Explaining Professional Pharmacy Service Provision and Sustainability in German Community Pharmacies

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Abstract

Professional pharmacy services (PPS) can offer a venue for re-professionalising pharmacy practice, but despite being regarded as necessary, useful, and professionally rewarding, PPS implementation has been slow. Whilst barriers and facilitators have been extensively researched, little is known about how they are related. Likewise, the mechanisms and causal relationships explaining PPS provision, success and sustainability are lacking. This includes the influence of healthcare professional and business orientations, which are inherent in pharmacy and regarded as conflicting. Hence, this thesis aimed to address these aspects by applying a critical realist informed research design. Based on a two-phase realist review drawing on theories of motivation, decision-making, and entrepreneurship from a small business perspective combined with research on PPS provision, and analysis of semi-structured interviews with German pharmacy owners, explanatory frameworks for PPS provision were developed.

The results support existing knowledge about small firm decision-making behaviour and identify decisions for or against PPS provision as ecologically rational. The explanatory frameworks demonstrate that the PPS development process can be separated into front-end and implementation stages and place the identified mechanisms and contextual factors, which influence decisions for provision, delivery, success, and sustainability of professional services alongside the process. Results show that the process stages are conceptually different, manifested in the relative importance of role orientations per stage, with motivation and decision-making at the front-end being mainly business-oriented, driven by supporting the goal of income generation, and healthcare professional orientation being a stronger influence on actual service delivery. Being able to appropriately align role orientations for goal achievement was identified as a personal or organisational capability. Such ‘role ambidexterity’ was linked to service success and sustainability and can be actively managed to achieve competitive advantage.

Moreover, this thesis elucidates the impact of successful PPS provision on a pharmacy business, as it reinforces positive value expectancies fostering the recognition of consecutive PPS opportunities, thereby creating a virtuous circle. Success also leads to sustainability, which is actively fostered with increasing importance of a service to a pharmacy's business viability.

Contributing to a better understanding of the PPS provision process, results can be applied to design services and processes that appeal to pharmacists' motivations and professional values and are manageable in a small business setting.

Key words: professional pharmacy service provision process, decision-making, motivation, small business, healthcare professional and business orientation, service sustainability

Author's Declaration

I declare that the work in this thesis was carried out in accordance with the regulations of the University of Gloucestershire and is original except where indicated by specific reference in the text. No part of the thesis has been submitted as part of any other academic award. The thesis has not been presented to any other education institution in the United Kingdom or overseas. Any views expressed in the thesis are those of the author and in no way represent those of the University.

Signed _____ Date _____

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Dedication

To my beloved late father and personal hero Dr. Reiner Bottler. You were and still are an example of magnanimity, perseverance, and optimism. You demonstrated the possibility for making tremendous achievements against all odds and to enjoy life, no matter what. I miss you.

To my husband Andreas. You are the love of my life, my partner, my compass and constant reminder that life is for living.

To my beloved son Philip. I wish to you that you see possibilities, not obstacles and that you will take your chances to pursue your passions and achieve happiness in life.

Table of contents

Abstract ..... **i**

Author's Declaration ..... **iii**

Acknowledgements ..... **iv**

Dedication ..... **v**

Table of contents ..... **vi**

List of Figures ..... **xii**

List of Tables ..... **xiv**

List of Abbreviations ..... **xv**

1 Introduction **1**

1.1 Definition of professional pharmacy services 1

1.2 Professional pharmacy services: re-professionalisation and business decision 3

1.3 Aim of the research and structure of the thesis 5

2 Pharmacy context in Germany **12**

2.1 The role and influence of pharmacies within the German healthcare system 12

2.1.1 Roles, responsibilities and representation of pharmacists in Germany 12

2.1.2 Pharmacy status within a national healthcare system focused on cost containment 14

2.2 Professional, legal, and business context influencing pharmacy practice in Germany 17

2.2.1 Pharmacy ownership and legal form of pharmacies 17

2.2.2 Employment in pharmacies, pharmacist qualification and pharmacy technical infrastructure 19

2.2.3 Pharmacy business model – importance of the supply function for income generation 23

2.2.4 Competitive situation and dealing with competition 25

2.3 Professional and non-professional service offers in German community pharmacies 27
2.3.1 Types of services offered in German pharmacies 27
2.3.2 Experience with professional pharmacy programmes in Germany 29
3 Literature Review 34
3.1 Introduction to the chapter 34
3.2 Part 1 – Theoretical background on motivation and decision-making relating to entrepreneurship and small businesses 36
3.2.1 Motivation 39
3.2.1.1 Motivation and goals 39
3.2.1.2 Motivators for healthcare professionals, small businesses and entrepreneurs 40
3.2.1.3 Motivation and performance 43
3.2.2 Decision-Making 46
3.2.2.1 Decision-making on strategic and entrepreneurial opportunities 46
3.2.2.2 Rational and intuitive decision-making styles 48
3.2.3 Decision-making models 51
3.2.3.1 Decision-making models in small organisations 51
3.2.3.2 Models connecting motivation, decisions and action 55
3.2.4 Development of a tentative explanatory framework 59
3.3 Part 2 – Realist review of pharmacy practice relating to role orientations and professional pharmacy services 63
3.3.1 Characteristics of the research included in the review 68
3.3.1.1 Development of research foci 68
3.3.1.2 Distribution and comparability of professional pharmacy service research across countries 70
3.3.2 Data extraction and synthesis 72
3.3.3 Pharmacist roles and role orientation 74
3.3.3.1 Pharmacist roles and role orientations identified in the literature 74
3.3.3.2 Healthcare professional values and their relation to professional pharmacy service provision 77

3.3.3.3 Business orientation, its relationship with professionalism and the importance of business skills for professional pharmacy services 82
3.3.4 Motivation and decision-making for professional service provision 84
3.3.4.1 Motivators for professional service provision 85
3.3.4.2 Making decisions for professional service provision 90
3.3.5 Factors affecting professional pharmacy service success and sustainability 94
3.3.5.1 Prerequisites and success factors for service provision 95
3.3.5.2 Challenges with and solutions to (successful) service provision 99
3.3.6 Contextual factors 104
3.3.6.1 Macro level context 105
3.3.6.2 Meso level context 107
3.3.6.3 Micro level context 108
3.4 Chapter summary 109
3.4.1 Refinement of the explanatory framework 109
3.4.2 Gaps in the literature 116
3.4.3 Comparison with the German context 119
4 Methodology and Methods 123
4.1 Critical Realism as the chosen Research Philosophy 123
4.1.1 Critical realist ontology, mechanisms and causation 123
4.1.2 Critical realist epistemology 126
4.2 Research design 127
4.2.1 Critical realist informed research design and methodology 127
4.2.2 Qualitative research strategy for the empirical investigation 131
4.2.3 Validity and reliability considerations 134
4.3 Data collection 137
4.3.1 Data collection via semi-structured interviews 137
4.3.2 Interview guide design 139
4.3.3 Sample and sampling 143
4.3.3.1 Purposive sampling: service-providing pharmacist-owners 143

4.3.3.2 Sample size 144
4.3.3.3 Sample selection 147
4.3.4 Conducting the interviews 149
4.3.4.1 Ethical considerations 149
4.3.4.2 Interview procedure 151
4.4 Data analysis 154
4.4.1 Retroductive grounded theory framework analysis 154
4.4.2 Operationalising framework analysis 156
5 Results of the Analysis and Discussion 168
5.1 Introduction 168
5.2 Description of the sample of pharmacist-owners 170
5.3 Description of the services provided 175
5.4 Dual role and the perspective of service provision as a business decision 178
5.4.1 Role orientations and functions of services within the pharmacy business model 178
5.4.1.1 Dominance of the dispensing-based business model consisting of healthcare professional and business roles 179
5.4.1.2 Assessment of healthcare professional and business role orientations 181
5.4.1.3 Role ambidexterity: Impact of role orientations on the pharmacy business model 189
5.4.1.4 Function and Importance of professional services within the overall pharmacy business: between income generation and marketing tool 195
5.4.2 Influence of role orientations on motivation and recognition of PPS opportunities 198
5.4.2.1 Motivators for PPS provision 198
5.4.2.2 Impact of role orientations on motivation for PPS provision 206
5.4.2.3 Influence of role orientations on the recognition of PPS opportunities 209
5.4.3 Relationship between motivation and decision criteria in a two-step decision process 216
5.4.3.1 Decision criteria, their importance and context of application 216

5.4.3.2 Ecological rationality of pharmacist decision-making 224
5.4.3.3 Decision-making process: from opportunity recognition to planning & implementation 228
5.5 Linking the service provision process to service success and sustainability 234
5.5.1 Perceptions of service success 234
5.5.2 Success factors for PPS provision 238
5.5.2.1 Nature of services 239
5.5.2.2 Resources: competent and motivated staff 243
5.5.2.3 Capabilities 245
5.5.2.4 Contextual factors 251
5.5.3 Role ambidexterity and professionalising as competitive advantage 253
5.5.4 Factors affecting sustainability of PPS provision 255
5.6 Final explanatory frameworks– explaining provision, success and sustainability of professional pharmacy services in Germany 259
5.6.1 Explaining service provision 260
5.6.2 Impact of role orientations 264
5.6.3 Success factors and agency 266
6 Conclusion 270
6.1 Contribution to knowledge 270
6.2 Implications for pharmacy practice 277
6.3 Limitations 285
6.4 Future Research 287
References 291
Appendices 326
Appendix 1: Comparison of small business decision-making models 327
Appendix 2: Interview guide 328
Appendix 3: Pharmacy questionnaire (German and English versions) 333
Appendix 4: Number of interviews and interview lengths of comparable semi-structured interviews 341
Appendix 5: Overview study population (from online pharmacy search) 345

Appendix 6: Follow-up email to pharmacist-owners in German with English translation 362

Appendix 7: Confidentiality agreement in German with English translation 364

Appendix 8: Consent form in German with English translation 366

Appendix 9: English translations and German original of the respondent quotes used in the results chapter 368

Appendix 10: List of analysed services (with selected themes) 394

Appendix 11: Service nature – service dimensions and their properties 411

Appendix 12: Example of the application of success factors for new service development 414

List of Figures

Figure 1: Professional pharmacy bodies in Germany 13
Figure 2: Split of statutory health insurance expenses in 2015 15
Figure 3: Development of single and branch pharmacies in Germany 18
Figure 4: Split of pharmacy ownership in Germany in 2015 18
Figure 5: Employment in pharmacies in 2015 19
Figure 6: Participation in continued education 21
Figure 7: Pharmacists with specialisation titles 21
Figure 8: Pharmacy turnover 2015 by product group in billion Euros 23
Figure 9: Overview of services in German community pharmacies 28
Figure 10: Generic new service development model 60
Figure 11: Tentative explanatory framework of motivation and decision-making 61
Figure 12: Number of publications included in the literature review by time of publication 68
Figure 13: Publications included in the review by topic 69
Figure 14: Publications included in the review by research method 70
Figure 15: Publications selected for review by country of origin 71
Figure 16: Structure of data extraction spreadsheet 73
Figure 17: Context-mechanism-outcome (CMO) configuration 73
Figure 18: Professionalism and competitive advantage 81
Figure 19: Tentative explanatory framework for the decision to offer professional pharmacy services 111
Figure 20: Tentative explanatory framework for (successful) PPS implementation and provision 114
Figure 21: Critical realist ontology 125
Figure 22: Critical realist informed research design 130
Figure 23: Qualitative research strategy 131
Figure 24: New codes per additional interview 145
Figure 25: Example - memo on professional and business aspects 159
Figure 26: Example - memo on specialising 160
Figure 27: Example of coding 161

Figure 28: Example of charting (category “motivation” from pharmacy chart) 163
Figure 29: Example of analysis combining different categories 166
Figure 30: Presentation and discussion of results leading to final explanatory frameworks 169
Figure 31: Distribution of pharmacy ownership by no. of branches in Germany and in the sample 173
Figure 32: Model of professional pharmacy services with number of analysed services per service type 177
Figure 33: Combining healthcare professional and business orientation to create a competitive advantage 194
Figure 34: Functions of services within the pharmacy business model 196
Figure 35: Opportunity evaluation, decision-making and planning process 228
Figure 36: Factors contributing to PPS success 238
Figure 37: Final explanatory framework – influence of role orientations on the PPS development and provision process 260
Figure 38: Service provision funnel 263
Figure 39: Final explanatory framework for PPS provision and sustainability 267
Figure 40: Professional pharmacy service business model canvas 280

List of Tables

Table 1: Structure of the thesis 11
Table 2: Focus areas of literature search on motivation and decision-making research 38
Table 3: Inclusion and exclusion criteria on professionalism in community pharmacy 65
Table 4: Elements used for assessment of role orientation: Task importance 75
Table 5: Elements used for assessment of role orientations: Task affinity 76
Table 6: Motivators for professional service provision (pharmacy management level) 87
Table 7: Motivators for professional service provision (personal / service providing pharmacist level) 88
Table 8: Success factors for professional pharmacy services from the pharmacy practice literature 96
Table 9: Potential influence of German context factors on PPS provision ... 119
Table 10: Characteristics of pharmacist-owner sample 171
Table 11: Size categorisation of pharmacies 172
Table 12: Overview of types of services offered by participating pharmacist-owners 175
Table 13: Spontaneous role description - importance of traditional dispensing role 179
Table 14: Manifestations of professional values 184
Table 15: Pharmacist-owner satisfaction with professional and non-professional services 234
Table 16: Service success and pharmacy size 252

List of Abbreviations

ABDA	German national pharmacy association - Bundesvereinigung Deutscher Apothekerverbände (formerly Arbeitsgemeinschaft der Berufsvertretungen Deutscher Apotheker)
API	active pharmaceutical ingredient
CAGR	Compounded average growth rate
CMO	Context-mechanism-outcome
CO	Customer orientation
COPD	chronic obstructive pulmonary disease
CR	Critical realism / critical realist
DRP	Drug-related problem
EO	Entrepreneurial orientation
EUR	Euro
HCP	Healthcare practitioner
HMR	Home medicine review (Australia)
KPI	Key performance indicator
MO	Market orientation
MTM	Medication therapy management (USA)
MUR	Medicine use review (UK)
NPM	Non-prescription medicine
NSD	New service development
PPS	Professional pharmacy service
OTC	Over the counter
OECD	Organisation for Economic Co-operation and Development
QMS	Quality management system
SDT	Self-determination theory
SME	Small- to medium-sized enterprises
SOP	Standard operating procedure
TPB	Theory of planned behaviour
USP	Unique selling proposition

1 Introduction

1.1 Definition of professional pharmacy services

Healthcare is an important economic factor, making up on average 9% of OECD countries' GDPs in 2016 and in some developed countries such as Germany, the UK or the USA, this share is even higher at 11.3%, 9.7% and 17.2%, respectively (OECD, 2017). Whilst healthcare expenditure growth has slowed down, it exceeds GDP growth in some developed countries; in Germany, for instance, healthcare expenditure showed an average growth of 4.7% from 2006 to 2016, compared to an average GDP growth of 3.6% (OECD, 2018a, 2018b). Reasons for mounting health care costs are increased availability of medical technologies, more surgical procedures, and rising expenditure for medication (OECD, 2010) but also the ageing population and growing numbers of patients with one or more chronic conditions (OECD/EU, 2016). This cost increase is driving attempts by governments to curb the so-called "cost explosion" (Zweifel, Breyer, & Kifmann, 2005, p. 1), which is "leading to rationing in the form of longer wait times or restricted access" (Larsson & Tollman, 2017, p. 1). Despite high healthcare expenditure, many healthcare systems show inefficiencies, needing to provide better value for money (OECD, 2017). Providing sufficient, yet affordable healthcare will thus become increasingly important.

A way forward is seen in concentrating on the primary care sector, specifically on fostering patient-centred and integrated care (OECD/EU, 2016). Making basic healthcare services more accessible, time-saving and affordable could be achieved by shifting basic healthcare services away from physicians to other health care providers, such as pharmacists, without negatively impacting the quality of care (Mossialos et al., 2015; Tootelian, Rolston, & Negrete, 2006). Within this framework of extended patient-centred pharmacy services belongs the concept of pharmaceutical care, which is defined as *"the responsible provision of drug therapy for the purpose of achieving definite outcomes that improve a patient's quality of life"* (Hepler &

Strand, 1990, p. 539). These outcomes Hepler and Strand (1990, p. 539) refer to are "*cure or slow-down of disease progression, prevention of a disease and elimination or reduction of symptoms through identifying, resolving and preventing a patient's drug-related problems as a patient-centred service"* in cooperation with other healthcare professionals, i.e. in most cases a physician. Hepler and Strand (1990, p. 539) ground the justification for this (new) professional "mandate" for pharmacists on studies showing that provision of such services helps reducing health care cost by adapting drug regimens, minimising adverse events and drug-related hospitalisation, morbidity and even mortality. Although the impetus to the new professional mandate started from the concept of pharmaceutical care, which by its definition is centred on medicine provision, literature since Hepler and Strands' seminal article describes further patient-centred services such as consultation on minor ailments and non-prescription medicines (NPM), chronic disease management programmes, immunisation, and pharmacist prescribing (e.g. Jacobs, Ashcroft, & Hassell, 2011). The proliferation of different services has led to a range of expressions used, for instance 'cognitive pharmaceutical services' (e.g. Roberts, Benrimoj, Chen, Williams, & Aslani, 2008), 'community pharmacy services' (Lowrie et al., 2014), 'clinical pharmacy care services' (Chan et al., 2008), or 'clinical pharmacy services' (Rotta, Salgado, Silva, Correr, & Fernandez-Llimos, 2015), whereby the latter emphasise services related to improving medication therapy or patient (health) outcomes. Given the range of services offered by pharmacies and different terminologies, the definition for professional pharmacy services (PPS) developed by Moullin, Sabater-Hernández, Fernandez-Llimos, and Benrimoj (2013, p. 990) was used in this thesis, as it is the most comprehensive and unifying definition available to date:

> *"A professional pharmacy service is an action or set of actions undertaken in or organized by a pharmacy, delivered by a pharmacist or other health practitioner, who applies their specialized health knowledge personally or via an intermediary, with a patient/client, population or other health professional, to optimize the process of care, with the aim to improve health outcomes and the value of healthcare."*

This definition is based on the notion that these services all have in common that they are of professional character requiring expert knowledge and encompass a wide range of patient-centred services such as fitting of compression stockings, patient seminars, or medication management and also includes inter-professional services such as counselling physicians. Furthermore, it specifically excludes non-professional services which do not require specialised knowledge such as medicine home delivery (Moullin et al., 2013). Whilst being the most recent and most comprehensive definition of professional pharmacy services available, it neither explicitly includes nor excludes compounding of medication which is a traditional pharmacist task and requires expert knowledge. Therefore, for this thesis, compounding of patient-individual medication, e.g. creams, nutrient mixes, or cytostatic drugs used in cancer treatment, is considered to fall within the definition of professional pharmacy services, for which the abbreviation PPS is used throughout the thesis.

1.2 Professional pharmacy services: re-professionalisation and business decision

Professional pharmacy services can be seen as both, an attempt to upgrade the profession (re-professionalise) but also as a (strategic) business decision. The pharmaceutical care “movement” (Clark & Mount, 2006, p. 111), leading to the provision of a range of professional services in various countries, is not only about supporting healthcare systems but also about expanding the role of pharmacists away from medication supply by recognising pharmacists as patient-centred healthcare providers and better utilising their knowledge (Clark & Mount, 2006; Hepler & Strand, 1990), especially in caring for patients with (multiple) chronic conditions by ensuring safe use of medicines, monitoring adherence and compliance and engaging in diagnosis and prevention (Mossialos et al., 2015).

Being concerned with the production and safe use of medicines, which constitutes the specific knowledge of the pharmacy profession and provides professional identity (Edmunds & Calnan, 2001), pharmacists can be seen as experts for medicines (Hibbert, Bissell, & Ward, 2002). However, since the

production of pharmaceuticals was taken over by the pharmaceutical industry, a core component of the professional knowledge and hence status was lost (Savage, 1994) and responsibilities of pharmacies were largely restricted to dispensing and retailing (Edmunds & Calnan, 2001; Van Mil & Schulz, 2006). It is perceived that this left the pharmacy profession in search of new, meaningful roles to re-professionalise through extending their professional territory via the development of new capabilities and services (Savage, 1994). Possibilities for re-professionalisation were found in pharmaceutical care and professional pharmacy services (Hepler & Strand, 1990). Re-professionalisation thus means changing the focus of pharmacy practice from product to patient and a stronger involvement in primary care, involving new services, such as medication reviews or disease management services (Benrimoj, Feletto, Gastelurrutia, Martinez, & Faus, 2010). As pressure on margins for prescription dispensing is increasing (e.g. Woods et al 2015), re-professionalising pharmacy by re-positioning pharmacies as healthcare service providers not only provides a source of work identity or professional image but also means securing new or alternative avenues for income generation (Anscombe, Plimley, & Thomas, 2012; Evetts, 2003). Ultimately, such re-professionalisation is perceived as the way to secure the survival of the pharmacy profession (Harrison, Scahill, & Sheridan, 2012; Scahill, 2012) and it is suggested that that the majority of the pharmacy profession would need to adopt such practice change to avoid the profession becoming a commodity supplier (Davies, 2013). Hence, engaging pharmacists in professional service provision would be a win-win situation by taking some financial pressure off healthcare systems and at the same time creating possibilities for re-professionalisation, whilst maintaining the level of medical care.

Professional pharmacy services have been introduced in different countries, for instance, medication use reviews (MUR) in the UK (Bradley, Wagner, Elvey, Noyce, & Ashcroft, 2008), medication therapy management (MTM) in the USA (Barnett et al., 2009), asthma inhaler training (Inhaler Technique Assessment Training/ITAS) in Denmark (Kaae, Søndergaard, Haugbølle, & Traulsen, 2011), or Home Medication Reviews in Australia (Roberts et al., 2008; Singleton & Nissen, 2014) to name a few. This is indicating that

professional pharmacy services have to some extent been adopted and recognised by policymakers as well as payers (i.e. governments and health insurers). Yet, whilst welcomed as a re-professionalisation strategy, professional services are not mandatory for pharmacies, even in countries where service programmes exist.

Eventually, re-professionalisation also means a re-orientation of the current traditional dispensing-based pharmacy business model towards a service model (Al Hamarneh, Rosenthal, McElnay, & Tsuyuki, 2012). A business model can be defined as "a concise representation of how an interrelated set of decision variables in the areas of venture strategy, architecture, and economics are addressed to create sustainable competitive advantage in defined markets" (Morris, Schindehutte, & Allen, 2005, p. 727). This definition and the voluntary nature of professional services imply that a business model change through professional service provision is not only a professional or re-professionalisation choice but also a business decision. It further implies that a professional service-based business model would have to be equal to or better than the current one for pharmacies to be motivated to take the business decision of changing to a service model. Such decision would require clarification about the decision criteria and the decision-making process leading up to actual service provision. Professional service provision means a role change and business model change. It also means a re-distribution of healthcare funding within a healthcare system to ensure that better health outcomes are achieved, i.e. a structural change, highlighting a need to understand contextual influences.

1.3 Aim of the research and structure of the thesis

Whilst the idea of professional pharmacy services is generally received positively by pharmacists, a wider implementation of these services, or even mainstreaming of professional services, albeit varying between different countries, is still limited (Schommer, Goncharuk, Kjos, Worley, & Owen, 2012). Even in Australia, where professional service provision is advanced, pharmacies appear to be slow to seize the opportunities to engage in primary care (Hermansyah, Sainsbury, & Krass, 2017). A range of barriers and

facilitators impacting on service implementation and service provision on different contextual levels have been identified (e.g.Thornley, 2006). This context can be seen as complex, interlinked and layered, including external aspects, e.g. governments or payers, internal aspects, e.g. pharmacies as organisations, and individual aspects, e.g. pharmacist motivation or skills (Benrimoj et al., 2010; Feletto, Lui, Armour, & Saini, 2013).

A criticism on the existing research on professional service provision is that it appears to be incoherent in the sense that different research streams do not build on each other (Patwardhan, Amin, & Chewning, 2014). For example, the research on barriers and facilitators has been going on for about two decades with recurring key themes appearing in nearly all research being lack of time, funding, skill and staff (e.g. Hossain et al., 2018; Thornley, 2006). Hence, Patwardhan et al. (2014) suggest that future research should focus on discerning those interventions that foster sustainable professional service provision and pharmacists' clinical role enactment, for instance by more systematically using theoretical frameworks, models and hypotheses to clarify potential relationships between variables. This is also underscored by a recent observation that cause-effect relationships between barriers and facilitators are unclear (Garcia-Cardenas, Perez-Escamilla, Fernandez-Llimos, & Benrimoj, 2018) and that specifically the aspect of sustainability is perceived as under-researched (Crespo-Gonzalez, Garcia-Cardenas, & Benrimoj, 2017). In essence, this means that explanations are needed about the mechanisms promoting or impeding professional service uptake, sustainability of services and eventually re-professionalisation.

Since professional pharmacy services can be seen as a re-professionalisation and a business decision, this reflects the dual role inherent in community pharmacy. A notable issue related to the individual aspects influencing re-professionalisation is that adjustments regarding a change in role perception of pharmacists from product or medicine focus to patient focus, a key point in the pharmaceutical care concept (Hepler & Strand, 1990), were found to be slow (Al Hamarneh et al., 2012) and pharmacists themselves are suspected to be a major barrier to PPS provision (Rosenthal, Austin, & Tsuyuki, 2010). Pharmacists have a dual role of being

both, healthcare professionals and business people and have to offer retailing and professional services (Hindle & Cutting, 2002). The dual role has inherent conflicts between business success and service provision and is thus suspected to hamper professional service provision in community pharmacies (Roche & Kelliher, 2014) and perceived as detrimental to credibility of pharmaceutical care (Garattini & Padula, 2018). However, this appears in contrast to research indicating that pharmacists seem to see themselves preferably as health and only secondarily as business professionals, which could endanger a pharmacy's existence if the professional self-perception is not matched by a strategic and proactive business orientation (Schmidt & Pioch, 2005). Indeed, there is some evidence that both role orientations are needed for professional service provision as business role orientation and specifically entrepreneurial orientation (EO), as well as healthcare professional role orientations were found to be linked to the provision of professional services (Jacobs et al., 2011; Jambulingam, Kathuria, & Doucette, 2005). Yet, how and when role orientations influence the pharmacy business in general and professional service provision in particular requires more clarification (Jacobs et al., 2011).

Furthermore, given the number of barriers and facilitators identified in the literature (e.g. Roberts et al., 2006), and the suggestion made by Patwardhan et al. (2014) to identify those factors most effective for sustainable service provision, it can be assumed that professional services will only work if certain critical success factors are met, which goes beyond motivation and decision-making and includes the service provision process. Critical success factors are defined as "...those few things that must go well to ensure success for a manager or an organization, and, therefore, they represent those managerial or enterprise area, that must be given special and continual attention to bring about high performance" (Boynton & Zmud, 1984, p. 17).

Whilst many activities in pharmacies are regulated and thus mandatory, engaging in PPS provision is a choice. Given the importance attached to re-professionalisation and therewith business model change for the survival of the pharmacy profession but the slow uptake, the business and healthcare professional aspects regarding the motivation and the decision-making for

professional service provision as starting points of service provision need to be elucidated. This research acknowledges the dual role of pharmacists as healthcare practitioners and business people and takes a business management perspective in elucidating professional service provision in German community pharmacies. The questions driving this research therefore relate to how - from a business perspective - professional services come to existence, specifically how they are motivated and decided upon, how (if at all) professional services can be sustainable and how the dual role inherent in community pharmacy influences service provision.

Hence, this research aimed to answer the following research questions:

RQ 1: What are the role orientations (professional, business, and entrepreneurial) and role perceptions of community pharmacists offering professional pharmacy services?

RQ 2: What are the motivational factors and decision criteria that encourage pharmacists to take the decision to offer professional pharmacy services?

RQ 3: How do role orientations influence the motivation and decision-making for professional service provision, as well as the subsequent implementation process and performance of such services?

RQ 4: What implementation steps and considerations are necessary to enable professional pharmacy services provision and to attain and ensure business performance?

The research questions lead to the following research objectives:

1 To assess the role orientations and role perceptions of community pharmacists offering professional pharmacy services.

2 To identify the key motivations and decision criteria for providing professional pharmacy services

3 To elucidate whether there is a link between the role orientations and role perceptions and the motivation for taking the decision to provide professional pharmacy services.

4 To explain, if and to what degree pharmacists' role orientations and role perceptions influence the implementation process and the performance of professional pharmacy services.

5 To identify success factors for professional service provision and service sustainability and to develop an explanatory model for (successful) professional pharmacy service provision.

Thus, the aim is to expand the existing knowledge base by investigating potential linkages between the dual role apparently inherent in the profession and the professional service provision process with an emphasis on motivation and decision-making. By doing so it seeks to provide explanations regarding potential mechanisms that enable and circumstances that influence professional service provision and allow the creation of a sustainable service-related business model for community pharmacies.

This research was underpinned by a critical realist philosophy which was applied throughout the thesis, including the literature review. Critical realism was chosen as it is concerned with explanation of phenomena in open social systems and the identification of generative causal mechanisms (O'Mahoney & Vincent, 2014), and thus fits with the explanation-focused research objectives. Critical realism, its tenets, usefulness for the research and operationalisation in a research design is detailed in chapter four (methodology and methods).

The empirical investigation in relation to answering the research questions was conducted in Germany. Researching German pharmacy owners was owed to several reasons.

1) The regulatory situation, which requires that pharmacies have to be owned and operated by licensed pharmacists and in which pharmacy chains are prohibited, leads to the consequence that pharmacy owners drive and own the decisions about their business (Greenbank, 2001).

2) Due to ownership regulations, German community pharmacy owners constitute a relatively homogenous group. They are therefore an ideal target group to investigate strategic and entrepreneurial decisions including innovations such as professional services. The high homogeneity of the business environment is, for example, one of the conditions that Shane, Locke, and Collins (2003) recommend for exploring entrepreneurial motivation. This homogeneity allows investigation of the mechanisms enabling professional service provision on a pharmacy-individual level without having to account for the factor of different ownership types.

3) Contrary to the situation in other countries as mentioned earlier, there were at the time when this thesis was written no large-scale remunerated professional pharmacy service programmes in operation in Germany, yet professional services were offered by some pharmacies. Due to this absence of any major service programmes, it could be assumed that, should pharmacies offer professional services, it is the decision of the pharmacy owners independent of any external incentives.

4) There is limited research available on professional pharmacy services in Germany which is a gap addressed in this thesis. In chapter 2, further information on the context, in which German pharmacy owners operate, is presented and discussed.

This thesis consists of 6 chapters. The following table provides an overview of the content and purpose of the different chapters.

Table 1: Structure of the thesis

Chapter		Content and Purpose
1	Introduction	Provides information on the research topic, the research problem, the research questions and objectives and outlines how this research is structured.
2	Pharmacy Context in Germany	Provides background information on the situation of German pharmacies regarding legal and economic aspects as well as on the status of PPS provision.
3	Literature Review	Presents and discusses the literature available on the topics of interest for this research to provide a theoretical framework and identifies potential mechanisms influencing professional service provision. Structured in two parts, with a first part conducted as a narrative review to understand what is known about motivation and decision-making to arrive at an explanatory framework and a second part conducted as critical realist review within the pharmacy practice literature to identify mechanisms for professional service provision and to expand the explanatory framework. Provides a comparison of the German situation with aspects the literature review identified as potentially influential on PPS provision.
4	Methodology and Methods	Provides information on and rationale for applying a critical realist research philosophy; presents and discusses the research design and strategies employed to answer the research questions.
5	Results of the Analysis and Discussion	Presents the findings answering the research questions from the perspective of German pharmacy owners and critically assesses the research results in comparison with the explanatory framework from the literature review to arrive at final explanatory frameworks for service provision and service success.
6	Conclusion	Places the research results within the context of pharmacy practice in Germany, provides theoretical and practical implications, as well as limitation of the research including reflection on the research process and the use of critical realist philosophy, before concluding with areas for future research.

2 Pharmacy context in Germany

As this thesis seeks to investigate professional pharmacy service provision in Germany, this chapter provides general background information on German community pharmacies and contextual factors regarding PPS provision. These factors are the German healthcare system and the power of pharmacies therein, legal requirements, qualifications and roles of pharmacists, the pharmacy business model, and analysis about professional services in Germany. The information has been constantly updated to include the most recent statistics and developments on pharmacies in Germany available to the researcher.

2.1 The role and influence of pharmacies within the German healthcare system

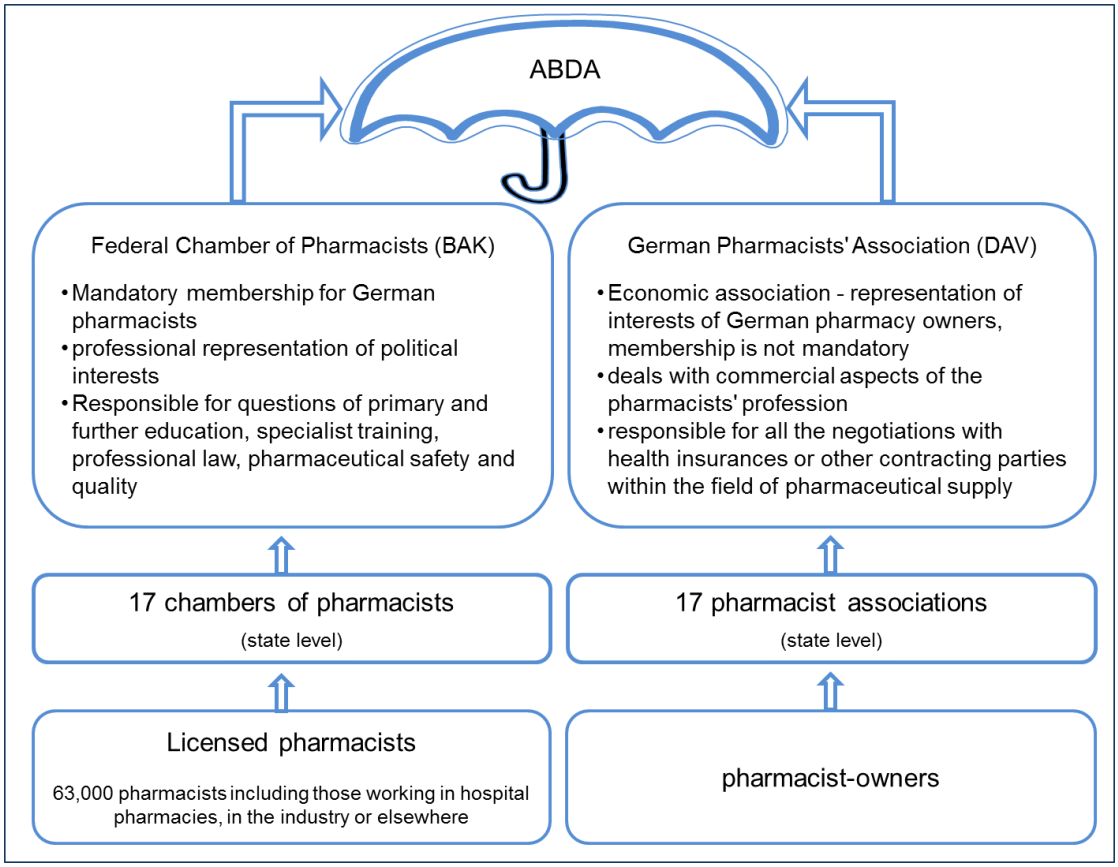
2.1.1 Roles, responsibilities and representation of pharmacists in Germany

Community pharmacies in Germany are governed by a range of laws and regulations providing the legal frame for managing a pharmacy including professional service provision. These are the German code of commerce as well as special regulations pertaining to the healthcare sector, the distribution of medicines and to pharmacies.

As a core function, German pharmacies are required by law to ensure medicine safety and secure medicine supply for the population including medicine compounding (Apothekengesetz, 2013). This requirement means that pharmacies have to fulfil emergency services during night-time and weekends and are required to stock a week's supply of the most important medicines which means that pharmacies have large amounts of capital tied up in goods (PZ-online, n.d.). In fulfilling their role of ensuring medication supply, pharmacists have an obligation to contract, i.e. they cannot refuse to dispense a prescription presented to them by a patient (Auerbach & Wiśniewska, 2013).

In Germany, as shown in the overview in figure 1, pharmacists are organised on federal state level in 17 pharmacist chambers (*Länderapothekerkammern*) and 17 pharmacist associations (*Landesapothekerverbände*), one for each federal state with the exception of North Rhine-Westphalia which is split into the chapters of *Nord-Rhein* and *Westfalen-Lippe*. Both, chambers and associations, have representation on a national (federal) level, which are in the case of the chambers the Federal Chamber of Pharmacists (*Bundesapothekerkammer / BAK*) and in the case of the associations the German Pharmacists Association (*Deutscher Apothekerverband / DAV*). The 17 state chambers and state associations are members of the ABDA (*Bundesvereinigung Deutscher Apothekerverbände*), the Federal Union of German Associations of Pharmacists. It is an umbrella organisation and indirectly represents the approximately 63,000 pharmacists in Germany, of which 50,356 (80.2%) work in the 20,249 community pharmacies across the country (ABDA, 2016).

Figure 1: Professional pharmacy bodies in Germany



Source: own illustration, based on ABDA (n.d.-e) and ABDA (2016)

The main tasks of ABDA are to foster the unity of German pharmacists, promote standards for pharmacy practice, cultivate contact to the scientific community and to negotiate on key interests of German pharmacists on a national basis (Eickhoff & Schulz, 2006). The latter includes remuneration issues but also promoting professional pharmacy services such as medication management, since medicine dispensing – including counselling – is considered insufficient to secure the current community pharmacy model (Haemmerlein, 2008). As in other countries, professional pharmacy services are thus on the agenda of the pharmacist association. This reflects a movement towards re-professionalisation and is addressed in more detail in section 2.3 of this chapter.

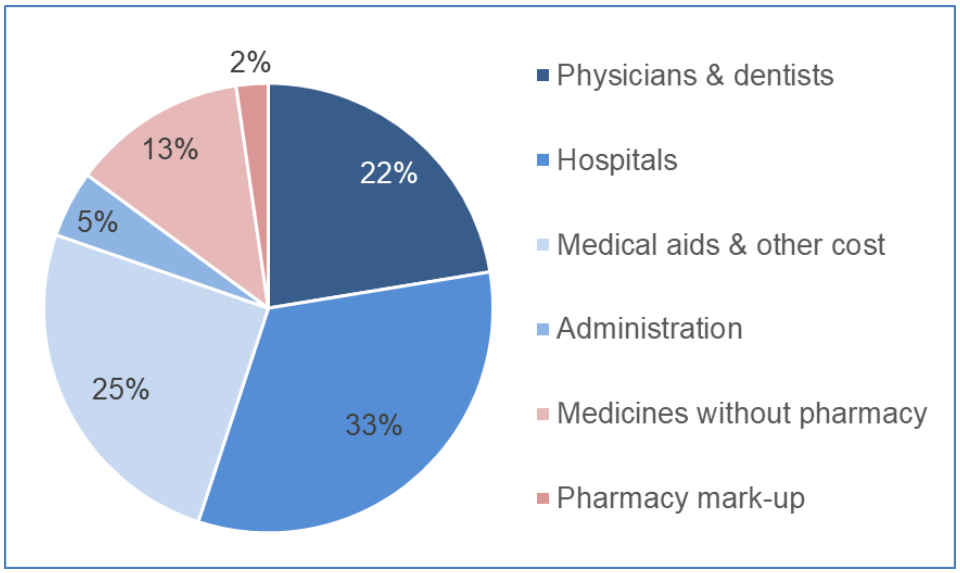
2.1.2 Pharmacy status within a national healthcare system focused on cost containment

In Germany, about 10 million people have private health insurance and 70 million people, i.e. the vast majority of the population, are health insured through the statutory health insurance companies (*Gesetzliche Krankenversicherung / GKV*) making them the largest payer for health services in Germany (BMG, 2017). As shown in the introduction, healthcare costs in many countries including Germany have been constantly rising. Total expenses from the statutory health insurance have shown a compounded average growth rate (CAGR) of 4.6% between 2005 and 2015 (BMG, 2017). The cost increases have led to a range of healthcare reforms intended to curb the costs and help maintain the stability of the statutory health insurance system, which have also been affecting the spend on medication costs and thus on pharmacies (Heinsohn & Flessa, 2013).

Medication costs have shown a CAGR of 3.9% from 2005 to 2015 (BMG, 2017) and make up about 15% of total statutory health insurance expenses. They include the costs for medicines and the pharmacy mark-up for medication dispensing and counselling services. Dispensing in German pharmacies means checking the prescription, selecting the right galenic form and pack size and handing the medication to the patient with explanations on usage, side effects and potential drug interactions. Yet, only about one fifth

(app. 5 billion Euro) of the total medication costs borne by statutory health insurance are down to the pharmacy mark-up (ABDA, 2016) as shown below.

Figure 2: Split of statutory health insurance expenses in 2015



Source: ABDA (2016)

For each prescription medicine handed to the patient under the statutory health insurance, the pharmacist can claim remuneration consisting of 3% of the pharmacy purchase price of the medicine (variable part) and a fixed dispensing fee (*Packungspreiszuschlag*) of currently 8.35 Euro (increased in 2013 from previously 8.10 Euro) less a 'key account' discount for the statutory health insurer of currently 1.77 Euro. For a medicine with a pharmacy purchase price of 100 EUR, a pharmacist can claim 9.58 Euro from the statutory health insurance, resulting in a gross margin of 9.58 Euro (GKV-Spitzenverband, 2015). Yet, compared to total expenses and expenses for medication (which also includes the expenses for the medication payed to the pharmaceutical industry), the development of mark-up showed a more moderate CAGR growth of 2% between 2005 and 2015 (ABDA, 2016), indicating that there are larger cost drivers to the healthcare system than pharmacies.

A specialty of the German healthcare system aimed at curbing medication cost are the so-called 'discount contracts' (*Rabatt-Verträge*). Statutory health insurers negotiate exclusive supply contracts with pharmaceutical manufacturers in return for low purchase prices. Pharmacists are required by

law (German Social Law, book V) to dispense medications according to these contracts and thus help execute the discount contracts. A failure to do so gives statutory health insurers the right to claim damages from pharmacies for handing in deficient prescriptions, i.e. prescriptions where wrong medications have been dispensed but also prescriptions with formal errors. Statutory health insurers thus have the discretion to subtract parts or the entire amount reimbursable to a pharmacy. Subtraction of the complete amount (so-called 'zero reimbursement' / *Null-Retaxation*) means a substantial loss to the pharmacy as in such case the pharmacy does not even get reimbursed for their purchasing cost (Schneider+Partner, n.d.). In 2016, the statutory health insurers achieved savings from discount contracts of 3.85 billion Euro (Hüsgen, 2017). To pharmacies, the introduction of discount contracts has led to increased time spent on counselling and administrative effort to avoid reimbursement losses. Thus, different to ABDA's ambitions for re-professionalising pharmacy, the focus of the statutory health insurers is on cost containment. This is exemplified in the government's view that any patient-centred counselling services, including and beyond dispensing-related counselling are contained in the 8.35 Euro fixed dispensing fee (Klein, 2013), indicating a reluctance to remunerate PPS.

Decisions on which healthcare services the statutory health insurers will remunerate are made by the Federal Joint Committee (*Gemeinsamer Bundesausschuss / G-BA*). This committee which is based on German Social Law consists of representatives of the statutory health insurers and physician representatives, as within the healthcare system, physicians are the sole initiators for healthcare service provision, including prescribing medications. Pharmacists are thus not members of the G-BA; they can participate in meetings and have the right to make proposals but do not have any voting rights (PZ-online, 2013). This has implications for expanding pharmacists' healthcare professional role regarding medication management (ABDA, n.d.-b), as pharmacist representatives can lobby to include remunerated professional services within the statutory health insurers' service catalogue but have no decision-making rights and are dependent on political will.

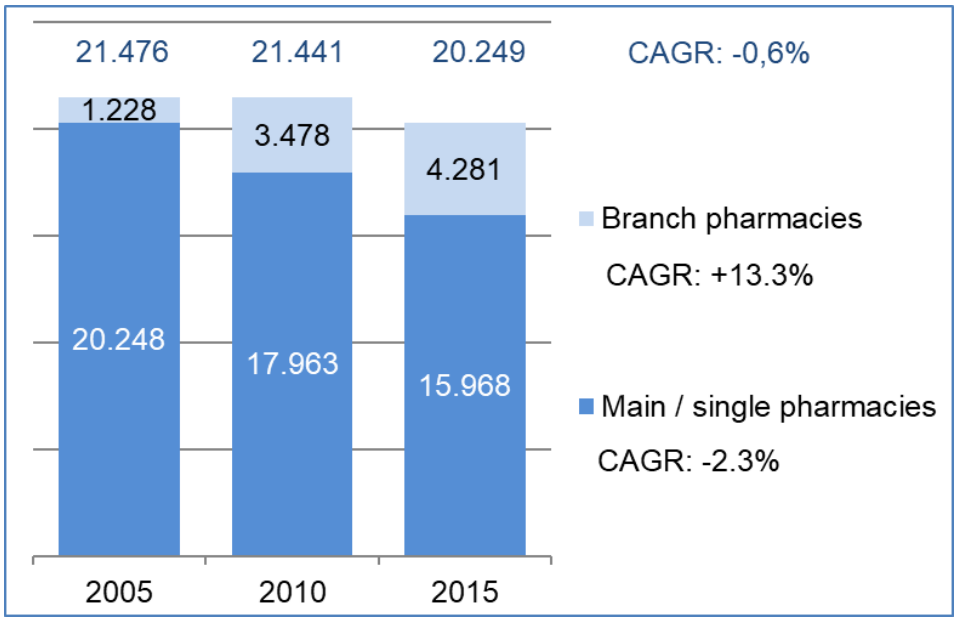
This lack of negotiation power on a macro-level actualised in a decision from 2016 (after the primary data collection), in which a new medication review programme had been agreed with the National Association of Statutory Health Insurance Physicians (*Kassenärztliche Bundesvereinigung / KBV*) and the National Association of Statutory Health Insurers (*Spitzenverband Bund der Krankenkassen / GKV-Spitzenverband*) in the Federal Joint Committee. According to this programme, general practitioners are to perform medication reviews with patients receiving three or more medications regularly, for which they are remunerated. Pharmacists can add information to these medication reviews but will not receive remuneration for doing so. Hence, general practitioners were able to gain a further source of income and pharmacists' lack of power in healthcare decision-making has excluded them from the possibility of a remunerated professional service.

2.2 Professional, legal, and business context influencing pharmacy practice in Germany

2.2.1 Pharmacy ownership and legal form of pharmacies

Compared to the USA, UK and some other markets, non-pharmacists are not allowed to own a pharmacy and the formation of pharmacy chains is prohibited– a pharmacist can only own up to four pharmacies. Hence, in the following pharmacy owners are referred to as *pharmacist-owners* reflecting that the owner of a pharmacy in Germany by law and definition is a registered pharmacist. However, as shown in figure 3, whilst the overall number of pharmacies is decreasing, the possibility of owning more than one pharmacy is increasingly adopted. Between 2005 and 2015, the number of branch pharmacies has seen a compounded average growth rate (CAGR) of 13.3%, whereas the number of single pharmacies decreased by an average of 2.3% per year, and the overall number of pharmacies showed an annual decrease by 0.6% on average. In line with the increase of branch pharmacies, there were 15,968 pharmacist-owners in Germany in 2015 (ABDA, 2016).

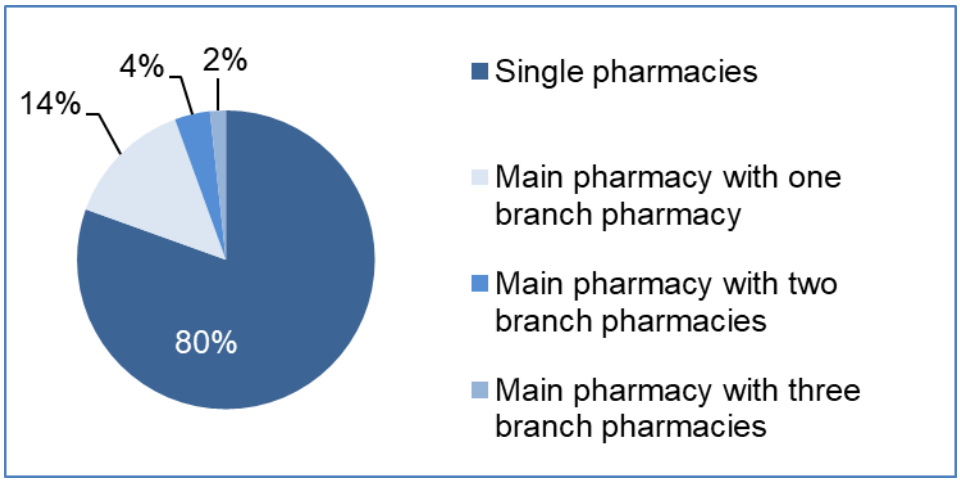
Figure 3: Development of single and branch pharmacies in Germany



Source: ABDA (2016)

Figure 4 shows that the majority of pharmacist-owners, who have opted for multiple ownership, only own one branch pharmacy in addition to their main pharmacy.

Figure 4: Split of pharmacy ownership in Germany in 2015



Source: ABDA (2016)

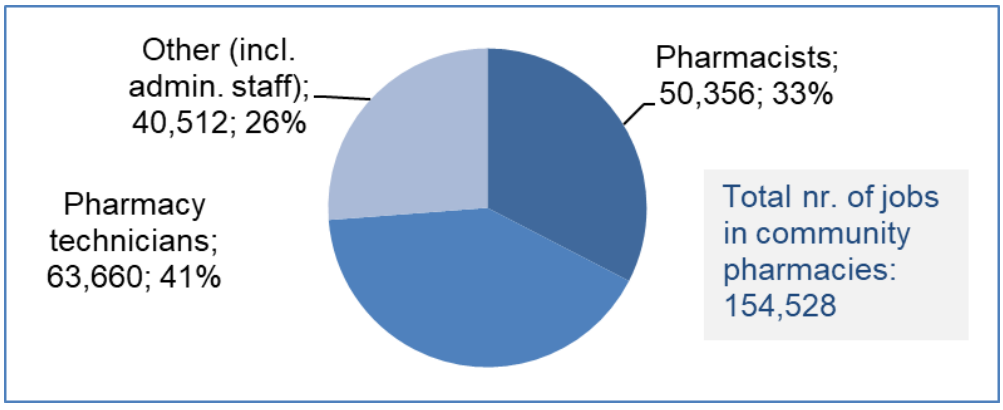
The legal form for a pharmacy is that of a single ownership as registered merchant (*eingetragener Kaufmann*); alternatively, a pharmacy can be owned by a group of pharmacists under the legal form of general partnership (*offene Handelsgesellschaft*). Due to the legal form, pharmacist-owners as merchants have to comply with the regulations of the German commercial

code (*Handelsgesetzbuch*). Both legal forms have in common that the pharmacist-owners are fully liable with their private assets (EAPBbg, n.d.). For single pharmacist-owners, the advantage is to be able to make independent decisions but the disadvantage is a difficulty in raising capital, e.g. for enlarging the business, as the possibilities depend on the pharmacist's own assets (Wikipedia, n.d.-b). Limitations like the difficult access to capital or the personal liability may influence a pharmacist's willingness to take risks as any losses directly impact a pharmacist-owner's private income and may thus be a limiting factor to PPS provision.

2.2.2 Employment in pharmacies, pharmacist qualification and pharmacy technical infrastructure

Pharmacies are important source of employment. The 20,249 community pharmacies in 2015 employed 30,107 pharmacists which makes on average 1.7 employed pharmacists per pharmacy owner (ABDA, 2016). The employed pharmacists either work with the pharmacist-owner in the main/single pharmacy or run a branch pharmacy, as the law requires that during opening hours, a pharmacist has to be present in the pharmacy. In addition, pharmacist-owners also employ pharmacy technicians, and other staff, leading to a total of over 150,000 jobs in community pharmacies (including pharmacist owners) as shown in figure 5, whereby on average, a pharmacy employs 7.6 people, thereof 5.9 non-pharmacists.

Figure 5: Employment in pharmacies in 2015



Source: ABDA (2016)

Pharmacy technicians and pharmacy administrative staff support pharmacists regarding dispensing and inventory management and can help to free up time for pharmacists to engage in service provision. As in other countries, the dual role of pharmacists as healthcare professionals and business people also applies to Germany and not surprisingly, two thirds of the German population perceive pharmacists as both, healthcare professionals and business people (IFH, 2012).

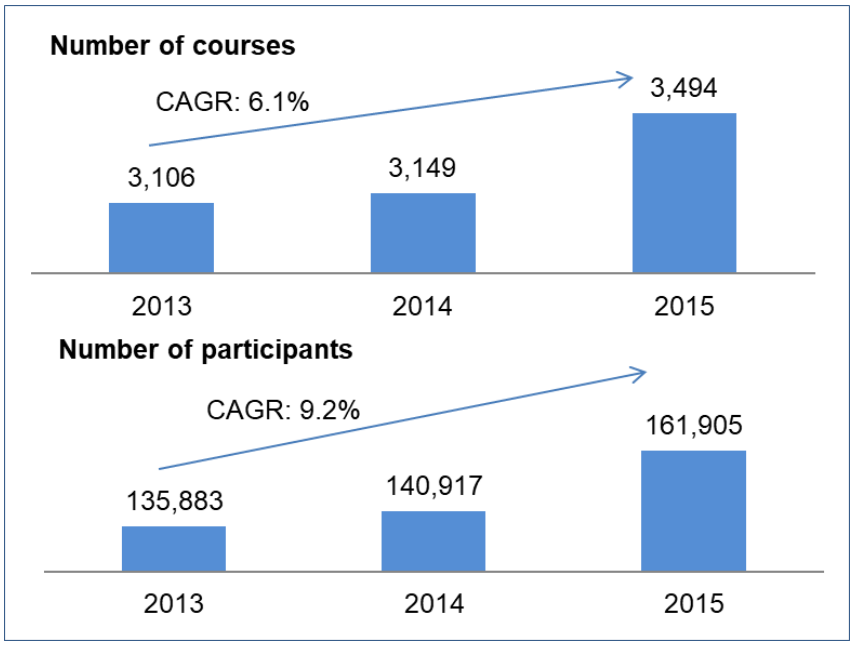
Pharmacists have specialised knowledge and in order to become a pharmacist, a four-year university degree in pharmacy is required and three state examinations (*Staatsexamen*), each after one study phase, have to be taken. The curriculum includes basics in chemistry, biology and analytics and galenics[1] followed by more specialised studies in pharmacology (how medicines work), clinical pharmacy, pharmaceutical biology and pharmaceutical technology. After the study phase at university, students are required to complete a 12-month internship of which 6 months have to be in a community pharmacy, followed by the third state examination. Upon successful completion, one can apply for a licence to practise as a pharmacist (*Approbation*) (ABDA, n.d.-c).

Furthermore, pharmacists can and have to engage in continued education and have the possibility to obtain specialisation, e.g. in clinical pharmacy, specific health conditions, e.g. diabetes, but also in pharmacy business management (Eickhoff & Schulz, 2006). The pharmacy chambers are responsible for offering continued education. They also promote expanded roles for pharmacists and give support by offering training programmes, e.g. for medication therapy safety management (akwl.de, n.d.).

Figure 6 illustrates that the number of course offers as well as the number of participants have increased between 2013 and 2015, indicating that pharmacists generally appear to follow up on the requirement for continued education.

[1] Definition: "Characteristics of the pharmaceutical formulation of a drug, which determines its mode of administration and its absorption kinetics." (Buclin, Nicod, & Kellenberger, 2009), galenic drug administration forms are, e.g. drops, capsules, coated tablets, or syrup.

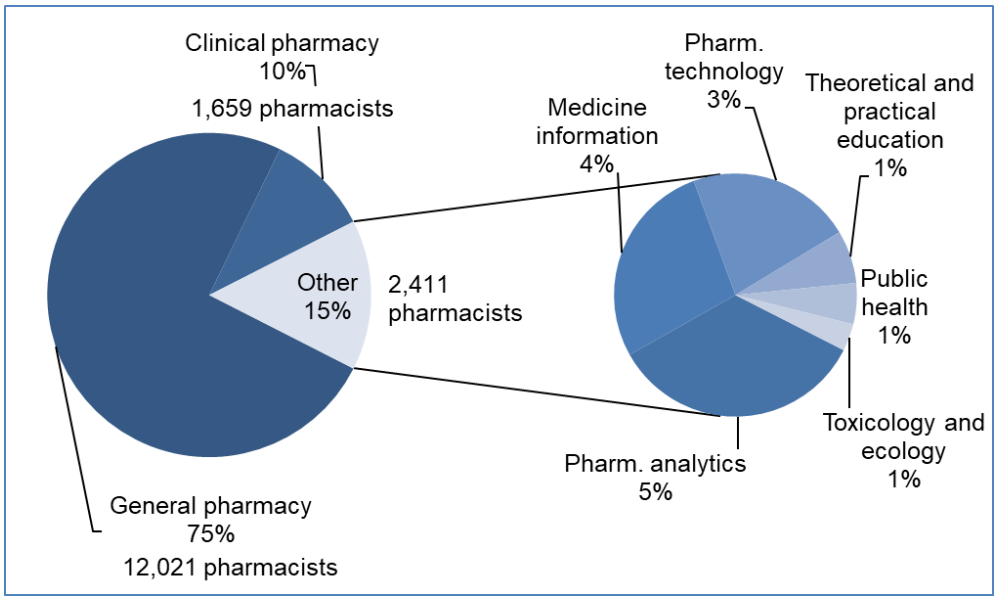
Figure 6: Participation in continued education



Source: ABDA (2016)

Furthermore, pharmacists can attend 3-year specialisation courses (ABDA, 2016), as shown in figure 7.

