..., dass es da auch innerhalb bei uns was auslösen kann ..., z.B. dass die Mitarbeiter sagen: „Bleib ich einfach länger und mach einfach mehr.“
T: Ja, das kannst du schon schaffen ..., das was ich glaub ich sagen wollte, ist dass du ... Absolut ja..., also dass du irgendeinen Weg gehen musst für dich. Ja ..., das ist ganz klar. ... [Firmenname Forschung] ist höchsten für dich ..., eine Möglichkeit und das sag ich auch nur mit Achtung dazu ..., eine Möglichkeit, um zu sagen: „Das gibt es. ... Das ist nicht nur so, das gibt es wirklich. Was ich eigentlich auch gut finde, das gibt es da oder da.“ Dann hast zumindest mal eine Sicherheit ..., dass es schon mal gemacht worden ist. Aber ..., was auch wichtig ist ..., die Firma [Firmenname Forschung] ..., die..., da könnten wir lange diskutieren ... Ich kann dir sagen, uns geht es finanziell sehr gut ... und bei euch ist es finanziell angespannt. Das sind zwei verschiedene Punkte. ... Ich mein, über das haben wir schon mal ein bisschen gesprochen. Wenn die Firma [Firmenname Forschung] durch eine finanzielle Krise geht ..., dann ... Also ich bin ein Typ, da möchte ich dann auch dabei sein. ... Weißt du, was ich meine? Das ist interessant. ... Und das ist ganz generell so. ... Und wie ..., und wie du eine Kostbarkeit oder ein Leben oder so ..., wenn dies von der Natur bedroht wird ..., wie das dann lauft, ist ja dann hochspannend ..., diese Mechanismen. ... Und bei uns ist es so ..., bei uns gibt es das nicht besser. ... Wir haben eine ganz andere Situation ... und trotzdem hast du recht. Man kann es hineinbringen, weil ..., weil es genau das auch umkehren könnte ..., dass man erfolgreicher wird. Da hast du recht und bei uns ... kann es das umgekehrt auch geben, dass man durch diese Blindheit ..., wenn man halt ausgestattet ist ..., eigentlich blind ist und ... dieses Ganze plötzlich als Verlogenheit enttarnt wird. ... Vor dem sind wir nicht gefeit. ... Das sag ich dir offen. ... Das wäre verrückt, wenn wir sagen würden, wir haben das gepachtet. ... Es kann sein, dass wir in drei Jahren ..., das [Firma xy] ein ganz interessantes Konzept hat, wenn du länger dabei bleibst ..., während [Firmenname Forschung] ... strudelt. Ich hoffe, dass es bei uns nicht so ist ..., das ist nicht so. ...

01:36:06

A: Aber das Heading „Fun at Work" impliziert eigentlich nur, dass der Mitarbeiter Spaß hat und der Spaß muss nicht immer nur das Umfeld ..., Computer und Investitionen oder Geld betreffen, sondern Spaß an der Arbeit kann auch das Abenteuer sein ..., das Zwischenmenschliche ..., das man gerne an seinen Job geht. ...