Figure 7: Pharmacists with specialisation titles



Source: ABDA (2016)

Upon successful completion can carry a specialist title, whereby general pharmacy has seen most completions, followed by clinical pharmacy. Thus, due to their university education and continued education offers, German pharmacists have or can obtain the necessary education to provide PPS. In

confirmation, research on medication management in Germany suggests that pharmacists do not perceive knowledge and training as barriers (Hessemer, 2016). Yet, it appears that continued education may not be used strategically as a qualitative study found that pharmacist-owners in line with a healthcare professional orientation feel the obligation for continued education but do not necessarily align the choice of courses with the strategy of their pharmacies (Blechschmidt, Thanner, & Nagel, 2010).

Regarding pharmacy infrastructure, in line with moving towards re-professionalisation, a new ordinance of pharmacies (*Apothekenbetriebs-ordnung*) came into effect in 2012. The biggest changes were an increased requirement for pharmacists to counsel patients sufficiently about both, prescription and pharmacy only medicines, to arrange the pharmacy layout in such a way that it ensures confidentiality of counselling conversations, and to introduce a quality management system (QMS) in which processes within the pharmacy have to be defined and documented (VR-Branchen-special, 2013). Having QM systems in place that can accommodate service workflows, can be used to improve pharmacy processes and to measure pharmacy performance (Eisenreich, 2014), and a private counselling area can be supportive for PPS provision.

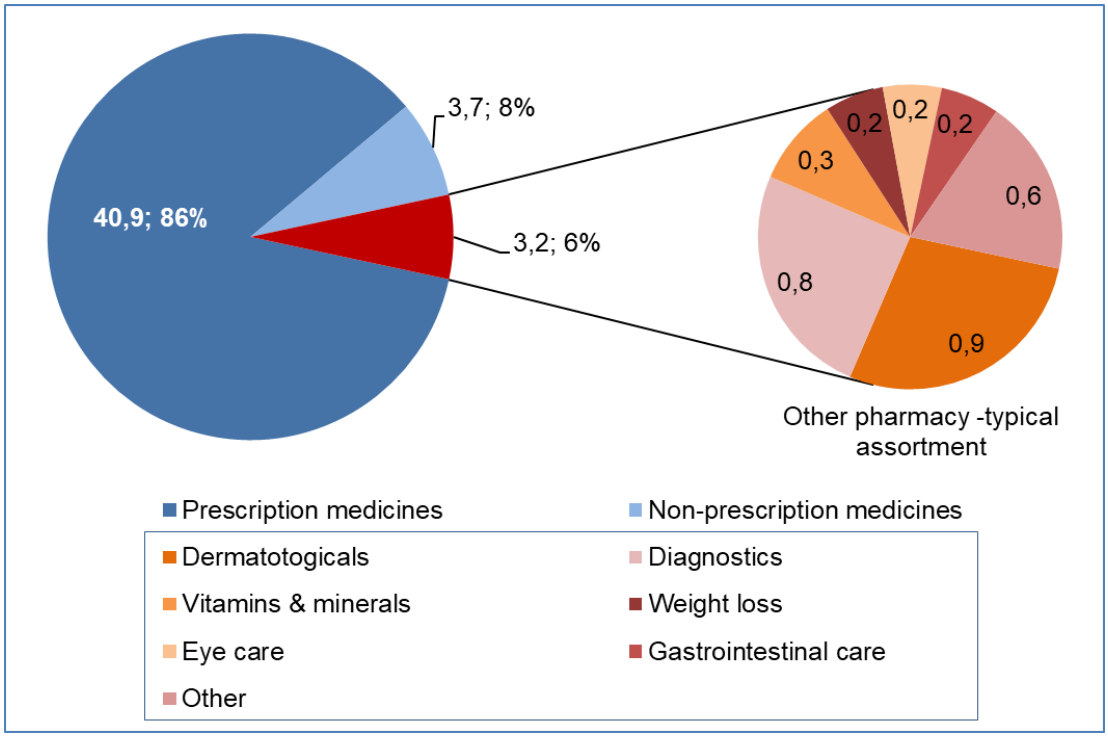
Furthermore, most pharmacies (81%) own software for purchasing and inventory management from a group of pharmacy software providers that also contain modules for interaction checks and customer card information (ADAS, n.d.), which can be used to support basic and advanced counselling. Additionally, in 2009 about 7% of pharmacies owned automated dispensing robots – tendency rising - which streamline inventory management and dispensing by automatically selecting the prescribed / demanded medication, giving pharmacists more time to engage in patient counselling (Imhoff-Hasse, 2009). Hence, most pharmacies have the necessary technical (IT) infrastructure (or can upgrade their software by adding modules) to support counselling for interaction checks or for further PPS provision.

2.2.3 Pharmacy business model – importance of the supply function for income generation

Community pharmacies in Germany are micro to small businesses. The European Commission defines small businesses as having less than 50 employees and ten million Euro annual turnover or balance sheet value; micro businesses are defined as having less than ten employees and two million Euro annual turnover or balance sheet value (European Commission, 2005). With about 60% of German pharmacies generating a turnover of two million EUR or less per annum (which is below the average pharmacy turnover), and an average of 7.9 employees, most pharmacies fall under the micro business definition. The remaining 40% could be classified within the lower spectrum of small businesses. Only 2.7% of pharmacies generate more than 5 million Euro in turnover (ABDA, 2016).

Figure 8 shows the distribution of turnover in German pharmacies according to the main product groups.

Figure 8: Pharmacy turnover 2015 by product group in billion Euros



Source: ABDA (2016)

In line with their mandate of securing medication supply for the public, pharmacies in Germany generate most of their turnover (40.9 billion Euro or 86%) from dispensing prescriptions (ABDA, 2016). This is similar to other countries such as the UK where 80% of pharmacy profits stem from NHS prescription business (Morton et al, 2015).

Non-prescription medicines only make up 8% of turnover (ABDA, 2016). Yet, the NPM assortment has become increasingly important for a pharmacy's profitability and pharmacists expect the importance of NPMs to increase further (IFH APOkix, 2012c)[2]. Different to prescription medicines, where prices are fixed, pharmacists are free to calculate those for NPMs which allows a differentiation on price (e.g. discounts) and freedom to tailor the assortment to customer needs (Heinsohn & Flessa, 2013). Eventually, 6% of pharmacy turnover are made up by other retailing assortments, which, intending to focus pharmacies on their healthcare practitioner role, are restricted to merchandise with a health benefit. Such 'pharmacy-typical goods' are, for instance, non-prescription medicinal products (e.g. blood pressure monitoring devices), body care products (but not decorative cosmetics), dental care products, books on health topics, animal health products, laboratory diagnostics materials, or plant protective agents (DAZ 26/2016). Information on turnover from PPS provision in German pharmacies was not found, but it is likely to be negligible due to the absence of major remunerated PPS programmes and it can be assumed that only few pharmacies opt to charge service fees.

Thus, the German pharmacy business model is primarily geared towards volume-dependent dispensing with additional retailing. Specifically, the importance of the prescription business is reflected in the development of specific strategies to attract a high number of prescriptions, e.g. by trying to locate near physicians' practices (Pioch & Schmidt, 2001). Likewise, consulting companies specialising in selecting pharmacy locations (for take-

[2] About half of German pharmacies achieve operating profit margins of 4-8% and 37% achieve margins of more than 8%, whereas about 2% of pharmacies make losses (Treuhand-Hannover, 2015).

overs, new store openings, or re-location) recommend locations that are near physician offices, have nearby stores that draw customers to the area (e.g. postal office, retail stores), can be easily reached by public transportation, and offer parking spaces, which has to be weighed against local purchasing power and pharmacy competition (Ullrich, 2009). Whilst proximity to physicians is an important location factor for driving prescriptions, getting referrals from physicians is restricted in Germany. Physicians are by law not allowed to refer patients to a specific pharmacist and vice versa; the exception is when patients specifically request a recommendation from their pharmacist or physician (Hollstein, 2011).

2.2.4 Competitive situation and dealing with competition

Pharmacies in Germany on average serve 3,900 people (VR Branchen special, 2014). There are no rules restricting competition or regulating pharmacy density. Pharmacists are free to open a pharmacy wherever they want as long as they fulfil the regulations to obtain the permit for operation (*Niederlassungsfreiheit*). Likewise, patients are free to visit the pharmacy of their choosing. This means that in some areas the distance between pharmacies is relatively short and patients can reach the next pharmacy by foot in a few minutes.

On the one hand, the retail pharmacy sector is relatively stable as many non-prescription medications have pharmacy only status, thus bringing extra protection to pharmacies from non-pharmacy competition (VR-Branchen-special, 2011). Furthermore, German pharmacy customers appear to be loyal to their pharmacy. According to a representative survey of the German population, from a patient perspective, 63% of the German population have a preferred pharmacy 16% have several preferred pharmacies and only 21% have no preferences (IFH, 2012). Pharmacies are especially important to patients with older age and / or multiple chronic medication needs (IFH, 2012). Patients with a preferred pharmacy tend to be over 60 years old, need more than three medications on a regular basis and live in rural areas (IFH, 2012), thus constituting a dependable customer group.

On the other hand, the financial situation of pharmacies in Germany has become tighter in the past years with shrinking income, specifically for smaller pharmacies which also tend to have a more negative view regarding the future (Commerzbank-Research, 2013). There are market-changing dynamics, such as competitive activities from neighbouring pharmacies (Pioch & Schmidt, 2001), the proliferation of internet pharmacies, and activities from chain drugstores which sell food supplements and medical devices at competitive prices that are putting pressure on pharmacists in addition to cost and income constraints coming from health care reforms (VR-Branchen-special, 2011). Specifically, internet pharmacies are a strong competition for community pharmacies in the increasingly important NPM sector. Internet pharmacies, many of which are based outside Germany, have a 3% market share of the prescription sales market but a share of about 12% of the NPM market; they tend to cooperate with drug store chains, where patients can pick up their orders (VR Branchen special, 2014). Moreover, internet pharmacies are growing faster than community pharmacies in the NPM segment, as turnover of internet pharmacies increased by 17% in 2016, compared to only 2% for community pharmacies (DAZ.online, 2017). In a survey, 72% of pharmacists stated having experienced a negative impact caused by the internet-based competition, which is due to patients using internet pharmacies to stock up their home pharmacy chests (IFH APOkix, 2012c).

Responses to the changing competitive situation and to the need to stay financially viable are memberships in virtual banner groups, marketing / purchasing co-operations and / or differentiation, e.g. via a focus on counselling and services. Virtual banner groups are co-operations, many of which belong to pharmacy wholesalers, and offer their members support in inventory management, logistics, IT, or marketing (VR Branchen special, 2014). Sixty-two percent of German pharmacies are members of the six largest banner groups, whereby some pharmacies have multiple memberships (VR Branchen special, 2014). Pharmacy owners primarily chose membership in a banner group to achieve better purchasing conditions; homogenous appearance or marketing are less important (VR

Branchen special, 2014). Yet, only about half of the pharmacists are satisfied or very satisfied with their banner group / cooperation (IFH APOkix, 2012a).

Interestingly, whilst membership in a banner group was not found to result in better business performance, a focus on “active customer-orientated management” (Heinsohn & Flessa, 2013, p. 7) did, indicating an importance of business orientation for overall pharmacy success. Moreover, whilst the increasing competition from internet pharmacies necessitates focusing on business-related aspects, community pharmacists at the same time increasingly turn to their healthcare professional role for differentiation (IFH APOkix, 2012a). Hence, suggested strategies to achieve a competitive advantage are seeking differentiation from other pharmacies by identifying specific therapeutic areas or patient groups with growth potential, which are not targeted by competitors (Benatzky, 2016a) and / or offering services, whereby professional services are deemed especially useful to emphasise the pharmaceutical core competence (Benatzky, 2016b). As German pharmacy customers were found to choose their pharmacy based on the competence of the pharmacy staff and the location of the pharmacy (Rücker, 2017), this indicates that a focus on customer orientation, counselling and service provision are important marketing tools and means for differentiation.

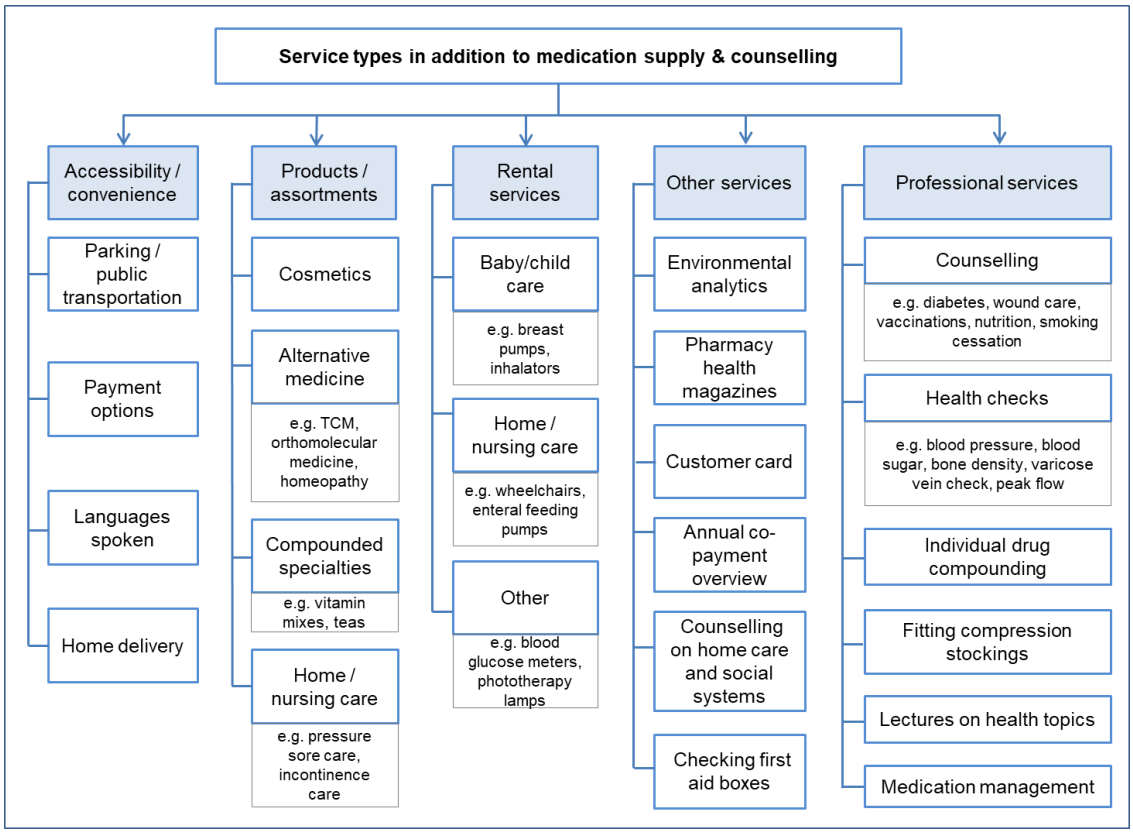
2.3 Professional and non-professional service offers in German community pharmacies

2.3.1 Types of services offered in German pharmacies

Being suggested as a means for competitive differentiation (Benatzky, 2016b) pharmacies in Germany offer a range of professional and non-professional services. For the German market, pharmacy services can be divided into standard services that are expected by patients, such as counselling or home delivery, and into those that are more suited for differentiating and positioning a pharmacy, such as nutrition counselling or medication management (Benatzky, 2016b). The following figure shows a non-comprehensive overview of the different service types (professional and

non-professional) including but not limited to the aforementioned standard services, as well as assortments that can be found in German pharmacies.

Figure 9: Overview of services in German community pharmacies



Source: own illustration, based on information from ABDA (n.d.-d); Arnold (2010) and analysis of pharmacy websites

A representative survey of the German population found that people have expectations on what services pharmacies should offer; first of all, German pharmacy patients perceive the supply of prescription products and counselling on prescribed medication as most important functions of a pharmacy, followed by product availability and counselling for non-prescription medication; professional services such as health checks or specialised counselling for chronic conditions are perceived as less important (IFH, 2012). Services like general counselling on medication, counselling on travel medication and immunisation or information about chronic conditions are expected by over 50% of the population; customer cards, internet-based pre-ordering or home delivery are services people would expect more, whereas the population is rather indifferent regarding individual compounding of teas or cosmetics, nutrition counselling or counselling on children's health

(IFH, 2012). The latter is not surprising given that children's health only concerns a specific target group. According to a patient survey, it appears that patients are most interested in receiving their prescribed medication as soon as possible and are not willing to wait longer than one day with delivery services expected by over 90% of country-side dwelling patients (Apotheken-Umschau, 2012). Pharmacists appear to orient their service offers to patient preferences, which is exemplified in 84% of pharmacies offering counselling on diabetes or allergies (i.e. chronic conditions), and 81% offering counselling on travel medication and immunisation (IFH APOkix, 2012b). Customer cards are offered in about 75% of pharmacies as a marketing and customer loyalty tool (Michels, 2010). In addition to orienting the product and service offer to patient (and thus market) preferences, decisions on marketing instruments, including professional services such as measuring blood sugar, appear to be also made based on personal preferences which in turn seem to be influenced by the stance of the pharmacists towards the healthcare professional role (Blechschmidt et al., 2010).

Regarding more advanced professional services, it appears that simple and extended medication management, and to a much lesser degree clinical medication management, is offered by a third of pharmacists (IFH APOkix, 2014). Yet, over 80% of surveyed pharmacists consider the lack of remuneration and the need to increase staff resources as barriers to medication management, followed by the need for additional training (IFH APOkix, 2014). This indicates that pharmacists are sceptical about increasing the cost side, whilst at the same time it is not compensated by remuneration (Hessemer, 2016). This is understandable, given that it poses a risk that pharmacist-owners carry personally.

2.3.2 Experience with professional pharmacy programmes in Germany

The advisory and service provider role of the pharmacist is promoted by ABDA. In order to support pharmacists interested in service provision, ABDA provides a service catalogue which consists of a range of professional services that pharmacies can offer in addition to their main task of ensuring medication supply with concomitant counselling (Arnold, 2010). On their

website, ABDA further provides literature on pharmaceutical care and informs on an initiative for the promotion of and research in pharmaceutical care (*Förderinitiative Pharmazeutische Betreuung*), which aims to support research and model projects and to sensitise the public regarding pharmaceutical care (ABDA, n.d.-f). German pharmacists also seem to have embraced the idea that advisory and counselling services should play an increased role in pharmacy practice, as a 2012 study sponsored by the two pharmacist chambers of North Rhine-Westphalia indicated (IFH, 2012). In line with promoting increased participation in patient-centred professional roles for pharmacies in Germany, ABDA and the pharmacy chambers have been working on medication management reviews and establishing those as a remunerated service for pharmacies for some time. Regarding remunerated professional pharmacy services, there have been two major initiatives to date: the family pharmacy programme (*Hausapotheken-Modell*), which was terminated and a medication review service pilot (Project "ARMIN"), which has not yet commenced.

The nationwide family pharmacy programme had been negotiated between representatives of the pharmacy association and one of the largest German statutory health insurers in 2004, which included a remuneration scheme for pharmaceutical care services (Eickhoff & Schulz, 2006). As from 2005, patients could choose a pharmacy where information about their health status and prescribed medicines would be stored and where they would ideally procure most or all their medication so that the pharmacist could detect potential drug-related problems and double prescriptions and discuss such issues with the patient's family doctor (Eickhoff & Schulz, 2006). Pharmacists received remuneration for pharmaceutical care services and had to complete a one-day certification as well as obtain necessary software and in addition to medication checks offer medication home delivery and financial benefits on the non-prescription goods sold in pharmacies (Eickhoff & Schulz, 2006). By detection of double prescriptions and inappropriate (high) dosage the programme could achieve medication cost savings of several billion EUR (merkur.de, 2004). The programme had shown high participation rates, i.e. over 80% of German pharmacies, 60% of general practitioners and 1.4 million patients were enrolled by October 2005 (Eickhoff

& Schulz, 2006). However, the family pharmacy programme was terminated in 2008 by the insurer after a court ruling, in which it was argued that it was not fulfilling the criteria for integrated care and thus the health insurer was not allowed to use funds for this programme (Rücker, 2008). Whilst this put a stop to remuneration to professional services, German community pharmacies, due to the high participation rate, had upgraded their computer software to integrate drug interaction and medication management modules providing pharmacies with the basic infrastructure for professional service provision. Furthermore, home delivery and bonus systems persevered, as the family pharmacy programme was de facto mixing professional services with retail marketing approaches.

The second project was initiated in 2011 by the ABDA and the National Association of Statutory Health Insurance Physicians (KBV). The project is embedded within a new regulation allowing new initiatives in agreement with statutory health insurers to be pilot-tested in specified areas and foresees a cooperation of doctors and pharmacist. The concept consists of three building blocks, the third one being a pharmacist-physician cooperative medication therapy management. It is planned to target chronic and / or multi-morbid patients who have to take several medications and to consist of documenting and checking all medicines (including NPMs and food supplements) for drug-related problems and double prescriptions, providing the patient with a medication plan and pharmaceutical care for at least one year. The targets of the project are increased adherence and more efficient use of medicines, whereby the latter is intended to offset the costs of the project. The services are planned to be remunerated, however the exact mechanism still needs to be elaborated (Osterloh, 2013). ABDA reckons that “ARMIN” could lead to cost savings in the range of billions of Euros (ABDA, n.d.-a). This would lead to a win-win situation on multiple levels as it could convince statutory health insurers of remunerating such programmes, foster pharmacist-physician relationships and benefit patients via better detection of drug-related problems and support patients in adhering to their drug regimen. The medication therapy management initiative is generally well accepted by pharmacists and doctors alike but received criticism by some doctors who fear that the medication catalogue restricts their freedom to choose the

therapy for their patients (*Therapiefreiheit*) and also feel that pharmacists might encroach on their territory when given the right to select a medicine product from a generic active pharmaceutical ingredient (API) prescription (Rohrer, 2011).

The high participation rate of pharmacies in the family pharmacy programme demonstrates high interest in professional service provision and the professional role. Whilst project ARMIN may be a promising way to eventually introduce remunerated professional pharmacy services and pharmacists appear to value the counselling role, pharmacists may still need to demonstrate the value and quality of dispensing-related counselling and other professional services. German pharmacies dispense finished pack medications (hence, no 'counting and pouring' is required), in principle allowing constant contact with the patient during the dispensing process, which would constitute an ideal situation for providing professional services. Research further found that nearly 20% of prescriptions contain drug-related problems (DRP), which are problems with drug-drug interaction, lack of patient knowledge about dosage or use of medication, and patients being confused with generic substitution, with nearly 30% thereof needing clarification with the prescribing physician (Nicolas, Eickhoff, Griese, & Schulz, 2013). This shows the importance of prescription checks in pharmacies. A more recent study on conducting medication reviews could demonstrate that most patients taking several medications experience at least one DRP or have at least one information need, and that German community pharmacists are capable of identifying patients with DRPs and take action to resolve the problems (Seidling et al., 2017).

However, service quality also needs to be considered for PPS provision and despite the above-mentioned positive results on pharmacists' counselling activities, there are indications that counselling may not always be adequately provided. Given that the local community pharmacy hallmark supposedly is (quality) counselling, test reports as well as research with mystery shoppers have repeatedly found low quality or lack of counselling (Langer et al., 2016; Stiftung Warentest, 2014). A further report, sponsored by a German news magazine, portraits the counselling quality in German

community pharmacies specifically with regards to drug side effects and drug interactions as not sufficient in 22% of the consultations and as faulty and potentially dangerous in 8% of consultations (DISQ, 2012). Whilst, the most recent report from the German Institute for Service Quality shows that the counselling service and quality has improved (DISQ, 2017), this indicates that despite having infrastructure regarding software, private counselling space, and being university trained, there seem to be deficits regarding basic counselling obligations.

One reason for the low counselling quality may be the dispensing and sales-based remuneration structure in Germany, which is incentivising the number of prescriptions filled as there is no mechanism to check whether counselling has occurred or patient interests have been prioritised. This advantages those pharmacies financially who dispense the largest number of medicines, whether they counsel patients or not. This indicates that the remuneration system might hinder acting according to professional values by tempting pharmacists to prioritise financial interests. Reports on sub-standard counselling quality may thus have a negative impact and, despite reported usefulness of professional services, may create doubts about pharmacists' capability for involvement in primary care services, (further) weakening the profession's negotiation power.

In the following chapter, the literature pertaining to the research questions is reviewed to identify explanations for PPS provision and success and the results are compared with the German context.

3 Literature Review

3.1 Introduction to the chapter

Derived from the research objectives, the literature review was conducted to elucidate and discuss the following aspects:

1) Gain an understanding about theories on motivation and decision-making within the small business context (since pharmacies in Germany are small businesses), to identify theoretical explanations and to develop an explanatory framework

2) Critically review the existing knowledge within the pharmacy practice literature regarding the motivation and decision-making behind professional services, success factors and the potential impact role of orientations, to identify mechanisms promoting or impeding professional service provision and to refine the explanatory framework

To cover these different aspects, the literature review consists of two parts. In line with the chosen research philosophy of critical realism, which is concerned with explanation and which is discussed in more detail in chapter four, a realist review approach (Pawson, Greenhalgh, Harvey, & Walshe, 2005) was followed. Realist reviews are conceived as a type of qualitative review and therefore contain different types of research (Wong, Greenhalgh, & Pawson, 2010). Different to systematic or narrative reviews, realist reviews were developed to evaluate complex intervention programmes, for instance in healthcare or social services, and generally aim to identify mechanisms that make a programme work and explain when it works, for whom and under what circumstances (Pawson et al., 2005). This means that realist reviews search for how context and mechanism need to interact to produce an outcome (Greenhalgh, Wong, Westhorp, & Pawson, 2011), which in this case is the provision of professional services. Realist reviews hence start out by identifying potential theories that could explain a programme, followed by literature search to obtain evidence supporting or refuting these theories (Pawson et al., 2005). In realist reviews, the term ’theories’ is understood as programme theories, i.e. conceptions of how and why a programme might

work and the initial identification of such programme theories is suggested to be done by consulting with experts but also by “digging through the literature” (Rycroft-Malone et al., 2012, p. 3). This theory identification was applied by focusing the first part of the review on gaining an understanding about theories of motivation and decision-making to develop a tentative explanatory framework. This, in absence of information what “digging through the literature” means, was achieved by conducting a narrative review. The second part of the literature review corresponds to the identification of evidence regarding the explanatory framework and the identification of mechanisms relating to these theories, for which the pharmacy practice literature was reviewed.

Realist reviews offer a middle ground between systematic and narrative reviews regarding the search scope and inclusion criteria. Systematic reviews are seen as the “gold standard” for reviewing literature in the evidence-based policy movement (Young, Ashby, Boaz, & Grayson, 2002, p. 216), due to the rigour of the methodology trying to avoid bias (Petticrew, 2001) and enabling replication of results (Mulrow, 1994). However, systematic reviews have also been subjected to criticism, as they may not be useful to review wider topics with complex evidence and as the rigorous search strategy may miss out on important articles for inclusion in a review (Greenhalgh & Peacock, 2005). Traditional narrative reviews, on the other hand, can cover a wide range of literature but do not tend to follow a rigorous reproducible search methodology or discussion and justification of decisions taken and therefore may be prone to selection bias in both, choice of literature for inclusion and critique of included literature (Petticrew, 2001). Literature search and selection in realist reviews therefore is a purposeful and iterative process as it is guided by the evaluative and explanatory focus (Rycroft-Malone et al., 2012) and from the principle reminds of theoretical sampling in grounded theory. The search scope can be wide, as finding evidence means that different bodies of literature may need to be consulted, whereby the selection criteria are based on their usefulness for adding to explanation (Rycroft-Malone et al., 2012). Hence, the synthesis of the review findings is narrative and theme-based as it is geared towards refining the theoretical framework (Rycroft-Malone et al., 2012).

Whilst this thesis is not concerned with the evaluation of a specific professional pharmacy service programme, a realist review is still deemed suitable due to its focus on causality and explanation. The approach taken for both parts of the review was adapted from that proposed by Pawson et al. (2005) and Rycroft-Malone et al. (2012) and the review is aligned with the research aims of this thesis. Taking a business perspective on PPS provision, it thus brings together the different research streams on motivation and decision-making, as well as research in pharmacy practice with a focus on professional pharmacy services to identify mechanisms and contextual factors leading to PPS provision. The two parts of the literature review are to result in a framework explaining how sustainable service provision can be generated. This is then evaluated against empirical evidence gained from investigating service provision in German community pharmacies.

3.2 Part 1 – Theoretical background on motivation and decision-making relating to entrepreneurship and small businesses

This part of the literature review corresponds to the first stage of a realist review to search the literature "for the theories, the hunches, the expectations, the rationales and the rationalisations for why the intervention might work" (Pawson et al., 2005, p. 26). Professional service provision, as indicated in the introduction chapter, can be viewed through different lenses, for instance from a re-professionalisation or healthcare professional point of view, from a strategic business angle or from viewing professional services as entrepreneurial opportunities, e.g. to extend the dispensing-based pharmacy business model. As it can be inferred that service provision as an outcome must have been motivated and preceded by some form of decision-making and subsequent implementation process and as previous research suggests that professional service provision is a strategic decision, motivation and decision-making were identified by the researcher as such potential theories or expectations why professional pharmacy services are provided. Since different substantive areas of research using a variety of research methodologies needed to be reviewed and linked to gain an understanding about the theories within these research areas, a narrative

review was considered to be most appropriate (Baumeister & Leary, 1997). This theoretical background section is thus concerned with reviewing research related to the questions how motivation is defined and conceptualised, how business-related decisions are motivated and made, and what is known about decision-making processes. Since both motivation and decision-making are vast fields, a first step was to run general searches in Google Scholar to obtain an overview about different theories.

To narrow the search for potentially suitable theories, the focus was on theories for human motivation and decision-making as well as strategic decision-making on an organisational level and that focus was then applied to further scholarly databases (EBSCO, Science Direct and ProQuest). Research on effects of workplace motivation, for instance, was discarded as this does not explain how business decisions are motivated. On decision-making, the focus was on entrepreneurship and small business, which differ from large companies in many aspects, including decision-making (e.g. Liberman-Yaconi, Hooper, & Hutchings, 2010) and where individual owner-managers tend to be making the decisions (Greenbank, 2000a). It is thereby acknowledged that results of the review may not be applicable to the motivation and decision-making for service introduction in large chain pharmacies that can be found, for instance in the UK or US markets. Entrepreneurial aspects were included since entrepreneurial orientation was found to be linked to higher service provision rates (Jambulingam et al., 2005) and because professional services can be seen as innovations. Furthermore, much entrepreneurship research is concerned with questions about motivation and decision-making regarding new venture as well as aspects linking entrepreneurship with business performance and was therefore deemed useful to include. Yet, as the entrepreneurship literature is mainly related to new firm creation, there may be a caveat regarding the applicability of findings to pharmacies, which are established businesses. New service development was added to the search to identify process models that could potentially aid in adding to understanding and explaining professional service provision in pharmacy. In addition to the database search, purposive search was conducted by checking the reference lists of key publications as well as using the similar articles search function in

Google Scholar to identify further research of potential explanatory value in regard to the research questions.

The following table lists the areas which were focused on for the identification of potential explanation regarding motivation and decision-making of professional pharmacy services as well as those not followed up as they did not appear to provide explanations for professional service provision.

Table 2: Focus areas of literature search on motivation and decision-making research

Search focus	Areas not followed up
• Motivation: definition, motivation types, motivation for small businesses, healthcare professionals and entrepreneurs • Decision-making: definition, decision-making styles (rational / intuitive decision-making), business decision-making, decision-making models, entrepreneurial decision-making, decision-making in small businesses • Small business literature • Entrepreneurship literature	• Motivation: literature regarding learning or workplace/job motivation, life goals • Decision-making: Medical / healthcare and ethical decision-making, group decision-making based on the assumption that decisions are made by the individual pharmacy owner • Large organisations

Due to the search for theories and models, no restrictions were made to publication time. However, in order to represent more recent developments, the focus was on newer publications. Hence, the literature was continually scanned for potentially useful updates which were added retrospectively in the literature review but also included in the discussion. In the following section, the potentially useful theories and the emerging tentative explanatory framework are presented in a narrative fashion.

3.2.1 Motivation

3.2.1.1 Motivation and goals

Motivation is concerned with the reasons why people behave in a certain way (McClelland, 1987) and can be defined as being “energized or activated toward an end” (Ryan & Deci, 2000a, p. 54). As such, motivation cannot be directly observed and needs to be inferred from behaviours and outcomes (Kanfer, 1990). Hence, researching motivation lends itself to a critical realist inquiry.

Motivation can be viewed as a function of an aroused motive, an incentive value and a probability of success to enable prediction of goal-directed responses (McClelland, 1985). Or, as expectancy theory puts it, if a choice is to be made, people consider the value of the outcome and the probability of achieving it (Steel & König, 2006) as well as the potential consequences and their desirability (Heckhausen & Heckhausen, 2006). This means that a motive alone will not make an individual act unless there is an incentive or reward and a good probability that the intended goal can be achieved (McClelland, 1985) and will lead to the desired consequences (Heckhausen & Heckhausen, 2006, p. 341). Regarding professional service provision, pharmacists would be motivated to choose to provide a service if they believe that it provides an attainable benefit to the pharmacy.

Motivation is goal-directed and goal-setting theory posits that goals direct behaviour to activities leading to goal attainment, promote effort, persistence, and the acquisition and use of relevant knowledge (Locke & Latham, 2002), whereby the goals referred to tend to be specific achievement or performance targets. Motivation is also regarded as a necessary condition for developing domain-specific expertise, through the mechanisms of self-efficacy, goal-directionality, expectation of success, and valuing tasks relating to the domain (Salas, Rosen, & DiazGranados, 2010). Perceiving professional service provision as an attractive goal should therefore make pharmacists mobilise the necessary knowledge and effort for goal attainment.

This research is about (successful) professional pharmacy service provision. However, professional service provision needs to be seen as one potential goal amongst others within a pharmacy business. Therefore, it is necessary to first look at more general goals of entrepreneurs, small business owners and healthcare professionals as potential mechanisms driving or inhibiting service provision.

3.2.1.2 Motivators for healthcare professionals, small businesses and entrepreneurs

Taking the healthcare professional perspective, it is assumed that healthcare professionals are motivated to attain extrinsic business goals such as financial rewards and goals associated with the professional role, e.g. providing professional pride (Buetow, 2007). Public service motivation, i.e. altruism and willingness to serve the interests of a community, was found to be strong in healthcare professionals (Andersen, 2009) and there is an indication that healthcare professionalism may motivate healthcare professionals towards a given goal (Martin, Armstrong, Aveling, Herbert, & Dixon-Woods, 2015). Hence, public service motivation and healthcare professionalism could be motivators for providing professional pharmacy services. Motivators could also be expressed in the reasons for entering a profession. For pharmacists, these were being part of a healthcare profession, stability, career opportunities, helping patients, science-based work, owning a pharmacy, or self-fulfilment (Wigger & Mrtek, 1994), which indicates that there is a mix of healthcare professional and business motivations, whereby the business motivations are similar to those identified for small businesses as shown below.

Regarding motivators or business goals for small businesses, personal objectives such as job satisfaction and being in control of the business are important to micro business owners (Greenbank, 2001), as are stability and survival measured in cash flow, profits and frequency of business transactions (Gilmore, Carson, & O'Donnell, 2004; Jarvis, Curran, Kitching, & Lightfoot, 2000). Generally, small business owners have a limited set of goals and motivations which are related to making a living, moderate business

growth, and satisfied customers, whereby achievement of these goals was found to lead to a feeling of success and satisfaction upon which there was no ambition for further growth (Reijonen, 2008). Contrary to economic and management theories, many small firms' attitude towards growth is not driven by increasing sales or profits (Wiklund, Davidsson, & Delmar, 2003). Instead, small business owners apply a satisficing approach, i.e. they prefer earning a satisfactory income rather than pursuing growth or profit maximisation objectives (Greenbank, 2000b, 2001). Motives for not pursuing growth are related to reluctance to work longer hours, risk avoidance (financial risk, risk to make bad hires) or wanting to keep control over the business (Greenbank, 2001). Small business owners seem especially reluctant to grow the number of employees, wanting to avoid higher overhead costs and being uncomfortable delegating for the fear of losing control (Gilmore et al., 2004). Furthermore, negative beliefs towards increasing headcount are related to fearing a negative impact on work atmosphere; however believing that growth would benefit employees leads to positive attitude towards growth (Wiklund et al., 2003). The reason for the general reluctance to grow is seen in the "condition of smallness" (Anderson & Ullah, 2014, p. 326) characterised by limited resources and self-limiting attitudes, which are perceived as reinforcing but not deterministic as the authors suggest that growth reluctance may be offset in case of promising business opportunities. Such condition of smallness could be an explanatory factor for the slow uptake of professional services.

Professional services can be regarded as a business or professional opportunity which, when identified, could counter the reluctance towards growth given that the opportunity appears both valuable and attainable. Pursuing an opportunity from an entrepreneurship point of view is considered to include financial but also other motivational aspects. These motivational aspects were identified by Shane et al. (2003) through a literature review as need for achievement (linked to successful entrepreneurs), propensity for (moderate) risk taking, self-efficacy (task specific self-confidence related to growth and perseverance), goal setting (related to growth and achievement of goals), independence and responsibility, and presumably egoistic passion (love for building a business and making it profitable). The latter has

subsequently been researched and there are indications that entrepreneurial passion is a motivator fostering creativity, opportunity recognition, motivating employees as well as persistence (Cardon, Gregoire, Stevens, & Patel, 2013; Cardon & Kirk, 2015). Seeing professional services as a business or professional opportunity, coupled with an entrepreneurial orientation could explain why some pharmacists offer professional services and others do not. Jambulingam et al. (2005) found that in a US context, entrepreneurial orientation (EO) is relevant to explaining professional service provision as EO could be linked to higher numbers of professional services provided across different types of US pharmacies including independent pharmacies.

Entrepreneurial orientation can be defined as a measurable strategic orientation "representing the policies and practices that provide a basis for entrepreneurial decisions and actions" which can be present in new as well as existing businesses (Rauch, Wiklund, Lumpkin, & Frese, 2009, p. 763) and can be related to both, the entrepreneur as well as to an organisation (Lumpkin & Dess, 1996). Being a strategic posture, EO could thus be regarded as an expression of entrepreneurial motivation and an antecedent to making decisions for a professional service. There are two conceptualisations of EO with the basic assumption that entrepreneurs differ from other people on a range of different factors. Covin and Slevin (1991) assume that EO consist of three factors, which are innovativeness, pro-activeness and risk-taking whereas Lumpkin and Dess (1996) argue that autonomy and competitive aggressiveness also need to be included in the EO construct. Entrepreneurially oriented firms or individuals can thus be characterised as focusing on being the first to proactively bring innovations to the market, being more prone to taking risks, wanting to beat the competition and acting autonomously (Lumpkin & Dess, 1996). In connection with EO being linked to professional service provision, this means that pharmacists providing services may also be motivated by wanting to be innovative, to pro-actively and autonomously shaping their business and to be better than competing pharmacies.

3.2.1.3 Motivation and performance

Whilst there may be a range of motivators, the quality of motivation can differ. In self-determination theory, Ryan and Deci (2000a) distinguish between intrinsic and extrinsic motivation, as well as autonomous and controlled motivation. Extrinsic motivation is defined as the pursuit of an activity "for its instrumental value" or to achieve "a separable outcome" (Ryan & Deci, 2000a, p. 60) and controlled motivation refers to tasks being done because of a felt pressure to act and is characterised by an actual or perceived decrease of autonomy leading to a loss of effort and engagement (Deci & Ryan, 2008). Intrinsic motivation, defined as activities that are pursued out of their enjoyment, and autonomous motivation, consisting of intrinsic motivation and activities performed for an instrumental value but assimilated in a person's value set, are linked to feelings or experience of competence and autonomy (Ryan & Deci, 2000a). Intrinsic motivation is linked to better performance as well as to perseverance and creativity (Ryan & Deci, 2000b). Hence, successful professional service provision should be intrinsically or autonomously motivated.

This idea is supported by research about both, nascent entrepreneurs and small business owners. Using expectancy theory, research about people intending to create a start-up business found that value and expectancy influence intended effort (measured as number of completed start-up activities), whereby effort was higher for those entrepreneurs putting high value on intrinsic motivators such as self-realisation or personal growth compared to financial success (Renko, Kroeck, & Bullough, 2012). Similarly, the value sets of small business owners affect their behaviour and intrinsically motivated owners, i.e. those enjoying the work, the possibility of applying skills to meet challenges, learning new things, or wanting to impact on success, exhibit higher entrepreneurial and growth orientation than owners with extrinsic, status or social values, i.e. those focused on secure incomes for themselves and employees (Soininen, Puumalainen, Sjögrén, Syrjä, & Durst, 2013). On the other hand, lack of remuneration for professional pharmacy services, is a frequently mentioned barrier to service provision (e.g. Thornley, 2006), indicating that extrinsic rewards may be

important to encourage service provision. There is a debate whether extrinsic rewards can reduce the effect of intrinsic motivation on performance ('crowding-out'), and a meta-review identified that indeed intrinsic motivation loses its effect when financial incentives are directly linked to performance (Cerasoli, Nicklin, & Ford, 2014). However, when financial rewards can only be indirectly linked to performance, intrinsic motivation was stronger in predicting performance (Cerasoli et al., 2014). This review also found that intrinsic motivation is linked to quality of performance, whereas extrinsic incentives are linked to performance quantity; yet, overall, it appears that whilst both types of motivation positively impact on performance, the impact of intrinsic motivation is more important (Cerasoli et al., 2014). For the motivation to provide professional pharmacy services, this would mean that pharmacists would not only need a positive value and expectancy assessment of a service (opportunity) but the motivation would need to be intrinsic or autonomous to put more effort into service implementation and success. This, in turn, could mean that it would be important for professional services that the motivation is healthcare professionally oriented and potentially coupled with entrepreneurial passion as both aspects are linked to persistence, unless there would be a direct financial reward linked to service performance, e.g. in the case of a well remunerated or profitable service.

Entrepreneurial orientation could also be linked to performance. It could be demonstrated that EO (mostly based on the three factor construct) positively impacts on sales and profitability growth (Rauch et al., 2009) including a positive relationship to sales growth in small and medium sized firms (Soininen, Martikainen, Puumalainen, & Kyläheiko, 2012). This would mean that pharmacists exhibiting EO might not only provide more services but also achieve business success in terms of higher growth. Yet, EO, or aspects of it, may not always be beneficial to small business growth. Research showed that high levels of EO may even be dangerous, that the optimal level of EO, impacted by context and capabilities, is variable, and that small firms showed the highest growth at low to medium EO levels (Wales, Wiklund, & McKelvie, 2015). There is increasing evidence that for small firms the danger seems to lie within the risk-taking dimension of EO, as small firms with low risk-taking exhibited the best performance and both, innovativeness and pro-activeness

were linked to performance (Kreiser, Marino, Kuratko, & Weaver, 2013). These findings tally with small business owners' preference for risk avoidance and indicate that other EO factors except for risk-taking may be more beneficial, also for pharmacy performance.

However, entrepreneurial orientation is not the only strategic orientation or firm-level construct related to positive business performance in small businesses. Small business orientation (SBO) which reflects the characteristics of small businesses, i.e. an emotional attachment to the business and a focus on personal goals, was found to be linked to business success / performance in older, more established firms, whereas EO was predominant in younger firms (Runyan, Droge, & Swinney, 2008). Furthermore, market orientation (MO) and customer orientation (CO) are business orientations that have also been linked to business performance alone or in connection with EO. Market orientation, which represents a focus on market intelligence and customer needs, directly impacted on small firm profitability, whereas the contribution of EO was indirect via the success of innovations (Baker & Sinkula, 2009). This implies that elements from both orientations, i.e. innovativeness coupled with a drive for improving customer satisfaction is important for small firm success. Similarly, customer orientation, which is characterised by aiming to satisfy customer needs, is regarded as influencing firm success. Slater and Narver (1998) argue that there are two types of customer orientation, one being focused on purely reacting to overtly expressed customer needs and the other on proactively identifying latent needs, whereby the former type tends to lead to short-term thinking, adaptive strategies and restrict innovation beyond current products and services. Whilst reactive CO is important for catering to basic customer needs and is linked to firm performance, the influence of pro-active customer or market orientation on performance was found to be stronger, implying that both types of CO are important for a business but pro-active MO/CO may be needed to create sustainable competitive advantage (Narver, Slater, & MacLachlan, 2004). Regarding the relationship between CO and EO, these were found to co-vary in small retailers, whereby CO was significantly related to higher business performance (return on investment and sales/profit growth) and EO only positively impacted sales/profit growth, indicating that

small retailers with high CO and EO have a good performance due to prioritising customer needs and satisfaction and taking a long-term perspective through EO in pursuing opportunities (Tajeddini, Elg, & Trueman, 2013). This means that for PPS provision, pharmacists would need to have some growth motivation and a (strategic) preference for innovations but for good business performance also need to be motivated to focus on customer needs.

3.2.2 Decision-Making

3.2.2.1 Decision-making on strategic and entrepreneurial opportunities

Professional service provision implies that pharmacists not only must have been motivated to provide a service but also that, at one point, they must have decided to implement a service, followed by decisions on implementation steps. Such a decision can be seen as strategic and / or entrepreneurial as it may be a departure from a conventional business model and may require investments.

Decisions can be defined as a “commitment to action” (Langley, Mintzberg, Pitcher, Posada, & Saint-Macary, 1995, p. 261). Strategic decisions, which are characterised by leading to actions bound to impact considerably on future performance (Fredrickson, 1985), determine the future path of an organisation (Eisenhardt & Zbaracki, 1992) and may decide over success or failure, especially of small businesses (Jocumsen, 2004). Literature on organisational decision-making is concerned about how decisions are made, which strategies work best in which context and how decision-making can be improved in terms of accuracy and speed (Eisenhardt & Zbaracki, 1992; Schwenk, 1988). Strategic decisions in organisations may be motivated by emerging problems, changes in status quo, opportunities or personal interests (Fredrickson, 1985). Pharmacies as small businesses resemble the “simple structure” (Fredrickson, 1986, pp. 290-292). This means that the business owner has to take a range of decisions without the help of a specialist unit (as in larger firms) and, as the owner-manager’s business and life overlap, that small business owners “literally own their decisions” (Culkin

& Smith, 2000, p. 149) but with the inherent advantage of being able to make targeted decisions speedily when pursuing an opportunity. Decisions on opportunities, as found in small start-up firms, include the evaluation of the opportunity and the subsequent decision about exploitation of the opportunity, which can be understood as the decision for the allocation of resources (Grichnik, Smeja, & Welpe, 2010). Viewing professional services as business or entrepreneurial opportunities means that pharmacists would have to recognise them as such first, in order to pursue them.

The entrepreneurial process consists of several phases: detection of the opportunity, evaluation of the opportunity and pursuit or exploitation of the opportunity (Shane et al., 2003). However, not all people identify existing opportunities (on which a realist stance is taken, i.e. perceiving opportunities as existing independent of human perception) and this selective discovery and exploitation can be explained by different information levels and abilities to reassemble information into new ideas (Shane & Venkataraman, 2000). As such, opportunities exist but their value is unknown and not only the discovery is seen dependent on the individual but also an opportunity's value is subjectively assessed by entrepreneurs (Wood, McKelvie, & Haynie, 2014). One mechanism involved in opportunity recognition is alertness, which is perceived as sensitivity to information such as unmet needs (Ardichvili, Cardozo, & Ray, 2003). Other mechanisms behind opportunity recognition are seen in the application of cognitive frameworks, informed through individual life experience and knowledge on information about the opportunity but also task motivation or previous business failure (Baron, 2006; Wood et al., 2014). This implies that a first feasibility screening is included in the pattern recognition process, which is supported by further research suggesting that experienced entrepreneurs favour opportunities with high feasibility, e.g. those solving customer problems, generating positive cash flow, and with manageable risk (Baron & Ensley, 2006). Besides the aforementioned aspects of alertness, prior knowledge and cognition, a recent literature review also identified environmental conditions, social capital (i.e. networks), and systematic search as factors contributing to opportunity recognition (George, Parida, Lahti, & Wincent, 2016). The latter is a different avenue of arriving at a business opportunity compared to alertness and

suggests a willingness to find areas for value creation and exploitation (given that exploitation is feasible and sensible).

Experience, perceptions, and financial resources are also seen as influencing opportunity exploitation decisions, including but not limited to risk level, expected demand, and profit compared to alternative opportunities (Shane & Venkataraman, 2000). Likewise, individual differences, and specifically capabilities, are also regarded as impacting opportunity exploitation, since the exploitation of opportunities requires the assembly of resources as well as marketing and organisational skills (Shane et al., 2003). Regarding perceptions and experience, self-image of the entrepreneur (fear of failure and capabilities) and images of the opportunity (value, knowledge about the opportunity and environment) were found to impact on the decision to pursue an opportunity (Mitchell & Shepherd, 2010). The above study confirms a preference for opportunities with a high perceived value and which are related to existing knowledge, i.e. desirability and feasibility are both important decision criteria for an opportunity to be pursued. Interestingly, according to Wood and Williams (2014), having good knowledge about an opportunity does not necessarily increase the likelihood of pursuing it, but can also lead to a negative decision.

3.2.2.2 Rational and intuitive decision-making styles

Regarding how people make decisions, it is assumed that they follow two processing styles (Alter, Oppenheimer, Epley, & Eyre, 2007). Such dual process models suggest that there is an affective, holistic, intuition-based mode (system 1) providing fast decisions and a deliberative, effortful cognitive mode (system 2) where information is analysed (Salas et al., 2010). Dual process theories assume that both modes are involved in decision-making, whereby there are different conceptions of the interplay between the two processing systems. The intuitive mode is seen as arriving at fast decisions, which can be and often are regulated by analytical reasoning (Strough, Karns, & Schlosnagle, 2011) or that analytical reasoning is used afterwards to rationalise and justify a decision (Salas et al., 2010). It was also

found that people switch from intuitive style to analytical processing when a decision was perceived as difficult (Alter et al., 2007).

The deliberative mode is usually associated with rationality, using logic and analytical reasoning based on the classic rational model, which remains the standard to which decision behaviour is compared against (Gigerenzer & Gaissmaier, 2011). Within management decision-making, deliberate and analytical reasoning appears to be the preferred mode (Salas et al., 2010). One reason for this preference is seen in organisational culture, i.e. whether organisations allow or suppress intuitive reasoning, the latter resulting in a need to justify intuitive decisions by backing them up with hard data (Hensman & Sadler-Smith, 2011). Rational decision processes in (larger) organisations consist of collecting information and developing alternative options from which the optimal solution is chosen, whereby the process can be iterative and influenced by politics and power (Eisenhardt & Zbaracki, 1992).

The intuitive mode is linked to heuristics (Strough et al., 2011). Heuristics are simple decision rules (Hogarth, 2007), used to process complex information efficiently (Schwenk, 1988). They are strategies that ignore part of the information to arrive at decisions more quickly and with less effort compared to complex methods and can be found in organisations and individuals (Gigerenzer & Gaissmaier, 2011). Based on the notion that full knowledge of alternatives and their probabilities is not available, that rational models do not hold under uncertainty, and based on research showing that in organisations with high complexity, simple decision rules often lead to higher accuracy, Gigerenzer and Gaissmaier (2011) place heuristics at equal terms with rational strategies of logic and statistics. Though often accurate, using heuristics can also lead to decision errors compared to the normative, rational model (Hogarth, 2007). For instance, it was shown that accessibility of information on a decision acts as a frame or anchor and when over-weighted, leads to choices with a low probability of success (Kahneman, 2003). It is hence discussed whether heuristics are useful and in which circumstances. In order to apply heuristics successfully, it is suggested that decisions have to be appropriate within the situation and environment in

which they are taken, i.e. they have to be ecologically rational (Berg & Gigerenzer, 2010). Additionally, research suggests that when levels of expertise in a specific domain are high, intuition may be more effective than analysis (Dane, Rockmann, & Pratt, 2012). Supporting the importance of context and experience, Bingham and Eisenhardt (2011) found that firms develop (learn) portfolios of heuristics for specific activities from past experiences, which are re-applied to similar types of decisions, and which form capabilities that lead to a competitive advantage (Bingham & Eisenhardt, 2011). Thus, with growing (domain-specific) experience, people get better at selecting situation-appropriate heuristics (Gigerenzer & Gaissmaier, 2011).

Whilst both processing styles might be involved in decision-making, the application and usefulness of any style seems to depend on the expertise of the decision-maker, the decision task and situation and context of the decision as shown in a review on expertise-based decision-making in organisations (Salas et al., 2010). Furthermore, expertise appears to give importance to feasibility aspects. Experienced entrepreneurs were found to use effectuation (Dew, Read, Sarasvathy, & Wiltbank, 2009), i.e. the logic of control vs. the logic of prediction to make decisions, whereby decisions are based on the possibilities that can be generated by available means rather than selecting the means to achieve a pre-determined goal (Sarasvathy, 2001). For instance, expert entrepreneurs compared to novices were more concerned about the costs of the decisions and optimising the available resources, i.e. focusing on what they can control, which is interpreted as ecologically rational in contexts where human agency is the main driver of an outcome (Dew et al., 2009).

Expertise is regarded as an antecedent to intuition and Sadler-Smith (2016) proposes that intuitive expertise is involved in opportunity recognition and evaluation. Research on opportunity evaluation supports the existence of decision rules, as it was found that experienced entrepreneurs systematically evaluate opportunities according to the severity of a worst case scenario, the possibility of efficient resource utilisation and novelty, whereby the risk of a severe worst case reduced the overall attractiveness of an opportunity (Wood

& Williams, 2014). Experts make intuitive decisions based on an extensive knowledge base and use that knowledge to compare it to new situations, thereby identifying patterns, assessing the fit to previously successful solutions and responding automatically or engaging in looking for further information (Salas et al., 2010). The latter refers to the switch from the default intuitive mode to the regulative analytical mode in case of novelty, difficulty or importance (Evans & Stanovich, 2013).

Regarding decisions on PPS provision, the pharmacy owner as a single decision-maker, is thus likely through his or her individual decision style, experience and knowledge, to have a strong impact on what is getting decided, i.e. whether an opportunity is perceived as attractive, where the pharmacy's resources are allocated, and how a decision is followed through. Decision rules (heuristics) on opportunity evaluation and exploitation coupled with knowledge about an opportunity could explain how pharmacy owners approach decisions on professional services and also why a decision for or against a service is taken.

3.2.3 Decision-making models

As the intended outcome of the literature review was to develop an explanatory framework for professional pharmacy services, the literature was also searched for decision-making models describing and / or explaining the process of how decisions are motivated and made. Hence, the following describes and discusses process models relating to small business decision-making and potentially useful theories. Most of the selected models include the aspects of value and expectancy, knowledge and experience as well as feasibility, previously identified as impacting motivation and decision-making.

3.2.3.1 Decision-making models in small organisations

In large organisations, the decision-making process is assumed to be sequential following the broad steps of problem recognition, identification of solutions and decision in the form of a commitment to action or authorisation (Hang & Wang, 2012; Langley et al., 1995). Small firms have a different

approach towards decision-making. Compared to larger organisations, small businesses often have limited resources (Anderson & Ullah, 2014; Liberman-Yaconi et al., 2010) and a business-owner's personality, aspirations (which are often limited regarding growth as shown before) and business context influence the course of the business (Byers & Slack, 2001; Greenbank, 2001; Hang & Wang, 2012; Reijonen, 2008). Small business owners were found to have an adaptive decision style, i.e. make decisions when necessary, and not strategically planned, and in response to changes in the environment and context, such as changes in government policy, suppliers, customers, competitors, or trends (Byers & Slack, 2001). This is similar for strategic decisions as small business owners tend to receive input for ideas from their customers, other business owners, (new) employees or technological changes leading up to strategic decisions and sometimes necessitating a re-orientation (Liberman-Yaconi et al., 2010). Likewise, small business owners were found to rarely search for and develop alternative strategic options and tended to be reactive to external opportunities (Hang & Wang, 2012), pointing at an opportunistic approach towards decision-making.

The literature search identified three studies developing and describing decision-making process models in small firms. A detailed comparison of the three studies is shown in Appendix 1. The first study aimed to understand how strategic marketing decisions, which were defined as decisions that have high impact on a firm's finances, survival and all business areas, are taken. Such decisions can be seen as similar to decisions on PPS provision as these may also be regarded as investments or cost factors. The study found that small firms followed a simple five-step decision model (Jocumsen, 2004). The decision process starts with the decision initiation, followed by gathering information, financial analysis and internal matters, resulting in a commitment, whereby the steps between initiation and commitment do not follow a sequential order and boundaries between steps are blurred (Jocumsen, 2004). This study also identified that small business owners only give relevance to a limited range of decision criteria, i.e. decision importance, success of business, or organisational structure, and financial aspects (Jocumsen, 2004).

The second study on strategic decision-making in small (micro) information technology businesses revealed a similar process, which is triggered by internal or external stimuli (information or contextual changes affecting the business), followed by distinct but sometimes concurrent and overlapping cycles of information collection, deliberation and development of options which are influenced by the small business owners' personal characteristics or values and the internal resources, leading to a decision which eventually may get implemented (Liberman-Yaconi et al., 2010).

Investigating a range of strategic decisions in several small firms (e.g. on new product development or entering a new market), the third study found that small business owners apply a two-stage decision process (Hang & Wang, 2012). In the first stage an opportunity is screened against internal fit and competencies and a rough assessment of financial feasibility relying primarily on the business owner's experience is made. According to Hang and Wang (2012), this first stage resembles opportunity recognition. If desirable, the opportunity gets more thoroughly evaluated against market information and financials and refined in a second stage which concludes with a commitment or final decision (Hang & Wang, 2012). Whilst the model also includes a step or activity regarding generation of alternative options, it was found that small business owners rarely did so but focused on one option early on (Hang & Wang, 2012).

All three small business decision-making models have several aspects in common. First, decision situations tend to come from the outside, for instance from customers or forced upon small business owners due to technological change. Second, decision-making resembles a 'gestation' process, in which a decision is evaluated iteratively. A third aspect is that decision criteria are based on a few considerations. These are feasibility, the fit of an opportunity with the business owner's experience and values, and the fit with internal resources including availability of skills and technology and financial analysis. This is indicative of effectuation, where the available means are checked and recombined to identify and evaluate opportunities (Sarasvathy, 2001). Furthermore, small business owners seem to prefer an intuitive style based on experience (Jocumsen, 2004; Liberman-Yaconi et al.,

2010) and when applying rational or deliberate reasoning, they use limited information and simple methods for evaluation (Hang & Wang, 2012), whereby information gathering tends to be reactive, informal and unstructured (Liberman-Yaconi et al., 2010).

Whilst all three models were developed based on data from small firms in Australia, the results tally with findings of small business and entrepreneurship research from other countries, specifically regarding the importance of experience, the influence of customers (customer orientation) and risk avoidance. This is summarised by Greenbank (2000b) who argues that although small business owners' decision-making might be affected by biases, owners are usually so close to the business that formal analyses may not be necessary and intuitive decision-making might be the best option, concluding that satisficing regarding goal attainment and informal information gathering is fully rational from the owner-managers' perspective due to their limited time and financial capacities as well as the limited additional value of more formalised information gathering and decision processes. Decision-making in small firms as described above would thus fit with the concept of ecological rationality (Berg & Gigerenzer, 2010). However, the degree of using intuition seems to depend on firm size as larger small firms engaged more in basing decisions on data (Brouthers, Andriessen, & Nicolaes, 1998; Hang & Wang, 2012). Financial analysis seems to be a key criterion as they perceive acting financially responsible as rational behaviour (Jocumsen, 2004). This fits with small business owners' cautious approach towards risks which is somewhat supported by the finding that small business owners are sceptical about entering new markets or business areas due to perceived risk of initial investments with insecure returns and such risks therefore tend to be taken on a trial basis and when business owners are willing and able to lose money should the investment not be successful (Gilmore et al., 2004).

Hence, for small independently-owned pharmacies, where the decision to offer professional pharmacy services personally affects the owner, service ideas may not necessarily be sought but are likely to be inspired by customers and decisions are presumably taken informally using little data gathering and analysis and only few criteria based on experience and

available resources, including a pharmacy's financial situation and are influenced by the owner-manager's personality, preferences and context as suggested by Culkin and Smith (2000).

3.2.3.2 Models connecting motivation, decisions and action

Whilst the SME decision-making models mention personal values of the owner as influencing decisions, the models were silent about the motivators behind the decisions. Therefore, models of linking motivation, decision–making and action were screened to supplement the small firm decision-making models. The motivational concept of expectancy and value is featured in theories relating intention formation and moving from motivation to action, such as the theory of planned behaviour (TPB), self-efficacy theory or the model of action phases (Steel & König, 2006). This indicates an overlap between motivation and decision-making and a potential issue about missing clarity of timing and sequence.

The theory of planned behaviour (TPB) offers a connection between intentions, which are perceived as motivational factors and subsequent behaviour (Ajzen, 1991). The TPB is understood as an explanatory model concerned with predicting behavioural intentions, which are influenced by the attitude towards the behaviour, subjective norms, and perceived behavioural control (Ajzen, 2011), whereby the latter is regarded as similar to the concept of perceived self-efficacy (Ajzen, 1991). These factors, which influence intentions, are based on beliefs which, according to Ajzen (2011), can be rational or emotional but nevertheless trigger the factors and subsequently behavioural intention. The TPB, as a general theory of human behaviour, is concerned with behaviour change based on the explanation that if a person has a favourable attitude towards a target behaviour, i.e. a positive expected value expectancy, is supported by significant others, and has control about achieving it, he or she is likely to intend and subsequently to perform the behaviour (Ajzen, 1991; Armitage & Conner, 2001). This implies that a decision is made with an intention or at the latest before the execution of the behaviour and whilst being concerned with motivation, the TPB has been

used to predict or explain decision-making, for instance to understand entrepreneurship behaviour (Krueger Jr, Reilly, & Carsrud, 2000).

The TPB was used widely to predict and explain health-related behaviours (Sniehotta, Presseau, & Araújo-Soares, 2014) but was also applied in other fields including predicting intention for providing professional pharmacy services (Herbert, Urmie, Newland, & Farris, 2006). The TPB seems suitable to explain the motivation for professional pharmacy services, as a service can only be provided if the pharmacy owner has formed an intention to do so. Such general intention may have a time-lag between the intention formation and the decision for a service. Given that motivation and decision-making are both goal-oriented, that motivation can be considered the force behind a decision, and that the inclusion of behaviour (which, as stated above) implies a decision, the TPB also seems suitable as an explanatory framework for decision-making. However, the TPB is criticised for stating the obvious, being static by not incorporating learning effects and offering a one-size-fits-all solution to all human behaviour (Sniehotta et al., 2014). The TPB also has a problem with inclined abstainers, i.e. people indicating an intention but not acting on it (Sniehotta et al., 2014). Specifically for entrepreneurial intentions, it is proposed that the intention-behaviour link needs to be explained (Fayolle & Liñán, 2014).

The Rubicon model of action phases (MAP) from Gollwitzer and Heckhausen (Sommer, 2011) and Gollwitzer's implementation intention theory are therefore suggested to be used to bridge that intention-behaviour gap (Fayolle & Liñán, 2014). The MAP includes needs and expectancy theories by incorporating desirability of goals and their feasibility and distinguishes motivation, seen as the driver for goal selection (amongst alternative goals), from volition as the driver for implementing a decision. It is a sequential process model, following the stages of choice (motivational), planning (volitional), action / implementation (volitional) and evaluation, which is again motivational in nature (Heckhausen, 2007; Heckhausen & Heckhausen, 2006). The key point in this model is the differentiation between goal intentions and implementation intentions, whereby goal intentions are formed via a deliberate mindset and implementation intentions are

characterised by an implementation-oriented mindset and include planning steps, thereby increasing commitment towards the goal (Heckhausen, 2007). Regarding the first stage, the model suggests that to arrive at a goal intention (the Rubicon), a person deliberately contemplates a decision, weighing the desirability of outcomes, the probability of achieving it as well as potential consequences (Heckhausen & Heckhausen, 2006).

In developing a conceptual framework for entrepreneurship decision-making Sommer (2011) integrates the TPB and the MAP but also explicitly includes experience and past behaviour, and depicts a dual processing of deliberative and intuitive decision styles. This proposed integration suggests a sequence from motivation to more concrete (planning or preparation) decisions and opens up the possibility of including experience and effectuation, i.e. considering the available means for making a decision (Sarasvathy, 2001), which are characteristic of small business and entrepreneurial decision-making. Furthermore, the integrated conceptual framework separates the motivational aspects, i.e. being energised towards a goal, from the decision to implement as a commitment to action. For professional pharmacy services which are actively provided, such decision must have been made, hence this combined model appears to offer a potentially useful explanation about the link between motivation, decision-making and implementation. With regards to decision styles, Sommer (2011) assumes that in addition to and concurrent with deliberative reasoning, automatic, intuitive reasoning (derived from past behaviour or experience) is also involved in intention formation.

The diffusion of innovations model offers an alternative potential explanation for the PPS decision-making process, as professional services can be regarded as an innovation. This model aims to explain how innovations are adopted within a social system by highlighting the influence of the innovation itself on adoption, thereby offering further potential decision criteria. It states that an innovation is more likely and faster adopted when the innovation has the properties of relative advantage, compatibility, trialability, observability and is of little complexity (Rogers, 2002). It thus provides an innovation-innovator nexus, as an innovation is more likely of getting adopted when it provides an advantage and fits with the values of the adopter

(Rogers, 2010). The model has five stages, i.e. becoming aware of an innovation, forming an attitude towards the innovation, the decision for or against the innovation, implementation, and confirmation, i.e. evaluation of the decision (Rogers, 2002). Furthermore, people or organisations differ regarding the speed of innovation adoption with innovators and early adopters being the first to use an innovation whereby early adopters are especially instrumental in communicating the benefits of an innovation within their social system and promoting innovation adoption (Rogers, 2002). Within the decision process potential adopters obtain information from different sources (but usually peers within their social system) to reduce the uncertainty regarding the relative advantage of an innovation.

The diffusion of innovation shares similarities with the TPB, for instance regarding attitudes, which are formed towards an innovation based on value expectancies (relative advantage), normative fit (compatibility, observability) or control (trialability, complexity), which then lead to acceptance or rejection. The main differences to the TPB are that the diffusion of innovation model is primarily applied to the adoption of innovations usually coming from external sources, the explicit possibility of application to individuals and organisations (e.g. pharmacists and pharmacies), its conception as a communication process, where the experience of early adopters / change agents has strong influence, and its focus on the characteristics of the innovation as determining decisions. The latter means that according to the diffusion of innovations model (Rogers, 2002; Rogers, 2010) for a positive decision, a professional pharmacy service should not only have a high cost-benefit advantage compared to existing practice (expected value) and a high compatibility with pharmacy owners' values, experiences and needs but should also be easy to experiment with, easy to understand and implement (have little complexity) and its features and results should be easy to observe and communicate to others. The innovation characteristics have an inherent marketing component (see for instance Rogers, 2010 pp. 235-242 on compatibility and positioning of innovations) and therefore the model includes external aspects including but going beyond social norms.

As professional services can be seen as innovations for pharmacists, they must at the same time be seen as innovations to pharmacy customers / patients, for whom the diffusion of innovation model would also have to apply, albeit at a later stage. However, being primarily concerned with the spread of a specific innovation across a social system, e.g. technological changes such as compact disc players (Rogers, 2010), the application in pharmacy might rather be for a specific service such as a medication use review across pharmacies within a country brought to pharmacists from the outside.

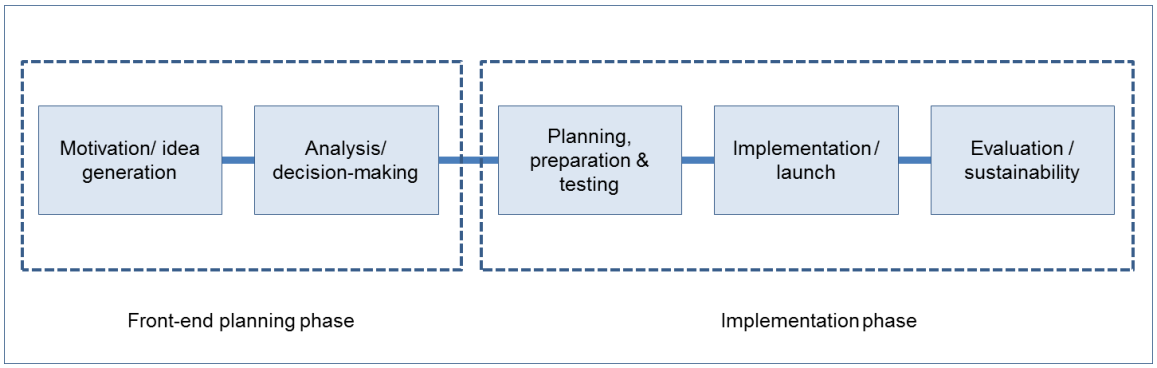
3.2.4 Development of a tentative explanatory framework

The review on motivation and decision-making, using the different perspectives of healthcare professionals, entrepreneurs and small business owners, revealed a range of possible explanations for PPS provision leading to a tentative motivation and decision-making framework.

As professional service provision can be regarded as the result of a process, literature on new service development (NSD) was consulted for the identification of a generic service development process model to inform the emerging explanatory framework. The NSD process model by Zeithaml and Bitner consists of eight stages within a front-end planning phase and an implementation phase, i.e. organisational mission and new strategy, idea generation, concept development, and feasibility analysis make up the front end stage, and the implementation stage consist of prototype development and testing, market testing, introduction to the market and post introduction evaluation (Zeithaml & Bitner (2003) as cited in Sandler et al., 2005). Another NSD model consists of ten steps but it was found that some steps were conducted in parallel, i.e. strategic planning / idea generation, idea screening / business analysis, team formation, service and process design, personal training / service pilot test, test marketing and as a last step commercialisation (Alam & Perry, 2002). The NSD steps are summarised in a model by Johnson et al. (2000) as cited in Stevens and Dimitriadis (2005) into design, analysis, development and full launch.

Comparing the different models and adding the insights gained from reviewing motivation and decision-making literature, the steps can be re-conceptualised, as shown in figure 10, into motivation / idea generation, analysis / decision-making, planning, preparation & testing, implementation / launch and evaluation/sustainability. The latter considers that service sustainability may be a result of service evaluation and is an under-researched area in PPS provision.

Figure 10: Generic new service development model

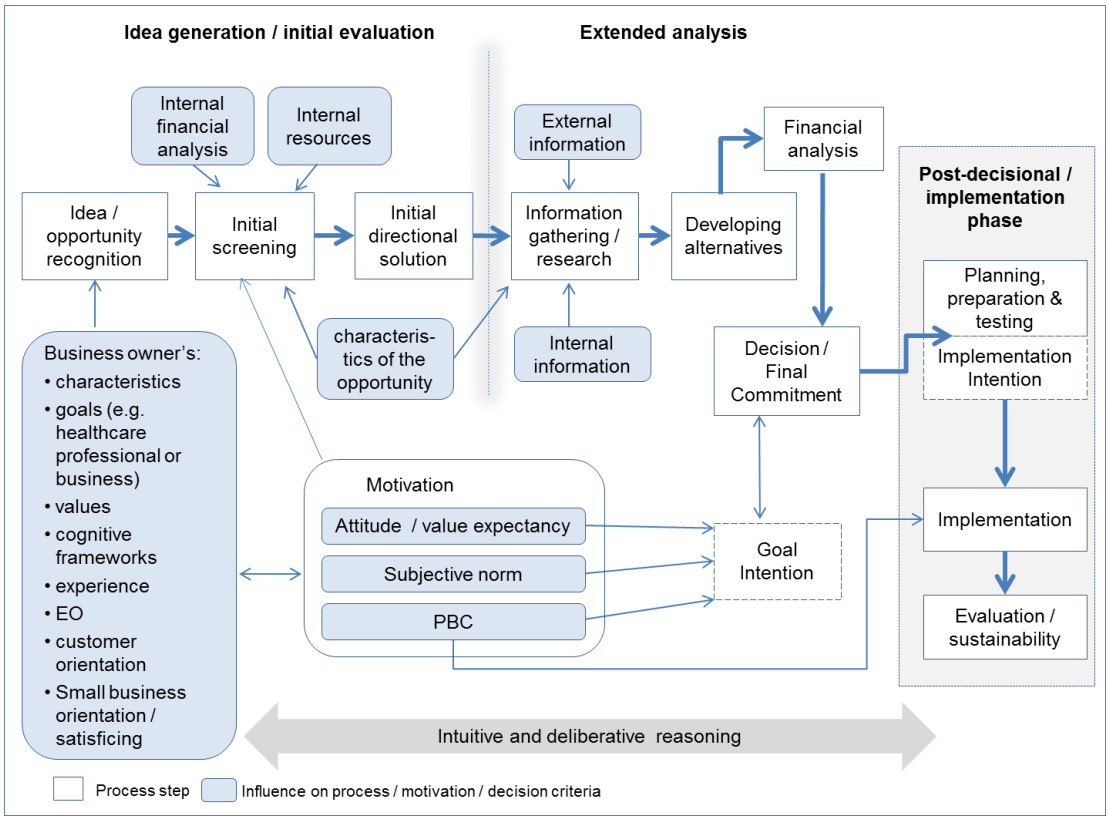


Source: based on and adapted from Alam and Perry (2002); Sandler et al. (2005); Stevens and Dimitriadis (2005)

Within NSD models, motivation and decision-making can thus be considered a part of the front-end planning, which is seen as basis for further service development (Alam, 2006). Taking the different aspects together, the tentative explanatory framework on motivation and decision-making within an overall service development model is based on the two-stage small business decision-making process model by Hang and Wang (2012) combined with the model integrating the TPB and MAP suggested by Sommer (2011). It further includes aspects from the diffusion of innovation model (Rogers, 2002) regarding characteristics of the opportunity and findings derived from the literature review pertaining to motivators. The framework thus combines motivation and decision-making theories for individuals and small businesses into a process model with a focus on the front-end planning phase of decision-making but including the transition to implementation. It thereby reflects the difference between a motivational, pre-decisional mindset and a volitional mindset, as suggested by the MAP (Heckhausen & Gollwitzer, 1987).

Figure 11 shows the tentative framework, followed by explanations about potential mechanisms for idea generation / initial evaluation and extended analysis identified from the literature and the implications they may have for professional pharmacy services.

Figure 11: Tentative explanatory framework of motivation and decision-making



Source: own illustration based on Hang and Wang (2012); Rogers (2002); Sommer (2011)

Idea generation / initial evaluation: To start a decision-making process the framework suggests that first, a professional service needs to be recognised as an opportunity to achieve a given goal, which in small businesses tends to be a goal relevant to the owner. Hence, professional pharmacy services may be motivated by healthcare professional, personal or business goals of the pharmacy owner. According to entrepreneurship theory, an opportunity gets recognised if information about the opportunity connects with existing cognitive frameworks including experience. Entrepreneurial orientation and market / customer orientation may aid opportunity recognition, as opportunities in small businesses tend to come from external sources, especially from closeness to customers. Given the generally limiting condition

of smallness, which is likely to be a mechanism hindering small businesses (pharmacies) from expanding, professional pharmacy services might only be interesting to a group of pharmacy owners, i.e. those who are entrepreneurially oriented and / or market and customer oriented, as these orientations seem to aid opportunity recognition and growth.

As people (including pharmacy owners) tend to have a set of different goals with different attractiveness, i.e. each with its own perceived value and (controllable) probabilities, and desirable consequences, following expectancy theory, the goals offering the highest attractiveness should be more likely to be decided for and pursued. This means that a PPS opportunity must be sufficiently attractive to pass the threshold of goal selection. According to the TPB, combined beliefs about goal attractiveness, social acceptability and feasibility need to be high for pharmacy owners to form an intention to provide a professional service and pass an initial screening. For small businesses as well as entrepreneurs, these beliefs are suggested to stem from experience, including a propensity for risk avoidance. In addition, the diffusion of innovation model suggests that the service's characteristics are also evaluated, as they would impact on the perceived attractiveness of a service. Hence, the model suggests that service ideas would get screened not only for their attractiveness but also for feasibility regarding the financial and other resources of a pharmacy. The result of the first screening is an initial solution.

Extended analysis: In order to move from an initial solution to a decision to provide a professional service, the model suggests that for sufficiently attractive service ideas, additional information from internal and external sources is gathered and analysed, which can be an iterative process. In terms of reasoning, the model suggests that both, intuitive and deliberative reasoning is applied. However, the more refined analysis implies that additional information to substantiate an initial decision may be sought in case of difficult decisions (Strough et al., 2011). Once the final decision is made, the MAP suggests that the mindset changes from motivational to volitional, which is a transition to planning thereby signifying commitment to action.

Overall, research on motivation, decision-making and entrepreneurship identified in the literature suggests that the front-end of the service provision process (from opportunity recognition and evaluation to exploitation) is likely affected by pharmacists' individual cognitive frameworks, capabilities and motivations. These may be similar to those identified for small business owners with organisational resource constraints, reactiveness to customers, and environmental changes influencing motivations and decisions. The following second part of the literature review therefore aims to specify the motivations, capabilities, cognitive frameworks and contextual factors applying to pharmacists and specifically pharmacy owners.

3.3 Part 2 – Realist review of pharmacy practice relating to role orientations and professional pharmacy services

Following realist review procedure, this part of the literature review concentrates on searching the pharmacy practice literature to identify evidence to support or refine the tentative explanatory framework on motivation and decision-making and to extract the relationships between mechanisms and contexts leading to observed outcomes (Greenhalgh et al., 2011), i.e. PPS provision. Additionally, this part includes the service implementation phase and seeks to identify factors affecting success and sustainability of PPS provision, thereby addressing research questions three and four and extending the tentative explanatory framework. Hence, it is guided by the following questions which are related to the research questions and objectives:

1. What is known about pharmacists' role orientations and whether or how these may affect professional service provision?
2. What are the motivational factors for professional service provision?
3. What is known about how pharmacy owners arrive at the decision to provide professional services?
4. What are the explanations given or theories provided for service provision in the extant literature that are indicative of underlying mechanisms, necessary conditions or contextual factors?

5. What are the elements of (successful) professional service provision? (Ideally based on experience in / with individual community pharmacies)

In line with suggestions for conducting a realist review, an exploratory search of the pharmacy practice literature in Google Scholar with the search term “pharmacy service” was conducted to delimit the search focus and to identify inclusion and exclusion criteria for a subsequent systematic literature search (Pawson et al., 2005). For instance, the exploratory search showed that a number of studies were conducted in settings outside community pharmacy or with pharmacy students, which appeared to be areas of little relevance to the research questions and were thus excluded. Following the exploratory search, a database search in EBSCO, Science Direct and Google Scholar was conducted with the following search terms alone or in combination (in English and German):

- Role orientation OR professional orientation OR business orientation AND pharmacist
- pharmacy service
- Motivation AND pharmacy service
- Decision-making AND pharmacy service

In order to limit the number of results and to increase the relevance, the search terms had to be in the title, abstract or keywords of the articles if the database allowed for that kind of advanced search. The literature search was updated until the finalisation of the thesis to include more recent publications. In addition, a snowballing search was conducted for further material as this was found to yield relevant papers (Greenhalgh & Peacock, 2005). In total, the search steps resulted in over 5,400 citations. After reading the titles and abstracts, 4,670 citations were de-selected as they were duplicates or not meeting the inclusion criteria. From the remaining 764 citations, full text articles were retrieved and screened against the inclusion and exclusion criteria. The review was regularly updated comprising the most recent studies fitting the inclusion criteria up to March 2018 and overall, 184 papers and doctoral theses were included in the review. Whilst the search was conducted broadly to enable identification of literature on potential

mechanisms for PPS provision, the large number of results had to be contained using the inclusion and exclusion criteria listed in table 3.

Table 3: Inclusion and exclusion criteria on professionalism in community pharmacy

Parameters	Inclusion criteria	Exclusion criteria
Article focus: roles	• Pharmacist role orientation (professional, business, entrepreneurial and others) • Role conflict in community pharmacy / commensurability of different roles • Impact of pharmacist roles on pharmacy practice in general and professional services in particular	• All other roles, including role of pharmacists in inter-professional primary healthcare teams (as this is a special form of service provision / cooperation)
Article focus: PPS	• Professional pharmacy services • Motivation for PPS provision • Decision-making for PPS provision • Barriers, facilitators, motivators for professional pharmacy services • Explanations for relationships between barriers or facilitators • Mechanisms explaining (successful) PPS provision	• Clinical pharmacy • Clinical decision-making • Evaluation of effects of PPS provision on patient health outcomes • all other
Setting/ Population	• Community pharmacy • Pharmacists practising in community pharmacies to elicit practitioner experience (with a preference for pharmacy owners as decision-makers) • Patients and physicians when an impact on service provision was reported (as contextual factors)	• Any other setting • Pharmacists practising in hospitals or general practitioner practices, universities and pharmacy faculty and students

Parameters	Inclusion criteria	Exclusion criteria
Type of Literature	• Full text articles from peer-reviewed journals, doctoral theses • Empirical research with clear methodology • Systematic reviews • Quantitative and qualitative research see comments above	• Articles from policy-makers or institutions (white papers) as they prescribe targets / normative ideal states and recommendations but not necessarily give explanations • Trade journals, books, opinion pieces, editorials, as these sources lack empirical data and / or clear methodology
Time frame	• Pharmacy practice: Literature published from 1990 onwards, which is the year the seminal article from Hepler and Strand on pharmaceutical care was published, marking the start of an increase in PPS research • Role orientations: no limitation	• Pharmacy practice: literature before 1990,
Language	• English or German language due to the researcher's language skills	• All other
Countries	• Developed countries, i.e. USA, Canada, EU incl. UK and Germany, Australia, New Zealand	• All other

The topic focus was related to the research questions and therefore included literature on the pharmacists' dual role of business person and healthcare professional, behaviours of pharmacists and their potential impact on professionalism as well as articles informing on motivation, decision-making and potential mechanisms for successful PPS provision. Publications not providing answers to the review questions or fitting the purpose (Pawson et

al., 2005) were excluded. Thus, whilst acknowledging its importance, literature on evaluating evidence of effects of professional pharmacy services on health outcomes or on clinical decision-making was not considered. However, due to the iterative nature of the review, not only publications focusing on community pharmacists were included but also articles where the target group were patients or physicians as both groups emerged as important to PPS provision. These articles were included when they provided relevant explanatory information regarding service provision. Literature pertaining to settings other than community pharmacy (e.g. hospitals) was excluded since these settings do not entail the business (i.e. dual role) side of pharmacy. Similarly, any literature involving pharmacy students was excluded due to setting and limited practice experience. Whilst realist reviews can be informed by literature from policy-makers as these include theories of how an intervention might work (Pawson et al., 2005), this review included only original peer-reviewed research articles and reviews with a clear methodology that were available as full text, as the focus was more on the identification of potential mechanisms and not evaluating a specific programme theory.

The timeframe set for the literature review in general is from 1990 onwards, the date of Hepler and Strand's seminal article postulating a new philosophy of pharmacy practice, which sparked (an increase in) research in the area of professional service implementation (Hepler & Strand, 1990; Hepler, 1990). In terms of language and country selection, only articles relating to developed countries published in English or German were selected, the first due to the assumption that economically and culturally, they share similarities despite different national regulations, the second owed to the language skills of the researcher and the focus of this research on German community pharmacies.

The selected publications are a mix of quantitative, qualitative and review articles. Within the empirical papers, varying degrees of quality could be found, e.g. due to sample size or recruiting method (e.g. convenience sampling). However, most if not all studies pointed out areas where potential bias may have occurred. Therefore, all 184 articles were included and their

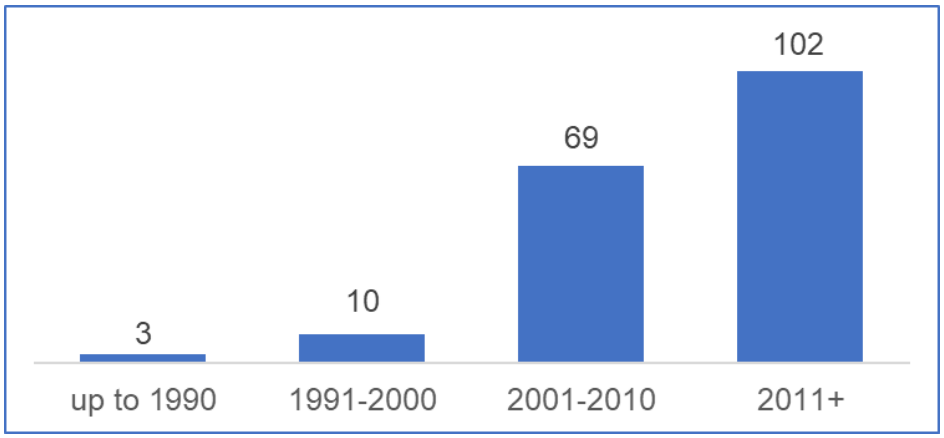
results critically discussed. Due to the large number of articles identified, not all of them were cited in the review and only to that extent that a topic was exhausted and additional articles did not bring further relevant aspects as used in comparative sampling described in Dixon-Woods, Agarwal, Jones, Young, and Sutton (2005).

3.3.1 Characteristics of the research included in the review

3.3.1.1 Development of research foci

The literature search had no time limit related to pharmacist role orientation and spans nearly three decades for professional pharmacy services, yet most of the selected articles were published from 2011 onwards as shown below.

Figure 12: Number of publications included in the literature review by time of publication

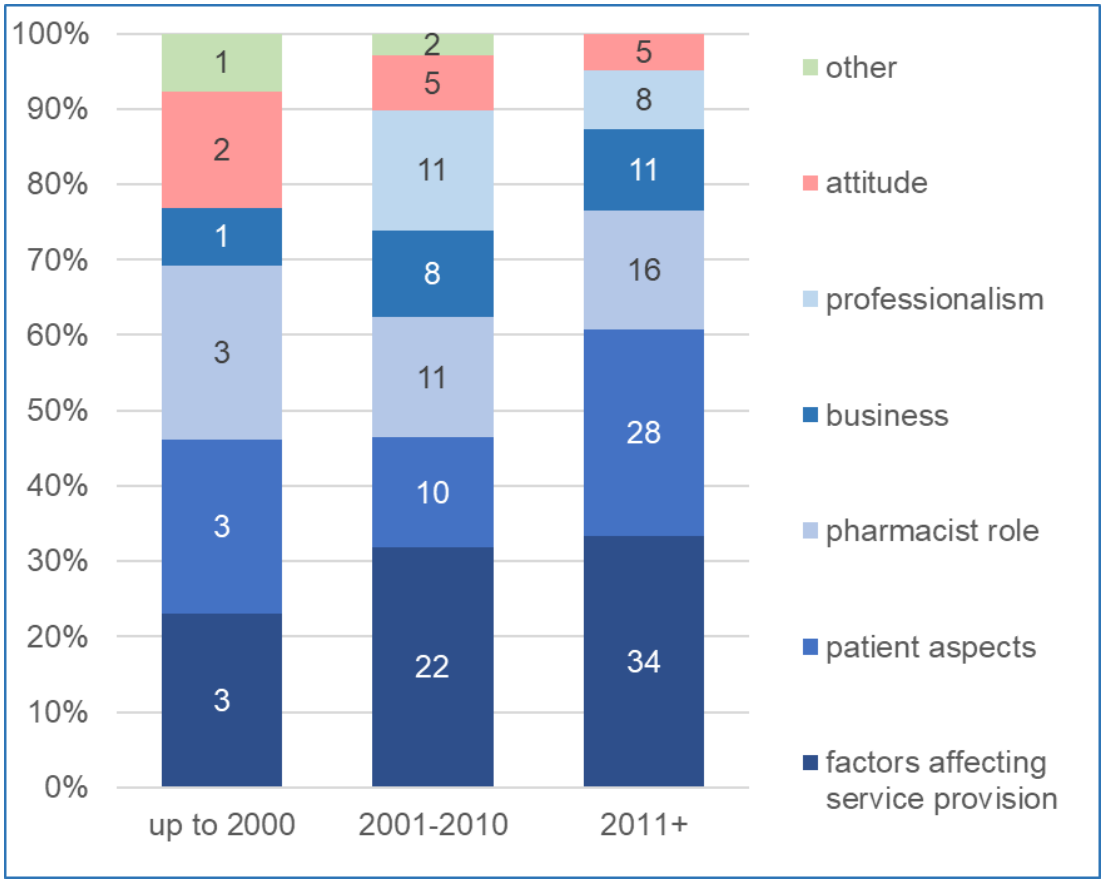


Source: own illustration

This reflects a focus on more recent publications but is also due to an apparent change in research topics. The advent of the pharmaceutical care movement led to a proliferation of research on professional pharmacy services, mainly concerned with identifying reasons (barriers) for a slower than expected uptake of services, which were predominantly remuneration for services and the pharmacists' willingness, attitude, and skills to provide services (e.g. Thornley, 2006).

With more experience gathered in PPS provision, it appears that the focus shifted to identification of factors affecting actual service provision and most recently (i.e. from 2015 onwards) to the use of frameworks from implementation science and to service sustainability as well as adopting a more outward-looking perspective exemplified in including the importance of patients as recipients of PPS provision, as figure 13 demonstrates.

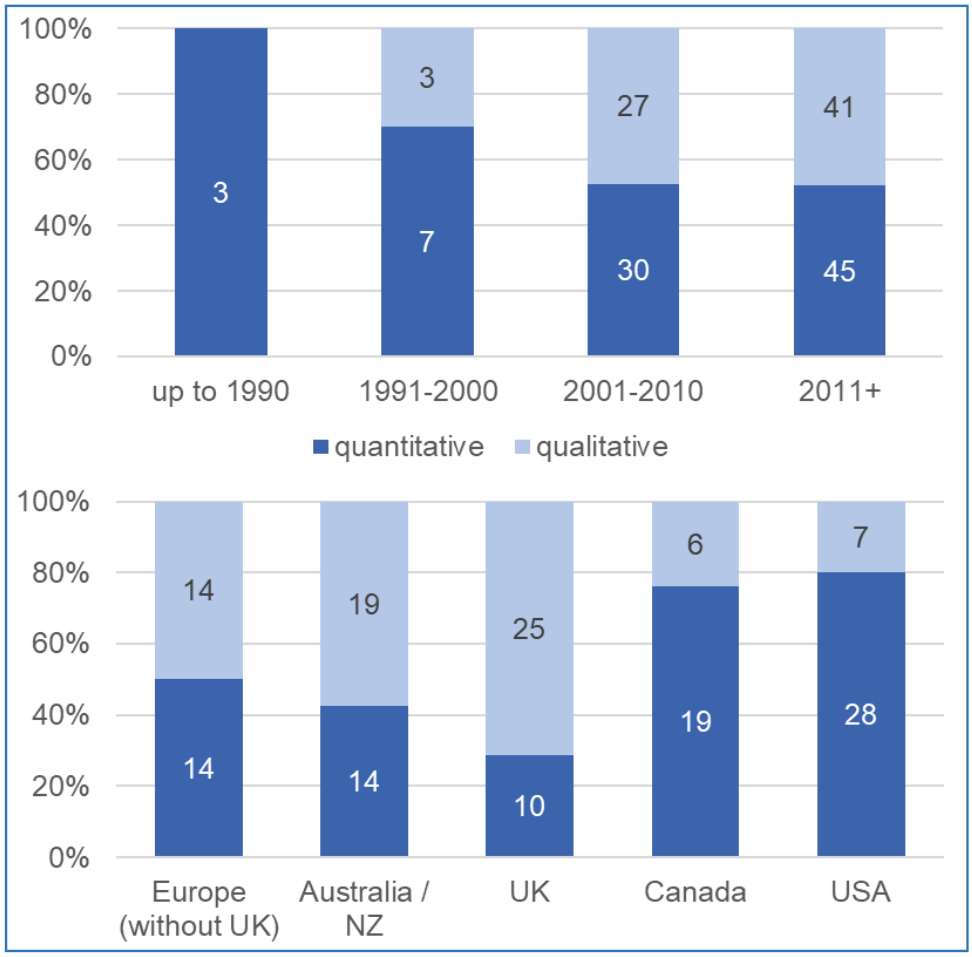
Figure 13: Publications included in the review by topic



Source: own illustration

Looking at the split between qualitative and quantitative research methods applied within the selected publications, figure 14 shows an increase in qualitative research over the years, whereby research from North America shows a preference for quantitative methods.

Figure 14: Publications included in the review by research method



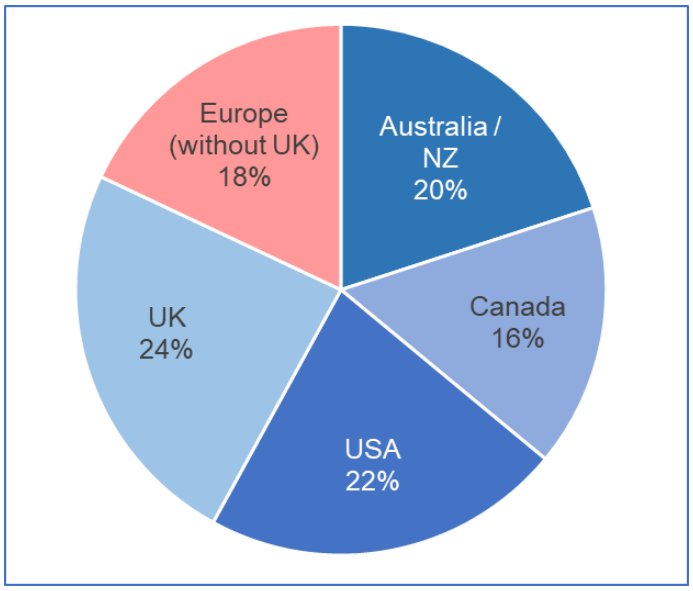
Source: own illustration; excludes literature reviews (n=18) and mixed methods research (n=10)

The increased use of qualitative methods could thus be an indication that quantitative approaches have not been able to provide sufficient explanation about PPS provision.

3.3.1.2 Distribution and comparability of professional pharmacy service research across countries

The majority of the selected publications (82%), as depicted in figure 15, was from Anglo-Saxon countries, i.e. the United Kingdom, USA, Australia and New Zealand, and Canada and only eighteen percent from Europe excluding the UK, showing that a few countries are driving the research on and implementation of professional pharmacy services.

Figure 15: Publications selected for review by country of origin



Source: own illustration

The likely reason is that remunerated PPS programmes exist in these countries, indicating support at the macro level of national healthcare policy and thus more interest in better understanding service implementation. Within the countries dominating the research on professional pharmacy services, the agenda appears to be driven by a small number of researcher groups. Specifically, one group of researchers from Australia (sometimes in cooperation with researchers from Spain) develops the research base on PPS provision in a systematic fashion, i.e. building on previous research and addressing research gaps. For instance, one of the recent additions to the knowledge base from within that group was the description of a PPS implementation process (Moullin, Sabater-Hernández, & Benrimoj, 2016), which had until then been lacking from the pharmacy practice literature and this lack of understanding the service development process had also inspired this thesis.

Another reason for the dominance of literature from Anglo-Saxon countries is likely due to a language bias built into the literature selection due to the inclusion criteria. Additionally, most literature on German pharmacies did not meet the inclusion criteria, as it was either about the usefulness of professional services on patient health outcomes (i.e. targeted at clinical decision-making) or from trade journals (not peer-reviewed). Yet, the topics

addressed in trade journals are comparable to the literature available on other countries, indicating that the international literature could be applicable to German community pharmacies (with the likely exception of some local/national intricacies).

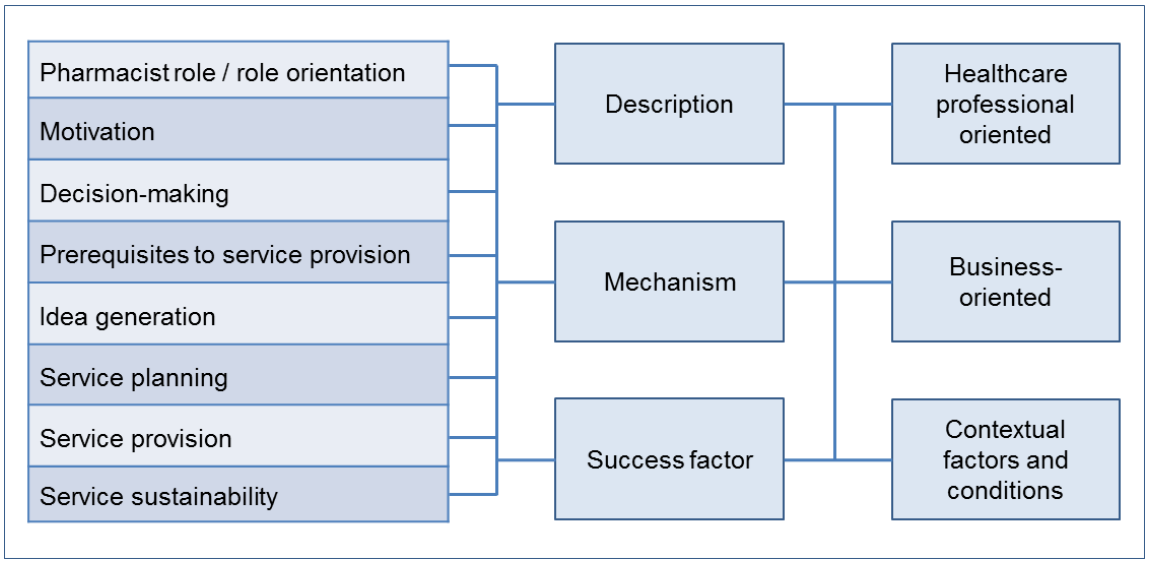
It could be argued that research on pharmacy practice from different countries may not be comparable due to different national regulations shaping respective pharmacy practice. Clearly, there are differences between small independent pharmacies and large chain pharmacy corporations. There are also differences in the availability of remunerated professional service programmes, and general responsibilities of pharmacists due to national (or sometimes regional) regulations. On the other hand, pharmacies tend to have many aspects in common, irrespective of national regulations, primarily the responsibility for dispensing prescription medication, the sale of non-prescription medications, and importantly, advising patients during the process. The literature review showed that results regarding barriers and facilitators for PPS provision tended to be similar, irrespective of a study's country of origin. Yet, there are aspects which are typical for one country but not others. These aspects were not included in the synthesis when they had no relevance for explanation but when deemed relevant as a contextual factor, it was made explicit.

3.3.2 Data extraction and synthesis

The publications selected for inclusion were searched for answers relating to the review questions. To achieve this, articles were entered into an excel spreadsheet covering the basic information such as title, authors, research type and method, study population, and objective of the research. Furthermore, information on theories used or developed, research results and conclusions, quality assessment and answers provided to the review questions were added. In a second step, the information was transferred into a data extraction spreadsheet as suggested by Rycroft-Malone et al. (2012) and sorted in three ways: First, by review question and service provision process steps as suggested from the explanatory framework developed in part one of the review, second, by description of the phenomenon (e.g.

pharmacist role orientation), identifiable mechanisms and success factors and third, by separating healthcare professional aspects, business aspects and contextual factors. Figure 16 shows the structure of the data extraction spreadsheet.

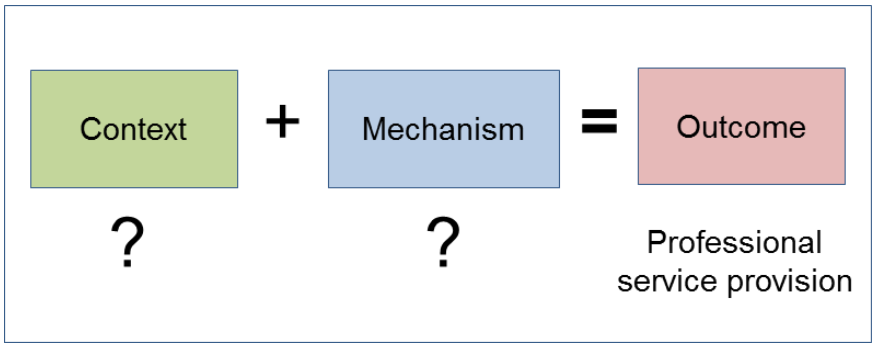
Figure 16: Structure of data extraction spreadsheet



Source: own illustration

Where possible, the results are presented as context-mechanism-outcome (CMO) configurations (Pawson & Tilley, 1997 as cited in Danermark, 2003) with the colour scheme as shown in figure 17, whereby PPS provision, for instance, was perceived as an outcome.

Figure 17: Context-mechanism-outcome (CMO) configuration



Source: own illustration, adapted from Pawson & Tilley, 1997 as cited in Danermark (2003)

In attempting to identify evidence supporting, revising or refuting the initial explanatory framework, it became evident that - with the notable exception of the aforementioned research by (Moullin et al., 2016) - process models for

PPS provision were largely missing. This means that some areas of the initial explanatory framework could not be populated with much direct evidence from pharmacy practice research, specifically the areas of opportunity recognition / idea generation, decision-making criteria, and service planning. In the following, the results from data extraction and analysis are presented and discussed.

3.3.3 Pharmacist roles and role orientation

3.3.3.1 Pharmacist roles and role orientations identified in the literature

Pharmacists have different role sets and it was found that business and healthcare professional role orientations can both be present in pharmacists (Guirguis & Chewning, 2005). Yet those roles are often claimed to be in conflict (Hibbert et al., 2002) and whilst pharmacists like the extended healthcare professional roles and find them important, they still seem to be more comfortable with their traditional role relating to (dispensing) medicines, which is mirrored by patients and physicians (Bryant, Coster, Gamble, & McCormick, 2009; Eades, Ferguson, & O'Carroll, 2011). Pharmacists' predominant understanding of the traditional product-focused role is thought to be a reason for the slow implementation of professional services (Al Hamarneh et al., 2012; Rosenthal, Breault, Austin, & Tsuyuki, 2011). Hence, results from a literature review on pharmacy culture suggests that, amongst other individual, internal and external factors, PPS provision is influenced by business and professional role orientation (Jacobs et al., 2011).

This review identified only three articles explicitly dealing with role orientations in community pharmacy (a fourth one on role orientations of pharmacy students was thus not included). Role orientations were assessed by letting pharmacists rank the importance of role elements or tasks from pharmacy practice deemed professional or business-related (Kronus, 1975; Perepelkin & Dobson, 2010; Quinney, 1963). Subjective role orientation was measured as the affinity to healthcare professional or business related tasks (Perepelkin & Dobson, 2010).

Tables 4 and 5 list the items used to assess task importance and task affinity. Tasks which were perceived as important or well liked in the research by Perepelkin and Dobson (2010), i.e. showed over 80% agreement, are highlighted in bold letters, whereas tasks to loading into business or healthcare professional clusters are marked with an asterisk.

Table 4: Elements used for assessment of role orientation: Task importance

Professionally related tasks	Business-related tasks
Reading the professional literature	Maintaining a business establishment
Being part of the public health team	**Being a good/successful business person**
Attending professional meetings and conferences	Arranging window, counter and shelf displays
Mentoring students and interns	Being a good salesman
Public service, such as presentations to groups	Handling a variety of sundry goods
Encouraging the proper use of medicines*	
Compounding and dispensing prescriptions / medications*	

Source: adapted from Kronus (1975); Quinney (1963); Perepelkin and Dobson (2010)

Results from Quinney (1963) and Kronus (1975) showed that some pharmacists were oriented towards the business role, some towards the professional role, some were indifferent and the largest group in both studies was oriented towards both roles, i.e. finding both roles important. High business orientation, was linked to prescription violation, i.e. an unprofessional behaviour (Quinney, 1963). Yet, there were no indications of the healthcare professional role orientation being linked to intrinsic professional values such as helping people, or the business role linked to extrinsic values such as income (Kronus, 1975). Similarly, Perepelkin and

Dobson (2010) found that pharmacy managers and owners seem to have a generally high professional orientation irrespective of pharmacy type (multiple or independent pharmacy) and prefer the healthcare professional over the business aspects. This should indicate that a potential prerequisite to service provision is present in most pharmacists. Yet, the clinical role, which is associated with professional service provision and advanced counselling was found not to be a secure identity (Elvey, 2011).

Table 5: Elements used for assessment of role orientations: Task affinity

Professionally related tasks	Business-related tasks
Counselling patients regarding prescription and over-the-counter-related matters	Management of dispensary stock (ordering, inventories, storage, etc.)
Keeping abreast with health- and drug-related matters	Management of ‘‘front store’’ stock (buying, inventories, storage, etc.)
Providing information and advice to health care professionals	Management of cash (daily reports, deposits, change, etc.)
Dispensing prescriptions*	Selling non-medication-related items (cosmetics, newspapers, etc.)
	Selling non-prescription medications*
	Management of personnel (including supervision and training of pharmacists and pharmacy technicians)*
	Management of personnel (including supervision and training of nonprofessional staff*

Source: adapted Perepelkin and Dobson (2010)

Despite different assumptions, pharmacy owners / managers appear to experience little role conflict and to be able to balance professional and business roles, whereby owners of independent pharmacies showed a

slightly higher business orientation which is supposed to be due to a personal dependence on the pharmacy's financial viability (Perepelkin & Dobson, 2010).

Interestingly, a factor analysis on both types of role orientation showed that the traditional dispensing and selling of non-prescription medicines (NPM) did not load into business or healthcare professional orientation as did managing staff, yet dispensing ranked high for both, importance and affinity (Perepelkin & Dobson, 2010). Indeed, the dispensing role, i.e. handing out prescription medications, and the medicine expert role, i.e. prescription checking and giving patients information (e.g. on usage or side-effects), were found to be strong parts of pharmacists' identities (Elvey, 2011). It is a professional role, which is endorsed by physicians and patients alike in contrast to the professional service roles (e.g. Bryant et al., 2009; Tootelian et al., 2006). Having a mandate for a role seemed to be important for pharmacists (Bryant et al., 2009; Bryant, Coster, & McCormick, 2010) and pharmacists, according to Stevenson, Leontowitsch, and Duggan (2008, p. 915) "have a publicly recognised authority to supply pharmacological entities". Overall however, results from the few studies on role orientation are silent on how and under what conditions either role orientation may impact PPS provision. Hence, these aspects were gleaned from other studies from this review and are addressed in the following.

3.3.3.2 Healthcare professional values and their relation to professional pharmacy service provision

A recurring aspect linked to the healthcare professional role is professionalism. This seems to be due to the perception that aspects of professionalism are needed for service provision and due to pharmacists' dual role with the potential inherent conflict between professional and business objectives (Chaar, Brien, & Krass, 2005). Likewise, one can argue that professionalism is a necessary element of the professional role, leading to or enabling the actual enactment of that role in practice.

Key aspects identified for (patient-centred) professionalism in pharmacists are:

- Adhering to ethical values including but not limited to putting the patient first, being honest, trustworthy and compassionate and committed to do more than is required. (Benson, Cribb, & Barber, 2009; Elvey et al., 2015; Wilson, Tordoff, & Beckett, 2010). For instance, professionalism can promote following guidelines in filling prescriptions (Quinney, 1963), or lead to not pushing the sale of a self-medication product if not deemed useful for the patient (Schmidt & Pioch, 2005).
- Respect for medicines and perceiving medicines as special goods (Benson et al., 2009)
- Respect towards other people (patients, peers and other healthcare professionals) by expressing civility and confidentiality, (Elvey et al., 2011; Wilson et al., 2010)
- Commitment to continued education and self-improvement, e.g. having and seeking necessary knowledge and skills to enable providing patients with good advice, recognising limits to one's knowledge, being able to judge risks and benefits in ambiguous situations (Elvey et al., 2015; Wilson et al., 2010)
- Commitment to working diligently, reliably and accepting accountability (Elvey et al., 2015; Wilson et al., 2010)
- Communicating effectively to advise patients (e.g. avoiding technical language), to communicate with other healthcare professionals, and to build relationships and rapport (Elvey et al., 2015; Elvey et al., 2011; Wilson et al., 2010)

Some research results point towards professionalism having a positive influence on professional pharmacy services. Elements of professionalism such as patient-centredness, a commitment towards patient care and a wish to improve patients' medicines use and outcomes were found to facilitate service provision (Thornley, 2006). A study on four PPS-providing pharmacies found that these pharmacies shared a philosophy of practice emphasising professional values (e.g. taking responsibility for patient

outcomes, life-long learning, and constant improvement) and a patient-centred mindset (Willink & Isetts, 2005).

This is further supported by extant research indicating a relationship between believing in professional values and providing counselling. A literature review on pharmacist role orientations showed that a counsellor role orientation fosters patient-centred behaviour, is linked to increased patient-pharmacist interaction, and is positively correlated with the intention to provide pharmaceutical care (Guirguis & Chewning, 2005). Furthermore, the professional value of responsibility seems to be an important mechanism for counselling. Perceived responsibility for medication therapy outcomes, influenced by clarity of standards, personal control, and professional duty, was found to have a significant positive and direct impact on reported provision of pharmaceutical care (Planas et al., 2005). Pharmacists' acceptance of their counselling responsibility regarding non-prescription medicines directly influenced comprehensiveness of evaluation and indirectly the decision to sell (Kanjanarach, Krass, & Cumming, 2011). Similarly, pharmacists rating high in responsibility and professional role perception, were significantly more likely to ask about side effects, effectiveness and adherence (Witry & Doucette, 2015). A more recent study found an indirect relationship between pharmacists' perceived responsibility for patient care and provision of cardiovascular disease support (Puspitasari, Costa, Aslani, & Krass, 2016). Likewise, a recent realist review identified professional identity, i.e. the perception of being a healthcare provider, being oriented towards professional values, and being patient-centred, as a mechanism for providing smoking cessation support (Greenhalgh, Macfarlane, Steed, & Walton, 2016).

Despite the importance, counselling rates were, however, found to vary and generally seemed to just have fulfilled the minimum requirements (Puspitasari, Aslani, & Krass, 2009) and a difference in ideal and actual service levels was observed via pharmacists failing on mystery shopping and by not seizing opportunities for counselling (White & Clark, 2010). Yet, engaging in counselling was influenced by the type of situation or type of medicine as a systematic review on counselling on non-prescription

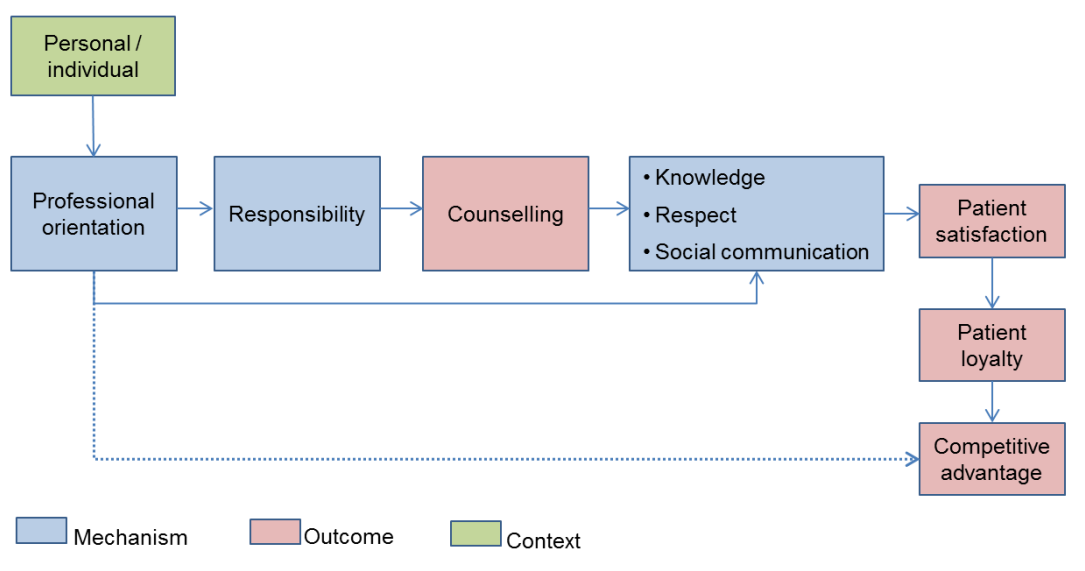
medication (NPM), discovered that quality was often insufficient and that pharmacists offered more counselling when patients stated symptoms and less counselling when patients asked for a specific product (van Eikenhorst, Salema, & Anderson, 2017). Furthermore, counselling appears to depend on the type of patient and patient behaviour. For instance, it was found that patients choose their pharmacy according to their need for advice (Stevenson et al., 2008), that some patients do not see the need for counselling (Hibbert et al., 2002), and that pharmacists (thus) categorise patients into those who will listen and those who will not with the consequence that the latter group is likely getting less advice (Morton, Pattison, Langley, & Powell, 2015). Hence, counselling is not only affected by the pharmacist but also by patient acceptance of receiving advice. This indicates that patients co-determine counselling and also indicates a high customer orientation of pharmacists which may run counter to professional values.

Healthcare professionalism not only appears to foster patient counselling but also seems to have an instrumental value for the pharmacy business regarding the creation of a competitive advantage. For instance, it was found that patient-centredness and pharmacist-patient interpersonal communication were directly and significantly related to patients' trust and satisfaction, which in turn influenced loyalty, i.e. the likelihood that the patient will seek future interaction with the pharmacist (Worley, 2006). Regarding communication style, listening to patients, being confident, calm and firm but also polite and respectful, and adapting the use of language to a situation when speaking with patients was also found important for building trusting relationships (Elvey et al., 2015). An investigation into factors influencing customer trust in a pharmacy showed that the professional values of sincerity and competence were the only factors positively and significantly contributing to building customer trust (Perepelkin & Zhang, 2011) and it was suggested that trust is important for pharmacies to build competitive advantage (Perepelkin & Zhang, 2014).