T: Ja, das stimmt ..., man muss das interpretieren. ... Es ist ja nicht der Spaß im eigentlichen Sinne, sondern ..., weil ... Es ist eher das ..., der Begriff ... Für mich ist es, wie ich es vorher gesagt habe ..., ich bin gerne dort, wo ich was investieren kann in eine lebendige Geschichte. ... Klar, ich bin extrem aus der Biologie geprägt, weil mich hat das immer schon fasziniert ..., weil du schaust dort eher drauf, wie das Leben funktioniert. ... Wie funktioniert die Photosynthese ..., das ist ja auch spannend. ... Dieser Prozess läuft ja schon 3,5 Milliarden Jahre ... und da kann man nur drauf schauen. Der ist vor einem da gewesen ..., und das interessiert mich halt, etwas von der Organisation ..., weil ich sage ..., dass ist ja hochspannend ..., weil so was in sich gesehen funktioniert. Und da sind Mechanismen dahinter ..., die eigentlich anziehend sind für gute Leute. ... Da kommen dann natürlich auch Leute, die spannend sind. ... Aber ... ich glaube, die hohe Aufmerksamkeit und Konzepte ..., dass es - wie du sagst - von 500 auf 1000 geht. ... Das ist zum Beispiel etwas schon was ..., was man mir jetzt sagt ..., ich müsste da was sagen. ... Dann muss man echt darüber nachdenken. ... Das ist dann eigentlich ein Job, der dann Spaß macht, wo man sich fragt: „Wie kann man das zum Beispiel machen ..., um was geht es da eigentlich ...,wie kann man da ...?" Das ist natürlich in meiner Strategie-Aufgabe ein Thema ..., wie kann man die Organisation in den nächsten Schritt bringen? Was sollte man da eigentlich eher unterlassen ... und ... was muss man unbedingt machen. Und was ..., also ..., nur dass du es weißt, der Prozess ..., von diesem „wistel council" ..., da habe ich gerade heute erst an den Professor [Name] von der Zeppelin Uni geschrieben. ... Weil der ist skeptisch gewesen, was ich da mache und nun habe ich ihn gebeten, dass ..., dass ich es eben schon gemacht habe und so. ... Und jetzt habe ich gesagt: „Ich würde gerne diesen Prozess ..., der wird jetzt gerade dokumentiert ..., einer kritischen Nachbetrachtung aussetzen.“ Und ich würde gerne eine Veranstaltung machen, wo man den Prozess vorstellt ... und wo einfach teilweise Namen auch für diese Leute ... Darüber nachdenken ..., ob das nun eine Placebo Geschichte ist ..., im Grunde oder ob es wirklich was bringt, weil das ist schon was Neues, ... Und dann hat er mir jetzt soeben vorher zurückgeschrieben, dass wir das nun so machen ..., oder. ... Und ich weiß mit dem ist es einfach ein Privileg ,... wenn du mit dem diskutieren kannst oder auch nur zuhören kannst. Er ist so was von spannend, der Mensch. ... Zuhören ist einfach was Schönes ... und ... es gibt da schon den nächsten Kreations-Prozess. ... Und ich werde es nun mal auf die Rüttelstrecke legen. Das ... habe ich durchgeführt ..., habe ich alles gemacht ..., dafür bin ich verantwortlich ... und lass das jetzt überprüfen ..., von Leuten, die in der Wirtschaftsethik sind ..., ob das, was wir eigentlich da machen ... Placebo ist. Aber das mach ich nun nicht in der Firma, weil ..., in der Firma will ich mich nicht selber vorführen lassen ..., zum Sagen ...: Das hättest vorher wissen müssen, dass es ein Scheiß ist. ... Das funktioniert ja nicht!“ Da muss ich mit Leuten, die in den Fächern drinnen sind, damit treffen. ... Da nehme ich dann auch den Jakob mit und den Matthias. Dann gehen wir dorthin ... und der Benno. ... Und dann lade die drei ein. Das ist ein Geschenk von mir an die Kollegen, die mir da geholfen haben und organisiere das in der Uni Zeppelin. Und bin aber gespannt, was die sagen. ... Und wir werden uns verteidigen ... und das finde ich, das ist das Spannende. ... Und das kann man hier machen und da fragt mich auch keiner. ...

A: Dann musst du mir mal erzählen, was dabei rausgekommen ist.

T: Ja ..., und ich hab ihm gesagt, falls er das interessant findet und da hat er zurück geschrieben: „Das machen wir.“ Und das heißt ja was ..., weil sonst sagt der gleich: „Nein..., vergiss es!“

13.6 List of Interviewees & Position

Table 23

List of Interviewees & Position

Interviewee number	Position	Document number	Word count	Pages
1	Coach	1	9.491	32
2	Process Manager	2	10.396	34
3	Coach and Project Leader	3	9.316	30
4	Coach	4	12.225	40
5	Area Sales Manager	5	9.163	32
6	Software Developer	6	9.823	31
7	Communication Manager	7	8.192	28
8	Communication Manager	8	10.419	35
9	Regional Sales Manager	9	12.973	41
10	Human Resource Manager	10	11.609	37
11	Finance and Legal	11	11.698	38
12	Finance and Legal	12	6.784	23
13	Hardware Developer	13	7.064	25
14	Hardware Developer	14	7.934	30
15	Hardware Developer	15	5.378	22
16	Project Leader	16+17	9.226	33
17	Marketing Manager	18	11.630	38
18	Marketing	19	8.224	28
19	Finance and Legal	20	8.703	29
20	Area Sales Manager	21	9.329	30
21	Business Developer	22	11.112	34
22	Software Developer	23	7.947	26
23	Organizational Developer / Strategy Manager	24	14.811	43
24	Office Manager	25	10.294	34
25	Hardware Developer	26	7.011	23
26	Product Manager	27	15.046	46
27	IT Manager	28	9.028	23
28	Finance and Legal	29	9.554	31
29	Purchase	30	7.975	26
30	Quality Manager	Speed interview 1	2.258	8
31	Quality Manager	Speed interview 2	1.587	5
32	Software Developer	„Googler“	1.820	6
32 perspectives		**33 Documents**	**286.020 words**	**941 pages**

13.7 List of Observation

Table 24

List of Observation

Observation	**Date**	**Days**
Observation 1	01.03.2014 – 02.03.2014	2
Obersvation 2	10.04.2014	1