Similar to what patients expect from a pharmacy and to the reasons for choosing a pharmacy, competence and friendliness of pharmacist and staff

influenced willingness to use a service and was needed for a positive service experience (Krska & Mackridge, 2014). Interestingly, though, only 10% of pharmacy customers chose a pharmacy because of unique services and offering unique services was not linked to pharmacy loyalty (Patterson, Doucette, Urmie, & McDonough, 2013). A different study found that patients were unwilling to change their current pharmacy if they had a personal and respectful relationship with pharmacy staff, received quality advice on medications, access to services was easy and convenient, and medication supply was reliable (Whitty et al., 2015). This indicates on the one hand that it may be difficult to gain new patients through services as the target group would be those less satisfied with their current pharmacy; on the other hand, it means that providing patient-centred care helps retaining patients. Figure 18 represents these relationships in form of a CMO configuration.

Figure 18: Professionalism and competitive advantage



Source: own illustration based on Elvey et al. (2015); Perepelkin and Zhang (2014); Planas et al. (2005)

This means that healthcare professional orientation indeed appears to be a key mechanism for professional service provision, presumably on the contextual level of the individual pharmacist, via feeling responsible for patient care actualised through counselling. Additionally, professional orientation, through effectively and empathetically communicating with patients has a concomitant effect on the pharmacy business through building trusting relationships with patients and positively affecting patient loyalty.

3.3.3.3 Business orientation, its relationship with professionalism and the importance of business skills for professional pharmacy services

The business role is ambiguous as it is perceived as not conducive to professionalism (Morton et al., 2015). It is not liked by pharmacists, because physicians and patients perceive the business role negatively and suspect pharmacists to be focused on their business interest (Elvey, 2011). This negative perception may not only come from the overt co-existence of healthcare provision within a retail setting but also from negative examples. For instance, business interest was found to interfere with the professional role of counselling as less counselling was provided when a pharmacy was busy (Witry & Doucette, 2015), or kept pharmacists from giving advice to avoid alienating and losing customers (Morton et al., 2015). This is indicative of the importance of dispensing, as time pressure to serve patients quickly was found to impede counselling, thereby producing a dysfunctional vicious circle, in which lack of counselling leads to patients not seeking pharmacists' advice, leading to a lack of motivation on both sides to change their respective behaviour (Schommer & Gaither, 2014). This may be exacerbated by patients expecting dispensing to be efficient and quick (Rapport et al., 2010).

Specifically (but not exclusively) in chain or supermarket pharmacies, it has been observed that business interests put pharmacists under pressure and may override patient interest (Wingfield, Bissell, & Anderson, 2004). Regarding remunerated medicine use reviews in the UK, it was found that upper limits for service provision were perceived as business targets by pharmacy management which made some pharmacists focus on less complex patients rather than those needing the review more urgently (Latif, Pollock, & Boardman, 2011). As Flodgren et al. (2011, p. 3) point out that - generally effective - incentives can lead to distorted effects such as increasing patient throughput at the cost of quality of care or choosing to focus on less complex patients ("cream-skimming") at the cost of quality or intended outcomes. This effect irritated patients and physicians and it was feared to impact negatively on professional reputation as well as on service sustainability (McDonald, Cheraghi-Sohi, Sanders, & Ashcroft, 2010). Whilst

this may be an issue specific to the UK, i.e. emerging from the combination of the existence of a remunerated service and large pharmacy chains, it points towards the need of a counterbalancing professionalism if PPS are to be accepted by patients and physicians and thus to be sustained.

Yet, business orientation also has positive sides and can be seen as consisting of the retailing function and strategic and operational management functions. Being a good or successful business person, a feature of a business orientation, was rated high in importance (Dobson & Perepelkin, 2011), and despite the importance of healthcare professional attitudes and skills, and despite the possibility of business interests overriding patient interest, there is growing recognition that management and organisational aspects are important for running a pharmacy and for service provision (e.g. Roberts, Benrimoj, Chen, Williams, & Aslani, 2006). For instance, management skills are seen as necessary to master the commercial aspects of a pharmacy and to combine the professional and commercial elements to ensure quality care and a financially sound business, which especially applies to owner-managers (Ottewill, Jennings, & Magirr, 2000).

Likewise, a strategic and proactive business orientation may be needed to ensure business and service viability (Schmidt & Pioch, 2005). Research from Germany found that business orientation, perceived as opening up to more modern management practices coupled with customer focus, was linked to superior business performance in general (Heinsohn & Flessa, 2013). Specifically, high levels of entrepreneurial orientation (EO) were linked to professional service provision (Jambulingam et al., 2005). Jambulingam et al. (2005) perceive the elements of EO as resources and found that pharmacies could be clustered according to their preferences for the different EO elements, whereby the resulting pharmacy clusters had differing perceptions regarding their growth opportunities, competition within the industry, and environmental stability leading to the conclusion that a pharmacy's mix of these resources was indicative of its strategies to achieve a competitive advantage. Out of six identified pharmacy clusters, the *true entrepreneurs* cluster, stood out as it scored higher in all categories measured, i.e. pro-activeness, risk-taking, innovativeness, autonomy,

motivation and competitive aggressiveness, but especially in risk-taking, pro-activeness and innovativeness, indicating that these are potential mechanisms driving service provision. *True entrepreneurs* did not only offer more innovative services than other pharmacy clusters but also saw more opportunities, had less formal organisational control, were the most able and willing to change, showed a high tolerance for ambiguity, were more customer-oriented and effective, and perceived themselves to grow faster than their largest competitor (Jambulingam et al., 2005).

Similarly, PPS provision was identified as a strategic business choice to position a pharmacy as healthcare provider as alternative to other possible business models such as a retail and price-focused model, based on the belief that a service-oriented business model will achieve financial viability through long-term customer loyalty (Feletto, Wilson, Roberts, & Benrimoj, 2010b). Pharmacies that chose a service-oriented positioning tended to manage their resources accordingly, i.e. employ more staff, have specialists for service provision, invest into training programmes, use technology to improve services, and have an owner supporting openness in communication and teamwork (Feletto et al., 2010b).

This indicates that healthcare professional orientation and business orientation are both necessary for pharmacy practice in general but also for engaging in and managing PPS provision, specifically for resource building and resource allocation to ensure service and business viability. Based on the EO - service relationship, business orientation may also be a mechanism related to pro-actively identifying opportunities.

3.3.4 Motivation and decision-making for professional service provision

This section focuses primarily on the front-end of the reconceptualised NSD model, i.e. idea generation / motivation and decision-making. Whilst idea generation is part of the early stage in the NSD process, very little information could be gleaned from the literature on where and how pharmacists identify service ideas. The main reason could be that most

research was about existing service programmes or interventions, which thus constitutes one external source of service ideas. Only the more recent study by Moullin et al. (2016) explicitly identified that pharmacists either learnt about externally developed programmes from different sources (i.e. the national pharmacy association, their pharmacy group, visits from company representatives or from attending conferences) or developed services internally. Furthermore, one study reported the identification of a public health need for the development of an obstructive sleep apnoea service (Hanes, Wong, & Saini, 2015). This indicates that there may be a variety of idea sources. The tentative framework suggests that aspects such as role orientation or cognitive frameworks influence opportunity recognition. Yet, information about how pharmacists recognise a professional service opportunity is limited to the study by Jambulingam et al. (2005) who found that pharmacies high in EO and CO recognise growth opportunities and pursue them accordingly to satisfy their customers and also offer a high number of services, thus indicating that EO and CO in line with the tentative framework may foster opportunity recognition. As the above summarises the research on service ideation, the following addresses motivation and decision-making for PPS development and introduction.

3.3.4.1 Motivators for professional service provision

From a business perspective, PPS was identified as a strategic decision to differentiate from competitors (Feletto et al., 2010b). From a healthcare professional point of view, the desire and willingness to change to the patient-centred philosophy from within the profession is seen as an enabler for professional service implementation (Mah, Rosenthal, & Tsuyuki, 2009; Rossing, Hansen, Traulsen, & Krass, 2005). This indicates that there are different ideas about the nature of a professional service and therewith about the drivers behind professional service provision.

Motivation was mentioned as linked to service provision (e.g. Bryant et al., 2009; Zardaín et al., 2009) and professional, business and personal motivation was identified as a mechanism for PPS provision (Greenhalgh et al., 2016), yet the nature of motivation was often not specified. A thesis on

factors impacting service delivery from the UK is a notable exception, as it identified motivators for service provision, whereby motivators were perceived as representing a benefit (Thornley, 2006). Thus, perceived benefits but also goals, desirable outcomes, and aspects directly referred to as motivators for service provision were extracted from the literature, whereby the identified motivators could be sorted into being related to the healthcare professional or to the business role.

Additionally, it was found that motivators were different for pharmacists providing a service and pharmacy management (Thornley, 2006). This tendency was also apparent in this literature review. However, the differences were not as clear-cut since many studies included owners / managers and salaried pharmacists and rarely made distinctions between the groups. The following tables thus show the motivators from the business / management perspective (taken from studies where respondents were primarily owners / managers) and the perspective of the service-providing pharmacists (taken from studies where respondents were mainly salaried pharmacists), each sorted by healthcare professional and business orientation.

The tables show that service-providing pharmacists' personal motivation was mainly related to the healthcare professional role, whereas from a business or management perspective, it was mainly related to business aspects. Yet, as there were some overlaps, often both perspectives were found within studies on service provision. For instance, research on experiences of pharmacists providing an asthma service identified motivators such as positive perceptions of patients, professional rewards from good patient health outcomes in addition to business rewards from patients enrolling in other pharmacy services (Emmerton et al., 2012). One reason for overlaps could be that in small independent pharmacies, the owner / manager is also the service provider and thus professional services are business and healthcare professionally motivated. It could also indicate that not one motivator alone but rather a mix of motivators at different levels may entice service provision.

Table 6: Motivators for professional service provision (pharmacy management level)

Healthcare professional oriented
• Altruism / genuinely help patients / professional practice philosophy (Hanes et al., 2015 ; Willink & Isetts, 2005; Woods, Gapp, & King, 2015) • Positive experience from previous professional service provision (Feletto et al., 2013) • Provide health benefits to patients (Wells, Thornley, Boyd, & Boardman, 2014)
Business oriented
• Create image (Feletto et al., 2010b; Hopp, Sørensen, Herborg, & Roberts, 2005; Pronk et al., 2002; Thornley, 2006) • Create customer loyalty (Feletto et al., 2010b; Pronk et al., 2002) • Gain additional trust from customers (Thornley, 2006) • Achieve competitive differentiation (Albrecht et al., 2006; Feletto et al., 2010b; Hanes et al., 2015 ; Woods et al., 2015) • Get and motivate good personnel (Hopp et al., 2005; Wells et al., 2014) • Generate sales / more prescriptions / other service use (Albrecht et al., 2006; Elrod, Snyder, Hall, & McGivney, 2012; Emmerton et al., 2012; Thornley, 2006) • Draw traffic into the pharmacy (Thornley, 2006) • Demand from patients (Albrecht et al., 2006) • Remuneration for service (Albrecht et al., 2006; Bradley et al., 2008; Elvey, 2011; Houle, Grindrod, Chatterley, & Tsuyuki, 2014; Wells et al., 2014)

Table 7: Motivators for professional service provision (personal / service providing pharmacist level)

Healthcare professional oriented
• Altruistic / help patients (Grindrod et al., 2009) • Passion for patient care (Elrod et al., 2012) • Responsibility for patient care (Puspitasari et al., 2016; Schommer, Doucette, Johnson, & Planas, 2012) • Receive positive patient feedback (Emmerton et al., 2012) • Job satisfaction, professional satisfaction / fulfilment (Feletto et al., 2013; Hanes et al., 2015 ; Thornley, 2006; Wells et al., 2014) • Opportunity for role extension / professional development / bringing the pharmacy profession forward (Blackburn, Fedoruk, & Wells, 2008; Elrod et al., 2012; Greenhalgh et al., 2016; Herbert et al., 2006; Latif & Boardman, 2008; Thornley, 2006; Wells et al., 2014) • Pharmacist identity / belief in having a public health function (Greenhalgh et al., 2016) • Work more closely with physicians / be part of the public health team (Thornley, 2006) • Reduce pressure from general practitioners (Thornley, 2006) • Gain professional status (McDonald et al., 2010) • Formalisation of professional role / legitimising involvement in patient care (Lucas & Blenkinsopp, 2015; Wells et al., 2014) • Improve public image of pharmacy (Thornley, 2006)
Business oriented
• Meet a business target (e.g. Bradley et al., 2008; Latif et al., 2011)

Despite the possibility that service provision is motivated by different aspects, the difference between pharmacy management and salaried pharmacist perspectives suggests that motivation for deciding to implement a professional service needs to be distinguished from the motivation for actually providing a service to a patient, especially in cases where the service is provided by employed pharmacists (and not by the owner / manager). Interestingly, employee motivation was identified as a business-related

motivator (Hopp et al., 2005). This would support the need for the above-mentioned distinction, as this motivator indicates that service provision may be more interesting for pharmacy staff which tallies with the higher number of healthcare professional oriented personal motivators, which appear to be intrinsic motivators by nature.

Based on the above tables, motivation is a mechanism for the decision to provide PPS which supports the realist review findings from Greenhalgh et al. (2016). However, different to that review, the nature of that motivation is mainly business oriented, as it is from the perspective of owners / managers, who according to the tentative explanatory model make the decisions for PPS introduction. These business aspects are related to expectations about generating sales directly or indirectly through building loyalty with patients. These business motivators, whilst seeming a mix of autonomous instrumental and extrinsic motivation, resonate with motivators found for small business owners, which were making a living, moderate business growth, job satisfaction and satisfied customers (Reijonen, 2008). However, the question is whether business motivation would be sufficient to drive PPS provision. Even though only few healthcare professionally oriented motivators could be identified, a healthcare professionally oriented practice philosophy (Willink & Isetts, 2005) and a decision for a healthcare positioning (Feletto et al., 2010b) appear to be equally important. This is supported by findings that a change in strategy at the owner/management level activated the PPS implementation process (Moullin et al., 2016). At least this seems to be the case for independent pharmacies, whereas for large multiples or chains business motivators may be sufficient as demonstrated by examples from the UK (Bradley et al., 2008).

Yet, there are also pharmacists doubting the financial viability of services and expecting higher workload and stress (Herbert et al., 2006; Hessemer, 2016). These negative value expectancies represent aspects relating to the frequently mentioned barriers of time, staff and money (Hopp et al., 2005). The question is, though, whether negative expectancies stop a service development process in its tracks. On the other hand, positive experience with service provision appears to be a further mechanism related to

motivation. For instance, experience with service provision made owners consider further services (Feletto et al., 2013). This is supported by research from Spain, which, using the transtheoretical model of change and the attitude-social influence-self efficacy (ASE) model, found that pharmacy owners who provided pharmaceutical care perceived a higher relative advantage of providing the service than those in the contemplation stage (Zardaín et al., 2009). This indicates that positive experience with service provision may reinforce value expectancy by seeing service provision as advantageous for a pharmacy.

Hence, following value expectancy theory, as business motivators tend to mainly represent pharmacy management (or owners), their motive strength and overall attractiveness should be strong enough to pass the threshold from goal selection to implementation. Actual service provision would be a consequence and, based on self-determination theory (SDT) (Ryan & Deci, 2000b), should be successful when provided by pharmacists or employees out of intrinsic motivation. As the healthcare professionally oriented motivators seem to be more intrinsic, it follows that healthcare professional motivation should be a mechanism for (more) successful and sustainable service provision.

3.3.4.2 Making decisions for professional service provision

Different to the availability of evidence on motivators, the review of the pharmacy practice literature revealed a dearth of information about criteria and processes for decision-making on professional service provision. Specifically, it did not provide information about the use of intuitive and deliberative reasoning and whether decisions are supported by further information gathering as suggested by the tentative framework. Only the recent Australian study describes a PPS development process with a front-end including ideation and decision-making, whereby decisions tended to be based on a range of decision criteria and taken informally by the owner after consulting with senior staff members (Moullin et al., 2016).

The tentative framework on motivation and decision-making suggests that service opportunities are screened against financial resources, internal (organisational) resources, characteristics of the opportunity and that decision-making is influenced by aspects from the TPB. The TPB, which has been used for decision-making, and which includes not only value expectancies (in the attitude and somewhat in the subjective norm constructs) but also considerations about feasibility (featured in the PBC construct), therefore provides potential decision criteria. The TPB was applied alone or in combination with other behavioural theories to predict provision of pharmaceutical care (Odedina, Hepler, Segal, & Miller, 1997) and medication therapy management service provision (Herbert et al., 2006), to provide a causal model for pharmaceutical care provision (Farris & Schopflocher, 1999), or to explain provision of cardiovascular disease support (Puspitasari et al., 2016). Each of the studies operationalised the TPB constructs of attitude, subjective norm and perceived behavioural control differently but based these on information about barriers and facilitators known or suspected at the time the respective research was conducted to identify predictors of intention and / or behaviour.

Hence, pharmacy practice literature using the TPB and also the diffusion of innovation model was primarily analysed for indications about decision criteria according to the generic criteria identified in the tentative explanatory framework.

Internal resources: Farris and Schopflocher (1999), found that pharmacists appeared to believe in the usefulness of pharmaceutical care for patient outcomes but showed low perceived behavioural control, i.e. lacked the means for implementation. This interpretation reflects the knowledge base at the time of the research and subsequent studies have specified the means for implementation as having the necessary knowledge and skills, the necessary business organisational resources of time, staff and computer support (Herbert et al., 2006; Hopp et al., 2005), as well as having a private counselling area and experience in working with physicians (Puspitasari et al., 2016). Likewise, using the diffusion of innovation model, it was found that

intention to adopt a new service was higher when more time, money, and technicians are available (Pronk et al., 2002).

Financial aspects: The decision to go for a service-related business model was identified to depend on pharmacy owners' business philosophy and beliefs about viability (Feletto et al., 2010b). A qualitative study on financial facilitators found that to assess viability, pharmacy owners make cost and risk analyses before providing services, whereby the cost for additional/sufficient staff was a major barrier and remuneration or increased patient demand and turnover were seen as facilitators (Albrecht et al., 2006). These findings tally with the tentative explanatory model where financial analysis is part of small business decision-making. Likewise they fit with the limited use of cost analysis or financial planning performed by small businesses (Albrecht et al., 2006).

Service characteristics: It was found that pharmacists perceived it as important if services added value for patients, were compatible with daily pharmacy practice and if there was the possibility of trialling the service (Pronk et al., 2002). This tallies with findings from (Moullin et al., 2016), indicating that these are decision criteria and that healthcare professional and business criteria are applied.

Patient expectations & physician support: Furthermore, subjective norm items from the studies applying the TPB construct indicate that support from physicians and demand from patients may also be decision criteria. Interestingly, subjective norm, which in a meta-analysis of TPB studies was the weakest predictor of intention (Armitage & Conner, 2001), was identified as the strongest predictor of intention or behaviour in two of the studies. The results were based on questions like 'my patients / physicians approve of me to / expect me to provide …' relating to the acceptance of expanded pharmacy practice by important stakeholders (Herbert et al., 2006; Puspitasari et al., 2016). The prediction strength on the one hand but relatively low number of affirmation (which fits, given the low patient awareness and physician approval addressed in section 3.3.6 in this review) was interpreted that pharmacists need to perceive professional services as their legitimate practice (Puspitasari et al., 2016). An alternative interpretation

could be that there is a small fraction of informed patients and physicians who have actually voiced their approval or expectation and that pharmacists being customer-focused feel compelled to fulfil their wishes. In any case, the subjective norm component would mean that pharmacists are highly dependent on the opinion of physicians and patients and that, if such social support was missing, it would reduce intention and eventually lead to negative decisions for service provision and explain a low uptake.

Regarding the decision-making process and relationship between motivation and decision-making, findings from Moullin et al. (2016) suggest that value expectancies (motivation/relative advantage) are assessed against a service's characteristics and a pharmacy's resources and capabilities. For instance, within a service implementation process, pharmacists checked for fit of the service with the pharmacy's strategy, and checked whether the service provided a relative advantage (e.g. financial benefits, increased patient loyalty) compared to the service characteristics (e.g. duration) and a pharmacy's available resources (e.g. staffing levels, cost, training needs), and whether the service was meeting a demand or need (Moullin et al., 2016). Similarly, a study on decision-making on NPMs found that pharmacists were more likely to adopt reclassified medicines into their practice when it fit with the pharmacy's strategy and assortment, when pharmacists believed it would enhance their role and they were confident about supplying it, when pharmacists were convinced of the effectiveness of the medicine and its retail price and when patients demanded it (Paudyal, Hansford, Cunningham, & Stewart, 2014). Additionally, in line with theory on opportunity recognition, review results suggest that experience facilitates comparison of a new service with needs and resource availability. Previous experience with other services, which is a background factor in the TPB (Ajzen, 1991) was identified as a strong influence on intention to provide pharmaceutical care by Odedina et al. (1997) and less explicitly also included in all other studies, indicating that (positive) experience may foster not only motivation but also decision-making and thus uptake of further services. This could be due to increased confidence (as also found by Eades et al. (2011)) or by having the skills in place and having already established some of the necessary service infrastructure.

Overall, the identified studies using the TPB and the diffusion of innovation model provide theoretical explanations. Putting the results together shows that pharmacists base their decisions on healthcare professional aspects, such as usefulness for the patient but also on business viability, i.e. whether service provision is expected (or demanded) by patients, supported by physicians, perceived as a legitimate fit to pharmacy practice, and whether resources in terms of knowledge, staff and infrastructure are available. This fits with the most frequently mentioned barriers to service provision, i.e. lack of time, remuneration and staff, influenced by previous experience with services (when applicable). Generally, the TPB studies, in line with the theory, show that when attitudes are positive and pharmacists feel that they have the means and the social support, it increases the likelihood of intention or behaviour to provide the service.

However, the drawback of quantitative models such as the TPB or the diffusion of innovation is that results can only reflect the information that is fed into the model, i.e. the input determines the output. Hence, it is likely that not all decision criteria have so far been identified and that, whilst some general tendencies may prevail, it is possible that the decision criteria may differ by country (due to different systems and standards) and by type of service. A further drawback is that effects on intention are measured at construct level. For instance, Herbert et al. (2006) included both healthcare professional and business oriented items in the attitude construct, or items related to patients, peers, and physicians in the subjective norm construct. This obscures the influence of single items (e.g. role orientations), which were often different in nature, as well as the conditions under which they may be relevant.

3.3.5 Factors affecting professional pharmacy service success and sustainability

Examples of implementation practice by early adopters show that introducing and running professional services in pharmacies is feasible, yet sustainability of service provision is an issue (Patwardhan et al., 2014). This section thus addresses potential mechanisms for making services successful as it can be

assumed that unsuccessful services will not be sustained, whereby success results from a composite of different factors at different levels, i.e. individual, internal/organisational and external levels (Feletto et al., 2013), including healthcare professional and business aspects. In line with the reconceptualised NSD model, the focus is on the implementation phase. However, most research does not differentiate between different stages in the process, with the only explicit process-focused study being that of Moullin et al. (2016) where the decision to provide a service is followed by preparation, testing, operation and sustainability stages. In the earlier literature, indications are given about prerequisites to service provision and (potential) success factors. Therefore, these two themes are presented in the following and where possible with indications about their stage in the process and the influence of role orientations.

3.3.5.1 Prerequisites and success factors for service provision

A range of studies have identified prerequisites to service provision, i.e. resources that have to be in place or need to be made available to build the structures to enable a (functioning) service. These are a private counselling area, trained support staff (pharmacy technicians) to free up the pharmacist, and IT systems to support service provision (Chui, Mott, & Maxwell, 2012; Doucette, Nevins, et al., 2012; Odedina, Segal, & Hepler, 1995; Ramaswamy-Krishnarajan & Hill, 2005; Willink & Isetts, 2005). Furthermore, knowledge and skills related to the specific service need to be available or acquired before offering a service (Chui et al., 2012; Emmerton et al., 2012; Feletto et al., 2010b). To obtain these prerequisites necessitates some planning and preparation, which tended to be reported for service interventions (e.g.Lowrie et al., 2014; Thornley, 2006).

Success for a professional service can be seen as linked to being sustainable, which is indicated by a service being in demand, achieving clinical outcomes, positive feedback and / or financial viability (Albrecht et al., 2006; Elrod et al., 2012). The extant literature, specifically research on barriers and facilitators, offers plenty of research results and suggestions what promotes service provision and how it can be successful. Key studies in

pointing towards success models based on actual service provision are by Willink and Isetts (2005), Jambulingam et al. (2005), Thornley (2006), Roberts et al. (2008), Feletto et al. (2010b), and Chui et al. (2012) as well as other research on innovative (leading edge) pharmacy practitioners (Odedina et al., 1995; Tann, Blenkinsopp, Allen, & Platts, 1996). As shown in table 8, the findings from these key studies on service providers, innovators and leading-edge practitioners indicate that successful service provision is strongly impacted by strategic orientation, organisational aspects regarding resource management, and personal behaviours.

Table 8: Success factors for professional pharmacy services from the pharmacy practice literature

Success factors	Key sources
A strategic decision leading to the necessary adaptations in pharmacy infrastructure and skills	Feletto et al. (2010b)
Guidance by a healthcare professional oriented vision or philosophy	Willink and Isetts (2005)
Creating a viable financial model / securing remuneration	Willink and Isetts (2005)
Entrepreneurial orientation, i.e. being pro-active, taking risks, and being innovative	Jambulingam et al. (2005); Tann et al. (1996)
Effectively networking with physicians and other third parties	Roberts et al. (2008); Tann et al. (1996)
Leadership characterised by creation of a supportive pharmacy environment including encouraging skills development, effective communication structures and employee empowerment	Chui et al. (2012); Roberts et al. (2008); Willink and Isetts (2005)
Creating patient demand	Roberts et al. (2008); Thornley (2006)
Resource availability (especially sufficient staff), coordination and time management	Chui et al. (2012); Roberts et al. (2008)

The success factors predominantly apply to pharmacy owners and are not restricted to the implementation stage but also appear to be relevant for the front-end of the service development process.

Strategic orientation: As table 8 indicates, PPS provision appears to be enabled by a strategic business-level decision for professional services coupled with a healthcare professional philosophy. However, this may only apply to a fraction of community pharmacies, as one study found PPS uptake (despite remuneration) to be highly variable with some pharmacies reporting high service provision rates (Houle et al., 2014), pointing towards a small group of pharmacies having chosen a service business model providing services intensively. This would fit with the existence of different pharmacy business models, one of them being professional service focused (Feletto et al., 2010b). Whilst this strategic orientation appears to be on an organisational level, it is also highly influenced by the personal characteristics and values of pharmacy owners, which tallies with findings from research on small businesses and also links back to the findings from the previous section on motivation and decision-making. A dual role orientation seems necessary, as research on four innovative pharmacists showed that being professionally oriented regarding patient welfare and understanding the business needs of their pharmacies enabled successful service provision (Willink & Isetts, 2005). The way in which the dual role shows its effects is via EO which includes pro-active search for innovation to fulfil customer expectations and gain a favourable market position (Jambulingam et al., 2005) and via a perceived professional responsibility which fosters patient-centredness (Willink & Isetts, 2005).

Organisational aspects / resources: Service providers were found to ensure the availability of resources and capabilities necessary for service provision (i.e. what is regarded as prerequisites such as counselling room, trained staff) as suggested by Puspitasari et al. (2016). Furthermore, innovators had high levels of healthcare professional expertise and a focus on staff training (Tann et al., 1996; Willink & Isetts, 2005), motivated their staff and supported employees in coming forward with new ideas (Doucette, Nevins, et al., 2012; Tann et al., 1996), and created a supportive

organisational environment (Grindrod et al., 2011). The latter was identified as an enabler for service provision (Hopp et al., 2005; Mah et al., 2009), as was having motivated and specialised staff (Feletto et al., 2010b) and being trained for the respective service (Emmerton et al., 2012).

Personal behaviour: Pharmacists who have opted to offer professional services, i.e. innovators or leading-edge practitioners, were found to differ from other pharmacists in a range of professional and business/management and attitudinal aspects. Service providers were found to have high self-efficacy (Zardaín et al., 2009) and compared to other pharmacists, innovators showed a professional service orientation and positive attitude including an openness to role extension (Odedina et al., 1995; Tann et al., 1996; Willink & Isetts, 2005; Zardaín et al., 2009). They also had a positive outlook by perceiving difficult situations less as barriers (Pronk et al., 2002) and had plans for the future (Tann et al., 1996). Innovators also tended to be pro-active, which was identified as a key element by Jambulingam et al. (2005) and confirmed in a later study, finding that pro-activeness, i.e. being the first to offer a new service and create a competitive advantage, was positively related to changing to a professional service model (Doucette, Nevins, et al., 2012). Innovators also exhibited pro-activeness by taking initiative, approaching and educating patients about professional services, and establishing relationships with physicians (Odedina et al., 1995; Tann et al., 1996; Willink & Isetts, 2005). The latter was identified as the most important facilitator for medication review related services, which require some collaboration with physicians, and pharmacists thus seem dependent on gaining physician support for successful professional service provision (e.g.Roberts et al., 2008).

Regarding the influence of role orientations, the above findings indicate that healthcare professional orientation influences the strategy or practice philosophy of a pharmacy and business orientation is needed to identify service opportunities and create the environment for service delivery by developing and aligning resources.

3.3.5.2 Challenges with and solutions to (successful) service provision

Challenges or barriers experienced with professional service provision were lack of demand, difficulty integrating services into daily pharmacy routines (Bryant et al., 2010), concerns about support from physicians (Bryant et al., 2009) and financial viability (e.g. Tann et al., 1996), which are elements identified as important for service sustainability (Albrecht et al., 2006; Elrod et al., 2012). The following presents these barriers and demonstrates how the success factors are applied in resolving barriers, indicating the importance of pharmacists' agency in achieving service success.

Demand creation: Demand for a service appears to be an important decision criterion for PPS provision (Albrecht et al., 2006). Yet, lack thereof is a recurring barrier (Eades et al., 2011; Thornley, 2006), which is often attributed to low awareness about service provision in pharmacy (e.g. Greenhalgh et al., 2016; Saramunee et al., 2015). It was also found that pharmacists compared offering medicine use reviews to patients with 'selling', which made them uncomfortable as they were afraid that this could undermine pharmacy reputation (McDonald et al., 2010). A potential explanation for this reluctance may be that pharmacists are used to the traditional dispensing-based pharmacy model, which relies on patients coming to a pharmacy with a specific need (e.g. prescription), putting pharmacists in a passive waiting mode. Yet, applying the dispensing-based model and wait for 'demand' to show up at the pharmacy will likely not increase service uptake. Hence, communication skills and marketing strategies are needed to identify and engage patients.

Innovative pharmacists assess demand and pro-actively recruit patients (Grindrod et al., 2011; Tann et al., 1996; Willink & Isetts, 2005). As professional services are a comparatively new practice, pharmacists themselves need to create demand by identifying patient needs in the community, ensuring that the service provides a benefit, and by approaching patients to educate them about their pharmacies' service offers (Willink & Isetts, 2005). Conceptually separating services from dispensing was deemed important (Elrod et al., 2012; Willink & Isetts, 2005), as an example from Sweden demonstrated that patients were not always able to discern a

medicine use review from other services in the pharmacy (Renberg, Lindblad, & Tully, 2006). Having a clear service benefit thus seems to help service acceptance (Thornley, 2006). For instance, it was found that patient willingness to use a home medication review service (HMR) depended on having positive outcome expectations about the usefulness of the service, such as improving the patient's medicines knowledge (Carter, Moles, White, & Chen, 2012). Further PPS benefits from a patient point of view were identified as empowerment, better knowledge about medications, risk/threat reduction, feeling cared for (Latif et al., 2011; Renberg et al., 2006; White, Klinner, & Carter, 2012), easy accessibility of advice, and the opportunity to get time with a healthcare professional (Thornley, 2006; Tinelli, Blenkinsopp, & Bond, 2011) as pharmacists tended to have more time for patients than physicians (Elvey, 2011). Regarding the acceptance of PPS, patients had doubts regarding privacy and confidentiality (Krska & Mackridge, 2014; White et al., 2012), which underlines the importance of a private consultation room, especially when pharmacies are busy (Krska & Mackridge, 2014).

Creating demand also means identifying target groups eligible for a service, whereby for remunerated service programmes, eligibility criteria tend to be set by the programme (Latif, Boardman, & Pollock, 2013). Yet, difficulties in practice were recruiting patients, as, for instance, patients despite eligibility did not see the need for an asthma service (Kaae & Sporrong, 2015). However, it appears that some patient groups are more receptive to PPS provision. These are women (Anderson, Blenkinsopp, & Armstrong, 2004; Saramunee et al., 2014; Taylor, Krska, & Mackridge, 2012), mothers with young children and low-income groups (Anderson et al., 2004), older people (Hedvall & Paltschik, 1991; Lucas & Blenkinsopp, 2015), frequent pharmacy users, patients with good health (Saramunee et al., 2014), newly diagnosed patients, and patients with medication related worries (Carter, Moles, White, & Chen, 2013). Working people and men were more difficult to recruit to services (Emmerton et al., 2012; White et al., 2012), as were people preferring the traditional physician care model (Taylor et al., 2012).

A further challenge is to create awareness for PPS offers. One study, for instance, found that eligible non-users for home medicine review services

had little information about the service purpose, benefits and process, which can be changed via communicating clear messages directly to the patient (White et al., 2012). Scheduling patients for appointments was also found difficult (Lucas & Blenkinsopp, 2015) as was identifying eligible patients and getting patients to use a service (Emmerton et al., 2012). A strategy to identify patients, for instance, was using technology support in the form of computer records (Chui et al., 2012). Actively approaching patients using opening questions to raise interest followed by relevant benefit messages for patients helped recruitment success (Kaae & Nørgaard, 2012) as did patient perception that pharmacists take genuine interest in their well-being (Kaae & Sporrong, 2015). For an asthma service, use of spirometry proved a useful tool to engage patients and demonstrate to them an improvement of their condition (Emmerton et al., 2012). Promotional activities deemed useful were posters at the physicians or pharmacy windows (Krska & Mackridge, 2014), although the usefulness may differ depending on the service and target group. Yet, the most effective strategy appears to be individually approaching patients, as service marketing was shown to increase awareness but not service use (Patterson et al., 2013). Communication skills were also found to be important for repeat service use. For instance, applying a structured medical conversation and social communication skills to build relationships with patients were identified as important for booking a service follow-up appointment (Patrícia Antunes, Gomes, & Cavaco, 2015). Similarly, pharmacists' listening skills impacted positively on patients' willingness to repeated use of a home medicine review (Carter, Moles, White, & Chen, 2015).

Integrating professional services into pharmacy practice: Difficulties regarding service integration were time management, engaging staff in service provision, and ensuring service workflows. These difficulties were addressed by pharmacy owners or managers by providing a supportive environment through ensuring sufficient number of staff, a simple service design, computer support, internal and external communication, and professional attitude as shown in the following.

Having sufficient staff or freeing up pharmacists via delegation of tasks to qualified pharmacy technicians (Doucette, Nevins, et al., 2012; Houle, Rosenthal, & Tsuyuki, 2013) was important for service provision, to ensure the continuity of dispensing (Elrod et al., 2012), and for quality as lack of staff led to superficial medicine use reviews (McDonald et al., 2010). Team communication was needed to inform about a service, to coordinate roles and responsibilities within the team, to ensure the service is understood, to ensure internal communication, and to motivate the team (Chui et al., 2012). Consistent communication on services was a challenge which was solved by convening more often for brief meetings (Elrod et al., 2012). Constant reminders to the team were found useful to keep services at top of mind given other, competing commitments (Kaae & Christensen, 2012).

To facilitate service integration, a simple service design, i.e. an intervention, which can be adapted to a patient's individual situation with little documentation effort, and which can be delivered ad-hoc or with an appointment, was identified as practicable (Thornley, 2006). Likewise, based on the diffusion of innovations model, compatibility with daily pharmacy practice and the possibility to try the service were perceived as important by pharmacists (Pronk et al., 2002). This indicates that characteristics of the service opportunity are not only decision criteria but may be conducive to service uptake and success. Having standard operating procedures (SOP) for a service, in this case a medicine use review (MUR), was also considered helpful (McDonald et al., 2010). Whilst lengthy documentation was identified as a barrier (Montgomery, Kalvemark-Sporrong, Henning, Tully, & Kettis-Lindblad, 2007), using computer support made documentation more efficient and less onerous (Chui et al., 2012), and was found to support counselling (Hopp et al., 2005). For scaling up service provision, facilitation in streamlining processes, especially patient identification, and patient interview and documentation processes were well accepted by pharmacists (Houle, Charrois, Faruquee, Tsuyuki, & Rosenthal, 2017), indicating the importance of organisational aspects for sustainable (consistent) service integration. Yet, a recent study found that competing commitments, in this case influenza vaccinations, can indeed impede or slow down PPS provision and it was

concluded that it may not be feasible to provide all services all the time (Houle et al., 2017)

Collaborating with physicians and gaining physician support: Physicians contribute to service success by referring patients to pharmacy-based professional services (Edmunds & Calnan, 2001), or by officially supporting professional services such as immunisation (Harrington, Anderson, Vacca, & Khanfar, 2010). Physicians have a positive attitude towards traditional pharmacist roles but are less accepting of extended roles (Bryant et al., 2009; Edmunds & Calnan, 2001). Yet, many professional services such as medicine reviews require some collaboration with physicians (Roberts et al., 2008). Thus, extant research suggests that pharmacists interested in such collaboration may have to invest time to continuously build relationships. Trustworthiness, role specification, and professional interaction were predictors for collaboration between pharmacists and physicians (Doucette, Nevins, & McDonough, 2005). Early-on involvement of physicians in professional services was identified as a trust-building strategy (Montgomery et al., 2007). Hence, being pro-active in building inter-professional relationships and proving trustworthiness through professional conduct seems to be important for successful PPS provision.

Financial viability: There is limited and mixed information about the impact of services on sales, profitability or any other form of business success and there are pharmacists doubting the profitability of professional services (White & Clark, 2010). Whilst high levels of EO were generally found to lead to superior business performance (Rauch et al., 2009) and were linked to PPS provision and business growth (Jambulingam et al., 2005), there was no indication whether that growth was due to service provision. An Australian study failed to demonstrate increased profitability of pharmacies participating in a new service programme (Hindle & Cutting, 2002), whereas a case study from the USA identified services, which were provided at a gain (Doucette, McDonough, et al., 2012). Yet, PPS provision (despite available remuneration) only made up about 5 % of total revenues in a small sample of service-providing independent pharmacies (Willink & Isetts, 2005). Implementing new services may involve upfront investments, e.g. for

additional staff, which impact immediately on profitability (Albrecht et al., 2006) and would ultimately have to generate payback. However, pharmacists seem to take the dispensing business as a benchmark, which makes professional services less attractive compared to existing business (Gebauer, 2008), especially when effects from service provision on the dispensing income (opportunity costs) are included (Albrecht et al., 2006). Obtaining service fees or remuneration from payer organisations was a facilitator, yet service income was only found adequate if it covered the set-up and operating costs (Albrecht et al., 2006). Pharmacies could also charge service fees to patients but seem to be reluctant to do so (Dunlop & Shaw, 2002). Likewise, the dispensing model that fails to separate professional fees from medication cost is suggested to inhibit patients' willingness to pay for counselling, as paying for extended services would thus be new to customers (Tootelian et al., 2006).

Taking a long-term perspective on business results from service provision and not expecting success overnight was found to be a facilitator (Hopp et al., 2005). Such perspective may be necessary since over-ambitious financial goals together with under-estimating effort was found to lead to a performance gap triggering vicious adjustment circles which focused on staff resources and overlooked actual issues with service design not meeting patient needs (Gebauer, 2008).

3.3.6 Contextual factors

As realist reviews are concerned with identifying context-mechanism-outcome configurations to identify "what works for whom in what circumstance" (Pawson et al., 2005, p. 22), the following illuminates contextual factors promoting or inhibiting professional service provision. The context refers to external aspects on a national (macro), local (meso), and internal (micro) aspects. Results from this review indicate that the traditional dispensing-based pharmacy business model, the national healthcare system, competitive environment, location (urban vs. rural), size as well as patient and physician trust and support have situational influence on service

provision. Conversely, pharmacy type or pharmacist demographics appear to have little impact.

3.3.6.1 Macro level context

Traditional dispensing-based business model: Throughout this review, the traditional dispensing-based pharmacy model is revealed as a strong contextual structure. Its influence permeates through different aspects related to the pharmacy business and pharmacists' identity. This appears to be irrespective of pharmacy types, since service-providing innovator pharmacies were still retail-centric and placed high value on efficient dispensing (Scahill, 2012).

As shown in section 3.3.3.1, the traditional dispensing role is not only perceived as a strong pharmacist identity, well accepted by physicians and patients, and officially mandated. Prescription dispensing was also found to be a core activity due to being the main source of income for pharmacies (Mak, Clark, Poulsen, Udengaard, & Gilbert, 2012; Morton et al., 2015). A focus on increasing dispensing volume means more income for a pharmacy and the product-based remuneration system was early identified as working against service provision (Edmunds & Calnan, 2001). Obtaining prescription medicines was the main reason for patients to visit a pharmacy, followed by purchase of non-prescription medicines (Wirth et al., 2010). Hence, pharmacists spend most of their work time on dispensing-related tasks (Jorgenson, Lamb, & MacKinnon, 2011) and only about 3% on pharmaceutical services (Davies, Barber, & Taylor, 2014). Professional services were found to be added onto existing tasks, instead of replacing them (e.g. Hopp et al., 2005) and even though pharmacists think that they should have a role in health promotion and prevention, a survey found that the most frequently provided services were linked to traditional dispensing (e.g. providing written information, counselling and referring patients to third parties) and took less than 10 minutes (Laliberte, Perreault, Damestoy, & Lalonde, 2012).

It further appears that generating sufficient income from dispensing makes pharmacists feel comfortable and inhibits the willingness to change

(Heinsohn & Flessa, 2013). This is supported by further research findings suggesting that pharmacists are comfortable with the status quo (Svensberg, Kälvemark Sporrong, Håkonsen, & Toverud, 2015) and that pharmacists find the dispensing role attractive due to being easy and relatively free from accountability (Mak et al., 2012). This indicates that complacency and passiveness (Saramunee et al., 2014) are additional factors reinforcing the traditional dispensing role, thereby making it difficult for professional services to gain more attention. Moreover, some pharmacists thought that the system was not valuing professional services (Morton et al., 2015).

The dependence on the traditional dispensing-based business model also appears to influence hiring processes for pharmacists, since sound knowledge about the dispensing process was a more sought-after competency for pharmacy managers in New Zealand than, for example, professional leadership (Ram et al., 2015). Additionally, it was found that pharmacist appraisals were focused on business performance and it was suggested that the for-profit environment may be responsible for potentially prioritising business over professional performance, (Jacobs, Hassell, Seston, Potter, & Schafheutle, 2013). Hence, the dispensing role as a pervasive and important structure seems to be a countervailing contextual mechanism to PPS provision acting at different levels, whereby it is reproduced and thus promotes the status quo rather than practice change, and with the power to de-prioritise service provision, due to its economic importance.

Power of pharmacy associations: On a national level, professional services are provided within a country's healthcare system, and governments as political decision-makers and / or as payers of healthcare services decide about remuneration of professional pharmacy services, which affects decision-making for PPS provision. An issue with professional pharmacy services is the need to demonstrate their usefulness. Thus, funding of PPS is a political decision which needs to be negotiated and will only be realised if there is political will to do so (Davies, 2013). Such political will depends on actual or expected benefits to the public and payers. For instance, reduction in medication expenditure and reduction of medication related problems were

found to be the main reasons for payer organisations to fund MTM services in the United States (Schommer, Doucette, et al., 2012). The availability of healthcare resources also appears to influence political will, as a shortage of physicians was identified as fostering PPS remuneration to ensure availability of healthcare, whereas a surplus of physicians may hinder the remuneration of pharmacy service programmes (Bernsten, Andersson, Gariepy, & Simoens, 2010). Pharmacy associations have the possibility to negotiate service provision programmes with governments, as for example done in Australia with Community Pharmacy Agreement programmes (Roberts et al., 2008; Singleton & Nissen, 2014). As professional service provision depends on negotiations between the different actors in a healthcare system regarding if and how services are remunerated, it appears that the negotiation power of national pharmacy associations can provide the basis to enable PPS programmes at the macro level.

Patient and physician aspects: Acceptance and support of PPS provision by patients and physicians appears to be a decision criterion for service provision. Whilst this seems to apply mostly to the community of the individual pharmacy, there may also be influences at a macro level. These are related to a rather unglamorous portrayal of pharmacists in the media compared to physicians (Elvey, 2011) and patients' limited awareness and hence acceptance of the role of pharmacists in PPS provision (Eades et al., 2011; Greenhalgh et al., 2016) as well as the lack of physician endorsement, which has been identified as a barrier for service implementation (Eades et al., 2011; Greenhalgh et al., 2016). Therefore, policy support as well as support from physician representative bodies, public health campaigns, and positive media reporting of pharmacists' healthcare role may be necessary to foster PPS provision through increasing positive public awareness of pharmacists' extended role (Greenhalgh et al., 2016).

3.3.6.2 Meso level context

Competition and location: Competition seems to trigger PPS provision (Albrecht et al., 2006) and re-positioning of pharmacies as healthcare providers (Feletto et al., 2010b). It seemed to influence service provision

levels in affluent urban areas (Martins & Queirós, 2015) and in pharmacies generally willing to provide services, as not all pharmacies in areas with high pharmacy density offered PPS (Brooks, Klepser, Urmie, Farris, & Doucette, 2007). Rural pharmacies had lower competitive pressure, higher turnover and were found to be less likely to provide services, but also had fewer staff than urban pharmacies (Martins & Queirós, 2015). On the other hand, rural pharmacies had better relationships with patients and physicians and found it easier to recruit patients to a chronic disease management service (Mah et al., 2009).

3.3.6.3 Micro level context

Pharmacy size: Smaller pharmacies were suggested to be better at supporting patients in medication related information needs (White et al., 2012). On the other hand, larger pharmacies are thought to be advantaged due to more resources or economies of scale and the ability to centralise creation of SOPs and advertising material (Saramunee et al., 2014). Similarly, having more employed pharmacists and high dispensing volume was linked to higher provision of pharmaceutical care (Hughes et al., 2010). Yet, data from Germany show that size may promote but not determine PPS provision, as the relationship between the number of employees and provision of medication analysis and management was not significant (Hessemer, 2016).

Pharmacy type: The impact of pharmacy type (i.e. independent, chain or supermarket pharmacies) on service provision seems ambiguous. Service-delivering pharmacy clusters, for instance, each contained different types of pharmacies (Feletto et al., 2010b; Jambulingam et al., 2005). However, the pharmacy type seems to influence organisational and business processes during service provision. Pharmacy chains appear to be more business-focused, as service decisions are made by management and employed pharmacists need to seek approval (Herbert et al., 2006) and as in the UK, medicine use reviews were perceived as income source and target for pharmacist performance management (Bradley et al., 2008; Latif et al., 2011).

Pharmacist demographics and personal aspects: Evidence about the influence of pharmacist demographics is inconclusive. Whilst age or gender did not influence intention to provide a medication therapy management service (Herbert et al., 2006) or affect the number of MURs provided (Latif & Boardman, 2008), older age appeared to be negatively related to providing immunisations and medication reviews (Rosenthal, Tsao, Tsuyuki, & Marra, 2016). Regarding personality aspects, valuing competitiveness and innovation was linked to provision of a higher number of services, extraversion was linked to providing immunisations and agreeableness and openness to the provision of medication reviews (Rosenthal et al., 2016). This suggests that some services attract a certain type of pharmacist and that some pharmacists based on their personality may be less susceptible to provide a certain service. The consequence may then be that it is a management task to identify staff interested in performing a specific task and to match service offers with staff interest and capability. This notion is supported by results from a literature review on personality aspects which concludes that based on pharmacists' personality, attitudes and attributes they are generally suited for PPS provision (Luetsch, 2017).

3.4 Chapter summary

This two-part literature review aimed to provide an explanatory framework for professional pharmacy service provision. In the following, the results from the tentative theoretical framework combined with results from the review of the pharmacy practice literature are presented as context-mechanism-outcome configurations and their implications discussed. Furthermore, the contextual factors are compared to the situation in Germany as laid out in chapter 2, and gaps in the literature are highlighted.

3.4.1 Refinement of the explanatory framework

Applying the NSD process onto the findings from the pharmacy practice literature helped identifying aspects pertaining to the different process steps, but these could only indirectly be gleaned from analysing motivators, decision

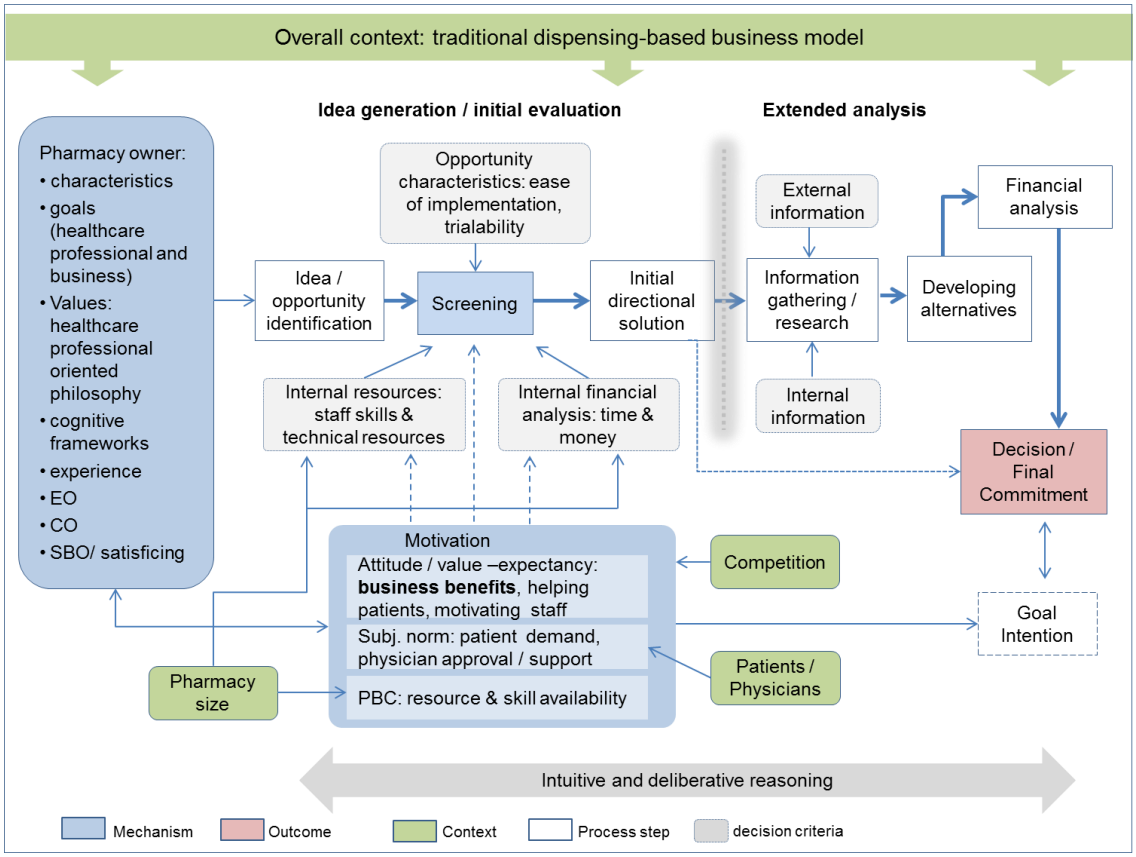
criteria and factors affecting service provision. Yet, the literature review provided a major insight about PPS provision by suggesting the need to differentiate between decision-making regarding service introduction and actual service delivery. Based on a generic model of new service development and the tentative theoretical framework, PPS provision was assumed to follow a process that distinguishes between front-end planning and implementation phases. Such distinction was rarely made in the literature on professional services, resulting in mixing aspects relating to the service introduction decision and the service provision decision in quantitative assessments (e.g. in the application of the TPB) but also in qualitative research, leading to a conflation of issues and actors. However, evidence from the analysis of motivators for PPS provision supports such distinction as it showed the need to differentiate between pharmacy owners / managers and staff pharmacists (e.g. Thornley, 2006). Whilst owners' motivations were more related to business goals (e.g. generating sales or competitive differentiation), motivations of staff pharmacists were more related to personal and professional goals (e.g. helping patients or professional satisfaction). Additionally, the more recent process description by Moullin et al. (2016), which is based on a framework from implementation science, is the only research providing direct support of the existence of a process which distinguishes the decision for a service from its execution.

The literature review also sought to identify how role orientations influence service provision. It confirmed the hunch that pharmacists' role orientations are underlying mechanisms for PPS provision. The dual role was found to be present in pharmacies on a daily basis and pharmacists appeared to switch between roles (Hopp et al., 2005). Likewise, the analysis showed that healthcare professional and business roles are both present and both impact on service provision, albeit at different points of the process and presumably in different strength. Due to the split of the service provision process into front-end and implementation phases, the weight of the role orientation appears to be more on the business-oriented side in the front-end leading to a decision. This is due to pharmacy owners or managers making that decision (Moullin et al., 2016), which fits with findings from Perepelkin and Dobson (2010) demonstrating a higher business orientation in pharmacy

owners due to being personally tied to their pharmacy's finances. The above insights are reflected in the development of separate explanatory frameworks for the front-end and implementation phases.

Framework for decision-making for service introduction: Regarding the decision to introduce a professional service in a pharmacy, the tentative explanatory framework was supplemented by the review of the pharmacy practice literature, which added pharmacy and professional service specific details as well as contextual factors to the initial explanatory model. The revised framework is shown in figure 19.

Figure 19: Tentative explanatory framework for the decision to offer professional pharmacy services



Source: own illustration based on Hang and Wang (2012); Rogers (2002); Sommer (2011) informed by results from the review on pharmacy practice literature

A first point relating specifically to pharmacy is the influence of the traditional dispensing-based pharmacy business model. Generally, the literature suggests that decision-making for PPS introduction as well as actual service provision needs to be seen within the overall context of the traditional dispensing model which appears to be strong in driving day to day pharmacy

practice. This context, as pointed out in the previous section, influences the valuation of services and therewith motivation as well as the decision process, and appears to have the power to impede professional service provision at different stages of the process.

In line with the tentative framework informed by entrepreneurship and small business research, results from pharmacy practice research indicate that a healthcare professionally oriented philosophy and business orientation, manifested as EO and CO, may be mechanisms influencing the recognition of PPS as opportunities for a pharmacy and may also be influencing motivation (specifically value expectancies) about the service. Hence, the review shows that for pharmacy owners or managers these value expectancies are predominantly business-oriented, i.e. focused on financial benefits, supporting the notion of service provision being a strategic business decision. However, the use of the TBP in pharmacy practice research also suggests that beliefs about patient expectations and physician support influence motivation through the construct of subjective norm and may entice pharmacists to provide PPS (or deter them, respectively). As indicated in section 3.3.6, a context where physicians support and patients expect PPS, may influence motivation and lead to believing in demand for service provision. Competition as a contextual factor can influence motivation which may result in the wish to differentiate the pharmacy trough service provision.

Corresponding with the tentative framework, there is some evidence in the pharmacy practice literature that a service idea is screened against a small number of decision criteria, indicating that the screening is a mechanism leading to a commitment (or a negative decision). Decision criteria were identified as characteristics of the service opportunity, internal skills and resources, financial aspects, and motivational aspects mainly derived from the TPB. These motivational aspects are thus expectations about service benefits such as increasing customer loyalty, beliefs regarding patient demand and physician approval for a service and beliefs about the difficulty and the available means to provide a service. The latter correspond to the internal resource and financial assessments, which are both influenced by the contextual factor of pharmacy size as larger pharmacies with a better

resource endowment appear to be in a better position to offer professional services.

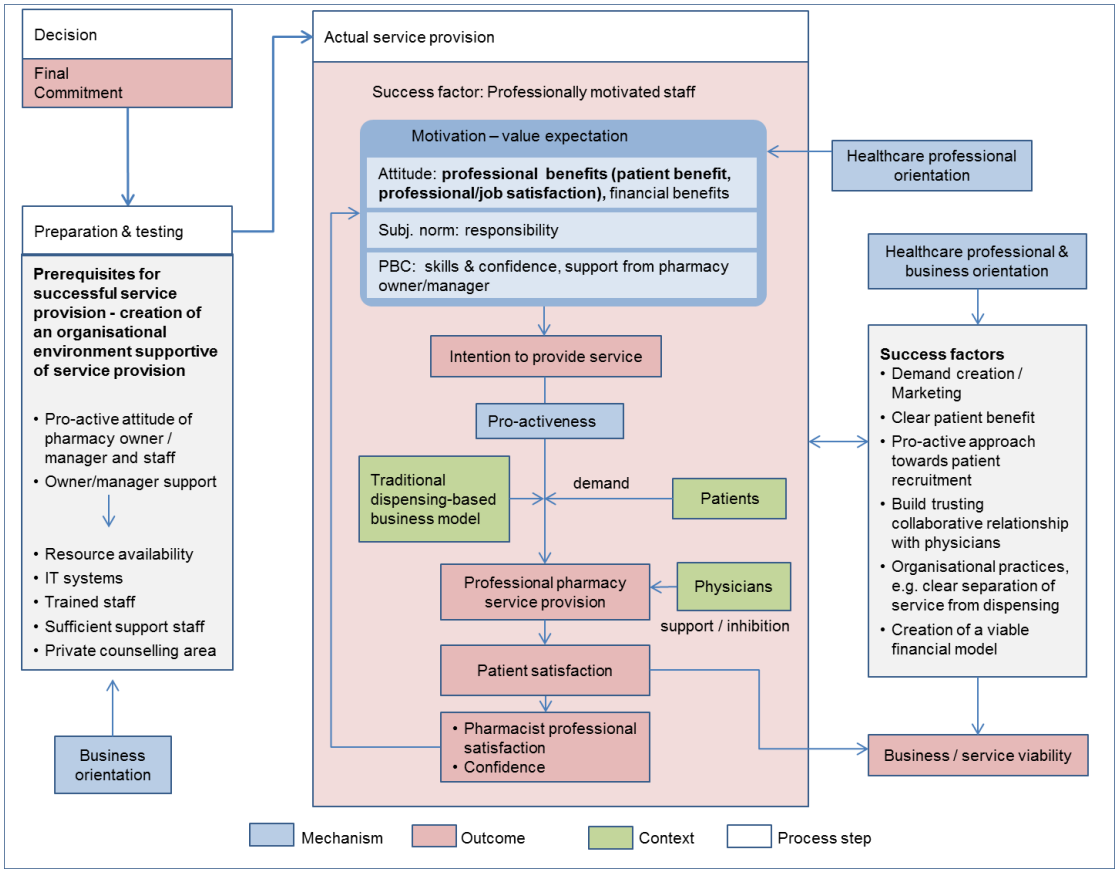
However, different to the tentative framework, there were little indications in the pharmacy service literature whether pharmacy owners / managers engaged in extended analysis, i.e. information gathering to support their decisions, for instance assessment on patient demand. The only exception was Moullin et al. (2016, p. 6), who identified that some pharmacy owners engaged in “more formal, objective assessment”, indicating that some owners collect factual data or make more advanced calculations. Likewise, there were no indications about decision-making styles, i.e. whether pharmacists followed intuitive or deliberative reasoning or both, which would thus only support a simple decision-making model. Yet, likely reasons for this lack of information are the limited use of a business perspective and that the front-end of service development and decision-making has not been a focus topic in PPS research.

Explanatory framework for (successful) service provision: Based on the insight that the front-end phase of the PPS development process is different in nature from the implementation phase, the analysis about actual PPS provision and success factors indicates that whilst business-oriented aspects are involved, healthcare professional oriented aspects gain importance. This is supported by findings presented in section 3.3.3.2 / figure 18, showing that responsibility for patient care influences counselling. Figure 20 provides a CMO framework for PPS provision, including prerequisites and success factors identified from the literature.

Results from the literature review indicate that the actual service provision process puts the pharmacist providing the service at centre stage. Hence, this requires a different set of motivations. The personal healthcare professional motivation of the service provider in the form of wanting to help patients, expectations of professional satisfaction, or the wish to cooperate with physicians appears to be instrumental for implementing a service offer. This also includes a perceived personal professional responsibility, which is linked to counselling, patient satisfaction and loyalty (Planas et al., 2005), and which was recently also shown to be linked to service provision

(Puspitasari et al., 2016). As such, professional orientation acts as an underlying mechanism enabling professional service provision at the level of the service providing individual.

Figure 20: Tentative explanatory framework for (successful) PPS implementation and provision



Source: own illustration, based on Ajzen (1991) and informed by results from the review on pharmacy practice literature, specifically by Planas et al. (2005) and Perepelkin and Zhang (2014)

In addition to beliefs regarding personal and patient benefits as well as perceived responsibility, the literature provides evidence regarding the importance of control beliefs in promoting service provision. These beliefs relate to having confidence in one's skills to provide the service as well as a supportive management and the availability of the necessary prerequisites (Eades et al., 2011). It thus appears that attitude, subjective norm and PBC as stated in the TPB (Ajzen, 1991) are mechanisms to explain actual service provision at the level of the individual who is providing the service with professional orientation being a necessary condition, specifically for successful service provision.

The explanatory model developed from the literature further suggests that forming an intention to provide a service to a patient leads to a set of outcomes, i.e. service provision, patient satisfaction and eventually professional satisfaction and confidence, which in turn serves as a reinforcing positive experience affecting the service providing pharmacist's motivation. As patient satisfaction with a pharmacy service is linked to patient loyalty, professional service provision can positively impact a pharmacy's business viability. Whilst it cannot be excluded that financial incentives may also motivate (employed) pharmacists to provide professional services, healthcare professionally oriented motivation appeared to be more important. The framework further suggests that business orientation as a mechanism manifests at the organisational level through the application of management practices. This means that, for a staff pharmacist or the pharmacy owner to actually provide a service to a patient, pharmacy owners / managers need to provide an organisational environment that is supportive of service provision by providing the necessary prerequisites (resources). Such prerequisites are ensuring that service providers have the necessary training that sufficient support staff is available to maintain dispensing levels, to have IT support and the availability of a private counselling area.

Success factors, which relate to overcoming the most prominent barriers to service provision, are suggested to be influenced by healthcare professional and business orientations and dependent on activities by owners /managers and service-providing pharmacists. A key success factor is creating patient demand. This review suggests that marketing and communication skills are required to identify patient needs, to tailor clear service benefit messages to different patient types, and to pro-actively communicate promotional messages to patients in a technically competent and friendly way. Furthermore, it needs communication skills to build collaborative relationships with physicians. On the management side, it is suggested to separate the service from dispensing and that a viable financial model is needed.

The explanatory framework thus suggests that role orientations are mechanisms influencing the PPS development and provision process. The

co-existence of the dual healthcare professional/business aspects enables the recognition of professional services as an opportunity and determines the willingness to (1) engage with customers to increase their satisfaction with the pharmacy service and concurrently leading to an actual and potential future business transactions, (2) to proactively work on a customer-oriented service offer and (3) to create strategies for marketing such services. This should eventually lead to good business performance and sustainability. However, it appears that healthcare professional and business role orientation may not necessarily have to be both present in an equally strong fashion on the individual level. Whilst for service providers from the pharmacy staff, healthcare professional orientation appears to be necessary, pharmacy owners or managers may benefit from a dual orientation appreciating patient care as well as being able to provide the necessary prerequisites to service provision, transform service benefits into patient benefit messages, and design financially viable services.

3.4.2 Gaps in the literature

The explanatory framework from this review confirms aspects of the more recent model for service provision by Greenhalgh et al. (2016), which identified pharmacists' identity (conceptualised as healthcare professional orientation), pharmacists' capabilities, pharmacists' motivation as well as public trust and physician support as key mechanisms supporting successful smoking cessation service delivery, whereby the latter two may also be regarded as contextual factors as depicted in the explanatory framework from this review. By adding the NSD process perspective, this review additionally identified the influence of the business role on the process and organisational aspects, and suggests the need to differentiate the front-end and implementation phase of PPS development and delivery, which tended to be conflated in extant PPS literature. The explanatory frameworks developed from the literature review thus provide indications regarding CMO configurations promoting decision-making and service success. Yet, due to the dearth of available studies explicitly including motivation and decision-making (and theories thereof) and the indirect evidence about the conflation

of issues, the frameworks need to be regarded as tentative and more primary data collection is required to further explore, substantiate, or refine the following aspects.

- Role orientation: Whilst the extant literature on PPS implementation provides evidence pointing at the different impact of role orientation mechanisms by NSD process stage, the differentiation between decision-making for introducing a service and actual service provision as well as the distinction between pharmacy owners / managers and employed pharmacists needs to be ascertained. This includes the possible linkages between role orientations and organisational and management aspects.
- Idea generation / opportunity recognition: As little information could be gleaned on how and under which conditions service ideas are generated or opportunities recognised, this area needs further exploration and explanation. This relates to the question why some pharmacists perceive value in PPS provision and consider introducing services and others do not, given the strong influence of the dispensing-based model. Specifically, the influence of role orientations needs further clarification since perceptions of healthcare professional obligation may prevent, whereas EO may foster recognising service opportunities.
- Motivation: Whilst motivators have been identified, there is no indication about the relative strength of different motivators and if pharmacists make trade-offs between them, which would allow inferences about the relative attractiveness (expected value) of the goals behind the motivators. Furthermore, the relationship between motivation and idea generation in the explanatory model is unclear and needs further exploration.
- Decision-making: The explanatory framework suggests that service ideas are compared with value expectations and with available resources and capabilities. Yet, the mechanisms of the interplay between motivation and decision-making need further clarification, as do the relative weights of the decision criteria. Moreover, as parts of

the tentative theoretical framework could neither be confirmed nor refuted (due to missing information), clarification is needed about the existence of a two-phase decision-making process, i.e. a distinction between initial screening and further information gathering, and whether pharmacists follow intuitive or deliberative reasoning.

- Sustainability: To date, little is known about the mechanisms affecting service sustainability, which appears to be regarded mainly as linked to financial aspects. Yet, there are indications, that organisational aspects may also be involved. Therefore, more insights are needed in this regard.
- Small business perspective: As many independent pharmacies are small businesses, it is likely that the characteristics of small businesses apply. These are the importance of the business owner's personal values, having limited resources and a satisficing stance towards growth, especially regarding the employment of new staff. Pharmacists are criticised for being complacent and passive regarding the introduction of professional services. Yet, from a small business perspective, not introducing professional services may be ecologically rational as professional services may have a lower utility compared to dispensing, whilst at the same time bearing a higher risk due to investments into training and potentially having to employ additional staff. Hence, this perspective needs to be further elucidated.

Finally, the insights gained from the review about possible contextual factors and their impact on PPS provision need to be ascertained and further explored. Therefore, an empirical investigation was conducted with German community pharmacy owners to address the aforementioned areas in need for further exploration, to substantiate and refine the explanatory frameworks, and to identify how contextual factors apply to a specific national context. The following section thus analyses the context for PPS provision in Germany (from chapter 2) based on the contextual factors identified in the literature to provide the frame, in which the results of the empirical investigation must be placed.

3.4.3 Comparison with the German context

Comparing the results from the literature review with the contextual situation for PPS provision in Germany shows that some of the prerequisites identified in the literature are present, whilst the macro level context is rather unsupportive. Table 9 (across two pages) summarises the contextual factors, mechanisms and prerequisites identified for the German context as well as their manifestations and how they are potentially impacting on PPS provision.

Table 9: Potential influence of German context factors on PPS provision

Mechanism / contextual factor / prerequisite	Manifested in	Potential influence on PPS provision
Traditional dispensing-based business model	• Remuneration based on volume; core function to ensure proper supply of medications to the population	-
Negotiation power of pharmacy association / political will	• Focus on cost containment, e.g. via discount contracts; responsibility of medication review (and remuneration) given to physicians • Lack of current remunerated PPS programmes	-
Physician support	• Fear about pharmacists encroaching on their territory • Exclusion of pharmacists from newly introduced medication review service	-
Pharmacies being SMEs	• Difficult access to capital • Limited resources	-
Patient acceptance	• Patient expectations more related to dispensing and dispensing related services (e.g. counselling, fast supply, home delivery) • Some PPS expected by a smaller percentage of patients	- +

Mechanism / contextual factor / prerequisite	Manifested in	Potential influence on PPS provision
Competition (mainly internet-based)	• Pharmacists seeking differentiation in counselling • Pharmacists seeking to improve their purchasing and marketing via membership in virtual banner groups	+ -
Regulations: Ordinance of pharmacists	• Focus on counselling • Availability of private counselling area (prerequisite) • Availability of QM system which can support service workflows and documentation	+
Knowledge & skills	• University training; engagement in continued education; availability of continued education offers by pharmacy chambers • Low counselling quality found via mystery shopping	+ -
IT infrastructure	• Availability of software for drug interaction checks • Wide availability of customer card programmes facilitating interaction checks	+
Pharmacist acceptance of / interest in PPS programmes	• High participation rates in the family pharmacy programme in the past • Wide interest in medication management services	+
Pharmacists' customer orientation	• Providing services in alignment with patient preferences	+

Supportive to PPS provision is the acknowledgement of the importance of the professional counselling role and the need for a private counselling area via the ordinance of pharmacists. Likewise, the availability and utilisation of continued education is an important prerequisite, as a realist review on smoking cessation services in the UK identified pharmacist education as a factor influencing pharmacist identity and capability (Greenhalgh et al., 2016).

A high customer orientation can be useful in determining and acting on patient needs and may thus be supportive to service provision. Furthermore, German pharmacies are feeling some financial and professional pressure and have identified professional services as a way of differentiation.

In contrast, the structures of the German healthcare system are less supportive of pharmacist role extension. The statutory healthcare insurers are powerful and in relation to pharmacy appear to be focused on containing medication cost (e.g. via discount contracts) and appear little interested in remunerating professional services. Furthermore, the prescription-dependent remuneration rather incentivises dispensing volume and not counselling services, especially since there are test reports showing that counselling practice may not always be satisfactory in amount and quality, indicating that there might be a gap between understanding and operationalising PPS delivery. Similar to other countries, physicians do not want pharmacists to encroach on their professional territory. Furthermore, overt cooperation between physicians and pharmacists is limited as unsolicited referrals are prohibited. Yet, investing into trusting relationships may still be useful for receiving solicited referrals and for resolving patient medication or prescription issues, as good working relationships have been identified as facilitator for PPS provision.

Yet, despite the current lack of nationwide remunerated professional service programmes, some pharmacies in Germany are providing professional services. This indicates that pharmacist-owners have made their decisions for other reasons than obtaining direct income from professional services. Researching German pharmacy owners is deemed useful due to the availability of prerequisites such as necessary education or private counselling space on the one hand – thus neutralising some of the often-mentioned barriers - and an environment focused on cost containment with the absence of remunerated PPS programmes on the other hand, thereby eliminating one potential decision criterion. Due to the rather unfavourable conditions for PPS provision, the identified potential mechanisms or further mechanisms should be (better) identifiable within those pharmacies where PPS is offered. Specifically, since it can be assumed that due to the lack of

remunerated programmes and German pharmacies being independent SMEs, opportunity recognition and the choice of a given service is not driven by any corporate or institutional requirements.

Hence, eliciting German pharmacist-owners' motivations for deciding on service provision and the process of service provision could add to better understanding the mechanisms for (successful) professional service implementation within a professional and commercial environment.

The following chapter describes and discusses the research design, i.e. how the research questions were addressed empirically with the objective to identify plausible explanations for PPS provision. Being informed by critical realist philosophy, the chapter starts with elucidating critical realism and its usefulness for this research.

4 Methodology and Methods

4.1 Critical Realism as the chosen Research Philosophy

4.1.1 Critical realist ontology, mechanisms and causation

Critical realism (CR) is a relatively recent movement in philosophy of science, which is concerned with offering (alternative) ways to explain phenomena in the social world (Blundel, 2007) and perceived as an alternative to constructivist/interpretive or positivist research (Bygstad & Munkvold, 2011). That means CR incorporates ideas from positivism and constructivism as such that for critical realists, a reality exists, which is independent of humans and their perceptions, but that human perceptions shape how reality is interpreted (O'Mahoney & Vincent, 2014).

However, the critical realist view of reality is complex as reality is seen as a “stratified, open system of emergent entities” (O'Mahoney & Vincent, 2014, p. 6). Stratified means that, ontologically, critical realism distinguishes between three domains or strata of reality, i.e. the empirical, the actual and the real, also termed “depth ontology” (O'Mahoney & Vincent, 2014, p. 9). Emergent refers to the view that the domain of the real contains enduring and independent structures or entities which, under certain conditions, produce patterns and events in the domain of the actual which, at the domain of the empirical, can be experienced or observed by humans (Bhaskar, 2008). Furthermore, critical realists view the social world as an open system, in which entities interact with each other and cannot be separated from their environment (O'Mahoney & Vincent, 2014). The social world is also seen as constantly changing since interacting entities can produce emerging properties which are different from those of the single entities (O'Mahoney & Vincent, 2014).

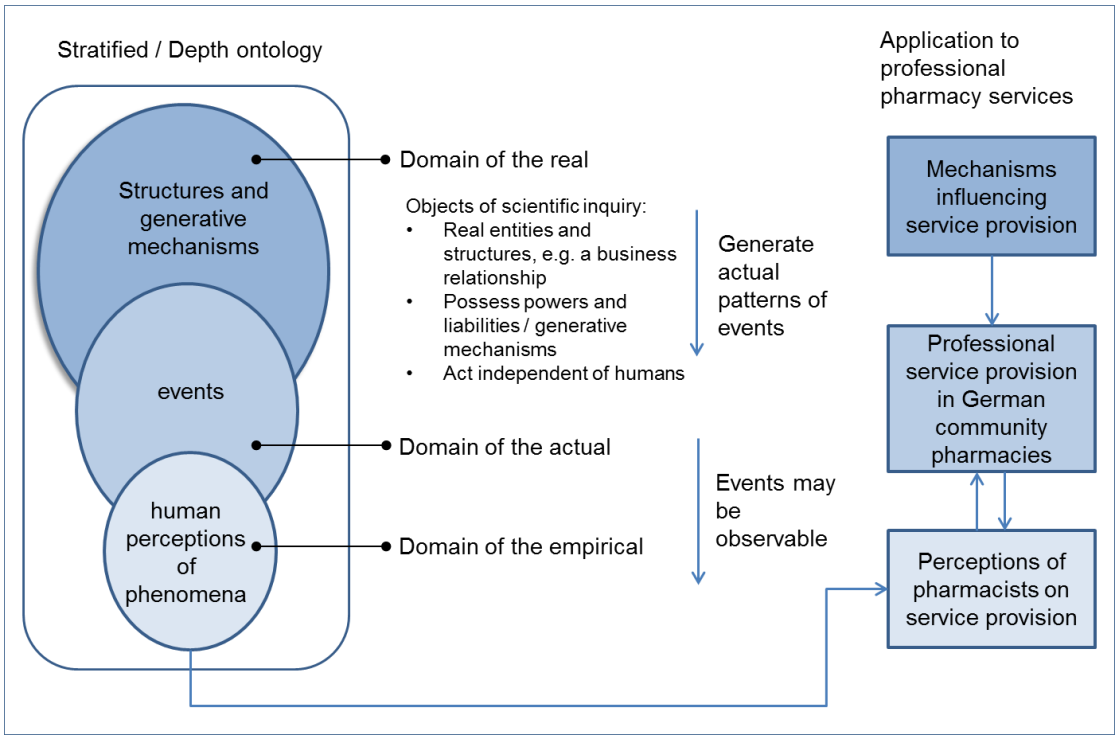
The ultimate concern for critical realists is explanation and causation (Easton, 2010). Explaining phenomena in the social world is achieved by identifying the underlying generative or causal mechanisms, which are often unobservable except for their effects but can be manifested and empirically

observable in events (O'Mahoney & Vincent, 2014). Generative mechanisms are central to critical realism (Bygstad & Munkvold, 2011) and are understood as structures or entities with the power to cause events (Danermark, 2002). Structures or entities can be at different levels, i.e. interaction between human beings can trigger events through their intentions or actions, likewise social groups such as organisations (e.g. pharmacies) or structures such as the healthcare system can cause events (Blom & Morén, 2011). Yet, due to the open system nature of the social world, it is assumed that it is possible that the same event may be caused by different mechanisms or that one mechanism can cause different events (Easton, 2010). Mechanisms can also be interrelated or may even offset each other (Modell, 2009).

Critical realism also acknowledges that mechanisms act within contexts and their effects are dependent on the context (Danermark, 2002), whereby, as Kempster and Parry (2014, p. 88) state, “context can be seen as a complex nexus or configuration of causal powers”. Furthermore, critical realists distinguish between necessary and contingent conditions for the identification of causal mechanisms from alternative explanations (Easton, 2010). Necessary conditions, according to Sayer (2010) are relations between entities without those they do not exist, such as capitalism and money or master and slave, whereas contingent conditions are those that exist independently of the researched entity but can influence events .

Figure 21 shows the stratified ontology and puts it in relation to professional pharmacy service provision. The provision of professional services can thus be regarded as events in the domain of the actual. These services exist and, in the domain of the empirical, service provision can be observed or pharmacists can give accounts about how they provide services and how they perceive professional services. The generative mechanisms driving or inhibiting service provision in the domain of the actual are situated in the domain of the real and could be, as identified in the tentative framework, motivational factors such as value expectancy.

Figure 21: Critical realist ontology



Source: own illustration adapted from Bhaskar (2008), Easton (2010), and Ryan, Tähtinen, Vanharanta, and Mainela (2012)

A further and important aspect of critical realism is that it acknowledges that human agency is able to change social structures (Ryan et al., 2012) and is thus allowing the possibility of "emancipatory social science" (Yeung, 1997, p. 55).

This means that by identifying and understanding the mechanisms and conditions that cause outcomes, humans can make decisions to change those conditions. This emancipatory element is thus in contrast to a determinist view of the world based on the assumption of regularity and focused on prediction based on past events, thereby treating prediction and explanation as symmetric (Sayer, 2010). Regarding pharmacists, this means that, as social agents, they have the power to shape structures including the possibility to free themselves from pre-existing structures, such as feeling restricted by current remuneration systems, which favour dispensing over PPS provision. They can do this, for instance, by deciding to provide professional services or deciding how they manage their pharmacies and thus influence their success, albeit within a highly regulated framework.

4.1.2 Critical realist epistemology

The structures (or entities) and the generative mechanisms are the object of critical realist scientific investigation (Bhaskar, 2008; Easton, 2010). However, as the generative mechanisms and the events they produce are independent of humans and regarded as not always observable, critical realism refutes the idea of empirical realism and its reduction of ontology ("what is") to epistemology ("what we can know"), i.e. what critical realists call the "epistemic fallacy" (Bhaskar, 1998, p. xii; 2008, p. 5). Instead, critical realist epistemology states that knowledge as a social product is relative and depending on the descriptions and thoughts which are held about real objects, also referred to as epistemological relativism (Bhaskar, 2008). Furthermore, critical realists regard knowledge as not objective or value-free but as theory-laden, i.e. influenced by the researcher (Ryan et al., 2012). Knowledge is thus perceived as tentative or fallible (Easton, 2010). Yet, not all knowledge is regarded as equally fallible (Zachariadis, Scott, & Barrett, 2013) and, compared to constructivist views, reality can be known (Easton, 2010) through rational knowledge assessment and identification of those theories which come closest to reality (Bygstad & Munkvold, 2011).

Whilst the conflation of reality and how it can be known is refuted, the way to obtain an understanding about the generative mechanisms is through the domain of the empirical, which (as shown in figure 26) is an excerpt of what is happening at the domain of the actual. Hence, empirical data is the foundation from which generative mechanisms that can explain all possible events in the domain of the actual can be hypothesised and validated from (Rotaru, Churilov, & Flitman, 2014). For instance, correlations or regularities between empirically observed phenomena are not seen as sufficient for explanation, which is sought at the deeper level of structures and entities instead (Bygstad & Munkvold, 2011), but provide a starting point for inquiry. The ways of making inferences of generative mechanisms from what can be empirically observed are abduction and retroduction (Blom & Morén, 2011; Bygstad & Munkvold, 2011; Ryan et al., 2012). For Bhaskar (2008, p. 242), science is a "systematic attempt to express in thought the structures and ways of acting of things that exist and act independently of thought". As

critical realists assume that generative mechanisms are not always directly observable, the observation of phenomena, including observed regularities or correlations, need to be supplemented by abduction. Abduction means abstraction from empirical data by re-describing the data more generally (O'Mahoney & Vincent, 2014) and making theory-based assumptions about potential underlying mechanisms and the conditions under which these mechanisms can exert their power (Blom & Morén, 2011; Bygstad & Munkvold, 2011). This entails identifying potential mechanisms by using theories or frameworks as lenses for explanation (Rotaru et al., 2014). Retroduction, although often used interchangeably with abduction (O'Mahoney & Vincent, 2014) also aims at the discovery of generative mechanisms. Retroduction can be understood as describing a phenomenon identified at the domain of the empirical and thinking of potential generative mechanisms residing at the domain of the real that may have caused it (Bhaskar, 2008; Yeung, 1997). Additionally, retroduction not only requires reflection about possible causes of an event, the conditions under which a mechanism acts and how existing theories can explain it but also to further develop (new) theories (O'Mahoney & Vincent, 2014).

This means that critical realist research requires the use of theories, different perspectives and reflection in addition to empirically obtained data to help find the most suitable explanation for a researched phenomenon (Ryan et al., 2012). Such most suitable explanations are, however, seen as dependent on conditions and are thus tentative and fallible in nature (Modell, 2009). Yet, by bringing together theory and empirical data, critical realist research seeks theoretical generalisation (O'Mahoney & Vincent, 2014).

4.2 Research design

4.2.1 Critical realist informed research design and methodology

Methodology is about designing a research project to enable inference of sound conclusions from empirical data (Perri 6 & Bellamy, 2012b). A research design is defined as a plan how to approach a research study and should include the identification of the philosophical underpinning of the

research study as well as the strategies of inquiry and specific methods, which, in turn should be informed by and fit with the adopted philosophy (Creswell, 2009). Whilst there may not be a clear 'prescription' for methodology as, for example, in positivist-informed research, and CR informed research can make use of different research methods (Sayer, 2010), a CR research design should be based on "abductive and retroductive logics of discovery" (Ackroyd & Karlsson, 2014, p. 23). Hence, in order to build on existing literature and to advance the knowledge about the mechanisms at play in professional pharmacy service provision, a research design with abduction and retroduction based on qualitative data in line with CR philosophy was followed.

A critical realist informed research design was chosen for novelty and the possibility to go beyond description to provide explanations for PPS provision. Positivism is the principal paradigm for pharmacy practice research (Oltmann & Boughey, 2012) but positivist research is critiqued for focusing on the empirically observable and tending to produce descriptive results based on quantitative data, thus falling short of providing a (deeper) explanation (O'Mahoney & Vincent, 2014). It is argued that research in social pharmacy - where provision of professional pharmacy services is located - may benefit from a view that acknowledges different experienced realities and social processes and helps to transcend descriptions to explore causality, which is offered by critical realism (Oltmann & Boughey, 2012). To the best knowledge of the researcher, critical realist philosophy has not yet been used to guide research on professional pharmacy services, thus constituting a novel approach in this area of research. Novelty aside, a critical realist approach also appears most useful to address a main criticism about research on professional pharmacy services, which is the focus on describing barriers and facilitators without achieving explanation how these factors are related or establishing a theory of service provision in pharmacy (Patwardhan et al., 2014). Critical realism is concerned with explanation and causation at different levels of reality (Easton, 2010). This depth ontology of critical realism allows going beyond the empirically available information to identify potential generative mechanisms behind these barriers and facilitators for service provision, especially since different levels of influencing factors have

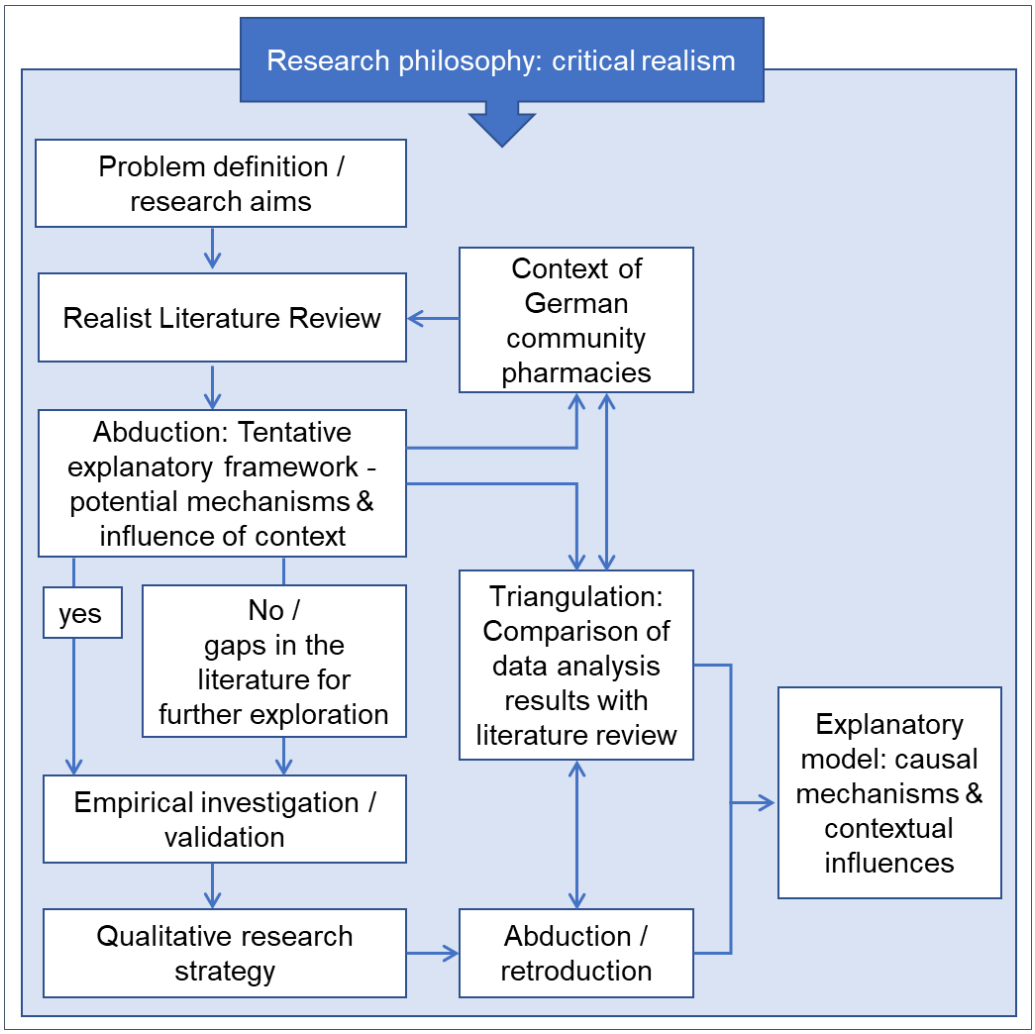
been identified (Benrimoj et al., 2010). Using a critical realist approach to the topic of professional pharmacy services therefore aids explanation, i.e. how and why and under what circumstances professional service provision in community pharmacies works (Blom & Morén, 2011).

Eventually, the aim of this research is to elucidate and explain the influence of pharmacists' role orientations on motivation and decision-making for professional services as well as on the service provision process. Yet, this needs to be done within the overall pharmacy context. Acknowledging a stratified reality and an open social system where mechanisms can, under certain contextual circumstances, lead to certain observable events is deemed useful to the research of complex issues in the social world. The provision of professional pharmacy services is complex as different levels, i.e. personal, pharmacy internal and pharmacy external levels are involved and at the external level, influential stakeholders (patients and physicians) have been identified (Benrimoj et al., 2010; Feletto et al., 2013). Furthermore, critical realism allows a discussion of values in relation to role orientations, which may influence service provision. Critical realism thus offers the possibility to investigate how the different actors and their interests and values at different levels produce, reproduce or change the structures involved in PPS provision. Understanding the generative mechanisms underlying service provision can thus help moving towards a more nuanced and deeper explanatory model for professional service provision in pharmacies and help pharmacists as well as policy-makers understand why, when and how professional services can be successfully provided (Blom & Morén, 2011).

The following introduces the research design for this study, which was adapted from suggestions for conducting CR research by Yeung (1997) and Ryan et al. (2012). As the key features of abduction and retroduction are "adding theory to data" (O'Mahoney & Vincent, 2014, p. 18), for Ryan et al. (2012) following an abductive research design means that the research is guided by theory and includes parallel work on empirical data and theory whereby theory and empirical data inform each other throughout the

research. The different steps of the CR informed research design are shown in figure 22.

Figure 22: Critical realist informed research design



Source: own illustration, adapted from Yeung (1997) and Ryan et al. (2012)

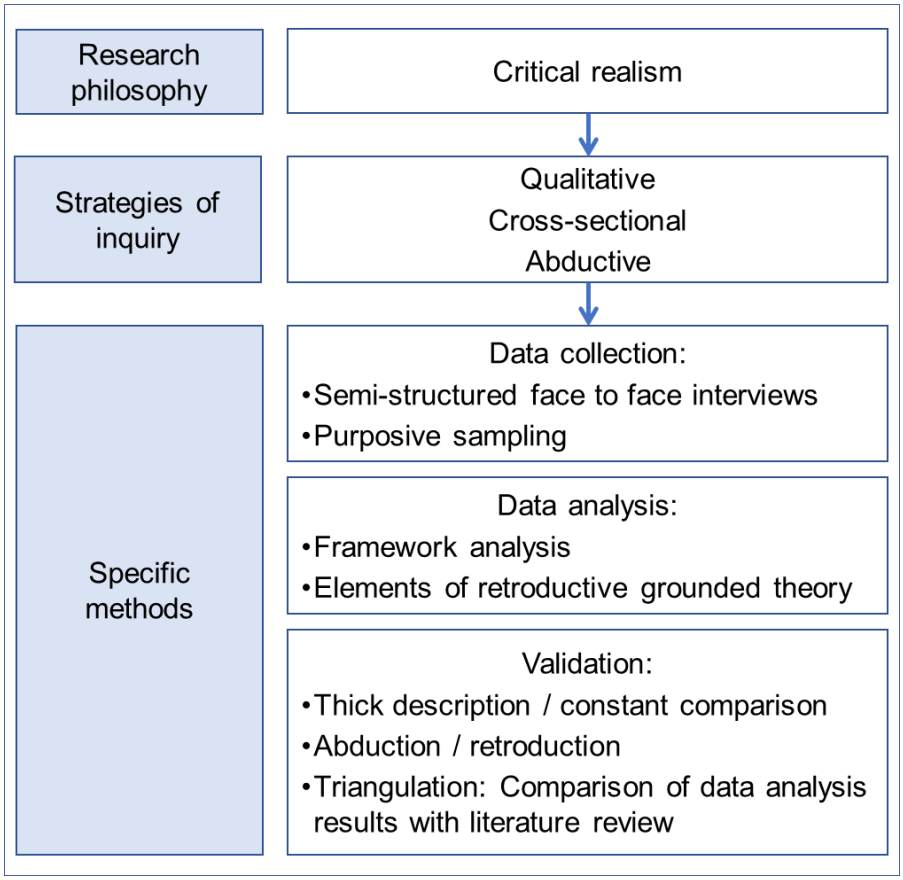
This critical realist research design thus starts with the identification of a problem, followed by the literature review necessary to build a theoretical framework (Yeung, 1997), which was done in the form of a realist review. The review was informed by the research questions aimed to identify potential mechanisms explaining professional service provision. It investigated theories on motivation, decision-making and role orientations as theoretical lenses (Rotaru et al., 2014) to build a theoretical framework. The potential mechanisms were then applied to the pharmacy practice and PPS literature, thereby resolving the extant knowledge into components relating to the PPS development and provision processes and re-describing them

through the aforementioned theoretical lenses to arrive at a tentative explanatory model and to identify areas needing further enquiry. This corresponds to the steps of resolution and theoretical re-description of the approach suggested by Bhaskar (2008) to identify generative mechanisms in open systems. The literature review was compared with contextual information about community pharmacy in Germany. The empirical part of this research then aimed to investigate if this tentative framework can be validated, refined and / or extended.

4.2.2 Qualitative research strategy for the empirical investigation

In order to arrive at plausible inferences and to validate the tentative framework and explain PPS provision, a qualitative research strategy was applied for the empirical investigation, as illustrated in figure 23.

Figure 23: Qualitative research strategy



Source: own illustration, adapted from Creswell (2009)

The research strategy entails data generation via cross-sectional semi-structured interviews and data analysis applying abduction and retroduction. The latter was operationalised using elements of retroductive grounded theory in combination with framework analysis, which is discussed in detail in section 4.4.1, thereby including extant knowledge and theory in data collection, analysis and explanation (Kempster & Parry, 2014). The final step in CR research is the selection of the explanations offering the best explanatory power. This process was done during data analysis via constant comparison of pharmacies, services and contexts and in the results and discussion chapter via comparing the analysis results with the tentative explanatory framework.

Due to its stratified ontology and view of explanations as tentative, critical realism is seen as able to accommodate a wide range of research methods (Easton, 2010; Modell, 2009). Yet, as it is concerned with identification of generative mechanisms and the contexts and conditions under which they manifest in events in the domain of the actual (or do not manifest), a qualitative research approach was chosen. Qualitative research provides thick descriptions of settings, context, values, behaviours and process (Bryman & Bell, 2007). Furthermore, it is suitable for research of an explorative or explanatory nature and to gain an understanding about research participants' opinions or perceptions (Saunders, Lewis, & Thornhill, 2009). For critical realist research both, context and process are important as triggering of mechanisms is perceived to be context-dependent and a focus on process is needed to identify how structures are produced, reproduced, or changed (Easton, 2010). Thick description of pharmacy practice in relation to professional service provision was needed in order to identify why (motivation and decision-making) and how (service provision process) PPS are provided in German community pharmacies and to elucidate the influence of healthcare professional and business role orientations.

Quantitative research is also possible under a critical realist philosophy. Quantitative approaches are perceived as useful to describe or identify interesting correlations which warrant closer inspection (Archer, Bhaskar, Collier, Lawson, & Norrie, 1998). For instance, it was found that pharmacy

owners have a higher business orientation than employed pharmacy managers and it was assumed that this was due to the responsibility for ensuring a viable business (Perepelkin & Dobson, 2010). Such assumed explanations, even though they appear likely, warrant corroboration. Furthermore, the results from the above-mentioned research point towards a difference between pharmacy owners and employees and warrant further investigation how such difference impacts on aspects of professional service provision. Qualitative research is thus better placed to not only corroborate whether owners feel a responsibility to keep a viable business but also to explore the nature of the differences and their consequences, also in relation to their professional roles and in relation to PPS provision, which was done in this research.

However, critical realists are critical of (purely) quantitative approaches mainly due to the open system nature of the social world. Whilst critical realists acknowledge the existence of causality in the domain of the real, the idea of constant conjunctions or absolute regularities is rejected due to the interaction of entities and conditions in the open social system (Ryan et al., 2012). Thus, Sayer (2010) perceives mathematical and statistical models and their use of variables as problematic for explaining causal mechanisms. He argues that in order to quantify objects or processes these would have to be "qualitatively invariant, at least in their fundamentals" (Sayer, 2010, p. 119). Likewise, there would have to be regularities, which is not possible due to the open system, contingent and changing nature of the social world (Sayer, 2010). Furthermore, it is criticised that statistical models measure the changes in variables but not the cause of change, unless an informed idea exists about a potential causal mechanism (Sayer, 2010). A further criticism is that quantitative research tends to neglect contradictions or non-events as these may fall under the percentage of unexplained variation (Modell, 2009). For instance, one study found that seven facilitators for professional service provision accounted for ("explained") 48% of the variance in service provision (Roberts et al., 2008, p. 863). Whilst being useful in focusing the attention on key factors, there is still 52% of variance which is unaccounted for. A possibility to resolve those criticisms is seen when mathematical models and

statistical analyses are complemented by “qualitative causal and structural analysis” (Sayer, 2010, p. 130).

Hence, using a quantitative approach would require a fairly good idea of the nature of the mechanisms involved in professional pharmacy services or be accompanied by additional, qualitative research. As the assumed interconnections are complex, the potential mechanisms identified from the literature review are tentative and therefore in need of further exploration, a qualitative research seemed the most suitable option to substantiate, adapt or refute (parts of) the framework based upon the literature review (which were built on results from quantitative and qualitative research) and to answer the research questions.

Regarding the time horizon, this research was designed as a cross-sectional investigation via semi-structured interviews with different pharmacist-owners. Being concerned with explanation, this choice was deemed most useful as pharmacist-owners can give insight into the processes they have gone through to develop and provide professional services, thereby adding longitudinal elements and providing the basis for the retroduction of mechanisms to explain (successful) PPS provision.

4.2.3 Validity and reliability considerations

Whilst offering the perspective to identify generative mechanisms to explain phenomena, critical realism has been criticised for a perceived vagueness stemming from the notion of unobservable mechanisms, which may be triggered or not (e.g. counteracted) in combination with the view of knowledge as being socially produced (Sayer, 2010). Since research methodology is about ensuring that plausible inferences are made from the data (Perri 6 & Bellamy, 2012a), considerations about validity and reliability, which address the quality of the research, are discussed in relation to CR inquiry. These terms relate to positivist research, whereby reliability refers to the consistency of measurements and validity to ensuring that these measurements indeed measure the intended concept and not something different (Bryman & Bell, 2007). Quality is also important in qualitative

research and it is widely agreed that it needs to be assessed differently (Bryman & Bell, 2007) but that this assessment is less straightforward (Flick, 2014). Hence, there have been attempts to “translate” the positivist quality assessment criteria for qualitative research (Bryman & Bell, 2007, pp. 410-411), which is addressed below.

Reliability in qualitative research refers to dependability or auditability, i.e. consistency in process (Bryman & Bell, 2007). This means producing an audit trail by being transparent about decisions on methods and documenting the research process, including the provision of examples of memos or category development (Flick, 2009). Such audit trail has been built into this research by transparency about the decisions made throughout the research, descriptions how methods were applied and the provision of research materials in the form of the interview guide, analytic memos or participant quotes. However, despite providing an audit trail, it may not be possible to replicate the empirical investigation due to the interviews being semi-structured and therefore each interview developing a dynamic of its own and the analysis being the product of the researcher’s interpretation of the data. Aside from the audit trail, reliability is also obtained by demonstrating rigour, i.e. consistency in the operationalisation of the research methods (Morse 2015). For instance, the interviews were transcribed by a specialised transcription service. This ensured that all interviews were consistently transcribed according to the same rules.

Validity in qualitative research refers to the accuracy of the research findings (Corbin & Strauss, 2008; Creswell, 2009). Compared to reliability, more attention is given to validity (Flick, 2009) which can be seen in the different ways this concept is approached (Creswell, 2009). A core element to assess validity is credibility, which means that the findings should reflect participants’ experiences and that explanations be plausible as well as providing sufficient detail “to allow the reader to reach his or her own conclusions about the data and to judge the credibility of the researcher's data and analysis” (Corbin & Strauss, 2008, p. 302). Several strategies exist to ensure validity and Creswell (2009) suggests to choose a combination of those strategies to help the researcher’s self-assessment and convince readers of the a plausibility of

the research findings. Strategies applied in this research were mainly thick descriptions and providing negative or deviant cases (Creswell, 2009) and the use of a reflexive journal (Krefting, 1991). Thick description was obtained during interviewing by asking open-ended questions and encouraging participants to provide detailed answers. During analysis, it was operationalised by providing detailed information about the context and different perspectives from the interview participants, supplemented by the information from Chapter 2 on the pharmacy context in Germany. Surprising or deviant information and negative cases were addressed throughout the data analysis via coding and by comparing and contrasting the different perspectives.

A challenge for establishing credibility with critical realist analysis is the perception of mechanisms and how they can act. Due to the open system of the social world, it is seen as likely that a set of mechanisms, necessary conditions, and contextual circumstances lead to the events or outcomes, which one can observe or which research participants report on in the domain of the empirical (O'Mahoney & Vincent, 2014). Hence, it needs transfactual argumentation (to go beyond the empirical data) via abduction and retroduction, which can result in different possible explanations (Bhaskar, 2008). As critical realists recognise that knowledge is tentative and fallible but that explanations may not be equally fallible (Ryan et al., 2012), the best fitting explanation needs to be singled out (Zachariadis et al., 2013). For critical realists, validity (credibility) is therefore represented by its practical adequacy (Sayer, 2010). According to Oliver (2012, p. 381), practical adequacy corresponds to the concept of fit in grounded theory and usefulness in critical realism and is a question of whether the explanation "does [it] match the real world better than other theories or not?". Whilst this sounds similar to credibility or plausibility, it adds usefulness to accuracy. Practical adequacy was assessed twofold, first via addressing developing explanations to interview participants (Kempster & Parry, 2014) and via re-applying the explanations to the data with the inclusion of the deviant cases. Furthermore, results were compared with extant literature and the tentative explanatory framework. This was done by adding a new column in the extraction table created for the literature review, comparing the findings and

concepts from the analysis with the results from papers included in the review and adding reflective commentaries. Results from this research show a confirmation of a range of well-established aspects identified in previous research in the domain of the empirical, for instance a positive attitude towards the healthcare professional role, indicating that the findings are plausible. The following sections present how the methods for data collection and data analysis including quality aspects were operationalised and provide rationales for the choices made.

4.3 Data collection

4.3.1 Data collection via semi-structured interviews

The qualitative approach was operationalised through in-depth semi-structured interviews with pharmacist-owners in Germany. Interviews as “memories to those human actors who can attest to the events” (Easton, 2010, p. 123) are seen as a suitable data collection method in critical realism. The events of interest in this research are instances of PPS provision as outcomes but, more importantly, the processes leading up to service decisions and (successful) service provision. These processes include descriptions of actions and the thought processes involved, i.e. the motivation behind service provision and the decision-making processes. Hence, memories, insights, and reflections from pharmacist-owners, who have gone through these processes, were needed to get access to the actual and real domains via the empirical domain, which can be achieved via interviewing (Bryman & Bell, 2007). Interviewing pharmacist-owners individually appeared to be the most suitable data collection method within a cross-sectional research design, as it was assumed that the approaches to service provision are individually different and influenced by the specific context, in which pharmacist-owners operate. This ruled out participant observation, which could have provided insight into how services are provided, for instance how pharmacists and staff communicate with patients, but could not have given insight into the thought processes (Bryman & Bell, 2007). It also ruled out focus groups, which could have provided insight into

pharmacist-owners' thought processes with the advantage that aspects of agreement as well as disagreement can emerge clearly (Bryman & Bell, 2007). However, as there was an interest into pharmacists' perception of their competition and their pharmacies' business success, addressing such sensitive questions seemed more appropriate in one-to-one interviews (Easterby-Smith, Thorpe, & Jackson, 2008).

Semi-structured interviewing was chosen as it allows addressing the specific research questions, e.g. on professional and business role orientation or implementation steps, but also gives sufficient freedom to explore aspects that may evolve during the interview as interview participants have the possibility to elaborate on aspects important to them (Bryman & Bell, 2007). Contrary to unstructured interviews, choosing semi-structured interviews allows a certain degree of comparability (Bryman & Bell, 2007), which was needed to compare pharmacist-owners' responses regarding their role orientations, motivation, decision-making and approaches to service provision. One drawback of semi-structured interviewing is interviewer bias, which refers to the possibility that the interviewer's reference frame (i.e. opinions and values) influences how questions are asked and the responses are understood (Easterby-Smith et al., 2008). Hence, researchers need to be aware of the potential biases and be reflective of their thinking and actions (Easterby-Smith et al., 2008). To avoid influencing interview participants, questions were therefore asked as openly as possible to obtain pharmacist-owners' accounts of their experiences, thoughts and opinions on the topics. Probing questions were asked in case pharmacist-owners did not cover aspects relating to the questions themselves, to clarify understanding or to expand on newly emerging aspects (Saunders et al., 2009). As this thesis was conducted by a single researcher, potential researcher bias impact was reduced by applying self-reflection, trying to view participant answers from different angles, and through comparison with the literature.

Furthermore, as it is the case with any form of self-reported data collection in a cross-sectional design, there is the possibility of respondent bias in the form of limitations to exactly recall the experiences under inquiry (Polkinghorne, 2005), for instance the exact order of steps taken to develop a

service. There is also the possibility of participants not wanting to reveal aspects they consider to be sensitive information or the possibility of social desirability bias, i.e. of reporting on events in such way that let the respondent look good, which seems especially relevant when sensitive or socially normative topics are involved (King & Bruner, 2000; Saunders et al., 2009). This can be an issue in pharmacy practice, especially concerning questions on professionalism. For example, pharmacist-owners could present themselves as being more healthcare professionally-oriented than their actual behaviour (if observed) would reveal. Hence, whilst having to take interview participant responses at face-value, the researcher had to take a critical stance during analysis and go beyond the information given in the interviews, for instance by comparing results with extant peer-reviewed literature (an essential feature of critical realist analysis via abduction and retroduction), as well as with German trade publications, and reports relating to the German context. Interview analysis thus meant constant reflection upon questions and answers in terms of their meaning in relation to available external sources.

4.3.2 Interview guide design

For the semi-structured interviews, an interview guide was prepared as an aide-memoire for the topics to be covered (Bryman & Bell, 2007). This is appropriate for critical realist informed research, as it starts with theoretical preconceptions or ideas about potential mechanisms (O'Mahoney & Vincent, 2014). The interview guide was structured along topic areas to allow comparability, but at the same time offered flexibility to follow up on new leads and to avoid the forcing of answers with the inherent danger of overlooking elements for the development of explanations or introducing researcher bias (Charmaz, 2014). The topics were informed by the research questions and results from the literature review and were worded as open questions to reduce potential researcher bias (Easterby-Smith et al., 2008). The interview guide, which can be found in Appendix 1, thus covered the topic areas of: 1) the role and tasks of a pharmacist 2) managing the

pharmacy, 3) planning, implementation of the service and service provision, 4) success of the service and success factors, and 5) concluding questions.

The first topic area was related to RQ1 and the questions aimed to elucidate how pharmacist-owners perceive and enact their role(s), specifically with regards to differences between the healthcare professional and business roles, and how potential role conflicts are managed on a pharmacy level. This was important due to the dearth of information about German pharmacists' role orientation and also because the answers were intended to provide the specific context for each pharmacy in which service provision is embedded. The first questions were hence related to the literature on pharmacist role orientation to assess the general perception of the pharmacist role as well as role orientation and role affinity. The interviews started with a question adopted from Al Hamarneh et al. (2012), which also served as a warm-up question, asking pharmacist-owners what pharmacists do to elicit top-of–mind responses about how pharmacist-owners perceive the pharmacist role. Further questions related to both role orientation and role affinity. Asking what aspects pharmacist-owners thought were the most important tasks related to role orientation (Quinney, 1963) and asking what they liked most about working as a pharmacist related to role affinity (Perepelkin & Dobson, 2010). As it is suggested that the retail business environment may be inhibiting professional services (Wingfield et al., 2004), pharmacist-owners were asked about role conflicts and their strategies to resolve them. Furthermore, since the literature review indicated that the professional role may be preferred and lack of business and management practice may be disadvantageous, it was deemed necessary to gain more insight into the business role orientation. Hence, pharmacist-owners were asked about their opinion on the business aspects of pharmacy and the importance of business knowledge. This was bolstered by questions on practices relating to service provision throughout the interviews to identify the impact of role orientations on the different service process stages to enable comparison with the tentative explanatory framework.

The third topic was related to RQ2 and RQ3 as it was focused on the service level, i.e. the specific professional services offered by pharmacies and

covered motivation, decision-making as well as the overall service provision process. Hence, pharmacist-owners were asked to describe the service, i.e. its main features and how it works, and to provide information about idea generation, the reasons for choosing a service in general and the specific service in particular (motivation), and about aspects helping in making the decision (decision criteria). Importantly, this topic area also included questions about the service provision process, specifically the business or management related activities such as planning steps taken, whether a business plan was made, or the people involved in service development and provision in order to draw out potential business role influences. Additionally, as entrepreneurially oriented pharmacies were found to have higher service provision rates (Jambulingam et al., 2005), questions regarding the service ideas (innovation), service approach (pro-activeness) and risk taking were included to identify whether the EO construct is a generative mechanism explaining professional service provision and service success. Questions about motivation and decision-making also aimed at eliciting information about the strategic use of professional services as PPS provision is perceived as a strategic decision (Feletto et al., 2010b). The questions were asked for each service individually, as different services may have been treated differently within the same pharmacy and to enable comparison of the same types of service across pharmacies.

The fourth topic area related to RQ4 and covered questions regarding service success assessment, what it takes to make a service successful and the importance of a service for the pharmacy as a whole to allow inferences on aspiration levels, success factors and factors affecting sustainability. These aspects were covered, for example, by asking whether the services have met the expectations or what a pharmacist would recommend to a colleague who intends to provide a professional service, with the aim to obtain a recap of motivations and decision criteria coupled with aspects that pharmacist-owners see as responsible for service success.

The last topic area, intended to conclude the interviews, included questions about pharmacist-owners' opinion about the pharmacy association and past and potential future PPS programmes to take the focus away from the

individual pharmacy and to elucidate potential barriers (or chances) to service provision within a broader (national) context. In addition, the answers were aimed to be used to compare and contrast these opinions with role orientation, service decision criteria and success factors to enable corroboration (or adjustment) of developing explanations. Hence, the last topic related to RQs 1 through 4.

Following the creation of the interview guide, it was piloted with one pharmacy to check whether the questions were understandable and whether it yielded usable results or needed refinement (Turner III, 2010). In addition, the interview questions as well as the context of the planned research were discussed with a pharmacy consultancy specialising in helping pharmacies with marketing and promotion, including PPS-related activities such as screening for venous insufficiency. As the results from the test were satisfactory and the consultancy confirmed that the research questions were understandable and both, interesting and necessary within the German context, further interviews were conducted.

The interviews were supplemented by a questionnaire aimed to collect descriptive information about the pharmacist-owner and the pharmacy to support contextual comparison between the pharmacies. The questionnaire, which can be found in Appendix 2, was filled at the date of the interviews together with the pharmacist-owners before commencing with the actual interviews. Hence, the questionnaire was not piloted, since most questions were straightforward and questions could be clarified immediately. It covered general demographics (e.g. age, gender), information about the professional and non-professional service offer, and contextual information deemed potentially important from the German context and literature review chapters, most importantly location, pharmacy size and pharmacist-owners' assessment of the competitive situation of their pharmacies. The questions regarding the latter were adopted from Heinsohn and Flessa (2013). Besides collecting information to compare the pharmacies, asking about services provided served as a 'warm-up' and entry into the selection of services to be covered during the interview.

4.3.3 Sample and sampling

4.3.3.1 Purposive sampling: service-providing pharmacist-owners

As the aim of the research was to investigate professional service provision, purposive sampling (Flick, 2009) was applied to identify pharmacist-owners who offer professional services in their pharmacies. As pharmacist-owners are the key decision-makers regarding their pharmacies' strategies, investments, and other important business decisions including provision of professional services, they are best suited to provide insights pertaining to the research questions. This is also in line with other research on small business where only the business owners were interviewed (Greenbank, 2000b). Furthermore, being proprietors of independent pharmacies and sharing highly regulated common practice standards (e.g. ordinance of pharmacies, prohibition of pharmacy chains), German pharmacist-owners are a relatively homogenous group. This homogeneity allows the identification of mechanisms enabling PPS provision without having to account for the factor of different ownership types.

Whilst the literature review showed that pharmacy employees are important in enabling service provision (e.g. Doucette, Nevins, et al., 2012; Kaae & Christensen, 2012), the main interest was still in pharmacist-owners as the literature also indicated that their support was needed to implement professional services (Feletto et al., 2010b). Yet, to include the aspect of employee involvement in service provision, pharmacists-owners were asked about how they managed their teams and about employee contribution to and responsibilities in service provision.

A further decision was the width or depth of the information to be collected (Flick, 2009). According to critical realist philosphy, generative mechanisms are perceived as context-dependent and acting on different levels. The literature review showed that for PPS provision, these contextual levels are personal (e.g. pharmacist and staff), internal (e.g. pharmacy organisation, resources and processes), and external (e.g. patient demand, physician support). The literature review further revealed that pharmacy location and competition had some influence on PPS provision, the influence of pharmacy

size on service provision was not clear, and pharmacist age or gender did not seem to have an impact. Hence, even with their relative homogeinity, a high variation (width) within service-providing pharmacist-owners regarding context and levels of service provision was sought to enable the detection of patterns as well differences, and to find the most suitable explanation within a given context.

However, as the extent of variation is not necessarily known in advance (Palinkas et al., 2015) and as some of the potentially influential aspects were difficult to assess beforehand from the outside (e.g. pharmacy resources, physician support or the actual intensity of service provision), variation was sought regarding publicly available information from the pharmacies' websites. This was types and numbers of professional services listed, giving some indication about potential PPS provision intensity, location (urban, suburban or rural), gender of the pharmacy owner (even though not found influential on PPS provision), number of pharmacies owned, and membership in a buying group or marketing cooperation (Heinsohn, 2013).

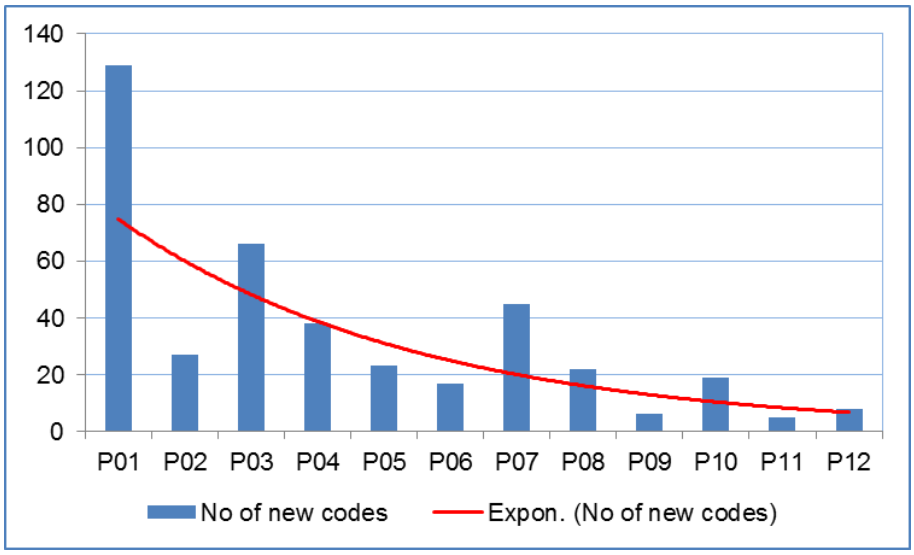
4.3.3.2 Sample size

An issue with qualitative research in general and therefore for in-depth interviews is determining the number of interviews needed to plausibly answer the research questions and producing research that is meeting quality criteria (Guest, Bunce, & Johnson, 2006; Marshall, Cardon, Poddar, & Fontenot, 2013; Morse, 2015). The standard choice for stopping the sampling process is suggested when data saturation is reached, i.e. no new themes, categories or issues are found (Francis et al., 2010). Another approach is theoretical saturation, i.e. when no new variations to an emergent theory are detected (Guest et al., 2006). For critical realist research, a form of theoretical saturation, i.e. when "the theory arising from the inquiry has, for the time being, greater explanatory power than its rivals" is suggested to guide the eventual size of a sample (Oliver, 2012, p. 379). Yet, there is criticism that qualitative studies mention these criteria when claiming to have reached data saturation but rarely report evidence (Marshall et al., 2013). By analysing the proliferation of codes derived from purposively sampled

interviews from a relatively homogenous target group, Guest et al. (2006) discovered that nearly all codes with a high frequency were identified in the first six interviews and 92% of all codes within twelve interviews. Hence, it was recommended that twelve interviews should be sufficient to elicit insights from a homogeneous group of interview participants (Guest et al., 2006). Therefore, and following a sequential approach as suggested by Francis et al. (2010), a first round of twelve interviews with pharmacist-owners was conducted. This seemed appropriate due to the general high homogeneity of pharmacist-owners. As the interviews were semi-structured they also fit the criterion of following a "certain degree of structure" (Guest et al., 2006, p. 75).

Providing descriptive statistical analysis of newly emerging versus repetitive codes is suggested as a criterion demonstrating the achievement of data saturation (Marshall et al., 2013). Therefore, the codes of the first twelve interviews, before they were grouped under conceptual categories, were analysed and a trend towards a decreasing number of new codes was found, indicating that data saturation was nearing, as shown in figure 24.

Figure 24: New codes per additional interview



Source: own data

However, as the initial analysis revealed that in addition to role orientations, pharmacy resources, which appeared to be influenced by pharmacy size and location, and individual local factors impacted on PPS provision, six additional interviews were conducted to supplement emerging findings. Since

the first twelve pharmacies tended to be from medium to large sized urban locations, small pharmacies and pharmacies in rural locations were needed to add a more nuanced insight into the influence of these factors. Likewise, insights from a very large pharmacy were also deemed useful, even though they only make up about 2.7% of all pharmacies in Germany (ABDA, 2016). This added an element of theoretical sampling, i.e. selecting participants based on theories and concepts developing from the research process (Morse, 2007). Therefore, two more rural pharmacies, a semi-rural pharmacy, a very small pharmacy, a very large pharmacy and a pharmacy located in a shopping centre were included, reaching a total number of 18 interviews.

An analysis of the sample sizes of research included in the literature review using qualitative interviews as sole data collection method in pharmacy practice showed that sample sizes ranged from 4 to 57 with an average of 17 respondents. Two publications (Albrecht et al., 2006; Hopp et al., 2005) reported having reached data saturation at 18 interviews. Thus, the final sample size of 18 interviews in this research not only accounts for differences in location but is also in line with comparable research in pharmacy practice, as shown in the analysis of sample sizes in Appendix 4.

For the second round of interviews, the interview guide was slightly adapted to reflect questions relating to aspects needing further clarification. This was the explicit addition of asking about differences between urban and rural pharmacies, the influence of the competition on a pharmacy's activities and the influence of personal attitude or behaviours on successful service provision. Due to new questions producing new codes, the number of new codes could not be used as an indicator for data saturation as this would have become a "moving target" (Guest et al., 2006, p. 75). Yet, there is always the possibility that due to the open system of the social world, new aspects develop, that can, however, taken forward by future research to enrich the explanatory framework developed in this work. However, during analysis, the adaptations did not produce new categories but rather enriched existing categories, making the descriptions thicker. Hence, the first twelve interviews might have provided sufficient insight to answer the research

questions, but the additional six interviews helped in corroborating these results by adding more nuances, thereby increasing validity.

4.3.3.3 Sample selection

Dealing with a total population of nearly 16,000 pharmacist-owners across Germany (ABDA, 2016), identifying and selecting suitable potential candidates was challenging and advantageous at the same time. The selection process included a web-based search for service-providing pharmacies and snowball-sampling, i.e. using personal contacts and referrals (Bryman & Bell, 2007).

For practical reasons, the web-based search was focused on areas in Germany that the researcher was able to reach by car or public transportation within two hours. Due to the large number of pharmacies in Germany, this convenience sampling approach was deemed appropriate, as based on findings from (Heinsohn, 2013), it was assumed that pharmacy types are relatively evenly spread across the country. The search was conducted by entering “Apotheke [name of the town or city]” into Google® or by using Google Maps® to identify pharmacies in the respective areas. The focus was on pharmacies with websites, which most pharmacies had, and which were accessed and screened for PPS offers - such as diabetes or nutrition counselling or medication management. The screening revealed considerable differences in pharmacies’ website design and presentation. Interestingly, it appeared that many pharmacies used website design templates and their service offer - if they offered professional services at all- tended to be similar, basic and generic (e.g. travel medication counselling). By contrast, pharmacies with individually designed websites tended to offer professional services and to be specific in describing their service offerings. Thus, pharmacies, which from their website presentation appeared to have a professional service focus, were listed with their contact information, pharmacy type information (marketing cooperation, number of pharmacies owned) and service offer. This resulted in an initial list of 107 pharmacies, including 6 pharmacies to which personal contacts existed.

For the first round of interviews, 14 pharmacies from this list (thereof four personal contacts) were contacted. Getting access to interview participants was achieved by contacting pharmacist-owners by telephone or in person at their pharmacy. The researcher introduced herself as a doctoral student, explained the purpose of the research and the reason for having chosen the pharmacy (i.e. offering professional services). Pharmacist-owners with whom personal contacts existed were open to participation, but most of the other pharmacist-owners were also friendly and receptive to the research topic. Hence, from the 14 pharmacist-owners contacted, ten pharmacist-owners agreed to be interviewed and only four declined participation. In addition, two further pharmacist-owners, who were referred to the researcher by one of the participants, agreed to be interviewed, resulting in a total of twelve interviews in round one. The personal referral proved to be advantageous, since the two pharmacist-owners stated that they would not have participated had it not been endorsed and the researcher would have missed out on two pharmacist-owners with extended PPS provision experience and valuable insights.

For the second round of interviews, consisting of additional six interviews, a further four pharmacist-owners from the list were contacted who all agreed to participate, thereof two personal contacts, one of them from a rural location. However, as more rural pharmacies were needed to better assess the impact of pharmacy location, another web search was conducted to identify pharmacies in remote rural areas, as this pharmacy type was under-represented in the original list. This search yielded eleven pharmacies, which were added to the initial list. The anonymised list of the complete study population can be found in Appendix 5.

All eleven pharmacies from the second search were contacted. Gaining participation from pharmacist-owners of more remote rural pharmacies proved more difficult, as only two pharmacist-owners agreed to participate in the research. The reason was that most of these pharmacies are small (for instance, one pharmacist-owner ran the pharmacy only by himself), and pharmacist-owners found the research interesting but declined due to staff resource constraints and resulting lack of time. This experience therefore

indicates that pharmacy size in terms of limited human resource availability can limit a pharmacy's activities outside the daily requirements of medication supply.

In order to keep track of the interview process, participating pharmacies were entered into a separate spreadsheet, noting the day of first contact, the day the information e-mail was sent, date and time of agreed interview meetings and the day the transcripts were mailed to pharmacist-owners for verification.

4.3.4 Conducting the interviews

4.3.4.1 Ethical considerations

The research was designed and conducted to comply with the University of Gloucestershire's Handbook of Research Ethics. The core principles are that research from data collection to analysis and reporting should be respectful and not cause any harm to research participants or damage trust and cause difficulties for future researchers in the field (Bryman & Bell, 2007; Saunders et al., 2009). Therefore, informed consent from research participants should be obtained and the protection of participants' confidentiality, anonymity and privacy ensured (Creswell, 2009).

Informed consent: At the first contact, pharmacist-owners were informed about the purpose of the research and the estimated duration of the interviews (approximately 60 minutes). They were also ensured of anonymity, confidentiality, the possibility of withdrawal at any time, the use of the gained information for the research purpose only, and the destruction of materials after successful completion of the doctoral thesis. Pharmacist-owners who were interested in participation, received a follow-up email with a cover letter referring to the contents of the telephone conversation, re-stating the research purpose, the expected duration of the interviews, and that interviews will be audio-recorded. The e-mail also included a confidentiality agreement and consent form to allow the pharmacist-owners to study the information at their convenience and contact the researcher with any questions (which none did). Sending the email and providing contact information also served the purpose to ensure pharmacist-owners of the

researcher's genuine intentions and to build trust. At the time of the interviews, the research purpose and the points requiring consent were repeated by the researcher and the signed confidentiality agreement and consent forms were exchanged (an example of the follow-up e-mail and both forms can be found in Appendices 6, 7 and 8).

Confidentiality and anonymity: Pharmacist-owners had been informed that the interviews would be transcribed and that for this purpose a transcription service would be used and that the researcher had a non-disclosure agreement (NDA) with the transcription service to ensure confidentiality of the interview data. By ticking the respective box on the consent form pharmacist-owners could agree to this procedure.

Pharmacist-owners were coded with a number, e.g. "P01" and the date of the interview in order to ensure anonymity. The numbers were allocated according to the sequence of interviews from P01 to P19. The number 13, being considered an unlucky number, was not allocated in order to be inoffensive. Information that could identify the pharmacist-owner or pharmacy was removed from the audio files before they were sent for transcription. The audio files, transcripts and questionnaires were anonymised and kept on a secure hard drive only accessible to the researcher. As agreed with the participants beforehand in the consent forms, the transcripts were sent to the participants for checking. Two participants did not agree on the interviews being audio-recorded. For these interviews, notes were taken which were also sent to the respective pharmacist-owners for verification. To ensure that the transcripts (and interview notes, respectively) would not be read or distributed electronically by other people, e.g. pharmacy personnel, the transcripts were mailed by post to the pharmacist-owner in a sealed envelope reading "personal/confidential".

To avoid the possibility of identifying pharmacies in the analysis section, no information about the geographical location of the pharmacies was provided. This would not have added any explanatory value as the sample selection was focused primarily on service offerings and due to the non-representative number of interviews. Furthermore, Heinsohn (2013), who analysed a representative sample of German pharmacies, did not find differences in

impact on business performance or competitive fitness related to macro location, i.e. there was no East - West or North - South dichotomy, leading to the conclusion that successful pharmacies can be found anywhere in Germany and that differences are more likely to be found in micro location and other factors such as business orientation. Likewise, care was taken to avoid any information in direct quotes or in describing the services, that could, if pieced together, identify a pharmacy (Saunders et al., 2009).

4.3.4.2 Interview procedure

The interviews were conducted between December 2013 and September 2015; the first round of interviews being between December 2013 and August 2014 and the second round of interviews being conducted between July 2015 and September 2015. The interviews were scheduled with the pharmacist-owners via telephone or e-mail and conducted face-to-face at a date and time of the pharmacist-owners' choosing at their pharmacy premises, except for one interview (P18), which was conducted via telephone for reasons of timing and convenience. This allowed maximum convenience for the pharmacist-owners (Saunders et al., 2009). Whilst telephone interviews would have been more comfortable for the researcher, conducting the interviews face to face had the advantage for the pharmacist-owners to personally meet the researcher and form an opinion as suggested by Kvale (2007). This, in the perception of the researcher led to establishing trust, which resulted in open conversations and an overall positive interview atmosphere, where pharmacist-owners provided extensive information. Gaining trust is regarded as important to obtain rich and thick data, which is considered to increase validity (Morse, 2015). At the same time, it enabled the researcher to get a personal impression about the location and pharmacy premises. Saunders et al. (2009) suggests that interviews should be conducted in spaces that allow discretion and avoid disturbance. This was the case, since all interviews were conducted at the pharmacies' back-offices and in larger pharmacies the pharmacist-owners' personal office and were thus conducted away from daily business. Nevertheless, there were

disturbances by staff or telephone; these did, however not impact the flow of the conversation.

Before the in-depth interviews, the researcher introduced herself, explained again the research purpose and shared her personal motivation for the research. Then, the researcher and the pharmacist-owner signed the confidentiality agreement and consent form, respectively. The researcher had brought two copies of both forms to each of the interviews, which proved to be necessary since pharmacist-owners had not printed (and sometimes not read) the forms which had been sent to them in preparation of the interview meeting. After signing the forms, the supplementary questionnaire was completed together with the pharmacist-owner. Then, the interview commenced, at which point the conversation was digitally audio-recorded. As some topics had been touched upon introduction and questionnaire filling, some questions were repeated to have them on record. Two pharmacist-owners (P09, P17) did not wish to have the interview recorded; therefore, handwritten notes were taken and typed into a word file immediately after the interviews.

All interviews were informed by the interview guide in order to ensure a level of comparability regarding the coverage of the topics to be addressed (Bryman & Bell, 2007). At the beginning and end of the interviews, the questions of the interview guide usually followed the order of the interview guide to ensure the information was captured for later comparison. The part concerning information on PPS provision tended to be less structured. This allowed the conversation to take a natural flow and to elicit pharmacist-owners' original thoughts and opinions, whilst avoiding to influence the participants (Saunders et al., 2009). To ensure coverage of the key topics, the researcher checked the interview guide during the pharmacy-owners' accounts. Missing aspects were addressed when appropriate and probing questions asked where further information was needed or when new aspects that deemed interesting in understanding service implementation came up. This procedure was followed for all interviews, including the telephone interview. In addition to the interviews, field notes were taken, commenting on the location of the pharmacy, on the overall impression of the interviews,

on potential themes, as well as on reflections from the researcher about her interviewing skills and ideas for approaching future interviews. After the interviews, the field notes and the questionnaire data were entered into an Excel file in preparation for analysis. The interviews lasted between 37 to 119 minutes with an average of 56 minutes, duration depended on the number and intensity of professional services offered. Thus, duration is comparable to PPS research included in the literature review that also used semi-structured interviews, which was on average 40-64 minutes (as shown in Appendix 4).

Following the interviews, which were conducted in German, the digital recordings were transcribed verbatim by a transcription service appointed by the researcher, according to the simplified transcription rules of Dresing and Pehl[3]. The simplified rules were deemed sufficient as the focus was on content and not on language as, for instance, in discourse analysis (Saunders et al., 2009). Before analysing the transcripts, they were sent to the respective participants for verification (including the summaries from the two interviews that were not audio recorded) and to give participants the possibility to ask further questions or make comments. Such member-checking is regarded as risky for the research, as it opens the possibility for participants to change their minds (Morse, 2015). Yet, the ethical aspects of providing participants with a 'proof' of what was said during the interview and the possibility of obtaining clarifying comments was considered more important. As none of the participants had comments or asked for amendments, the interview transcripts could all be used for data analysis in their original form.

[3] The most important aspects of the simplified transcription rules are:

- verbatim transcription but with approximating dialects or colloquial forms into standard German
- Pauses were indicated as (…)
- Indications of importance and intonations are written in capital letters
- non-verbal expressions of emotions are added in parentheses, e.g. (sighs) or (laughs)

4.4 Data analysis

4.4.1 Retroductive grounded theory framework analysis

Data analysis under a critical realist philosophy means to move from events in the interview data (the empirical domain) to the identification of generative mechanisms and the conditions under which they exert their power (Ryan et al., 2012). This requires “a clear and robust method” (Kempster & Parry, 2014, p. 91), which allows for abduction and retroduction via abstraction and the use of existing theories (Ryan et al., 2012). Whilst the results from the literature review offered potential explanations to pursue further, it was deemed important to allow for openness regarding new or unexpected aspects to emerge to explain professional service provision in pharmacies (Holton, 2007). Furthermore, as the interviews yielded a total count of more than 153,000 words to be analysed, an analysis technique was needed to help reducing the large amount of data into concepts for the identification of mechanisms.

Therefore, a combination of elements of grounded theory-based coding procedures with framework analysis was chosen. Framework analysis is a method for structured and transparent data analysis consisting of five stages, which are familiarisation, identifying a thematic framework, indexing, charting, mapping and interpretation, whereby the researcher is supposed to move between the stages to identify concepts and their connections and to refine the analysis (Ritchie & Spencer, 2002). It explicitly allows the inclusion of preconceived ideas such as concepts from the literature but equally encourages the identification of newly emerging concepts (Gale, Heath, Cameron, Rashid, & Redwood, 2013). The five stages were supplemented by the use of grounded theory-based coding procedures, constant comparison and memo-writing (Bryman & Bell, 2007), which is suggested as a way to approach framework analysis by Gale et al. (2013) to allow for the detection of unanticipated, or contradicting elements.

Grounded theory is concerned with explanation grounded in data and the emphasis is on abstraction and conceptualisation rather than detailed

description (Holton, 2007). The analysis procedures of coding, constant comparison and memo-writing are means to get there. Furthermore, grounded theory analysis uses abduction, i.e. a mental exercise to build hypotheses on and beyond the data and checking within the data for confirmation (Reichertz, 2007). Grounded theory analysis resonates with critical realist retroduction, i.e. asking “what must be true in order for something to be the case” and critical realist interest in explanation and theory development (Oliver, 2012, p. 279). Framework analysis, being a method for thematic analysis, is perceived as providing a structured frame for qualitative data analysis but which is flexible regarding epistemological viewpoints and, being vague about detailed steps in data analysis, can incorporate different analysis methods, including those of grounded theory (Gale et al., 2013). Likewise, framework analysis is compatible with critical realist philosophy as it is based on assumptions of a reality independent of but only accessible through human perception (Ward, Furber, Tierney, & Swallow, 2013).

It could be argued that classic grounded theory does not fit with critical realism. Classic grounded theory is against forcing preconceived ideas or theories onto data at the beginning of a research or analysis (Glaser & Holton, 2007) as this would distract from new insights and limit the possibilities for different and potentially better explanations (Holton, 2007). Yet, this strict view of classic grounded theory is challenged, as theoretical neutrality is regarded as neither feasible nor desirable if research is aimed to build on extant knowledge (Bryman & Bell, 2007) and if one wants to avoid ‘re-inventing the wheel’ (Bryant & Charmaz, 2007). Therefore, it is compatible with critical realist philosophy, which assumes that all knowledge is theory-laden and people’s perceptions are influenced by theories or concepts about the objects under investigation (Sayer, 2010). Yet, the focus of grounded theory on development of categories and themes from data may pose a risk to mechanism identification (Yeung, 1997). Hence, as empirical data is (only) regarded an entry point (Bhaskar, 2008). for retroductive grounded theory, the use of preconceived ideas or theory is needed to go beyond the empirical data and to identify generative mechanisms to explain phenomena (Kempster & Parry, 2014).

4.4.2 Operationalising framework analysis

To operationalise the chosen method of data analysis, the transcripts were analysed using NVivo 10® for coding and memo-writing. Analysis followed the five stages of framework analysis in an iterative way (Ritchie & Spencer, 2002), with the application of grounded theory analysis methods, abduction and retroduction, whereby framework development and indexing were merged:

(1) Familiarisation with the data: Analysis in grounded theory and framework analysis have in common that the starting point is immersion in the data and developing first ideas about concepts. Familiarisation also means to get an impression of the complete interviews before coding (Ward et al., 2013). Reading the complete German language transcripts was coupled with checking the transcripts from the transcription services and highlighting text segments and making annotations regarding potential codes as suggested by Gale et al. (2013).

Conducting research across different languages can be problematic due to the danger of misinterpretation of meaning and hence misrepresenting the research participants and thus potentially affecting the validity of the research (Temple & Young, 2004). The transcripts were kept and analysed in German to enable staying closer to the meaning of the information conveyed by participants. However, the annotations, memos and the coding procedure were done in English language. Selected direct quotes from the participants were translated into English by the researcher, attempting to stay as close as possible to the meaning conveyed by the German participants as interpreted by the researcher. This was deemed suitable as the researcher's native language is German and she is therefore able to understand the intricacies of the language and to more closely scrutinise the meaning of the interview quotes (Temple & Young, 2004). Hence, special attention was given to explaining pharmacy-specific terms, especially when they carried a contextual meaning. Nevertheless, there is the danger of misinterpretation. Yet this is not necessarily or only a translation issue but a general problem of validity in qualitative research, requiring reflexivity of the researcher. This

was addressed by reviewing pharmacists' reports within their context and comparing meanings with results from the literature review.

(2) + (3) Development of a thematic framework and indexing: These stages are concerned with identifying concepts and issues perceived as important, whereby the final thematic framework includes concepts derived from the empirical data and preconceived ideas from the literature review (Ritchie & Spencer, 2002). Yet, that final thematic framework is a product of an iterative process of several coding cycles, whereby the framework is eventually (re-) applied to all transcripts (Gale et al., 2013). According to Ritchie and Spencer (2002), the framework can be developed from selected transcripts and during indexing applied to all transcripts. For this research, the thematic framework was developed from the first twelve interviews (round 1) and then applied to the remaining six interviews (from round 2). Framework development and indexing for the first twelve interviews were done in parallel via several coding cycles whereby different types of coding were used where appropriate (Saldaña, 2013).

In the first coding cycle, the first twelve interviews were addressed in consecutive order (starting with the first interview) and coded line by line with open coding to ensure that all ideas and aspects were captured (Gale et al., 2013). Open (initial) coding is also regarded as a good way to start with breaking down large amounts of data and is compatible with all types of qualitative research (Saldaña, 2013). Further coding types applied in the first coding cycle were the grounded theory coding procedures of open (or initial) coding, including process coding and in vivo coding and in addition structural coding. In order to identify new aspects, open, process and in vivo coding were applied. Process coding has the advantage of depicting action (Saldaña, 2013). This was specifically important for the analysis of professional service provision as this was assumed to be a process that develops over time. In vivo coding, which is also a grounded theory open coding type, was used when single words or phrases stood out and signified strong meaning, (Saldaña, 2013). For instance, the German expression *reingrätschen*, a term from soccer, which means 'to go in-between', was coded in vivo as it signified the urgency some pharmacist-owners felt for

quick action to block competitors and secure a first mover advantage. This code was later integrated into the category of opportunity recognition. Additionally, structural coding was applied to relate participant responses to the research questions and the interview guide to facilitate comparison between different pharmacies on the a priori issues and preconceived ideas (Saldaña, 2013). A structural code was, for example, applied on how pharmacist-owners answered the question of describing what a pharmacist does. Generally, as critical realists perceive reasons to be causes (Sayer, 2010), the interviews were screened for reasons, e.g. for providing services (motivation) and coded accordingly.

Starting with open coding, analytical memos were written to enable early-on conceptualisation of the data leading to theory building (Holton, 2007). The memos, which at the beginning were more descriptive and contained first thoughts as well as questions that might need pursuing, were extended and revised throughout the analysis. This included making notes of potential connections between evolving codes and categories, and about potential mechanisms, how they may work and about the influence of contextual factors, thus aiding retroduction. Examples of analytical memos are shown in the following two figures. Figure 25 is concerned with the dual (healthcare professional and business) role influence on pharmacy in general and on services, which was later consolidated in the theme of “role ambidexterity”.

Figure 25: Example - memo on professional and business aspects

Memo **Name:** professional and business aspects
P01 - Service decision criteria - The pharmacist (and parts of staff) assess the market for needs or compare their ideas with market demand and capabilities. Pharmaceutical usefulness seems to be an important criterion, however second to market demands. In the example of the unit dosing service, it seems that this pharmacy looks for consumer needs, i.e. convenience, and the pharmaceutical benefits, i.e. safety and compliance come as second or reinforcing argument. **Thus, it seems that both components, business and professional, are needed and be balanced, from the aspect of running the pharmacy to marketing the services.** P02 – provides further aspects on dual role: helping people is fun and serving the customer comes first (also as a way to bind customers). But the business knowledge is seen as crucial and the pharmacist predicts that those who do not like the business part and have not learnt the accounting etc. will have little chance of survival. **So, business knowledge and following business practices is crucial for surviving. But it is not the focus of the pharmacist education**. P08 – appears to effectively mix healthcare professional and business aspects. This pharmacist has made positive experience with a HIV service. This service is linked to product sales (prescriptions of high priced medication). By catering to a specific target group and meeting their needs, the pharmacy has gained a loyal customer group. Patients benefit from the specialized information and empathy of the trained pharmacy staff and the pharmacy benefits from their prescription income. Thus, services that are offered for free can drive pharmacy income and constitute an important business area. This I think shows that many activities in the pharmacy serve the purpose of generating income. The professional aspects are seen as important for customer generation and retention. Yet, in this case the bonus is paid out on collective targets to avoid internal competition for the best customers/patients. This is good for the pharmacy but also protects the customers and ensures that they all get served equally / properly. **It seems that running the pharmacy according to good management practice helps ensure the overall success of a pharmacy, including patient-centred services.** This pharmacist acts according to business principles and procedures, including HR management, and has a rationale for the decisions made which can be explained to the employees and which gets the employees on board.

Source: own data

Figure 26 addresses the phenomenon of specialising as a result of service provision, which was later consolidated into the theme of “professionalising”. “Professionalising” as using management tools to manage a service could then be linked to the importance of a service.

Figure 26: Example - memo on specialising

Memo **Name:** specialising
P01: This pharmacy has specialised personnel: for selling / counselling, for special area counselling, for administration. This way, the pharmacy can offer in-depth services across three outlets. This serves to impress customers and at the same time is cost-efficient. The pharmacy owner is responsible for steering the pharmacy and the administration and is not as "fit" in counselling as his employees. This is a drawback of specialisation. P02: In a smaller pharmacy, specialisation is not possible. Is there a pattern? Larger pharmacies due to larger teams ➔ more specialisation? Smaller pharmacies ➔ owner = the specialist? Specialising means that more in-depth knowledge and appears to be a motivator for staff Specialising occurs 1) for the pharmacy 2) for staff within a pharmacy Service provision requires some form of specialisation BUT some counselling, e.g. on diabetes is provided without (much) special training Specialising can also be a result of service provision In some cases, specialisation is “bought” with the acquisition of the pharmacy or with new employees (P01, P02, P19) Is there a pattern? Where pharmacist-owners perceive the service as important, they focus on extra training and further specialised staff?

Source: own data

With regards to indexing, this was approached consecutively, starting with the first interview and with following interviews building on the identified codes from the first and so on; i.e. when an aspect from the second interview was similar to an aspect coded in the first interview, it was placed there as shown in figure 27. The coding was done with the original German interview transcriptions to stay as close to the text and meaning as possible. Figure 27 additionally shows the English translation for convenience and transparency.

The first round of coding yielded a high number of codes (over 400). Hence, in the second coding cycle, the focus was on categorisation and conceptualisation (Saldaña, 2013), thereby condensing the codes into topics or themes. This was done via axial coding by grouping codes under conceptual categories and identifying the properties of these categories (Saldaña, 2013). The resulting conceptual categories consisted of inductive categories developed from the data and deductive categories derived from

the research questions and preconceived ideas. An example for a preconceived category is “Motivation for service provision” (see figure 27) and an example for a newly emerged category is “Professionalising”.

Figure 27: Example of coding

Assigned code: binding customers ➔ Assigned category: Motivation for service provision		
Pharmacy	**Coded Text**	
P01	Also ich würde mal sagen, der Grundgedanke von Anbieten von Dienstleistungen im Generellen ist meistens aus einem Kundenbindungsinstrument, aus einer Sicht der Kundenbindung her generiert. Das muss man ganz fair zugeben.	*Well, I would say that the basic idea of offering services usually is to have a customer loyalty tool, to bind customers. One has to honestly admit this.*
P01	Aber die Triebfeder für diese Sachen sind erst mal eine Kundenbindung.	*But the driver for these things is first of all binding customers.*
P02	Wir bieten das an, weil wir einfach unsere Stammkunden VERSORGEN wollen. Ich kann nicht einen Kunden für jetzt einen Kompressionsstrumpf wegschicken, aber erwarten, dass er mit seinen Rezepten WEITER zu mir kommt.	*We offer this, because we want to CARE for our regular customers. I cannot send a customer away for compression stocking but expect that he CONTINUES coming back to me with his prescriptions.*
P02	Das heißt, (...) wenn ich es so verstanden habe, die ganzen, was ihr anbietet, ist eben einfach wirklich dazu da, auch um die Kunden langfristig zu binden. B: Ja, absolut!	*I: That means, (…) if I have understood correctly, that these offers are made to bind customers?* *P: Yes, absolutely.*
...		
P10	Patientennutzen, das ist schon wichtig, aber da haben wir auch dann im Endeffekt einen Nutzen, indem wir ihn an uns binden.	*Patient benefit is important but eventually we profit by binding him to us.*

Source: own data

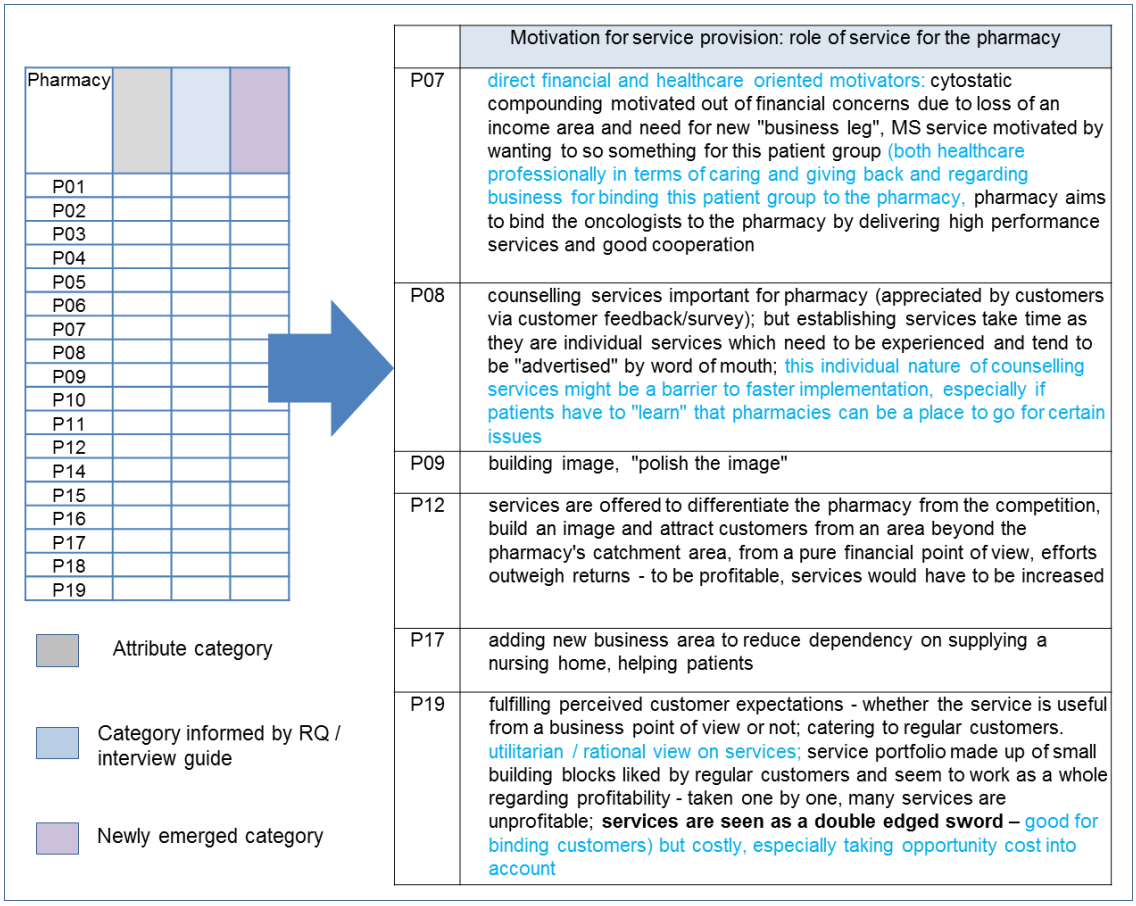
The complete coding process was applied to the first twelve interviews. The categories developed from the two coding cycles then formed the thematic framework. The subsequent six interviews went through the familiarisation stage. This means that they were read carefully line by line to identify new or unexpected aspects. As these six interviews did not yield new concepts but rather variations to those concepts already identified, these interview transcripts were coded according to the conceptual categories (the framework) developed in the second coding cycle, with the exception of adding a sub-category relating to differences between urban and rural pharmacies.

(4) Charting the data: Charting is a data condensation and abstraction process where pieces of data, are taken out of the transcripts and entered, either as summaries or as direct quotes, into a table (chart) according to selected categories (Gale et al., 2013; Ritchie & Spencer, 2002). For this research, two charts were created, one for the pharmacist-owner/the pharmacy in general and one for analysing the different services. This separation reflected the different levels of the interviews, i.e. one level being about the pharmacist-owner, the pharmacy and services in general and the other investigating why and how specific services are offered. The categories used to analyse the pharmacy and the services were selected according to their relevance for the respective analysis. Hence, some categories were used for only one of the charts, whereas others were applied to both charts. For instance, the category “outlook on future of pharmacy”, which concerns pharmacist-owners’ opinion on the survival of community pharmacy, was only applied to the pharmacy chart but was not relevant for analysing the services. Conversely, the service chart contains aspects relating specifically to the service nature and service management, such as “degree of time intensity” or “service expectations fulfilled”. Furthermore, it emerged that some categories applied to both, the pharmacy business in general and service provision, albeit with different qualities or connotations. For instance, the category of “professionalising” applied to service provision and general pharmacy management alike; yet, it was related to training and specialisation for service provision and to optimising for traditional dispensing-related activities.

Charting for both charts was operationalised by entering core categories and specific sub-categories from the Nvivo project spreadsheets with the categories in columns and the pharmacists-owners / pharmacies in rows, facilitating comparison between conceptual categories and between cases (Ritchie & Spencer, 2002). In addition, attributes of the pharmacist-owner and pharmacy (e.g. pharmacy size, location, or number of PPS offered) were added to enable identification of potential contextual influences. As suggested by Gale et al. (2013), the information entered into the spreadsheet consisted of summaries and direct quotes. The summaries contained descriptive and conceptual elements of what was elicited from each pharmacist-owner on a given category. They were based on the codes but

the researcher also read the interviews again to provide contextualised summaries, since coding has the disadvantage of taking pieces of text out of context. Additionally, the summaries included the ideas and interpretations from the memos which had been continuously refined during the coding process as well as interpretive assessments by the researcher, which helped to increase the level of abstraction and the identification of mechanisms from the domain of the empirical. To distinguish interview data from the researcher's interpretations during analysis, the latter were entered in a different font colour. Figure 28 shows an example of charting from the pharmacist-owner/pharmacy matrix with selected pharmacies each exemplifying different motivators for PPS provision, whereby direct summaries from the interviews were in black font colour and researcher interpretations were written in blue.

Figure 28: Example of charting (category "motivation" from pharmacy chart)



	Motivation for service provision: role of service for the pharmacy
P07	direct financial and healthcare oriented motivators: cytostatic compounding motivated out of financial concerns due to loss of an income area and need for new "business leg", MS service motivated by wanting to so something for this patient group (both healthcare professionally in terms of caring and giving back and regarding business for binding this patient group to the pharmacy, pharmacy aims to bind the oncologists to the pharmacy by delivering high performance services and good cooperation
P08	counselling services important for pharmacy (appreciated by customers via customer feedback/survey); but establishing services take time as they are individual services which need to be experienced and tend to be "advertised" by word of mouth; this individual nature of counselling services might be a barrier to faster implementation, especially if patients have to "learn" that pharmacies can be a place to go for certain issues
P09	building image, "polish the image"
P12	services are offered to differentiate the pharmacy from the competition, build an image and attract customers from an area beyond the pharmacy's catchment area, from a pure financial point of view, efforts outweigh returns - to be profitable, services would have to be increased
P17	adding new business area to reduce dependency on supplying a nursing home, helping patients
P19	fulfilling perceived customer expectations - whether the service is useful from a business point of view or not; catering to regular customers. utilitarian / rational view on services; service portfolio made up of small building blocks liked by regular customers and seem to work as a whole regarding profitability - taken one by one, many services are unprofitable; **services are seen as a double edged sword** – good for binding customers) but costly, especially taking opportunity cost into account

Source: own data; the original chart of motivation contains information from all pharmacies

Thus, charting resulted in category/pharmacy matrices, which could then be analysed in different combinations to interpret the data and identify mechanisms.

(5) Mapping and interpreting the data: Understanding PPS provision in pharmacies under a critical realist perspective, means understanding what causes service provision and understanding the context, i.e. the business environment, pharmacy practices and conditions under which service provision exists, flourishes or struggles. Hence, in the final stage of framework analysis, the charts and memos were reviewed and analysed via comparing and contrasting in search of patterns, connections and explanations (Ritchie & Spencer, 2002). Regarding the latter, the retroductive argument was applied to the conceptual categories and emerging explanations by working backwards from an event in the domain of the empirical, e.g. a professional service, to its potential causes (mechanisms) at the domain of the real (Easton, 2010) via asking “what must be true for this to be the case?” (Easton, 2010, p. 123), “what properties must exist for X to exist and to be what X is” (Danermark (2003, p. S115), and “what works for whom in what circumstance?” (Danermark, 2003, p. 117). For instance, motivation was assumed (hypothesised / abducted) to be a mechanism for professional service provision. Through coding, different motivational factors were identified, e.g. gaining and binding customers or personal interest. Comparison between motivational factors, services and pharmacist-owners provided a range of different CMO combinations related to the outcome of service provision, which could be retroduced (traced back) to business orientation and / or healthcare professional orientation and influencing contextual factors. The findings from the interview analysis were then compared to the tentative explanatory model to identify the most suitable explanation.

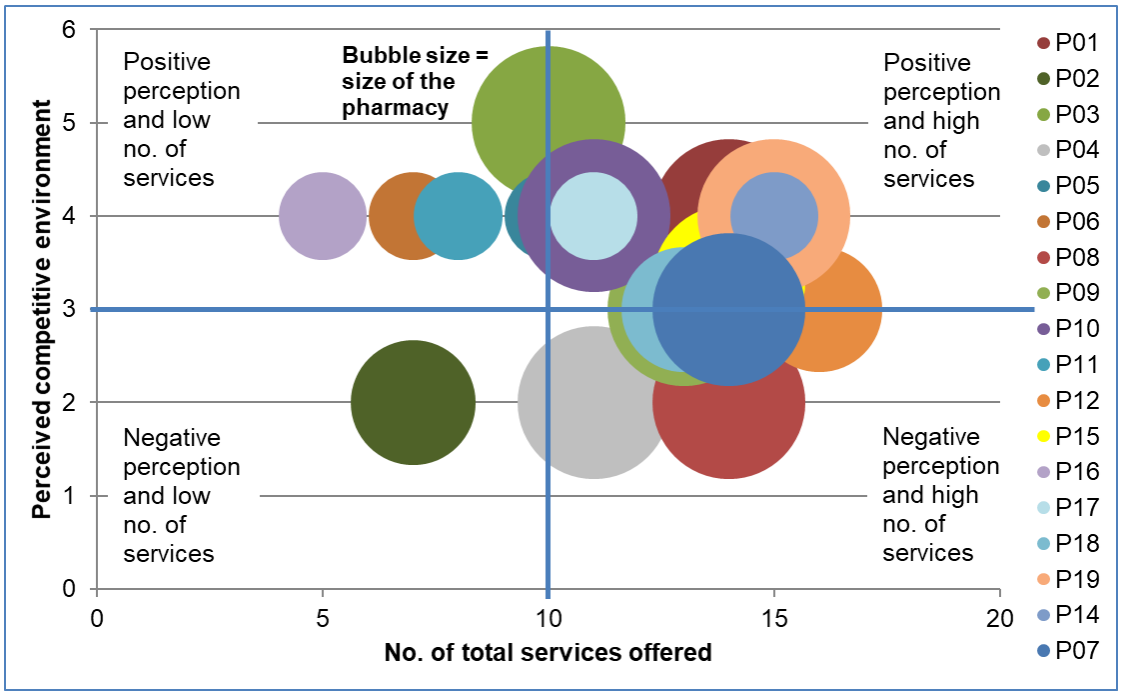
The spreadsheets proved valuable for comparing the different conceptual categories and drawing out the categories’ constitutive properties and causal powers, i.e. their potential for being generative mechanisms through abstraction (Danermark, 2003; Sayer, 2010). This was done by picking selected categories and comparing them, using the function of pivot tables.

The categories were selected based on identified potential mechanisms from the tentative explanatory framework as well as following up on ideas about mechanisms derived from memo-writing and charting. Using pivot tables allowed systematic filtering and thereby further reducing the very voluminous spreadsheet into smaller data configurations which was helpful in the identification of potential patterns. Hence, potential mechanisms from the tentative framework could be systematically addressed and assessed. Some of the configurations provided some patterns, whereas others did not, thus requiring further investigation into circumstances. In some cases, the results could be transformed into graphs. For instance, figure 29 shows the graph on an inquiry into the influence of competition on PPS provision. It combines the perception of competitive environment (context) and the number of services provided by a pharmacy (outcome) and shows how the 18 pharmacies are spread across the four quadrants, whereby pharmacy size (context) is indicated by the size of the bubbles. This provides an example of retroductive thinking applied throughout analysis by considering events and non-events, contradictions, as well as necessary and contingent conditions (Ryan et al., 2012).

This example does not show a clear pattern regarding the influence of the perception of the competitive environment on service provision. Yet, one of the motivations for service provision was binding customers to the pharmacy (as shown in figure 28). This has an inherent notion of competition, since customers not feeling bound to one pharmacy may take their business to competitor pharmacies. Hence, further analysis was needed to understand the circumstances under which the perception of the competitive situation may lead to service provision. Therefore, this figure can also be interpreted as competition influencing service provision in different ways: providing services out of the fear of losing customers, defending a market position, or alternatively, aiming to build the largest possible distance to potential competitors. The three pharmacies in the upper left quadrant, the one in the lower left quadrant, and the two in the lower right quadrant constitute deviant or negative cases. The upper left quadrant contains pharmacists-owners who perceived their overall competitive situation as positive. This could be interpreted that positive perception may not make them inclined to provide

services. On a closer look, however, it also shows that those are small pharmacies, which differ regarding their motivations, resources and maturity stages. For instance, P05 had only recently taken over the pharmacy and was developing a service portfolio to build image, P16 was interested in further services but lacked staff and P06 exhibited a satisficing stance.

Figure 29: Example of analysis combining different categories



Source: own data

The negative case in the lower left quadrant, despite perceived pressure from competitor pharmacies, did not want to invest into further services with potentially long pay-back periods due to high (opportunity) cost. The main reason, however appeared to be that the pharmacist-owner held a negative outlook on the future of the community pharmacy system, which makes investing an irrational activity. This negative outlook on the future thus appears to constitute a boundary condition, as it can explain why some pharmacist-owners may not see any good reason to make investments.

The two large pharmacies in the lower right quadrant (P04, P08) had many nearby competitors but were actively responding to the perceived pressure; P04 focused on good counselling, supply readiness and some services, whereas P08 focused on good counselling, PPS provision and innovation. Thus, by comparing different cases, contrasting them with deviant cases and

by asking the retroductive question, the CMO configuration which seemed most plausible was then chosen.

In the following chapter, the detailed results of the data analysis and identification of CMO configurations (as shown in figure 17) are presented and discussed in relation to extant literature and the findings from the literature review.

5 Results of the Analysis and Discussion

5.1 Introduction

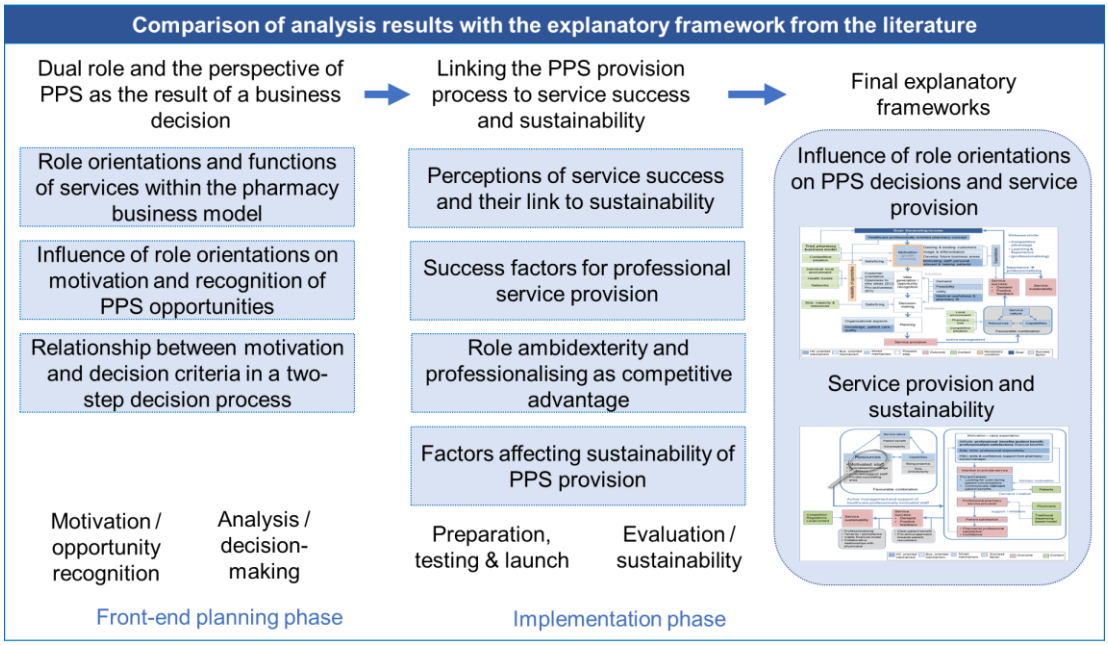
In this chapter, the key findings from the interview analysis with German pharmacist-owners are linked with results from the literature review. Provision of professional services in pharmacies was found to be an outcome generated by a complex interplay of conditions or contextual factors and mechanisms. This was to be expected from the vast number of barriers and facilitators to service provision identified in previous research from different countries (e.g. Roberts et al., 2008; Thornley, 2006) and the tentative explanatory frameworks developed from the literature review.

Following the descriptions of the sample and the services provided by participating pharmacist-owners, the critical realist analysis and discussion of the research findings is presented. Under the critical realist perspective of this research, the focus of the analysis was to describe the phenomena under investigation and to use retroduction to identify underlying generative mechanisms. This was done by (1) looking at outcomes, i.e. PPS provided in German pharmacies, from the perspective of pharmacist-owners at the domain of the empirical and by retroducing from their accounts, what mechanisms in the domain of the real produced these service outcomes and (2) comparing the identified mechanisms with the tentative explanatory frameworks from the literature review. This refers to comparing the mechanisms identified from the empirical data with extant literature to assess them for their explanatory value (Bhaskar, 2008).

The discussion acknowledges that different levels (strata) of reality (national policies, professional associations, perspective of patients and physicians, pharmacy location, pharmacy resources, pharmacist and staff role orientations and capabilities) have powers, properties and liabilities leading to events and enabling empirical observations. The main discussion is at the pharmacy and pharmacist level since the analysis showed that pharmacist-owners focused their attention on the individual situation of their pharmacies and the local context in regard to both, general pharmacy management and

PPS provision. Due to the absence of remunerated PPS programmes in Germany, the influence of national policies and pharmacy associations was less prominent and therefore largely absent from the analysis of the results. One exception was the influence of the traditional dispensing-based pharmacy business model and regulations specific to the German healthcare system and pharmacy regulations, such as the effects of discount contracts, which appears to be a limiting factor for PPS development (and therefore also the healthcare professional role beyond dispensing-based counselling) for some pharmacist-owners. Figure 30 shows the flow of the discussion, which broadly follows the order of the research questions.

Figure 30: Presentation and discussion of results leading to final explanatory frameworks



Source: own illustration

First, it addresses the perspective of PPS as a business decision and the implications on motivation, opportunity recognition and decision-making, including the importance of dual role effects within the dominant dispensing-based business model. Specifically, it confirms that PPS provision indeed follows a process very similar to the one proposed by the tentative explanatory framework. The analysis showed that the process consists of (1) opportunity recognition / idea generation, (2) decision-making (opportunity analysis and decision-making), (3) service planning and preparation, and (4)

service provision and evaluation (leading to sustainability or termination). The second section links the PPS development process with service success and sustainability. It specifically discusses the impact of the dual role on service success in the form of role ambidexterity and distinguishes between the business decision to introduce a service and actual service delivery. It further addresses the impact of service importance on service sustainability through professionalising the service offer and the conditions under which PPS provision can be sustained.

The outcome of the analysis and discussion is to offer explanations to what it needs for service provision to happen and to what works to make service provision sustainable and therefore concludes with the presentation of the final explanatory frameworks (figures 37 and 39). The first framework captures the PPS development and provision process as a virtuous circle and the second presents the processes affecting successful service provision and sustainability. The discussion of the final explanatory frameworks summarises the mechanisms identified leading to PPS decisions and affecting successful PPS provision, including the discussion of three recurring themes, which are the traditional dispensing-based business model, role ambidexterity and pro-activeness.

5.2 Description of the sample of pharmacist-owners

The sample exhibits a wide variety of characteristics regarding age of the pharmacist-owner, years of ownership, location, number of pharmacy branches in addition to the main pharmacy, size of the pharmacies, number and type of services provided, and the pharmacists-owners' perceptions of their competitive environment, as presented in table 10. The first twelve pharmacies (numbers 1-12) are those from round one and the remaining six (numbers 14-19) are from round two. Whilst it is a small sample, it shows the uniqueness of the attribute and contextual combinations in which the individual pharmacist-owners operate.

Table 10: Characteristics of pharmacist-owner sample

P-no.	m/f	Age	Owner-ship (years)	Size	Location detailed	Total no. of PPS offered	Competitive environ-ment
1	m	36-45	10	L	urban - shopping area	13	good
2	m	36-45	12	M	urban - shopping area	8	difficult
3	m	46-55	12	L	urban - nearby physician	9	very good
4	m	56-65	29	L	urban - shopping area	10	difficult
5	m	25-35	1	S	urban - shopping area & residential area	10	good
6	f	36-45	13	S	urban - shopping area	8	good
7	f	56-65	14	L	urban - nearby physician & main street	14	acceptable
8	f	56-65	14	L	urban - nearby physician	15	difficult
9	m	46-55	22	L	urban - nearby physician	14	acceptable
10	m	66+	35	L	urban - shopping area	11	good
11	f	36-45	2	S	rural - main / through street	7	good
12	m	56-65	25	M	outlying area - nearby physician	15	acceptable
14	f	56-65	9	S	rural - nearby physicians	16	good
15	m	56-65	35	L	outlying area - shopping area & nearby physician	15	acceptable
16	m	46-55	20	S	urban - shopping area	5	good
17	f	36-45	2	S	urban - shopping area & residential area	8	good
18	f	36-45	11	M	rural - nearby physicians & main street	12	acceptable
19	m	56-65	28	L	urban - shopping area & main street & nearby physician	16	good

Source: own data from questionnaire; location information based on researcher's observation

The sample includes a relatively high number of large pharmacies. Size was perceived a potential factor influencing service provision due to the difference in resources (Saramunee et al., 2014). Size categorisation of the participating pharmacies was assessed by the researcher. Pharmacies in Germany tend to be categorised according to turnover, which was not available to the researcher for confidentiality reasons. Knowledge of an individual pharmacy's turnover would have allowed deducing a pharmacist-owner's personal income range, which was thus not asked for and not provided. Yet, knowing the turnover would not have helped, as publicly available reports only refer to the average and the median ('typical') pharmacy and does not provide turnover categorisation thresholds. Hence, a definition was created comprising three factors as shown in table 11: size of the pharmacy premises in square meters, number of employees and number of branch pharmacies in addition to the main pharmacy.

Table 11: Size categorisation of pharmacies

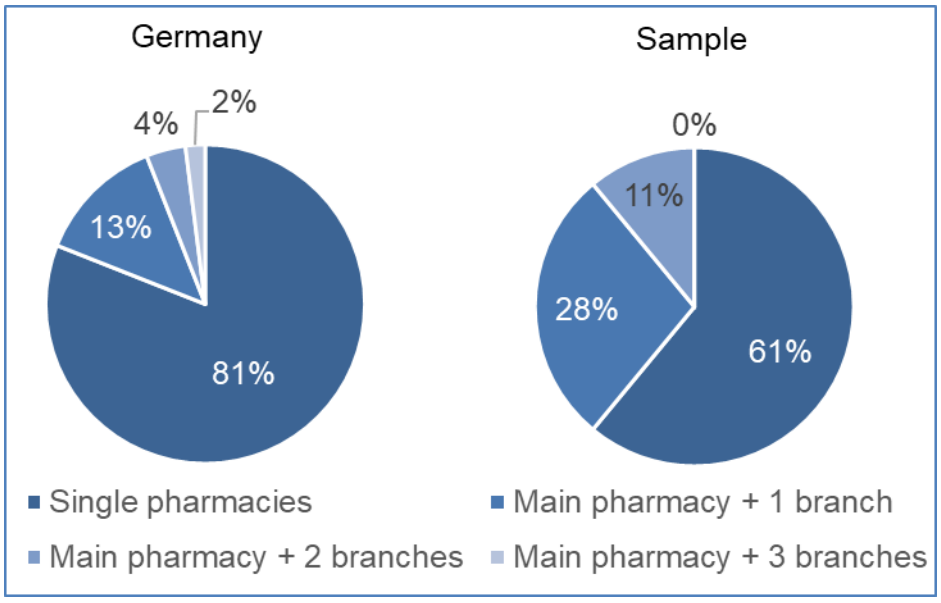
Size Category	Size of main pharmacy in m²	No. of branches	No. of owner plus employees in total
Small	120-160	0	1-7
Medium	161-235	0-1	8-14
Large	236+	2-3	15+

Source: self-assessed categorisations based on information from participating pharmacist-owners

The size of the pharmacy premises was provided by pharmacist-owners in the questionnaire and the average pharmacy size of 180 m² served as an anchor for categorisation. Regarding headcount, a pharmacy was assessed as small if the total number of full-and part-time and employees plus owner was below the average number of 7.6 people (including the owner) working in a German community pharmacy in 2015 (ABDA, 2016). For pharmacies with branches, the total number of employees (full-time and part-time) was used as these pharmacies were regarded as one business. The number of branches in addition to the main pharmacy was added as a third factor as official numbers for comparison exist. However, the number of branches

would not have sufficed as there are quite large single pharmacies that would have been inappropriately categorised. A pharmacy was categorised into a group if it met at least two out of three criteria for the respective group. For instance, pharmacy 17 was categorised as small as it consists of only a main pharmacy, employs four people including the owner, and has a size of 120 m², whereas pharmacy 7 was categorised as large due to the large size of 300 m² and having 27 employees despite consisting of only a main pharmacy. Figure 31 shows that compared to the ownership distribution in Germany, large pharmacies are over-represented in the sample.

Figure 31: Distribution of pharmacy ownership by no. of branches in Germany and in the sample



Source: (ABDA, 2016) reflecting 2014 numbers, own data

As statistical representativeness was not the aim of the study, the sample was not selected to represent a miniature version of the German pharmacy landscape. However, the 'over-representation' of large pharmacies already indicates that pharmacy size is an important contextual factor for service provision, as the pharmacies were selected based on providing one or more professional services.

Similar to size, location was also a presumed contextual factor influencing service provision. Most pharmacies in the sample were located in urban areas, two pharmacies in outlying areas and three in rural areas. Aside from an urban / rural distinction, pharmacies differed regarding more specific

factors, i.e. whether the location was in the city centre (in urban areas), a shopping centre, a main street, a residential area and / or nearby a physician. Some pharmacies had locations combining several location factors. Location was assessed by the researcher after visiting the pharmacies, since all but one of the interviews were conducted at the pharmacy premises. The location of the pharmacy from the telephone interview was assessed by asking about the location factors and checking the location on Google® maps.

As the competitive environment of pharmacies was also assumed to influence service provision but the impact of competition is inconclusive (Heinsohn & Flessa, 2013), pharmacist-owners were asked how they perceived the competitive pressure on their pharmacies in their catchment areas to assess whether and how the competitive environment may influence service provision. The majority perceived their competitive environment as good or acceptable, whereas three pharmacist-owners perceived it as difficult, and only one perceived it as very good. The latter (P03) had no nearby competitors and therefore felt to be in a comfortable position. Nevertheless, P03 had invested into the pharmacy, focused on good counselling, and invested into his team. Hence, pharmacist-owners' perception of their competitive environment is different to the perception of their own competitive strength and their responses to managing their business, as most pharmacist-owners thought themselves to be better positioned than their competitors. For instance, P08 perceived the competitive environment as difficult but believed that her pharmacy was in a very good position to respond to it based on superior skills regarding innovation, counselling, and marketing. Regarding location and competitive environment, there were no statistics to compare the distribution of these attributes of the sample with that of all pharmacies in Germany. However, the sample shows a large variation of combinations of location and assessment of competitive environment and other attributes (e.g. age, gender, or number of services). Hence, the sample provides insight from pharmacies differing in their contextual attributes, thereby increasing the thickness of data in relation to context.

5.3 Description of the services provided

The results from the questionnaire show that pharmacist-owners provided a portfolio of professional and non-professional services. Table 12 gives an overview of the services provided in the participating pharmacies and the services analysed in the different service categories.

Table 12: Overview of types of services offered by participating pharmacist-owners

Services offered by pharmacist-owners (n=18)	services offered	services analysed
Non-professional services	53	5
Medicine home delivery	17	2
Rental of medical equipment (e.g. breast pumps)	16	1
Customer card	15	1
Mail order licence	4	0
Extended opening times	1	1
Professional services	154	60
Travel medication counselling	18	0
Immunisation counselling	18	0
Medicine interaction check	18	0
Fitting of compression stockings	15	5
Diagnostic tests	12	0
Nutrition counselling / weight management	15	6
Medication use review	4	4
Smoking cessation	2	0
Other (specialised) services	52	45
Total number of services	207	65

Source: own data

Service provision differed amongst the sample regarding the number and type of services, which was to be expected, due to the range of different services offered in German pharmacies. In total, respondents reported offering 207 services, thereof 154 professional and 53 non-professional services.

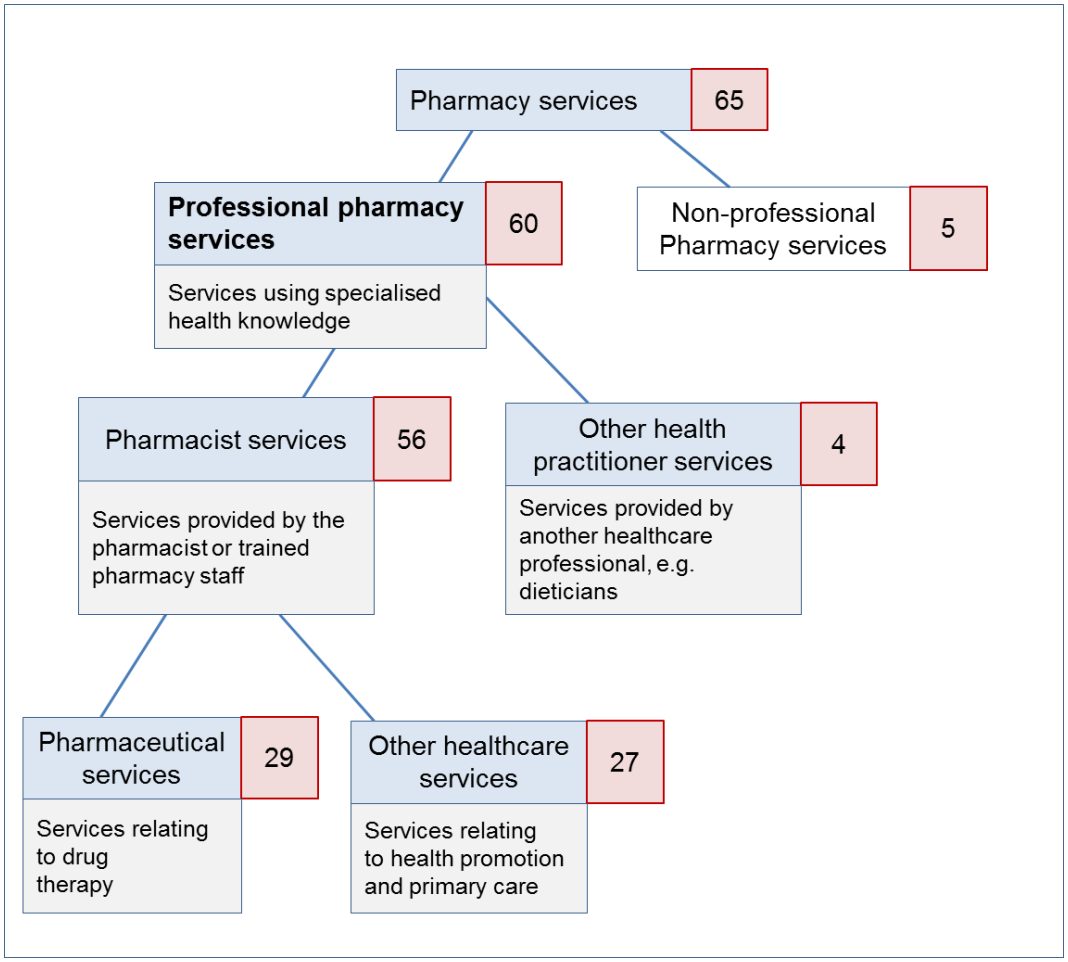
Some of the services were offered by all, or nearly all, of the pharmacist-owners. Examples of such ‘standard offerings’ amongst the non-professional services are medicine home delivery or rental of medical equipment; amongst the professional services these are travel medication and immunisation counselling, or medicine interaction checks. One result from the interviews was that the professional services offered differed in their importance for the pharmacies. Some services were less important, but were kept in the portfolios to respond to patient needs or expectations. For instance, travel medication and immunisation counselling services, which according to pharmacist-owners (e.g. P01, P04) are relics of the pre-internet age when pharmacies were consulted for such information, are provided upon request. Similarly, diagnostic tests are relics of the discontinued family pharmacy programme and formed part of the standard offer. Some pharmacist-owners also reported providing counselling services such as medication checks or smoking cessation upon request but these were not perceived as fixed part of their pharmacies’ service offer.

Hence, from the 207 recorded services, 60 professional and 5 non-professional services were analysed, representing the services pharmacist-owners regarded as most important for their pharmacies. This selection, given the interview approach, focuses on specific professional services, which pharmacist-owners had advertised on their websites and which emerged as interesting or important during the conversations whilst filling of questionnaire, appeared to offer the most suitable insights to answer the research questions. Likewise, the method of in-depth and semi-structured interviewing resulted in pharmacist-owners spontaneously providing examples of non-professional pharmacy services that they regarded as successful. Whilst not the focus of the research, these services were included in the analysis to provide a more holistic view on the role of services and the service provision process and to discern any potential differences between the service types. Furthermore, accounts on discontinued or planned services were used in the analysis to deepen the understanding about the service development process and to ascertain developing explanations. Medication interaction check services, however, were not included in the analysis. Whilst being an important professional pharmacy

service, it is part of the mandatory counselling during medication dispensing, and thus, in principle, provision of this service is not down to the pharmacist-owners' choice. Pharmacist-owners also perceived this service as their professional duty (e.g. P01, P02). This is reflected in the questionnaire results as all respondents offered this service and confirmed having the necessary IT programs with up to date information alerting them on potential drug-drug interactions during prescription checks.

Based on the definition developed by Moullin et al. (2013, p. 990) the 65 analysed services could be grouped as shown in figure 32, demonstrating a high variation but also a good balance of the 60 professional pharmacy services, especially between pharmaceutical services (relating to drug therapy) and other healthcare services (relating to health promotion).

Figure 32: Model of professional pharmacy services with number of analysed services per service type



Source: own data sorted by the service type definition of Moullin et al. (2013, p. 990)

Pharmaceutical services include medication compounding services (e.g. cytostatic drugs), which are core professional pharmacist services but are not explicitly mentioned in the model by Moullin et al. (2013) - as the model's focus is on counselling services. Yet, compounding services fit the definition, as the medications are produced individually for single patients thus helping to optimise the process of care.

The 60 professional services were heterogeneous as they differed regarding target group (e.g. diabetics, asthma patients, patients needing compression therapy, patients with weight or dietary issues, patients interested in alternative medicine etc.), frequency of provision, perceived success and importance to the pharmacist-owners. Remuneration for services also differed. Breast pump rental and fitting of compression stockings were the only services provided upon prescription for which pharmacists received remuneration by health insurers. Few services were provided against a service fee and most services were provided free of charge. In many cases, service provision was in connection with prescription filling or the sale of self-medication or food supplements (e.g. HIV service, cystic fibrosis service, asthma service, diabetes service).

5.4 Dual role and the perspective of service provision as a business decision

5.4.1 Role orientations and functions of services within the pharmacy business model

To elucidate potential links between role orientations and professional service provision and to enable comparison with extant literature, how pharmacist-owners described their roles and what importance and affinity they attached to the business and healthcare professional roles was first analysed. As will be shown in the following, respondents appeared to have a high healthcare professional and business role orientation and the traditional dispensing-based pharmacy business model influenced pharmacist-owners' perception of key tasks and eventually of the role of PPS within their pharmacies. Cues regarding roles and role orientation were taken and

analysed from pharmacist-owners' answers to the questions about pharmacists' tasks, the importance of business knowledge, role conflicts and from comments of the research participants during the interviews, which had been coded accordingly.

5.4.1.1 Dominance of the dispensing-based business model consisting of healthcare professional and business roles

The interview analysis showed that traditional dispensing tasks dominated pharmacist-owners' accounts due to their central role for income generation and business viability. The importance of the traditional dispensing-based business model is manifested in pharmacist-owners' spontaneous replies to the question "what does a pharmacist do?", adopted from Al Hamarneh et al. (2012, p. 58), which are shown in table 13 and were mainly product-focused.

Table 13: Spontaneous role description - importance of traditional dispensing role

Spontaneous role description ("What does a pharmacist do?")	No. of pharmacist-owners
Medication supply /dispensing and counselling	8
Counselling	4
Medication supply / dispensing	4
Business	1
n/a	1
Total	18

Source: own data, based on Al Hamarneh et al. (2012)

The most frequent first reply to describe what pharmacists are doing was to supply medication (or to dispense medication, which was synonymously used) *and* counselling, i.e. dispensing with concomitant counselling. Other pharmacist-owners' first replies were only referring to either medication supply/dispensing or counselling and one (P10) stated that pharmacists do business tasks. However, the first reply tended to be supplemented by further descriptions, which then usually referred to either medication supply or counselling, which was also the case for P10.

This most frequent spontaneous reply regarding pharmacists' tasks in this research referred to ensuring "proper medication supply" to the public, which reflects pharmacists' key task as literally stipulated in the first paragraph of the Ordinance on the Operation of Pharmacies (*Apothekenbetriebsordnung*). "Proper medication supply" had a composite meaning for pharmacist-owners. It included having medication available, to provide patients with the correct medication but also to counsel patients on the correct use of their medication, i.e. the most frequent spontaneous role description includes both product-focused and patient-oriented elements.

P04: *"The main thing is, of course, to get the basics right, that means the medications must be available and we have to be able to say something qualified about it and to do good counselling."*

Furthermore, it reflects a co-existence of the healthcare professional role of concomitant medication counselling and the business-related role of managing inventories. Pharmacist-owners appeared to perceive them as a package, presumably due to the German remuneration system, where dispensing and counselling form a remuneration unit. For pharmacist-owners, this 'supply and counselling' role included checking for drug interactions, supporting medication therapy, and filling information gaps by being an interface between physician and patient. Medication interaction checks and contacting physicians to clarify medication prescription issues were seen as fixed part of the medication supply role and a professional responsibility.

P02: *"Yes, of course, that [interaction check, contacting physicians] is a must. That is all done. I did not mention it specifically because for me, those are obvious duties which automatically come with the responsibility of medication dispensing."*

Yet, it became clear that pharmacist-owners' main focus was on supply / dispensing of medication (both finished pack and individually compounded medications for both, prescription medication and self-medication), which not only reflects the public mandate of pharmacies in Germany but also constitutes the almost exclusive source of pharmacy income, as demonstrated by the following quote.

P01: *“Regarding statutory health insurance, we are only interested in doing our job so well that the patients like to come back with their prescriptions. Of course, we are happy to dispense as many prescriptions as possible, since this is our aim at the moment.”*

To maintain or increase income levels, pharmacist-owners need to obtain as many prescriptions as possible and as many customers as possible who purchase NPMs. This would also explain why only few pharmacist-owners solely mentioned counselling or patient-care aspects without connecting them to dispensing as spontaneous reply and why provision of professional services was not mentioned when talking about pharmacists’ tasks and preferences, indicating a relative subordinate role of services compared to the traditional business model, even within service-providing pharmacies which made up the sample of this empirical investigation. Thus, this dominance of the traditional dispensing-based business model needs to be regarded as a contextual structure that not only influences day-to-day practice, but also the overall PPS provision process.

5.4.1.2 Assessment of healthcare professional and business role orientations

The roles of pharmacist-owners identified in this research reflect the different tasks pharmacists perform and were comparable to those found in previous research in other countries (e.g. Elvey, 2011; Guirguis & Chewning, 2005) with slight differences likely owing to national pharmacy regulations and practices. Pharmacist-owners appeared to have a high healthcare professional and business role orientation. By attributing equal importance to healthcare professional and business roles, they demonstrate a dual role orientation comparable to that identified by Quinney (1963) and Kronus (1975). Regarding affinity towards different pharmacist tasks, pharmacist-owners showed a clear preference of the healthcare professional tasks (role) compared to the business-oriented tasks. Such higher affinity for the healthcare professional role was previously observed by (Pioch & Schmidt, 2001) in their work on German pharmacists and by Perepelkin and Dobson (2010) on Canadian pharmacist-owners and managers. The following shows manifestations of role orientation from the interviews.

Healthcare professional role orientation: All pharmacist-owners attributed high importance to the healthcare professional pharmacist roles, especially to counselling in connection with medication dispensing. The healthcare professional roles provided the foundation of and legitimacy for the pharmacy profession and personal professional satisfaction by being able to help patients. Pharmacist-owners perceived 'good counselling', especially, the patient-centred counselling role, as important and as constituting the basis of a pharmacy business. Good counselling meant being patient-centred, i.e. identifying needs and acting on them, being empathetic and friendly, and being competent and knowledgeable to provide patients with accurate information, to make judgements and to be able to help solving a problem.

P05: *"You must address [the patient] personally with professional competence. And this is the basis; I believe that without this it does not work. And then you can group everything else around that."*

Pharmacist-owners had experienced that many patients were not well informed about their condition or their medication; not only for new medication but even if a medication had been already taken for a longer period.

P06: *"And yes I think that it's important to also clearly mention that in the pharmacy, again, how the medicines should be taken. One always thinks that people know it when they have taken their thyroid tablets for years. […]. And when you then explain why one should ACTUALLY take it (laughing) the half hour before breakfast, then you still find people who are surprised. Then I always think 'oh, one should not underestimate this (laughing). One should better say too much than too little'."*

In connection with their duties pharmacist-owners saw themselves as the "*endpoint of the therapeutic concept*" (P17) and a control instance to ensure patient safety.

P12: *"The pharmacy is an immense control instance, without having documented this statistically, I would estimate that at least 20 percent of all prescriptions need amendment."*

Pharmacist-owners saw their importance in giving patients time and filling information gaps left by physicians (as physicians are pressured to treat high

numbers of patients quickly) or to act as reminders for patients who might have forgotten what their physician had told them.

P02: *"We are a necessary cog in the wheel to help patients to manage their medication, because the physicians don't have time. They may also not have the knowledge. In a physician practice, people are in and out in fifteen minutes. And then they stand in front of ME with all their open questions."*

Pharmacist-owners also expressed a high affinity towards the patient-centred aspects of the healthcare professional role. Being able to prevent – potentially serious - drug-related problems and being able to help patients was a source of professional pride, satisfaction and meaningfulness, as demonstrated by the following quotes.

P01: *"Well, it is a very fulfilling moment, when the patient, when one detects an error, when one could help and make the patient 'happy' […]."*

P03: *"Or we are really utilised for HARMLESS conditions: skin conditions, allergic conditions, common colds and so on. Where people really have questions and where we can really counsel them. (…)"*

Overall, pharmacist-owners preferred tasks which are professional, where professional expertise is needed and wanted, and can be applied to solve problems.

Healthcare professional role orientation manifested in the application of professional values. Such healthcare professionalism was generally demonstrated by providing good counselling, being empathetic and putting patient interest first. These values were in line with patient-centred professionalism elements identified in a study on UK pharmacists (Elvey et al., 2015).

Additionally, the professional role required pharmacist-owners to use a range of abilities or skills, which were applied mainly during prescription filling and dispensing, but were also needed to the provision of professional services. These were having up-to-date (clinical) knowledge and systems, making judgements, having communication skills, and being empathetic. Exemplary quotes are shown in the following table:

Table 14: Manifestations of professional values

Professional value	Manifestation	Exemplary quote
Putting patient interest first	• recommending home remedies instead of selling a product • finding effective and cost-efficient solutions for a patient • dissuading from an unnecessary purchase • knowing one's limit and sending patients to see a physician	*"Yes, exactly. We also dissuade, we do not sell 'by hook or by crook'! And when we realise that we have reached our limits, also regarding medication, […], that I say, 'No, this cannot be treated with [branded product] anymore. With this, please go see a physician!'"* (P03)
Making (clinical) judgements	• making judgements about what and how to tell patients • judging the need to inform physicians • weighing the seriousness of a drug interaction versus the importance that the patient takes the medication	*"[For interaction checks] there are different levels, of course, where I can [see] 'severe' or 'minor', then the question is, is it important that he [the patient] takes it [the medication] and damages himself or that he does NOT take it and damages himself even more. Well, one has to be able to make this judgement." (P10)*
Communi-cation skills	• conveying the message to support the medication therapy set by physicians • achieving that patients are put at ease and take their medication	*"Because (…) one is in a conflict then. I mean, one cannot totally unsettle the patient. If the physician says he is supposed to take the medication like that. And then one asks rather cautiously, whether he takes it over a longer period already and whether he tolerates it well." (P06)*

Source: own data

Empathy, friendliness and patience were also regarded important for counselling, since as P17 put it "*we are usually dealing with sick people*".

Business role orientation: Whilst the healthcare professional role provided professional pride and legitimacy, the business role was regarded as important to achieve financial viability of the pharmacy business. Having business knowledge and engaging with business administration and management topics was seen as necessary for survival due to increasing economic pressure from healthcare reforms and subsequent margin reductions, which appears to be similar in other countries (Woods et al., 2015). The business role orientation was evident in the pharmacy being a business with the main goal to generate income, which leads to activities being geared towards this goal. Being especially important for the financial viability of a pharmacy, all respondents placed high importance on managing their inventories focusing on cost, cash-flow and supply readiness. This reflects the product-focused business model of German pharmacies, as demonstrated by the following quotes.

P05: *"Well, ultimately we MAKE A LIVING by selling. The pharmacist is a businessperson, also from the legal status."*

P19: *"[…] eventually it is the purpose of this [pharmacy] business to be economically viable, to earn money, and to pay the people who work here."*

The importance of having business administration skills was further reflected by many pharmacist-owners reporting having attended business administration and management courses (e.g. P03, P06, P11) and the need to have a good tax consultant (e.g. P04, P10).

P07: *"Well, the foundation is the pharmaceutical work. Definitely! I would NEVER question that. But if one wants to run a business VERY successfully, THEN a reasonable business-administration knowledge base is EXTREMELY important."*

Whilst showing high levels of business role orientation, i.e. attributing high importance to the business commercial role, pharmacist-owners' affinity to this role was mixed, but overall lower compared to the well-liked healthcare professional roles. Due to increasing pressure on pharmacy margins, the business commercial role tended to be viewed, like P09 put it, as "*tedious but more in the focus".* In addition, the cost containment regulations, most prominently handling of discount contract issues, meant an increase in

bureaucracy and additional work which was perceived negatively by pharmacist-owners.

P08: *"This additional overburdening with ALL possible obligations, be it legal or contractual, which take AWAY our time for what we really like doing, for which we have taken up the profession originally - to be there for patients, to care for patients. This really gets impaired. The time we need for this whole bureaucratic crap is missing in other areas."*

This quote also shows that patient care, which ultimately includes professional services, competes with administrative requirements for time and resources. As fulfilling administrative requirements is directly related to income generation from the prescription business, these activities have the power to override healthcare professional tasks.

'Business professionalism' similar to healthcare professionalism was not clearly discernible. However, it emerged from the analysis that pharmacist-owners used a range of business management tools and practices and applied business-related skills, albeit in different combinations and intensity. The business tools, practices and skills were aimed at ensuring the financial viability of the pharmacies and were thus primarily related to the traditional dispensing-based business model. All pharmacist-owners focused on optimising inventories and supply readiness, i.e. having medications (prescriptions and NPMs) demanded by patients instantly available for dispensing. Optimising inventories was done by identifying and delisting slow sellers, monitoring patient demand, monitoring discount contract requirements and abstaining from storing high-priced medications to maintain liquidity of the business (and rather ordering them upon patient request instead), as well as achieving good purchase conditions and adapting inventories accordingly. Having elaborate processes and systems in place constituted an advantage in terms of liquidity and patient satisfaction.

Further management activities were general business planning, e.g. via analysing key performance indicators (e.g. P02), and / or setting targets and controlling for achievement (e.g. P01), whereby planning horizons tended to be short-term, i.e. not exceeding one year. Long-term planning was seen as

unnecessary as pharmacist-owners wanted to be flexible and able to react to changing healthcare trends and opportunities.

P01: *"Annual plan or short-term plan? We are clearly driven by everyday life, what has to be done now, what new changes have happened to which we have to adapt to?; but the rough direction, for example in which customer segment do we want to grow, what is an interesting market, what are our target numbers, this is explicitly stipulated in the annual plan."*

Using the mandatory quality management system (QMS), had helped pharmacist-owners regarding planning and (process) optimisation activities.

P03: *"As pharmacy, since four years ago we are ISO-certified[4]. And now I can, I know what a business plan is for. We now have one. We now have a regular management review which we have to submit for our QMS, but this did not exist in former times."*

Additionally, the QMS did not only function as a tool to ensure quality of the pharmaceutical tasks but also seemed to 'educate' pharmacists towards business professionalising.

P18: I: *"Did the QM bring any advantages?"*

P: *"Yes, [the advantages are] that somehow certain structures are reconsidered. Also, that long-time routinised practices are questioned. Are these really useful? And to document things in writing. In this moment one often realises that one does not handle an issue optimally."*

In some pharmacies, business management practices were used to support healthcare professionalism. P08, for example, reported using a bonus system for employees, which rewarded overall performance of the pharmacy as a team effort instead of individual bonuses, thereby avoiding an internal competition for servicing the more lucrative patients.

[4] Refers to ISO 9001 certification: "The ISO 9000 family addresses various aspects of quality management and contains some of ISO's best-known standards. The standards provide guidance and tools for companies and organisations who want to ensure that their products and services consistently meet customers' requirements, and that quality is consistently improved." (International Organization for Standardization, n.d.)

P08: *"I absolutely don't think much of handing out individual bonuses, because, in my opinion, this leads to a very problematic internal competition. Everyone knows who is a lucrative customer, who then gets all the attention and the other five customers get left waiting. This cannot be. This is rather counter-productive. Thus, I have made positive experience with this team-effort based bonus, as this adds to [employee] motivation."*

Contextual influence on role orientation: Whilst there were nuanced differences between individual pharmacist-owners regarding their perceptions about the importance of, and affinity to, the healthcare professional role, no distinction could be found relating to age, gender, years of practice, location or pharmacy size. However, pharmacy size seemed to influence the affinity for business and management roles. Handling the administrative work and increasing bureaucracy was more difficult for smaller pharmacies as they have fewer resources to manage the additional requirements.

P14: *"One spends the other 50 percent with NON-pharmaceutical tasks, office work, writing cost estimates and supply announcements, and, and, and. […] If a specialised employee is available, the employee does this of course, but there are times when this is not the case. Then I have to do EVERYTHING."*

Owners of larger pharmacies tended to have a more positive attitude towards the business and management role. For some of them (e.g. P03, P08), having business administration skills, achieving satisfactory business results, and running the business well with an engaged team also provided satisfaction. Attributing success of their pharmacies to having and applying business knowledge, owners of larger pharmacies were also more advanced in professionalising their pharmacies and used a greater variety of business management practices and tools more systematically across their firms. The tools used were benchmarking (e.g. P15), obtaining customer feedback (e.g. P04), market research (e.g. P15), specialised software and technology (e.g. P09), working with external consultants (e.g. P03), and using human resource management tools such as annual reviews (e.g. P08), or 360-degree feedback (e.g. P03). They also seemed to do more planning and use more planning tools compared to owners of smaller pharmacies. Overall,

larger pharmacies seemed advantaged due to their financial and personal resources. These allowed them to invest into consultants, additional information for optimisation, but also into technology such as dispensing robots (e.g. P04, P09, P15) thereby saving time that can be used for (additional) counselling.

5.4.1.3 Role ambidexterity: Impact of role orientations on the pharmacy business model

As the general pharmacy business model in Germany is geared towards the traditional core pharmacy task of dispensing medication with the concomitant patient counselling activities, pharmacist-owners indicated that business viability ultimately depends on having a sufficiently large customer base, which constitutes a resource for a pharmacy. The dispensing-based business model thus reinforces activities linked to developing and retaining such customer base. It emerged from the interviews that despite their different nature, both role orientations had their function in building and maintaining a loyal customer base, thereby generating income from the prescription and self-medication business. Furthermore, pharmacist-owners acknowledged that they were both healthcare professionals and running a business. The analysis indicates that the two roles are constantly balanced to deal with role conflicts but also to align the roles with the necessities of the business and to achieve an advantage for the business. Hence, in the following, such targeted application of both roles was termed “role ambidexterity”. Ambidexterity is seen as a way of dealing with managing a duality usually regarding exploitation of current and exploration of new business (Markides, 2013). Role ambidexterity thus means managing the dual role inherent in pharmacy practice, accepting the roles’ respective importance and functions and applying them appropriately to the pharmacy business and PPS provision to make best use of existing resources. This is exemplified in the following quote:

P18: "*And the business does not only run smoothly by assiduously counselling patients, one must also get best possible purchasing conditions and bundle recommendations; we do that, for example, by defining which products are recommended for which indication, which in turn impacts positively on purchasing."*

This demonstrates that, due to the importance of generating income through dispensing and the sale of NPMs, aside from providing good counselling, business and management tools were applied to ensure business viability. The following shows how role ambidexterity is applied to create a competitive advantage within the core supply function of the traditional dispensing-based business model. Healthcare professional orientation and business orientation both contribute to gaining and retaining customers by generating income through different pathways.

Healthcare professional role orientation including healthcare professionalism was not only a value in itself to help patients and provide professional satisfaction. It was also identified as a mechanism for value creation for the pharmacy business by building trust through counselling, putting patient interest first and helping to navigate business - healthcare professional conflicts. Pharmacist-owners appeared to be interested more in the value created via putting patient interests first than in making short-term gains. Most respondents had experienced that counselling was appreciated by patients and resulted customer loyalty through trust-building, thereby generating income for the pharmacy. In addition, respondents were aware that patients have the power to 'vote with their feet' and choose a competitor pharmacy if they feel that they get bad advice or the pharmacist focuses on his own business interest. This strengthened the need for healthcare professional orientation to balance healthcare professional-business conflicts.

This is in line with the literature as enacting professionalism was identified to be linked to building reputation (de Araugo & Beal, 2013). Trust in the community pharmacist was found to be the most important driver for patient satisfaction and store loyalty in pharmacies (Castaldo, Grosso, Mallarini, & Rindone, 2016), whereby healthcare professional values such as service quality and sincerity were found as the means to build trust (Perepelkin &

Zhang, 2014). This principle appeared to have been internalised by pharmacist-owners as the concept or strategy for running their pharmacies, as illustrated by P02.

P02: *"I certainly also take an interest in this, because the customer will come back as a regular. People feel whether one decides according to their interest or not. That is my concept."*

Trust-building was related to professional values and overcoming potential conflicts inherent in dual nature of the pharmacy profession, which pharmacist-owners were aware of.

P16: *"Yes, of course. [Conflicts exist] every time someone wants counselling for a purchase."*

This meant constantly striking a balance regarding the regular pharmacy tasks as well as in service provision based on personal judgement. Examples are weighing the refusal to sell a product against losing patients if they did not get what they want (e.g. when pharmacist-owners suspected abuse of nasal spray or laxatives) or selling a product against sending patients to a physician.

P12: *"Yes they [conflicts] exist and one has to draw a clear-cut line for oneself and say – stop! What would be economically beneficial might not be justifiable ethically, medically, or pharmaceutically, […]."*

Application of healthcare professionalism thus provided guidance for navigating business - healthcare professional conflicts. Many pharmacist-owners, for example, devised product recommendation bundles (e.g. P01, P08, P14, P15, P18), which were based first on pharmaceutical considerations of evidence base, efficacy and quality and second on economic benefits for the pharmacy to balance patient and business interests.

P14: *"We primarily take products of which we are convinced and if there are several equally convincing products, we decide in favour of the best purchase price. Then we say, 'Well, we have purchased this and that. This has to be recommended preferably with such and such rationale'; because we sometimes have to justify the product choice to patients."*

Furthermore, within the context of a limited market, high density of pharmacies and internet pharmacies in Germany, applying healthcare professionalism, i.e. providing patient-interest oriented counselling and building trust, was believed to provide a competitive advantage.

P01: *"I think that we have a very high competitive situation in [this city]. Also in this case it prevails to bind customers via counselling and care, via the personal relationship."*

Such competitive advantage not only helped to bind customers, but also functioned as a means to gain new customers from competing pharmacies or as defence against aggressive competitive activity.

P08: *"And the success, including the gaining of additional customers, especially in the pharmacy where we have a high share of counselling on over-the-counter medications, shows that this concept is accepted by customers, since these customers must have gone away from other pharmacies. So we see that competing on quality actually works."*

Having a good financial position was seen by some pharmacist-owners as supportive for putting patient interests first (e.g. P02, P03, P08).

P03: "*And we are in the lucky situation, the pharmacy is quite LARGE, we generate sufficient turnover, to - I am saying that explicitly – not having to sell any crap."*

Generating sufficient profits (through prescriptions) not only provides the financial security to support healthcare professionally oriented behaviours but it instigates a virtuous circle through building a solid customer base which allows continuation with behaviours congruent with pharmacist-owners' professional role/values. However, the above quote insinuates that there may be pharmacists who put their interests before that of the patient. It further insinuates that not having to worry about income may be a buffer against questionable behaviours such as selling unnecessary medication (and that being in an uncomfortable financial position may result in the contrary). As such, it raises an issue about the credibility of pharmacist-owners' statements regarding ethically sensitive topics such as role conflicts and healthcare professionalism and whether it impacts on the interpretations and explanatory frameworks developed from the interviews. As pointed out in section 4.3.1, respondents' answers could be biased by social desirability,

i.e. saying that they refrain from a (non-prescription) sale if that would not be in the patient's best interest even if that was not (always) the case. Likewise, they may provide less counselling than reported in the interviews. Whilst pharmacist-owners differed in their approaches to their business and whilst it is probable that unnecessary or expensive NPMs are sold (which P18 indicated is done when the patient insists on it), all respondents were interested in keeping their customer base. It is therefore believable that most of the time pharmacist-owners are following their stated concept of putting patient interest first.

Business role orientation was linked to ensuring high levels of supply readiness. Having high levels of supply readiness, i.e. optimised inventories, was very important to all pharmacist-owners as a major element to generate sales but also to achieve customer satisfaction and retention. Not being able to fill a prescription immediately causes inconvenience for the patient (has to come back) or to the pharmacy (has to deliver the medication to the patient's home). It also reduces the likelihood of losing the sale or the patient to another pharmacy. Hence, within the traditional dispensing-based business model, business orientation just as healthcare professionalism, acts as a mechanism for customer retention.

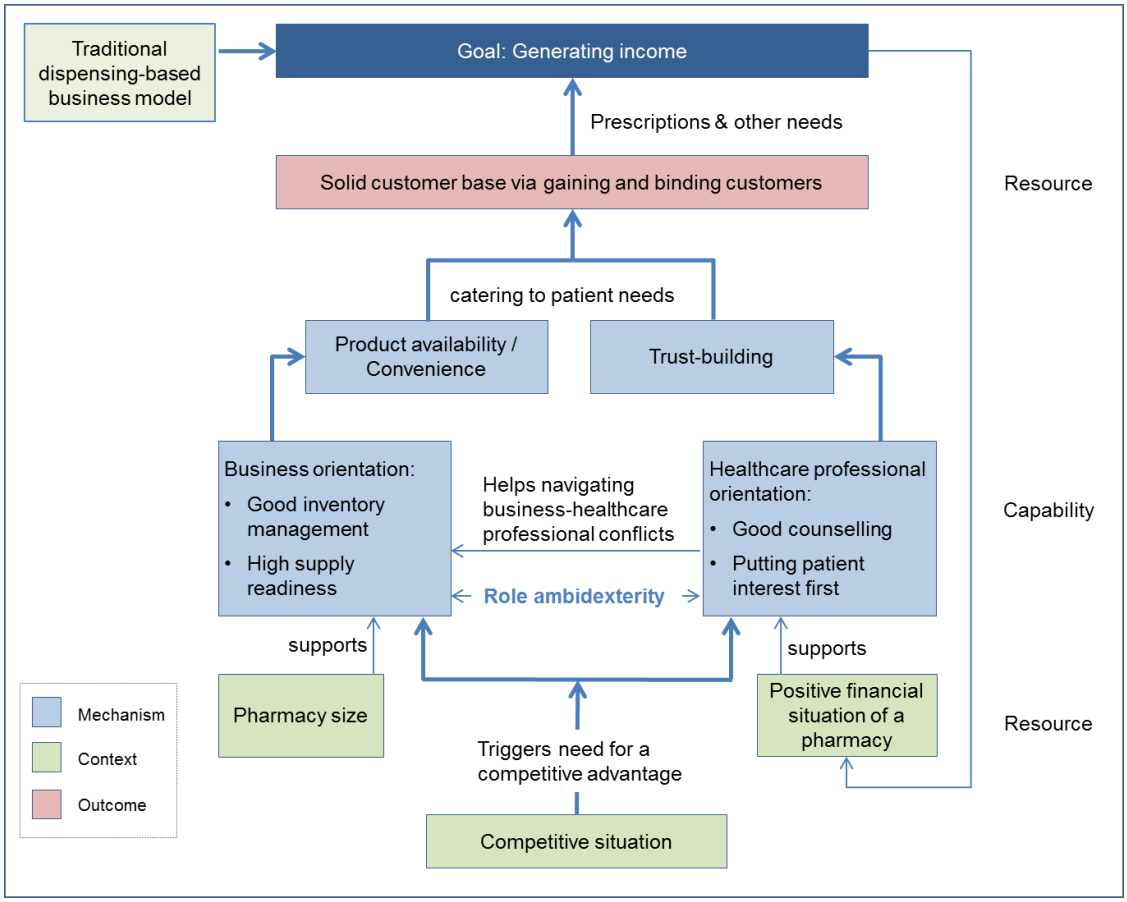
Figure 33 highlights the two pathways used to gain and bind a solid customer base and sustain income generation via role ambidexterity, i.e. the targeted application of healthcare professional and business aspects, influenced by contextual factors of pharmacy size, financial resources and competitive situation. The perception of the competitive situation of a pharmacy appeared to be a trigger for the healthcare professional and business mechanisms to build customer loyalty, since pharmacist-owners did not want to risk losing customers. Whilst the role of professionalism in building trusting relationships and customer loyalty in pharmacies, echoes the pathway identified by Elvey et al. (2015); Perepelkin and Zhang (2014); and Planas et al. (2005) as shown in the CMO configuration shown in figure 18, the results add a concomitant business-oriented pathway focused on supply readiness. This means that fostering trusting relationships through having patient-oriented counselling skills *and* having an effectively optimised inventory management

system to enable immediate fulfilment of patients' medication needs is important to build a solid customer base and to secure constant income generation. This was the prime strategy of P04, which appeared to pay off demonstrated by the result of a survey on retailers in P04's city.

P04: *"And that [survey] was done four times and the last three times, we were the best pharmacy; in this sample, we have the best supply readiness and we are the nicest pharmacy and we provide the best counselling."*

This suggests that role ambidexterity constitutes a competitive advantage over pharmacies less capable to achieve this.

Figure 33: Combining healthcare professional and business orientation to create a competitive advantage



Source: own illustration

The dual role inherent in pharmacy has been suggested to affect pharmacy practice in general and PPS provision in particular, whereby the influence of business-oriented role and the retail environment is suspected to be negative for healthcare professionalism (Wingfield et al., 2004). However, somewhat

contrary to such negative preconception, based on the analysis of role orientations, figure 33 shows that, for pharmacist-owners both roles are an integral part of running a pharmacy, and eventually PPS provision. Healthcare professional orientation, in the form of a general 'patient first guideline' was not only to be a value in itself but can be considered a mechanism to achieve business goals as customer loyalty was found to be linked to profitability (Anderson, Fornell, & Lehmann, 1994). This means that the insinuations that business orientation may be detrimental to the profession may hold, but only under specific circumstances. As the current findings suggest that pharmacists tended to be dependent on their regular customers and the relative high pharmacy density in Germany, this may foster healthcare professionally oriented behaviours. Hence, deviating behaviours should be more likely when business orientation is high, competitive density is low and / or the pharmacy has a high influx of one-time customers.

5.4.1.4 Function and Importance of professional services within the overall pharmacy business: between income generation and marketing tool

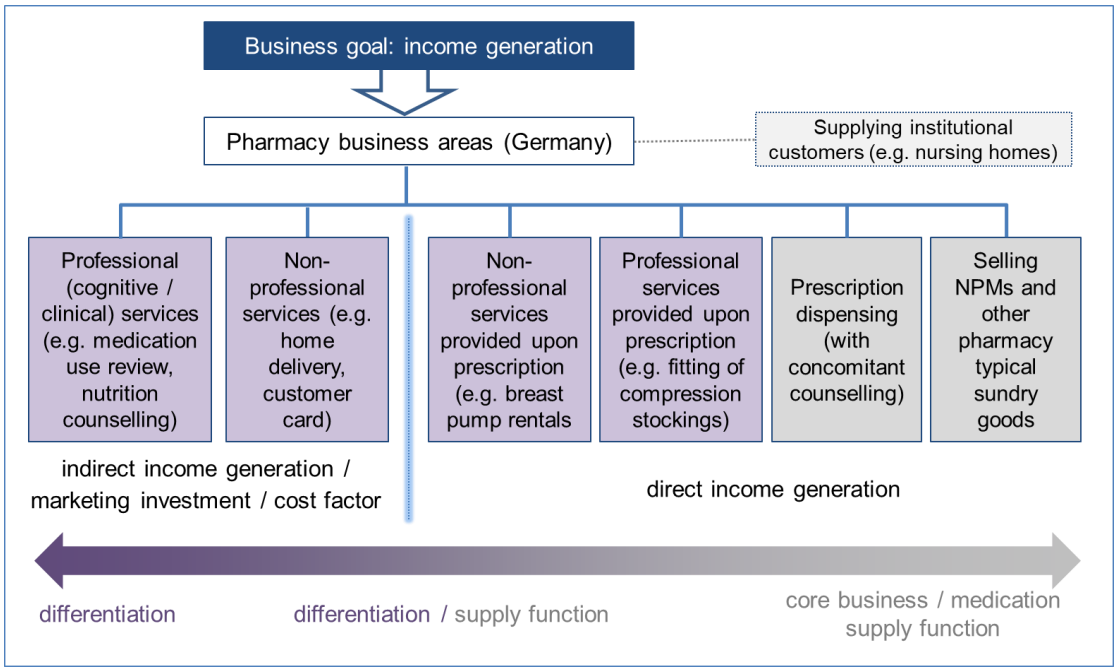
Based on the importance of having or building a solid customer base to generate income through the traditional dispensing-based business model, findings from this research suggest that service provision (of professional and non-professional services) is not a goal in itself and that services were primarily perceived as additions to the core pharmacy business model.

P04: *"…and that is where one says, okay, how can we be a bit better than our dear competitors? With many small things and many mosaic pieces."*

This indicates that a competitive pharmacy offering is made up of different elements. This is confirmed by the results from the questionnaire and the service analysis, which show a multitude of different offers per pharmacy including professional and non-professional services (e.g. delivery services, P11, P15), one-off activities such as testing for venous insufficiency (e.g. P18), offering focus assortments such as homeopathy (e.g. P10, P12) or cosmetics (e.g. P04, P15), or price promotions on self-medication products

(e.g. P07, P15). Most pharmacist-owners also supplemented their business by supplying nursing homes or other institutional customers with medication as additional income source. Some pharmacist-owners even emphasised the importance of having several sources of income (e.g. P07, P09). Figure 34 shows the different pharmacy business areas identified from the interviews, i.e. the core areas of medication supply consisting of prescription dispensing and selling NPMs and other goods (sometimes supplemented by supplying institutional customers) in the grey boxes as well as professional and non-professional services in the purple boxes.

Figure 34: Functions of services within the pharmacy business model



Source: own illustration

The service analysis uncovered that the services had different functions for pharmacist-owners within the pharmacy business model in relation to income generation. Whereas some services were directly and in some cases even substantially contributing to income generation (e.g. cytostatic drug compounding), the contribution to pharmacy income was indirect for most other services. These services, including the cognitive or clinical professional services, rather function as marketing tools aimed to differentiate the pharmacy from the competition and to attract and retain customers, who then obtain their medication needs at the pharmacy, as indicated by the following quote:

P18: *"Well, yes, as I said, sometimes one also generates additional sales through that and then we have what I mentioned before, that one cannot directly measure this but indirectly increase customer satisfaction and footfall into the pharmacy, right?"*

This is not surprising, given that German pharmacy marketing experts suggest to seek differentiation through additional services (Benatzky, 2016b). Yet, services in this group also differed regarding their contribution to income generation based on their ability to attract (prescription) business. Whilst some services were instrumental in indirectly supporting income generation, others were rather perceived as marketing investments and a third group even as cost factors (e.g. home delivery).

Thus, services differed in their importance for the pharmacies. Services remunerated via prescriptions and therefore directly related to income generation tended to be perceived as very important. These services were fitting of compression stockings (P01, P11, P19), special compounding services, such as cytostatic and sterile drug compounding (P03, P07, P09) or provision of spagyric mixes[5] (P01, P17). These services were perceived not only as important income generators but also served as differentiators. Similarly, some of the services provided free of charge had gained a comparable status for pharmacist-owners, for instance when services attracted a specific patient group with multiple medication needs such as HIV, multiple sclerosis, or diabetes, whereby the income through services was purely indirect via prescription sales.

The analysis further showed that pharmacist-owners offered several professional and non-professional services, which formed a service portfolio.

P19: *"And small mosaic pieces make a service portfolio. That's how one must see this. If one would meticulously calculate the cost, one would likely have to discard these things [services]. But altogether, putting one building block on the other is acknowledged by many regular customers and then it tends to work."*

[5] Spagyric medicines, with a legal status as homeopathic medicines, are a form of natural medicine based on ancient production methods and used, e.g. in the sole or adjuvant treatment of symptoms of a common cold (Riepl, 2015)

Overall, provision of single services was much less frequent than regular dispensing and counselling. Whilst this was not said directly by any of the participants, the reason seems to be that a community pharmacy's patronage base is diverse and a pharmacy has to cater to a range of healthcare needs. A single service thus only constitutes a small fraction of overall business for a specific patient group but offering several services enables reaching a larger range of customers. This reinforces the notion that the function for services in general is supporting the overarching business goal of income generation (from dispensing).

Due to the dominance and financial importance of the traditional dispensing business model, a pure service-oriented business model could not be detected. However, there were differences between pharmacist-owners how they approached PPS provision financially. In some cases, pharmacist-owners charged service fees; yet, these tended to roughly cover the cost but rarely contributed to profitability. Some respondents also reported having adapted their non-prescription assortment according to the service offer to supplement the income streams from the usually free of charge services. Hence, pharmacist-owners applied a mixed calculation, often hoping rather than measuring that in total the pharmacy gets a benefit from PPS provision.

5.4.2 Influence of role orientations on motivation and recognition of PPS opportunities

5.4.2.1 Motivators for PPS provision

Findings from the analysis show that motivation is the mechanism enabling the PPS provision process. This view can be supported by motivation theories which view motivation as being "energized or activated toward an end" (Ryan & Deci, 2000a, p. 54). Motivation for service provision was taken from pharmacist-owners' responses indicative of the reasons for providing services in general or picking a specific service. As the analysis showed that the function of services including PPS was mainly influenced by business interests, i.e. indirect income generation and differentiation, motivation for PPS provision was also predominantly oriented towards the goal of

supporting income generation through the traditional dispensing-based business model. Motivation could be broken down into different motivator subsets, which alone or in combination with other subsets reflected the purpose of service provision. These motivators, which are presented and elucidated in the following, were gaining and binding customers, building image and differentiating from the competition, building new business areas to generate income, as well as motivating staff, personal interest and wanting to help patients, whereby the latter is related to the healthcare professional role.

Gaining and binding customers: When screening and comparing the interviews, a strong motivation for service provision in general, i.e. for professional and non-professional services stemmed from a desire or need to gain and retain customers, which is in line with the core function of services within the pharmacy business model. It thus emerged to be general or universal motivation, as it appeared to be present irrespective of a concrete service opportunity, as pharmacist-owners believed that service provision will have a positive effect.

P01: *"Well, I would say that the basic idea of offering services usually is to have a customer loyalty tool, to bind customers. One has to honestly admit this."*

The number of loyal customers was thus an important key performance indicator (KPI) for pharmacist-owners. By returning with their prescriptions and self-medication needs, loyal customers provide the financial basis of a pharmacy.

P16: *"If they [the patients] like it, then they can come back and get their medications from me. I am happy to be available."*

To increase income, a pharmacy can increase the sales per customer or the number of customers. Thus, services are not only offered to bind customers to the pharmacy but also to gain new customers. This motivator was indicative of pharmacies with growth intentions.

P11: *"I have always decided for a service if it can generate new customers. That takes precedence. Because we are in the situation that we have many regular customers but we cannot generate more sales from these customers. This means that we could get more sales by binding new customers."*

It was then down to the pharmacist-owner and staff to convert newly attracted customers into regulars by establishing trust via quality counselling as illustrated by P15.

P15*: I: "So the purpose of all these activities is to pull customers into the pharmacy and to give them the possibility to form an opinion about the counselling?"*

P: "Correct."

I: "That means that the customer or patient has to come in and then it is down to you and your team, well, to excite customers in such a way that they come back?"

P: "Yes, that is exactly how it is."

This is a manifestation of role ambidexterity, since although gaining new customers is a business interest, the application of healthcare professionalism is needed to convince new customers.

Building image and differentiation from the competition: This emerged as another motivator for service provision linked to the business role, as the ultimate goal of image building is seen in attracting customers. P09, for example, not only perceived medication management reviews as medically useful, but also as a means to *"polish up the pharmacy's image"*, which was seen as a form of marketing in line with the Oxford dictionary definition of image which is "the general impression that a person, organisation, or product presents to the public" (Oxford Dictionary, 2017). Hence, building image is distinct from but feeds into the motivation of gaining customers. Professional services are the means to build image and to differentiate. This is a long-term endeavour but with the goal to have a unique selling proposition and expertise as illustrated below.

P05: *"You cannot do this [PPS provision] commercially-oriented, I do not make any money doing this; on the contrary, if you add up all costs, I provide this at a loss, that's logical. But I could imagine that this will bear fruit eventually, if I have built a certain expertise. I mean, ultimately, these people need a lot of medicines. People hear about it. Well, I think that one has to do a lot for the external appearance of a pharmacy, and I do not only mean optically – which is also important – but just for the image."*

Being recognised for a certain expertise by patients or other healthcare practitioners (HCPs) acted as differentiator meant to attract customers, ideally also from beyond the pharmacy's catchment area.

P12: *"Well, binding customers is important, that one makes additional offers, because I want to differentiate myself from other pharmacies. This is a competitive thing, of course. That people […] hear about the pharmacy […] and drive past two or three other pharmacies because they know that we offer different things here."*

This pharmacist-owner (P12) had specialised in complementary and natural medicine and built this public image successfully over the course of many years with the result that patients know about the specialty and related professional services and choose the pharmacy because of that. Hence, building an image or reputation, e.g. through specialisation in a certain health area, was an important aspect for pharmacists to stand out from competitors which is also exemplified by P3, who could list the images of a few local competitor pharmacies.

Regarding service types, it appeared that image-building was a strong motivator for innovative or rarer professional services such as wound care (P01) or pharmacogenetic testing[6] (P05) due to the uniqueness and required expertise.

[6] Pharmacogenetics, is about identifying "genetically-determined drug response variability" (Jamie, 2012, p. 12) in order to enable the selection of the most appropriate drug therapy for a patient to increase therapeutic effect and reduce side-effects, which is also known as stratified pharmacogenomics therapy (Ditzel, 2013)

P05: *“It was the idea of my wife and me to position the pharmacy with a USP, which does not distinguish itself by homeopathy for small animals or other hocus pocus (laughs) - I say that deliberately – but offers a very rational and very reasonable specialty.”*

The competitive elements were inherent in building image and differentiation, irrespective of the perceived competitive situation of a pharmacy. However, this motivation seemed to be slightly stronger for pharmacies situated in a more remote location (e.g. P12) and those with a higher competitive density (e.g. P01, P04, P08). It also seemed that pharmacist-owners, who had more recently started their own business (e.g. P05, P11, P17), were especially preoccupied with image building and shaping their pharmacies according to their ideas and values.

Developing new business areas and positioning for the future: In some cases, services were provided to gain and bind new or different customers in order to have several business pillars and thus be less dependent on single high-income business areas. P17, for example, was building up a spagyric mix compounding service to decrease dependency on supplying a nursing home; P07 started a cytostatic drug compounding service to compensate for the reduction of income from a cystic fibrosis counselling service and P08 was building and considering new services to diversify.

Interestingly, a special case was found regarding medication management services, as these were provided to enable the pharmacy to secure a “pole position” to negotiate with payers (health insurers) once medication management services become a remunerated service in the German health insurance system.

P08: *“And thus I believe that in the future such [medication management] concepts will be an important factor in pharmacies. […] I have participated in respective training concepts with my two pharmacies […] we are part of the first round of certified pharmacies in our Federal State. And it becomes apparent that health insurers are in fact interested to cooperate with THESE certified pharmacies in the future […].”*

In these cases (P07, P08, P09, P19), pharmacist-owners, in addition to image building, positioned their pharmacies in expectation on potential future

market developments and built additional capabilities by training to be prepared to open up a new income source for their pharmacies and be first in line to exploit this potential opportunity.

Motivating staff, personal interest and helping patients: In some cases, these more healthcare oriented aspects were also reasons for PPS provision. However, these motivators tended to be in tandem with or in addition to gaining and binding customers, generating income and / or building image. Helping patients seemed to be an underlying preference amongst the pharmacist-owners in the sample due to the preference for the healthcare professional role and a healthcare-oriented concept but was interestingly only given as a main reason for PPS provision in some cases.

The provision of some of the analysed services was triggered by the wish to motivate staff (e.g. P01, P03, P04, P05, P07, P15, P19). For instance, P05 developed a pharmaceutical care service for people with a disability in order to motivate a pharmacy intern by giving him a challenging project.

P05: *"What makes me do this? It is an exciting thing to accompany and monitor such a project. I have a very capable pharmacy intern who is exceptionally good, whom I wanted to OFFER that and who accepted and acted on it instantly."*

Similarly, P01 and P15 let employees follow up on their interests to build a spagyric mix compounding service and diabetes counselling service, respectively. Some pharmacist-owners also let new employees provide services according to their specialisations and interests. In the case of P19, a successful (standard) service for fitting of compression stockings was started when new employees with the necessary knowledge and the interest to provide the service joined the pharmacy team. According to some pharmacist-owners (P03, P09, P16, P18), having qualified staff was important for counselling in general and PPS provision in particular and hard to come by. Such skills shortage regarding availability and quality was confirmed by reports in pharmacy trade journals (DAZ.online, 2016). Hence, good personnel are a rare resource and it was in the pharmacist-owners' interest to motivate employees by letting them follow up on their skills and interests in order to retain qualified staff.

P08: *"And my employees appreciate it very much that I, when suggestions are solid, which they are most of the time, that, even when it incurs costs, I am happy to implement them in a timely fashion."*

As P08 pointed out, motivation of employees is an investment but was also found to benefit the pharmacies when services helped to generate income (e.g. fitting of compression stockings, P19), bind customers and build image (e.g. diabetes counselling, P15), or generate income and build a reputation with alternative practitioners (e.g. spagyric mixes, P01).

Similar to motivating staff, personal interest seemed to be an additional motivator for professional services.

P12: *"I have not done this because I think 'this is something special which no one else around here provides' but because personal interest takes precedence, of course, and that one is convinced of the method [the service] somehow."*

Services motivated by personal interest tended to be less common professional pharmacy services. Examples were: wound care counselling (P01), provision of spagyric mixes (P01), pharmaceutical care for people with disabilities (P05), pharmacogenomics testing (P05), facial analysis[7] (P12, P18), or nutrition counselling for people with health issues (P19). Large pharmacies appear to be advantaged in allowing the owner and staff to follow up on interests as exemplified by P19.

P19: *"They [pharmacy staff] can pursue their interests. This is the nice thing with a big team; that you don't necessarily have to do things you don't like and that you can pick things you really LIKE doing instead. And these can be things someone else does not like at all."*

Personal interest, usually coupled with a healthcare professional orientation, also included the aspect of the belief in the usefulness of the service. P19, for example, offered nutrition counselling for people with specific health issues (e.g. cancer) as it was perceived as a useful service for the patients.

[7] Facial analysis is a scientifically non-validated method of diagnosis used in alternative medicine, developed by Wilhelm Heinrich Schüßler and Kurt Hickethier, to identify deficiencies of minerals and trace elements by analysing a patient's face. The identified deficiencies are thought to be reduced by intake of biochemical tissue salts ("Schüßler salts") (Wikipedia, n.d.-a)

Helping patients appeared to be the main motivation for some professional services. For instance, P14 started an asthma services after the realisation that many patients lacked knowledge on inhaler use and thus needed counselling and training to use their inhalers more effectively and get the intended therapeutic effect. P07 originally started information seminars for multiple sclerosis patients to give something back in return for having profited financially from this patient group.

P07: *"And we had earned a lot on these prescriptions and at one point I thought 'so, now we have to somehow…', well I thought that this was not right to earn so much and do nothing else for these [multiple sclerosis] patients."*

Yet, this service for MS patients also serves to bind this patient group to the pharmacy, as does the asthma service in the case of P14.

The analysis shows that the business-oriented motivators identified at the domain of the empirical demonstrate an inherent competitiveness and growth orientation as most professional services were provided to improve the competitive position and to grow or maintain current business levels. Hence, applying SDT, the motivation can be viewed as primarily autonomous extrinsic, i.e. services were voluntarily chosen but provided as a means to an end (Ryan & Deci, 2000a). However, in the literature it was also found that pharmacists offer services triggered by the fear of being left behind the competition (Roberts et al., 2006; Thornley, 2006). Such cases were also identified in this research.

Specifically, binding customers was related to customer orientation, i.e. satisfying expressed patient needs and perceived patient expectations (Slater & Narver, 1998) through service provision, irrespective of profitability.

P19: *"Well, one expects certain services from a pharmacy and we can provide them, of course, no matter whether that is economically reasonable or not."*

Thus, some professional but also non-professional services (e.g. home delivery services) were offered or continued to be offered to maintain customers, often due to indirect competitive pressure of not wanting to lose customers, as exemplified by P02 regarding fitting of compression stockings:

P02: *"We offer this, because we want to care for our regular customers. I cannot send a customer away to get his compression stockings somewhere else but expect that he continues to come back to me with his prescriptions. That means that this is a bit like an advertising investment."*

This may be exacerbated when competitive density is high and patients thus have a choice of several nearby pharmacies, as it was in the case of both, P19 and P02. Likewise, due to customer orientation and being competitive, P14 started offering a customer card service to fulfil patient expectations, although the customer card was not perceived necessary for counselling quality.

P14: *"But over time we came to realise that just such a piece of plastic is important for some people, and that has also to do with competition, with binding customers and with competition. In this sense, I have to give in to competitive pressure and do things where I do not see a reason, but one just has to do it."*

Such negatively connoted motivation, which resembles the type of controlled motivation (Deci & Ryan, 2008) was only rarely found in this investigation. According to self-determination theory, autonomous motivation compared to controlled motivation leads to more successful achievement of a goal (Deci & Ryan, 2008). This suggests that professional pharmacy services are most likely to succeed when they are autonomously motivated, for which the results from this research provide some evidence.

5.4.2.2 Impact of role orientations on motivation for PPS provision

The tentative explanatory framework suggested that both, business and healthcare professional goals energise pharmacist-owners towards professional service provision, albeit with a weighting towards business aspects. The current findings support this, as pharmacist-owners shared the business goal of generating income for their pharmacies and motivation to include professional services into their overall pharmacy business offer was mainly oriented towards this goal. Motivation can thus primarily be understood as a business–interest driven mechanism to trigger service provision, supplemented by personal interest, organisational interest, and / or

altruism (wanting to help patients). The motivators identified from the interviews reflect those found in the literature review applying to pharmacy owners or managers, which were predominantly business-oriented. This is not surprising, given that the sample consisted of pharmacist-owners and therefore confirms the distinction of motivators between owners and employed pharmacists as previously identified by Thornley (2006). It also supports findings demonstrating that pharmacy owners had higher scores of business role orientation than pharmacy employees who are not personally involved in the pharmacy's finances (Perepelkin & Dobson, 2010). Healthcare professionally oriented motivators of helping patients, personal interest or motivating employees, which were also identified in the literature (Herbert et al., 2006; Rossing et al., 2005; Thornley, 2006), were less strong but ultimately also instrumental in helping the business goal. For instance, professional services responding to a health need amongst pharmacy patrons and provided to patients out of professional responsibility help build image for the pharmacy and therefore eventually feed into generating income, e.g. by binding these patients to the pharmacy.

The results from this current research show that motivation for service provision reflects a general value expectancy regarding the overall pharmacy business. According to value-expectancy theory, pharmacist-owners need to believe that professional services are a means to achieve the goal of generating income needed to have a viable business (Gebauer, 2008), which was the case with pharmacist-owners in the sample. This notion is supported, as the identified motivators resemble the construct of "valued outcomes" found by Scahill (2012, p. 141), which represent desirable pharmacy business goals and include customer loyalty, improving patient health, having a viable business, efficiency, patient safety and staff retention. Furthermore, current findings suggest that the motivators reflect the main function of services which is to complement the traditional dispensing-based pharmacy business model. Thus, at the domain of the real, the mechanism of motivation is itself influenced by the structure of the pharmacy business model, confirming the findings from the literature review (e.g.Scahill, 2012) of the dominating influence of the traditional dispensing-based business model on the whole pharmacy business including service provision. Interestingly,

the positive aspect of advancing the pharmacy profession via PPS provision, which scored a 90% agreement in the attitude measurement in the study by Herbert et al. (2006), was not mentioned as a reason for PPS provision by pharmacist-owners in this research. This is somewhat supported by Hessemer (2016), who reapplied the aforementioned study with German pharmacists and only found a 75.6% agreement on the same question. This indicates that, whilst re-professionalising pharmacy is welcomed, pharmacist-owners in Germany are primarily motivated to provide professional services by value expectancies for their own pharmacy businesses.

Whilst the dominant motivators identified were business oriented, it does not explain why professional services are offered, given that service provision was often regarded as cost factor, and generating income can also be achieved by trust-building through good counselling alone (Perepelkin & Zhang, 2014) and / or by high supply readiness. It can therefore be retroduced that for PPS provision, pharmacist-owners need a healthcare professional orientation as well. Literature on service-providing pharmacies suggests that a healthcare professional orientation promotes PPS provision. For instance, Willink and Isetts (2005) identified that pharmacists who were successfully providing professional services had in common a service oriented business philosophy. In a similar fashion, Feletto et al. (2010b) and Moullin et al. (2016) found that pharmacists provided services based on a service-oriented strategy, under which PPS are perceived as value generators (Feletto et al., 2010b), and Greenhalgh et al. (2016) identified pharmacist professional identity as a mechanism promoting service provision. This is supported by current findings, which demonstrated pharmacist-owners' unanimous affinity to the healthcare professional role (discussed in the previous section) and emphasis on the importance of good counselling, and identified that pharmacist-owners followed a healthcare professionally oriented concept within a dispensing-based business model.

It is assumed that if the level of motivation is high enough, a goal-directed action will follow (Carsrud & Brännback, 2011). Following that logic, the lack of motivation will not result in developing a PPS offer, making motivation not only a mechanism but also a necessary condition for service provision. The

motivation for service provision as a value expectancy thus sets the expectations regarding the results a service should deliver for the pharmacy. Believing into the value of service provision in general coupled with healthcare professional orientation can thus be seen as the core motivation to consider PPS provision and as the foundation for PPS provision, affecting opportunity recognition and decision-making as argued in the following sections.

5.4.2.3 Influence of role orientations on the recognition of PPS opportunities

Motivation alone can neither explain why a service gets included in the pharmacy offer, nor the diversity of services offered, i.e. why a specific service was chosen from a - theoretical – wealth of service options. In other words, why, for example, did P04, P14, P15 and P16 decide to provide diabetics counselling and P10 did not and opted for company health counselling and promoting a weight and nutrition management course instead?

Clearly, a decision for or against a service necessitates the existence of a service opportunity or idea. These were found to come from sources internal or external to the pharmacy, which echoes findings from a recent study by Moullin et al. (2016). Interestingly and contrary to findings from Moullin et al. (2016), the German pharmacy association (ABDA) was not mentioned as a source of service ideas, with the exception of pharmacies providing medication management services, as training and certification had been offered by their pharmacy chambers. Generally, pharmacist-owners held a relatively low opinion about the quality of ABDA in supporting (innovative) professional services, as indicated by P01.

P01: *"They [ABDA] aren't people who FOR or in the name of pharmacists offer solutions to influence policy. For years they aren't. They are just blocking things. And this is how they are perceived by politicians."*

It appeared that not feeling well represented made pharmacist-owners self-reliant and focused on service offers within their control. Many opportunities thus came from the pharmacies' individual local market environments by identifying patient needs or gaps in the market. External sources were

marketing co-operations (e.g. P12), networks including experience exchange groups (e.g. P07, P12), offers from companies (e.g. P10), healthcare trends (e.g. P15), checking out other pharmacies or trade journals (e.g. P12); internal sources for ideas or opportunities came from identifying customer needs through observation or customer surveys (e.g. P08, P15), personal interests of pharmacist-owner or staff (e.g. P01, P05), or from skills brought to the pharmacy by new employees (e.g. P03). For new hires, P01 even preferred applicants with a specialty.

P01: *"That is a typical question in a job interview that as ask: "Have you done anything special?"*

In many cases, the local context of the pharmacies was the source of opportunities or ideas. As P12 pointed out, some ideas were considered based on explicit requests from patients.

P12: *"People sometimes ask something like 'are you also offering…' and then one, of course, starts thinking: what is this? Would that be an opportunity to do something in that direction?"*

Similarly, ideas were identified through the observation of healthcare needs in the pharmacies' catchment area. For example, P01 and P11 detected a local shortage in the supply of made to measure compression stockings. Likewise, the number of patients with medication needs for certain health conditions e.g. diabetes (P04, P14, P15, P16), cystic fibrosis (P07) or asthma (P08, P04, P14) or the existence of a certain clientele, e.g. young mothers (P05, P07, P08, P09), sparked service provision. Quite often, the accumulation of certain patient types was due to having a (specialised) physician nearby initiating the demand, as P08 explained.

P08: *"Of course it makes sense to specialise in health topics which are present in the immediate surroundings. Because the likelihood that patients are coming from the surroundings is higher than if one would specialise, let's say in rheumatology if no rheumatologist is nearby [the pharmacy]."*

Being locally embedded, catering to demands and needs of the catchment area requires being attentive to customer demands, which is indicative of customer orientation.

From the interviews, it emerged that the decision-making process was triggered by the availability of an idea or opportunity. However, as the proposed framework suggests, opportunities also need to be recognised as such. In entrepreneurship research, opportunity recognition is seen as the first step towards opportunity development (Ardichvili et al., 2003). A key concept in entrepreneurship theory related to opportunity recognition is entrepreneurial alertness, whereby high levels of alertness are suggested to lead to recognising opportunities without explicitly searching for them (George et al., 2016). This concept appears to be in conflict with research suggesting that opportunity recognition is the result of a targeted search (George et al., 2016). Interestingly, results from this research identified both detection modes, i.e. strategic and opportunistic. Some service ideas were developed as part of a healthcare professional oriented strategy, e.g. pharmacogenetics testing (P05), developing a mother & child service (P08), or medication management services (P07, P08, P09, P19). Here, the interview analysis indicated different levels of systematic search for service opportunities, whereby pharmacist-owners tended to run team meetings to inform and discuss a variety of topics and / or had idea collection systems that included service ideas. P08 even paid bonuses for useful improvement ideas and had several new service ideas lined up that had been identified via information exchange with other pharmacists. Most services, however, were provided because an opportunity opened up, which tended to be addressed relatively quickly, as indicated by P01.

P01: *"I think, one has to look for deficits [in the local market], where are the needs, and then one has to tackle this fast."*

Examples were to quickly gain a first mover advantage by offering made-to-measure compression stockings (P01), using the skills of newly employed talent to provide a nutrition counselling service (P03), registering a strong interest of patients in learning about irritable bowel syndrome (P12), or taking up oncology drug compounding after being approached by a nearby oncologist interested in a partnership (P09). In addition to strategic and opportunistic modes, mixed forms of opportunity detection were also identified. For instance, P07, wanting to compensate for a cut in income caused by changes in regulations, strategically decided to make use of

existing equipment for cytostatic drug compounding and when an oncologist surgery office opened nearby, took up the opportunity and pro-actively offered the service to the oncologist. Acting on opportunities that are not planned but fit with the pharmacy's strategic positioning was another mixed form of opportunity detection. P12, for example, acted on opportunities that fit with his strategy of specialising in alternative and natural medicine.

Extant research has demonstrated that some people recognise opportunities where others do not (Shane & Venkataraman, 2000). One mechanism to explain why some opportunities are detected and pursued is that they are individuated, i.e. made personal, by applying individual cognitive frameworks, mainly knowledge, onto information relating to the opportunity (Wood et al., 2014). As opportunity recognition is perceived as a person-situation interaction, this means that there must be some filters in the form of preconceived ideas about attractiveness or a mental scan of the opportunity for its fit with service motivation. This means that professional services need to be within the pharmacy owner's general consideration set in order to be recognised. The tentative explanatory model suggested that PPS opportunity recognition is influenced by healthcare professional values and business orientations. This dual role impact is supported by the current findings, which indicate that, irrespective of detection mode, opportunities are identified through an interplay of different factors or underlying mechanisms. These are a healthcare professionally oriented pharmacy concept, healthcare professional knowledge, a positive, mainly business-oriented, value expectancy (motivation), customer orientation, openness to ideas, and pro-activeness. These factors appear to influence pharmacist-owners' cognitive frameworks and sensitise them to recognise service opportunities.

The interview analysis did not provide much direct evidence at the domain of the empirical regarding the influence of healthcare professional orientation on PPS opportunity recognition. However, healthcare professional orientation was apparent in a general openness towards considering professional services which appeared to be derived from pharmacist-owners' concepts of wanting to provide good counselling or even a more explicit strategy of presenting the pharmacy as a healthcare service provider. Otherwise,

pharmacist-owners could have opted (solely) for other ways to attract customers such as non-professional services or low-price offers to attract and maintain customers, which some pharmacist-owners (e.g. P19) mentioned were strategies of their direct competitors. Thus, the existence of a healthcare professionally oriented concept as an underlying mechanism at the domain of the real, which can enable the recognition of professional services as a business opportunity, can be retroduced. As discussed previously, such healthcare oriented strategy needs to be seen in relation to a general value expectancy attached to professional service provision, i.e. the belief that professional services can contribute to overall pharmacy viability (Feletto et al., 2010b).

The tentative framework suggested that customer orientation may be a mechanism for opportunity identification. Customer orientation is seen as closeness to the customer, which is inherent in small businesses with permanent customer contact (Greenbank, 2000b) and reacting to patient needs is regarded as a consequence of pharmacies being retailers (Roberts et al., 2008). The current findings support this and further suggest that healthcare professional knowledge alerts pharmacist-owners to healthcare problems needing attention and helps translating healthcare needs into a service offer. For instance, healthcare professional knowledge was needed to identify gaps in local healthcare (e.g. insufficient availability of compression therapy, P01) or patient needs (e.g. the realisation that patients had difficulty handling their inhalers, P14), and develop solutions. The importance of healthcare professional knowledge thus provides further support that specific prior knowledge is necessary for opportunity recognition (Ardichvili et al., 2003). In some cases, experience with successfully provided professional services appeared to form a mental template which helped identify similar services, as illustrated by the following quote.

P14: *"With the intraocular pressure check it was easy. […] the optician in [city] had made a flyer […] where he offered to pick up people, who are restricted in their mobility and take them to his shop and to the ophthalmologist, a kind of taxi service. And THERE I had the idea. I thought, we are doing this with the hearing aid check and […] he may as well do this here [at the pharmacy]. And then I gave him a call."*

This can be regarded as a special form of prior knowledge and supports the perception put forward by Baron (2006) that opportunity identification is a result of experience-based pattern recognition.

The results from this research further indicate that pro-activeness and innovativeness, in the form of openness to new ideas, as two elements of entrepreneurial orientation are needed for idea generation and opportunity recognition, whereby ideas do not have to be complete innovations but relate to services being new to the pharmacy and the catchment area.

Openness to new ideas manifested for example in looking externally for inspiration, as exemplified by P12:

P12: *"[…] I find this quite interesting. What are the others [pharmacies] doing? And one can also have a look at trade journals; there are also very many ideas, more than one can implement; well the pool of possibilities you could follow up on is enormous, I think."*

It also related to letting go of perceived restrictions.

P05: *"The topic of prevention increasingly reaches pharmacy and we [pharmacists] can do a lot in this direction which I also find interesting. I believe that as a pharmacy you have to free yourself from any medication-related limits."*

This out of the box thinking offers an explanation why P05 provided innovative services such as pharmacogenomics testing. Openness to new ideas also involved experimentation as P18 explained that they tried out new services and tested their acceptance with patients.

Pro-activeness is needed to act on identified opportunities. An example demonstrating pro-activeness related to the general pharmacy business was provided by P15 who substantially enlarged and expanded his pharmacy after the German unification due to increased business possibilities.

P15: *"And THAT to me is a classic business thing, that one sees opportunities for the future and takes advantage of them, yes, to unlock them by making offers. And that worked well."*

Pro-activeness also manifested in scanning the (usually local) environment and other sources of information for new business opportunities and

engaging in networking which have previously been identified as reasons for differences in opportunity recognition (Ardichvili et al., 2003). This is illustrated by the quote from P07.

P07: *"Always scanning in which direction are things moving? Where can one partake? And yes, the most important thing is that one has a good network and simply knows,/ […] […] Well, where are new specialist centres emerging? And who tends to them?"*

Pro-activeness was further revealed in a willingness to act on an opportunity, if need be immediately. Thus, the current findings support the tentative framework regarding the influence of EO and CO/MO. It suggests that EO, manifested in pro-activeness and openness to ideas, and CO/MO manifested in alertness towards patient and market needs, asserts its influence on the PPS development process primarily at the opportunity recognition stage. It this confirms the suggestion that "EO complements MO by instilling an opportunistic culture that impacts the quality and quantity of firms' innovations" (Baker & Sinkula, 2009, p. 443).

Overall, the mechanisms promoting opportunity recognition can be encapsulated by P19, where the pharmacy's motto "*tradition is a springboard, not a sofa*" is followed actively and represents a strategic (growth) orientation towards developing the pharmacy, and, coupled with a strategic healthcare professional orientation fosters alertness to, and active search and recognition of professional service opportunities and promotes their implementation. In confirmation of the identified influences on opportunity recognition, lack of motivation (value expectancy), lack of growth orientation, and / or perceived lack of opportunity may limit the need or willingness to actively search for service opportunities, resulting in not offering a professional service. For instance, P06, despite believing that pharmacies should differentiate (referring to the motivation of differentiating from the competition and building image), offered only a limited number of professional services. The reasons were lack of specialty physicians in the catchment area and a relative lack of growth orientation due to being satisfied with the current state of her pharmacy business and positive perception of the competitive situation. Yet, this may not exclude reacting on service opportunities, especially when 'served on a silver platter', as

demonstrated by the example of using new talent to provide nutrition counselling (P03) or being approached by a company to provide health checks to their employees (P02). The recognition of a service opportunity implies a pre-evaluation of its attractiveness for the pharmacy and is thus part of the decision-making process. Yet, answering the above question why P10 did not offer a diabetes service and others did, was linked to the application of decision criteria, which is elucidated in the following.

5.4.3 Relationship between motivation and decision criteria in a two-step decision process

5.4.3.1 Decision criteria, their importance and context of application

Whilst motivation for service provision was linked to the function and general value of services for the pharmacy business, decision-making was related to a specific service and links motivation, opportunity recognition and actual service provision. As decisions can be defined as a "commitment to action" (Langley et al., 1995, p. 261), an assessment of the opportunity is inherently necessary for a decision to act on it. The results from the current research largely confirmed that motivation influenced decision-making, as pharmacist-owners were comparing the opportunity against the motivators, e.g. the possibility of gaining new customers or image building as well as on the probability of achieving it as suggested by expectancy theory (Steel & König, 2006). However, as discussed before, the motivation appeared to be present as a general belief, and the comparison was activated in relation to the opportunity. The analysis of the 60 professional services revealed that the attractiveness of an opportunity was assessed on a small number of criteria involving the local context of a pharmacy, pharmacist-owners' subjective values and a pharmacy's resources. These decision criteria, which can be traced back to healthcare professional and business orientations, are demand, feasibility, utility as well as patient health benefit and fit to pharmacy practice.

Demand and feasibility were the most frequently mentioned decision criteria. Existing or assumed demand, however, seemed to be the most important

criterion. It was closely linked to the motivation for PPS provision and related to external attractiveness of a service, i.e. a service's potential to achieve the business goals behind the motivations, for example gaining new customers or building image. The demand criterion is thus similar to patient expectations (Herbert et al., 2006) and business value and community fit criteria identified by Moullin et al. (2016).

P01: *"According to my opinion, a service must be useful and wanted by the customer*."

This indicates that without demand, there is little need to provide a service, since a lack of demand would not help to attract (new) customers or build image. Demand, or rather the (assumed) lack thereof, had also been identified in the literature review as a frequently mentioned barrier to professional service provision (e.g. Roberts et al., 2008; Thornley, 2006), signifying the importance of this criterion. Hence, a decrease in demand also influenced decisions to reduce or terminate service. Decreasing demand was influenced by changes in the context, such as changes in technology, regulations, local or competitive set-up. For example, P01 and P04 reported that demand for travel immunisation and information services (offered by all pharmacies in the sample) decreased with the advent of internet information resources. P09 experienced that increased competition and a subsequent market saturation decreased demand for a formerly successful weight management service. In each case, provision of the respective services was reduced. Demand seemed to be less important only in a few cases where the main motivation behind the service was to build image for the pharmacy, for instance, to be able to refer patients with specific questions to specialists, who according to P01 "*have such deep knowledge that is impressive and which is meant to impress*".

Demand is linked to idea generation/opportunity recognition since ideas came from perceived or observed market or customer needs. Demand existed when a high number of patients with a certain health condition visited the pharmacy, e.g. HIV patients (P08) or was assumed, e.g. based on the response to patient seminars (P12, P18) or observation of a higher number of a certain patient group (e.g. expecting mothers) visiting the pharmacy. In

some cases, demand was assumed due to the pharmacist-owner's belief into the service's health benefits for the patient, e.g. for pharmacogenomics testing (P05). However, despite the importance, demand assessment tended to be subjective and was rarely done systematically using market research data or practices. One notable exception was P08, who checked on nearby pharmacies for comparable service offers in order to avoid demand issues, before deciding to start a mother & child service. One explanation is that a priori assessment of customer or patient acceptance is difficult. Some pharmacist-owners reported that service or product offers, from which they thought should be welcomed by patients, were not accepted.

P19: *"A service (…) Well, it must be accepted. And one does not necessarily know that in advance."*

A further explanation is that, in line with findings from Greenbank (2000b), the small size of pharmacies, their proximity to their patients and local boundedness make pharmacist-owners trust in their subjective assessments. Whilst demand can also be created, there was little indication from pharmacist-owners that marketing aspects were considered during decision-making. This aspect tended to be addressed during planning and service provision and constitutes a competitive advantage for those who do it well.

Feasibility relates to the internal assessment proposed by the small business decision-making models and included an evaluation of staff and resources, which is linked to the frequently mentioned barriers of lack of time, staff or money (Roberts et al., 2006; Thornley, 2006). It thus resembles the perceived behavioural control construct of the theory of planned behaviour as operationalised by Herbert et al. (2006), and the organisational capacity criterion identified by Moullin et al. (2016). However, current findings demonstrate that feasibility assessment was not only about providing a service but, influenced by healthcare professional orientation, about providing it well and hence not only referred to the general availability of resources but also to their quality. Feasibility considerations were pragmatic and based on the experience that it needed the availability of staff motivated to provide the service and who already have the necessary skills needed for quality service provision or are interested and willing to acquire them.

P01: *“And if an employee is motivated then he, […], wants to get acquainted with the topic. And if he gets further motivated and sent to training courses, which the pharmacy pays for, then it is fantastic to see how he really digs into this.”*

Furthermore, pharmacist-owners felt that service provision must be readily available and of sufficient quality to satisfy customers. P19, for example, reported having a range of specialists for each service to ensure good quality service provision. A sufficient number of specialists was also important to ensure service provision at all times.

P15: *“She [the specialist] goes to further training. And other employees do that, too, to keep the [diabetes] counselling service going, when she is not available; that’s clear.”*

Feasibility also meant to ensure the support of the complete pharmacy team for the service idea. P15, for example, believed that providing a service against the resistance of the pharmacy team was unprofessional and bound to fail.

P15: *“You can’t do this without a team decision, because if you use hierarchy like ‘You are doing this now’ never works. Then you get maximum resistance, like ‘No, this is complicated and I don’t want to do this and I do not have time for this’ and, and, and.”*

Whilst professional services are a way to motivate staff, they also add workload and strain to the team and pharmacist-owners weighed potential service benefits against the well-being and functioning of their staff. Hence, some pharmacist-owners decided against providing new services due to be running at full capacity (e.g. P07, P14, P16) or not wanting to overburden staff with ever new projects (P08). These pharmacist-owners revealed that they did not have the resources (time, staff, financial resources or space) to add a new service and to ensure its proper delivery. This was most prominent in smaller pharmacies with a general lack of resources, as indicated by P16.

P16: *“I would have to earn much more money here to have more employees to have more possibilities [for services]. I don’t have it. The whole thing basically is a liquidity issue, a money issue.”*

As professional services tended to be added to the pharmacy service portfolio and given the relative lower importance of services compared to the traditional business model, feasibility considerations indicate a holistic view of the service decision in relation to the overall pharmacy operation. Feasibility considerations also indicate that pharmacist-owners primarily consider the resources available to them and thus apply effectuation (Sarasvathy, 2001) in relation to a healthcare professionally oriented strategy.

Utility refers to assessing perceived PPS benefits, e.g. gaining or binding new customers, against the cost and effort of service provision and against the status quo, i.e. against income generated from regular dispensing. It is thus comparable to relative advantage (Rogers, 2002), often explaining why (further) services were not chosen. Since most professional services tend to be time-consuming and bind personnel, some pharmacist-owners (e.g. P02, P03, P11, P15, P19) explicitly considered the cost of service provision against alternative staff deployment, as indicating by the two following quotes.

P19: *"When you are offering intensive counselling, measuring [of compression stockings], blood pressure, blood tests, or such things, an employee is busy with ONE customer and therefore it is important that the service earns at least part of its cost. Because, in case of doubt, one [employee] can serve several customers in half an hour."*

Likewise, P03 weighed the positive image gains of a nutrition counselling service against the specialist employee's sales talent. As the latter was more important, the service did not get promoted actively.

P03: *"Customers can know that there is someone who can also do nutrition counselling but I prefer to have this employee on the shop floor, because, talking business, there she earns me more money."*

Thus, pharmacist-owners applied the concept of opportunity costs, which was a decision criterion identified by (Albrecht et al., 2006). Current findings further indicate that attractiveness (utility) of service provision decreases if the costs become too high in relation to the perceived benefits and becomes negative where service provision would require the employment of additional staff.

P15: *"And now we come back to the services which we [the pharmacists] have started a long time ago to build image - WHICH, if we continue to provide them AS IS, will be so costly at one point that it is honorary."*

Yet, only a few pharmacist-owners (e.g. P19 or P12), charged service fees to recover part of the costs. However, some pharmacist-owners indicated that they would introduce (further) professional services if these were remunerated.

P06: *"Generally, yes. (…) But, as I said, not as a free of charge service, but, yes, it would have to be remunerated accordingly. Because it [service provision] costs time, getting training does as well (…). Yes. And then, there must always be one person available to provide the service."*

Remuneration was especially important for pharmacist-owners who would have to employ an additional pharmacist to provide the service or to free up the pharmacist-owner (e.g. P02, P11). Being a cost factor, one could assume that services delivering direct income would be preferred by pharmacist-owners. Whilst this was, for instance, the case for most of the prescription-based and remunerated compression stocking services (P01, P11, P19), the service was not well-liked (P02) or offered (P16) by others because of little perceived utility for the pharmacy (generating income and / or customers) compared to the costs and effort involved. The criterion of utility thus reflects the assessment of value expectancies against the necessary effort of PPS provision and includes the aspect of internal financial analysis found in small business decision-making (Jocumsen, 2004).

Risk-taking as one element of entrepreneurial orientation (Lumpkin & Dess, 1996) was included in utility considerations but did not appear to be a major concern. Whilst new service provision could be regarded as a potential financial risk, this did not seem to be the case for pharmacist-owners, as they reported to be taking calculated risks, i.e. they did not invest high amounts if the risk was not backed-up by existing business. This is an indication that deliberate decision-making leads to not pursuing a service when there is no good cost-benefit (or effort-benefit) relation. Yet, and despite knowing about the sub-optimal short-term utility, it seemed that for pharmacist-owners who had chosen a counselling and service strategy, the belief that professional services are an investment that will eventually lead to income generation via

gaining customers or image building was stronger than a short-term profitability impact (e.g. P05, P18).

Patient health benefit and fit to pharmacy practice were healthcare professional oriented and subjectively assessed decision criteria related to a pharmacist-owners' concept or strategy. Patient health benefit represents the value proposition of the services for the patient, i.e. the health-related, medical, or knowledge benefit a patient would get out of the service[8]. However, it appeared that the patient benefit was established in accordance with a pharmacist-owner's subjective healthcare professional judgement. What constituted a patient health benefit or fit to pharmacy practice for one pharmacist-owner was not necessarily seen the same way by others, as illustrated by P14:

P14: *"One can think about it [micro nutrition supplementation] as one likes. If you ask 100 physicians or experts you get 100 different opinions. […] Everyone has to decide for himself where he stands. It is the same with homeopathy, with natural medicine. Everyone has to say for himself this is what I am convinced of and that is what I am doing. And I am convinced about micro nutrition supplementation and this is why I am offering it."*

P19, for example had decided against a bone density measurement service for lack of medical usefulness but indicated that other pharmacies and also physicians had offered the service.

The decision criterion of patient health benefit had not been identified in the literature review but can be regarded as a characteristic or property of the

[8]The criterion of 'patient health benefit' bears some resemblance to 'clinical effectiveness'. Clinical effectiveness is defined by the UK Department of Health as "The extent to which specific clinical interventions, when deployed in the field for a particular patient or population, do what they are intended to do – i.e. maintain and improve health and secure the greatest possible health gain from the available resources." (DH/CMO, 1996). It is further defined as "the application of the best knowledge, derived from research, clinical experience and patient preferences to achieve optimum processes and outcomes of care for patients" (Mills, Harrison, & Ainscough, n.d.). Since clinical effectiveness emphasises the application of evidence-based practices, 'patient health benefit' was chosen, as it relates to improving patient health outcomes but reflects that assessments were often made subjectively by pharmacist-owners' and not always on evidence-based practice.

service and shows some resemblance to the compatibility characteristics of the diffusion of innovation model (Rogers, 2002). A clear patient health benefit impacted on expectations about service demand, whereby the identification of existing knowledge or needed skills affected the perceived probability of achieving service quality. These considerations seemed to stem from experience with prior professional service provision and regular patient counselling including the previously discussed element of customer loyalty creation through trust-building (Perepelkin & Zhang, 2014).

Fit to pharmacy practice referred to pharmacists' self-image as healthcare practitioner. Pharmacist owners considered patient acceptance of services in a pharmacy environment as well as their own capabilities to assess if services could be provided in good quality by pharmacists compared with other healthcare practitioners. As such it resembles the community fit criterion identified by Moullin et al. (2016). Findings indicate that pharmacist-owners preferred services within their professional territory. Hence, P10 and P01, for example, did not provide a diabetes counselling service, believing that such service would be done better by physicians and not wanting to encroach on physicians' territory.

P10: *"It is more useful to do this [diet counselling for diabetics] at the physician's. They do this. The diabetologists do this and then one does not want to interfere."*

Diabetes counselling is a good example as other pharmacist-owners did not share these concerns. These considerations were thus highly subjective and not only seemed to depend on judgements about their own capabilities but also on the pharmacy location, i.e. whether good diabetes care is already offered to patients in the community. Yet, some services may be better placed with physicians, as P12 conceded that an oxygen inhalation service was not successful and physicians were more suited to offer this type of service due to their medical authority. Such considerations are not only a healthcare professional acceptance of own limits but also include a business component. If a service is better offered by a physician, the likelihood of achieving a point of differentiation and build image would be more difficult and a waste of scarce resource.

The decision criteria can be viewed as mechanisms as each criterion has the power to lead to a negative decision, unless counteracted by a more powerful combination of the other decision criteria. Current findings provide support of internal resources and financial aspects as decision criteria, as these were featured in the feasibility and utility criteria. The characteristics of the opportunity of relative advantage and compatibility (featured in utility and fit to pharmacy practice) could also be detected. Yet, contrary to the tentative framework and findings by Moullin et al. (2016) and Pronk et al. (2002), the characteristics of trialability and complexity, as well as operational aspects of the service such as duration of the service or degree of change (Moullin et al., 2016) did not feature in decision-making by pharmacist-owners in this research. This reinforces the importance of the decision criteria of feasibility and utility based on resource endowment which also resonates with findings from Pronk et al. (2002) regarding the staff availability and financial resources being linked to intention for service provision. Potential reasons for the missing opportunity characteristics are (1) that most of the services analysed in this research were not part of programmes and therefore designed by pharmacist-owners and their teams according to their individual market needs and capabilities or, (2) that opportunities, which appear to be highly effortful, fail to get recognised as an opportunity or are discarded right away or (3) that services can be tried discreetly and thus trialability is part of the nature of professional pharmacy services, as services differ from products in being inconspicuous (Zeithaml, Bitner, & Gremler, 2010).

5.4.3.2 Ecological rationality of pharmacist decision-making

The relatively limited range of decision criteria found in German pharmacies resembles that of being micro to small businesses, which rely on a simple decision-making process model including market information, organisational structure, and financial resources (Jocumsen, 2004) and are influenced by limited resources and personal objectives and perceptions about their business environment (Greenbank, 2001). Being small businesses embedded in their local specificities and tending to be customer-centric, the simple decision criteria identified are based on experience with pharmacy

practice, influenced by the proximity to patients/customers and pharmacist-owners intimate knowledge about the available resources (Greenbank, 2000a). Some of the decision criteria work as experience-based heuristic to help determine the viability of a service, for instance, to decide for a service only when staff support is secured, or to discard a service opportunity if there is no evidence for its patient health benefit. This resonates with Dew et al. (2009), who suggest that experts in a given domain have a specific range of decision rules. The difference to other small businesses is the healthcare professional side of pharmacies and thus the inclusion of healthcare related decision criteria, i.e. patient health benefit and fit to pharmacy practise but also feasibility considerations related to service quality and the highly regulated income structure for pharmacies. The decision-making process is thus characterised by simplicity, informality, interdependency, subjectivity, and satisficing which is characteristic for small businesses (e.g. Greenbank, 2001; Hang & Wang, 2012; Jocumsen, 2004) as well as by expertise-based intuition and decision-making used by experts in a specific field (Salas et al., 2010).

Lack of resources, i.e. time, remuneration and staff had been frequently identified as barriers to service provision (Thornley, 2006) and were interpreted as excuses for complacent pharmacists to not engage in the important transformation of pharmacy practice (Rosenthal et al., 2010). Whilst this may well be the case for some pharmacists, pharmacist-owners' decision-making can be argued to be rational from their perspective as in small firms, the viability of the business comes first (Greenbank, 2000b, 2001). Being small businesses, pharmacies generally have a limited resource base. Current findings show that professional services are provided to support income generation from the traditional pharmacy business model, which is the prevailing structure, via helping to extend or keep a pharmacy's customer base (which is an economic resource). Professional service provision thus tended to be done with existing resources and in addition to other tasks. Alternatively, pharmacist-owners could invest into additional staff. However, with most professional services not recovering their cost (at least in the short-term), it is not an option, especially for smaller pharmacies with limited financial resource. The following shows the influence of the

traditional dispensing-based business model on decision-making, exemplified in considerations about introducing medication management services.

In line with extant research (Herbert et al., 2006), and irrespective of actual service provision, pharmacist-owners tended to be in favour of advanced professional services such as medication management services as an emergent area of practice and future direction of the profession. Reasons for this positive attitude were the perceived patient health benefits, e.g. via a potential reduction in overall medication (P06) or better compliance (P09), an expected uplift of the pharmacist's professional role and status away from a product focus to valuing pharmacists' knowledge (P02), and a possibility for future business (P07, P08, P09, P19). However, pharmacist-owners thought that such services should be remunerated by statutory health insurers, as (1) such services take time and additional personnel resources, and (2) remuneration would be an official appreciation of pharmacists' knowledge, indicating an underlying dissatisfaction with the traditional dispensing-based remuneration system.

P02: *"[…] To reduce the pharmacist remuneration-wise purely to selling shows certain disrespect towards the professional ethos, yes. […], if I, like physicians or lawyers or tax advisors or someone like that, would get remunerated for applying my knowledge, then this would upgrade the profession, because it would then come out of this grocery corner."*

Remuneration was especially important for small (rural) pharmacies that are tight on resources. This appears to be a contradiction since pharmacies in the sample, including the smaller ones, offered PPS, often regardless of remuneration. However, some services (e.g. fitting of compression stockings) are either directly remunerated or indirectly remunerated by being connected to prescription sales and / or infrequent and therefore manageable in terms of resource requirements. Yet, more frequently offered and / or time-consuming services would require additional staff, which some respondents indicated was financially impossible, unless they were remunerated.

P11: "*Because things like medication therapy management are done by a pharmacist. And a country-side pharmacy does not support two full-time pharmacists."*

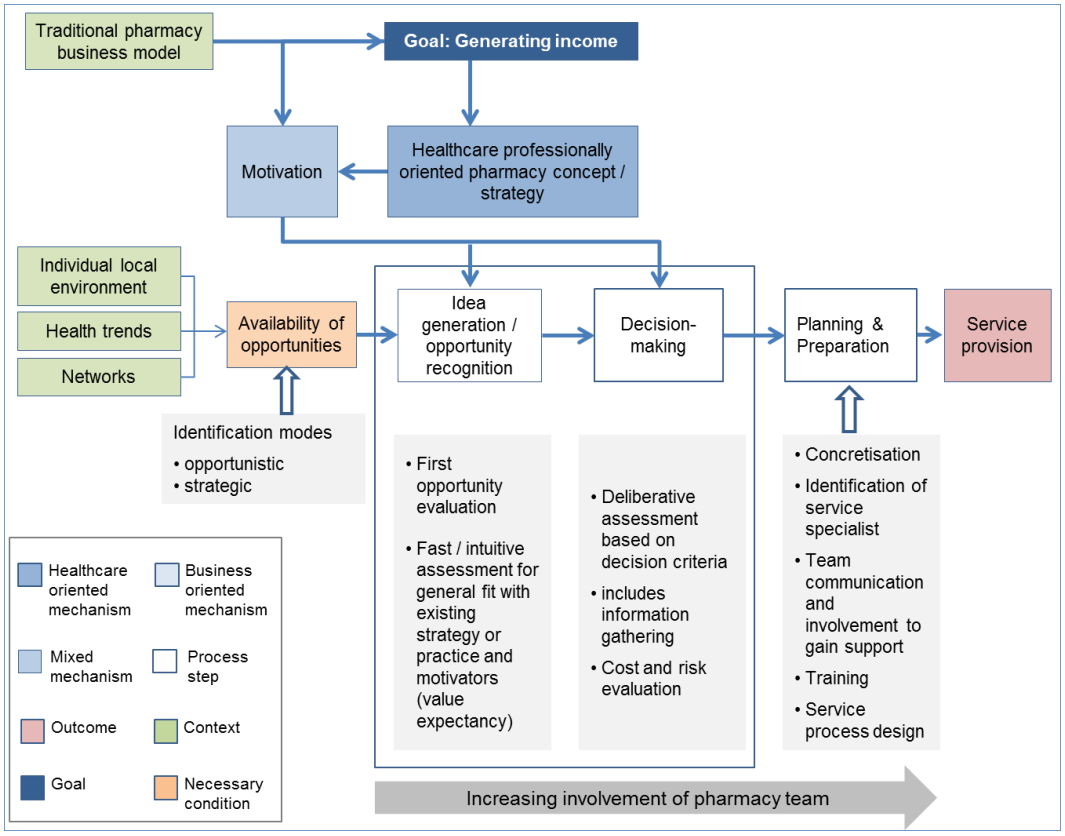
Given the importance of skilled and motivated staff for PPS provision and the difficulty and cost of finding such talent, it is ecologically rational, i.e. fits with the individual context of the decision (Berg & Gigerenzer, 2010) to decide against service provision if the resource situation is inadequate. Instead, it is reasonable to focus on the traditional business, especially when considering that service provision competes for resources with other pharmacy tasks and requirements. In the case of Germany, pharmacist-owners indicated that PPS provision competed with complying with zero-reimbursement regulations, which not only takes time but also has the power to directly and negatively impact on pharmacy profitability. Likewise, it can be argued that satisficing, as found in small businesses (Greenbank, 2001), is ecologically rational, i.e. to stay with the traditional dispensing model and provide few services or refrain from specialising, if the environment does not indicate specific demands and the competitive and overall financial situation is comfortable. Since patients choose their pharmacy mainly for convenience, accessibility (e.g. opening hours), friendliness, interpersonal relationship with the pharmacist, and availability of products (Naik Panvelkar, Saini, & Armour, 2009; Patterson et al., 2013; Wirth et al., 2010), and less so for specific services (Patterson et al., 2013), pharmacists may not have to do more if the main patient benefits can be fulfilled.

Furthermore, limited service provision needs to be seen in the light that running a pharmacy based on the traditional dispensing model does not exclude that patients get individualised counselling based on their needs, which pharmacist-owners reported doing out of professional obligation and which they perceived to lead to patient satisfaction, which is commensurate with findings in the literature (e.g. Perepelkin & Zhang, 2014). Thus, the smallness of pharmacies, as a structural mechanism at the domain of the real, influences pharmacist-owners' decision-making and can explain the limited uptake of professional service provision. However, this also means that a decision against a service may not have to be permanent but rather reflects a snapshot of a specific situation, such as a momentary capacity bottleneck (e.g. due to staff attrition) or having to attend to other priorities (e.g. dealing with zero-reimbursement issues) and may be reversed when circumstances change.

5.4.3.3 Decision-making process: from opportunity recognition to planning & implementation

The tentative explanatory framework suggested that after recognising a service opportunity, a decision-making process sets in, which consists of an initial mainly experience-based opportunity screening followed by information gathering (Hang & Wang, 2012). Findings from the empirical investigation support a two-step conception. However, different to the model from Hang and Wang (2012), the initial screening appeared to be more intuitive and was interconnected with opportunity recognition, followed by a deliberate, information-based assessment of the service opportunity. This indicates a movement from intuitive to deliberate decision-making and is in support of dual system decision-making theories, whereby initial intuitive decisions are substantiated and confirmed or refuted by rational decision-making (Alter et al., 2007). The process from motivation to decision-making and planning is shown in figure 35 and illustrated in the following.

Figure 35: Opportunity evaluation, decision-making and planning process



Source: own illustration

In support of a two-step decision model, the first assessment of a PPS opportunity appeared to be a quick, subjective attractiveness evaluation influenced by past experience with previous services (both successful and failed), knowledge of the pharmacy's patronage profile and general resource situation, as well as impression of general fit with existing strategies or practice, which signifies the influence of value expectancies (motivation) and decision criteria. Such interconnectedness of opportunity recognition and first intuitive assessment at the domain of the real is likely, since aspects assumed to lead to opportunity recognition, such as cognitive frameworks, attitudes and experiences (Baron, 2006), were also identified for intuitive decision-making (Salas et al., 2010). An example was given by P04, who was sceptical about offering unit-dose dispensing to ambulatory patients, suspecting a lack of demand based on having failed with a similar service in the past. Such first evaluation must be present as a more detailed assessment and information gathering can only occur when an idea or opportunity appears sufficiently attractive. As P15 pointed out, a more deliberate evaluation (based on the identified decision criteria), in the sense of consciously considering the service and potential consequences was useful to ascertain first impressions.

P15: *I:* *"Do you make use of opportunities, when they appear?"*

P: *"No, not right away, no. I'm very critical and very self-critical and I consider it from different angles. I am not a doer who jumps at it right away and says: 'GREAT, COME ON, let's do it' No. I always ask myself first 'what it the benefit for the patient?'"*

Mostly, information regarding the decision criteria was taken from the environment, e.g. the existence of a specialist physician and / or observed prescription or purchase patterns. In some cases, e.g. irritable bowel syndrome (IBS) counselling (P12), facial analysis (P18), the decision seemed based on prior experience with similar services. Cost and risk assessments were rarely applied and if so, on some basic information. Only in some cases (e.g. P08), pharmacist-owners conducted market research to substantiate decision-making for new service ideas or expanded services based on market research data (e.g. delivery service, P15), or decided on a service after looking into available evidence about its patient health benefit.

P19: *“It must, as stupid as this may sound, fit with us. For instance, we have never offered this bone density measurement at the heel. That we have never done, because we had informed ourselves and have realised that the evidence-base is really bad.”*

As part of the decision process and due to the experience, that motivated staff to provide a professional service and that overall team support was necessary, the opinion of the pharmacy staff was usually sought. Hence, there was a tendency to increase involvement of (parts of) the pharmacy team by discussing ideas at team meetings (or department meetings in the larger pharmacies). Only in some cases did the pharmacist-owner make the decision without consulting with the team (e.g. P12) or involved only a small group of employees in order to avoid ‘endless’ discussions (e.g. P01).

Contrary to the tentative explanatory framework, development or generation of alternatives (Hang & Wang, 2012; Liberman-Yaconi et al., 2010) could not be identified from current findings. It rather appeared that only one opportunity at a time was considered. The reason for not seeking or developing alternatives, which signifies a reactive stance towards opportunities, appears to be the smallness of pharmacies and their local embeddedness. Whilst this may sound like a contradiction to being pro-active, open and alert, it points towards pharmacist-owners using a satisficing approach to PPS provision, which was identified for (mature) small businesses (Runyan et al., 2008). This includes an inherent search for options in relation to aspiration levels (Simon, 1979) and means that when an opportunity is identified, which is meeting the decision criteria sufficiently well, there is no need to seek for better alternatives to maximise on value expectancies. Yet, this does not exclude the possibility that several service opportunities are compared if they are recognised at the same time.

Following a decision for a service, as shown in figure 35, service implementation was planned. However, the decision-making and service planning steps were not clearly demarcated but rather interconnected, since some planning aspects tended to have been addressed within the decision-making phase. As a service would not be considered for implementation without passing the feasibility criteria (capability and resource availability), the important question of who will provide the service (including the owner)

was often already answered. Hence, current findings indicate that intention for implementation is formed during decision-making based on the decision criteria. Specifically, clarification about the availability of motivated staff and / or team support appeared to increase commitment and lead to a positive decision. This provides further support for a two-step decision-making model, since, according to the Rubicon model of action phases (MAP), the transformation of a goal intention into a implementation intention increases commitment to act, followed by a planning phase, which is volitional in nature and concerned with how the goal should be achieved (Heckhausen & Heckhausen, 2006). Planning is thus the concretisation of the service decision leading to actual PPS delivery, whereby the designated service specialists tended to be responsible for service planning.

Planning tended to follow some general organisational steps. A first step was staff deployment, equipment and knowledge acquisition. This included getting the necessary equipment, such as additional databases (P07) or different types of asthma inhalers (P04, P14), and sending the designated service providers to training seminars to have the necessary specialised knowledge to provide a service in good quality, as indicated by P10.

P10: *"What can we do? And what do we want to do? What are the prerequisites? What do we have to do, what do we have to acquire, what knowledge do individual employees need to have or where do we need to refresh knowledge, so everyone can do it. This is getting analysed consistently and at one point we have the result. 'Tell me, is anything missing?' 'No / yes.' This gets complemented and then implemented."*

The second step was the design of the service provision process and content of the service offer. This included the location of service delivery, e.g. at the counter or in the separate counselling room (e.g. P04), service documentation and considerations about which data are documented including data protection requirements (e.g. P01), development of standard operating procedures (SOP) for the quality management system (e.g. P08), and / or starting to establish networks with other HCPs if needed for service provision (e.g. P01, P08, P14). A third step was service communication within the pharmacy team and included the dissemination of the service

provision process to all staff and ensuring that it was understood, e.g. that patients with a specific problem should be referred to the specialist (P01). In some of these cases, e.g. for some diabetes and asthma inhaler services (e.g. P14, P17), service provision rather developed out of patient needs experienced from actual patient encounters and were then just naturally and informally developed further.

Following the decision for a service and some form of preparation, most pharmacies seemed to just start with service provision.

P19: *"We observe how it goes and if it is accepted, it gets expanded."*

Throughout the analysis on PPS decision-making and planning, it was noticeable that – with a few exceptions - pharmacist-owners made little use of business professionalising, i.e. using management tools, to substantiate decision-making or formalise service planning. This is in line with findings on small business decision-making (Jocumsen, 2004) and the outcomes from Moullin et al. (2016), who characterised service planning as informal and only identified few pharmacies objectively evaluating decisions.

There are several reasons for making little use of professionalising, which are pharmacy size, the nature of professional services and their importance to the pharmacy. The nature of professional services seems to explain the lack of or limited testing before implementation, as the relatively low initial investment for professional services minimises risk. Furthermore, explicit trial of a service might not be necessary, since most services are provided individually, for one patient at a time and thus tend to 'fly under the radar' at the beginning. This is giving the pharmacies the possibility to ease into service provision and gain experience. Incrementally expanding a service with increasing demand thus it resembles a strategy typical for small businesses to reduce risk and keep the service manageable (Culkin & Smith, 2000). Only a few pharmacies reported testing the services before a full launch. For instance, P12 only acquired a technology needed for a service after successfully testing patient acceptance, thereby minimising risk. Based on the positive results, the service got included in the pharmacy's service programme with continued satisfying results.

The lack of decision substantiation can be explained by the decision-power and responsibility vested in the pharmacist-owner, as pharmacist-owners do not need to justify a decision to other managers or superiors via objective market research (business intelligence). Therefore, political decision-making, which is found in larger companies (Eisenhardt & Zbaracki, 1992), is not needed. A further explanation for the lack of business professionalisation was offered by P19, who thought that preparing a business plan for every service was over-engineered for pharmacies due to their size compared to other types of companies. This indicates that the smallness of pharmacies can impede professionalisation (even for larger pharmacies such as P19) but also that the close proximity of pharmacist-owners (and staff) to their customers or patients coupled with experience (Greenbank, 2001), makes extensive collection of business intelligence costly whilst adding little value.

Interestingly, the relative lack of formal evaluation is in stark difference to handling decisions on inventory management, which was highly optimised to secure supply readiness and where pharmacist-owners applied KPIs for assessing their business performance and made decisions deliberatively based on data. Thus, current findings point at the importance of the decision regarding its impact on the pharmacy as a further explanation, which is based on the perception of professional services as a marketing tool, rather than a business area. This notion is supported by the finding that fully-fledged business plans were rather done for important or high-risk projects involving very large investments, for example, moving the cytostatic drug compounding lab to a new location (P09) or for services intended to become a major business pillar, for example the introduction of a mother & child service to bind a new clientele to the pharmacy (P08). Yet, as PPS provision is a cost factor, it would be rational for all service opportunities to be subject to market research and some preliminary tests to check for potential pitfalls, such as existing or nearing market saturation before offering a service.

5.5 Linking the service provision process to service success and sustainability

Whilst thus far, the analysis elucidated the different steps involved in the front-end of PPS development, this section addresses RQ4 and identifies and discusses factors contributing to service success and service sustainability, starting with discussing the factors influencing perceptions of PPS success.

5.5.1 Perceptions of service success

The service analysis showed that pharmacist-owners perceived services differently regarding their success. Success was assessed by pharmacist-owners' replies to the question whether they were satisfied with the service and by descriptions indicating satisfaction or success. As shown in table 15, nearly two thirds of the analysed services were perceived as successful by pharmacist-owners.

Table 15: Pharmacist-owner satisfaction with professional and non-professional services

Type of service / satisfaction with service	satisfied	Not, not fully or not yet satisfied	n/a	Total
Non-professional pharmacy services	5			5
Professional pharmacy services	37	13	10	60
Total	42	13	10	65

Source: own interview data; distinction between non-professional and professional services based on the definition of Moullin et al. (2013) as shown in section 1.1

In line with service assessment perceptions observed by Gebauer (2008), current findings suggest that pharmacist-owners were satisfied with a service and perceived it as successful when it provided a noticeable effect over time and met or exceeded expectations. The expectations were mainly linked to pharmacist-owners business-related motivations, i.e. to what extent services

had the ability to generate new customers, bind customers, differentiate the pharmacy, or help build image to ultimately support income generation from dispensing and selling, but were also linked to positive patient feedback and the professional satisfaction gained from helping patients. Examples of professional services meeting or exceeding expectations are new PPS offers leading to an increase in new customers (P18), or offering facial analysis and other services resulting in having built a reputation as expert in alternative medicine (P12). Further examples include services, which were linked to prescriptions and directly generated income such as breast pump rental (P19) or cytostatic drug compounding (P03, P07, P09).

The level of satisfaction seemed to depend on the level of expectation. Pharmacist-owners were disappointed when services did not take off as expected. This was the case with medication use review services, offered by P07, P08, P09, and P19 or unit dosing services offered by P01 and P19, where pharmacist-owners had generally received positive patient feedback but demand was still low.

P19: *"Well, we have advertised it quite often but the RESULTS are not as we would like to have them. But we strongly believe into this service and we believe that it will become more popular. We maybe still have, are still a bit ahead of time."*

Equally, when pharmacist-owners appeared to have modest expectations of a service, they were satisfied by simply providing it and thereby creating some differentiation for their pharmacies (e.g. wound care service, P01 or asthma inhaler service, P04). Similarly, P05 was satisfied with a small-scale medication management service for persons with disabilities, as it motivated an employee and achieved positive results for the patients. This example shows that in some cases satisfaction was related to healthcare professional oriented results, i.e. when it helped patients or generated positive feedback from patients and other healthcare practitioners.

In line with findings from the literature review (Eades et al., 2011; Thornley, 2006), the most important success indicator for pharmacist-owners appeared to be demand. The example below refers to the non-professional service of extending opening times, but demonstrates that a service is seen as

successful when expectations (set during decision-making as assumed demand was a key decision criterion) are fulfilled or exceeded.

P19: *"And there, were completely wrong in our estimation. […]. We had not thought that this service would be such a resounding success from the start."*

Not surprisingly, lack of demand led to services being perceived as less successful or not yet satisfying, e.g. by not being able to amortise the investment, which P12 experienced with an oxygen inhalation service, which "[…] *ultimately did not pay off".* Likewise, a decrease of demand reduced satisfaction with a service. Reduction in demand tended to be the result of market saturation, either self-induced by offering a service at a (too) high frequency, in the case of a hearing aid service provided by P14 or due to increase of competition as experienced by P09 for a weight management service.

Despite the effect of expectations on perceived satisfaction with a professional service, pharmacist-owners did not systematically and accurately measure service outcomes or success. This appeared to be due to difficulties in measuring intangible concepts such as customer satisfaction or image in connection with a specific service, as demonstrated in the following quotes.

P18: "Well yes, like I said, sometimes one also generates additional turnover and then comes the other aspect, which I had mentioned before, that one cannot measure directly, but can just increase customer satisfaction and customer frequency."

P10: *"One cannot really MEASURE this, but it is not like that this has no impact but this goes over YEARS that one builds an image which then must be nurtured. One has to continue doing it."*

Many pharmacist-owners thus deduced PPS success holistically from personal observations of patronage or collecting patient feedback and the perceptions of the (mostly intangible) positive aspects of a service, such as employee motivation or customer satisfaction. For instance, P01 documented patient feedback related to a service and P18 checked sales of certain products following a patient seminar, whereas P04 conducted market research to generally assess patient satisfaction and performance against

competitors. Specifically, the success of services linked to more common health conditions such as diabetes or asthma was difficult to measure. Here, some pharmacist-owners resorted to indirect measures such as using customer card information (P01) or purchasing additional data to monitor the sales development of diabetes-related products, whereby a steady sales increase of this product group indicated services success (P15). In contrast, demand or financial results of fee-based or very specific prescription-based services could easily be tracked in the computer system. Examples are unit dosing services (e.g. P19), IBS counselling (P12), or fitting of compression stockings (e.g. P01) but also the HIV service (P08) due to a very specific clientele.

P12: "*Yes exactly. We have this in the computer system, how many measurements we make and the turnover generated.*"

Yet, even those pharmacist-owners, who measured the frequency of professional services, did not assess total impact on financial KPIs, including product sales (e.g. P12). Whilst some pharmacist-owners acknowledged that they could measure more and more accurately, they did usually not employ available possibilities (such as using the computer system to link a purchase or prescription to a service) at the time of the interviews.

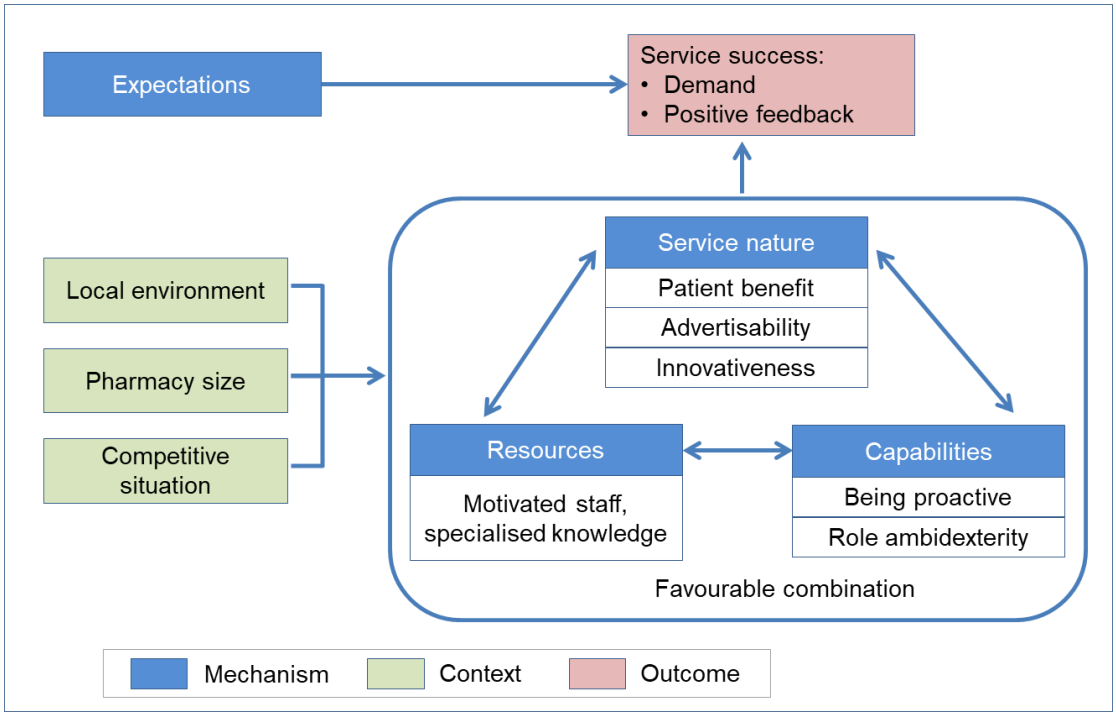
P18: "[…], yes that would actually be a good idea (laughs). We have not done it like this yet. Well, one could really somehow spend the whole day at the desk running analyses."

This indicates that despite seeing the importance of assessing service success, it is not frequently employed due to the difficulty of measuring, time constraints (e.g. P01), or having other priorities. Furthermore, as most services were cross-financed through dispensing and NPM sales, pharmacist-owners seemed content with the services as long as the perceived positive effects and the investments were balanced, or put differently, as long as pharmacist-owners did not perceive services to be a loss.

5.5.2 Success factors for PPS provision

The tentative explanatory model for successful PPS delivery suggested a range of success factors. These were motivated staff, demand creation, a clear patient benefit, pro-activeness, trust-building with physicians, organisational aspects or the creation of a viable financial model (Roberts et al., 2008; Tann et al., 1996; Willink & Isetts, 2005). The results from the current study largely corroborate these findings and highlight the influence of role orientations for achieving service success and sustainability. From the analysis of the 60 professional services, it emerged that success (i.e. satisfaction with a service meeting or exceeding expectations) appeared to be dependent on contextual factors and a mix of three mechanisms relating to healthcare professional and business-oriented management of service provision, as illustrated in figure 36.

Figure 36: Factors contributing to PPS success



Source: own illustration

These are the nature of the service, the availability of resources necessary for service provision, and capabilities to manage service provision. Figure 36 illustrates that these mechanisms in a favourable combination lead to

successful service provision, influenced by the local environment, pharmacy size and competitive situation, as discussed in the following.

5.5.2.1 Nature of services

The analysis of the services showed that the professional services differed from each other in their set-up, which consists of different dimensions forming the nature of a service. An overview of these dimensions is shown in Appendix 11. For instance, services differed regarding their focus as some professional services were provided for a specific indication, such as diabetes (P04) or multiple sclerosis (P07), and others under a thematic umbrella, like offering services fitting with the pharmacy's specialty in alternative medicine (P12). Similarly, some services were more time consuming than others (e.g. medication management vs. asthma inhaler service) or had different remuneration approaches. Whilst P12 charged service fees for IBS counselling or facial analysis, P08 provided HIV counselling free of charge and some services such as fitting of compression stockings were provided upon prescription. Some of the dimensions were more inherent in the service and determined with the choice of a given service. Yet, most were open to adaptation and down to service design and management decisions. For example, the dimension of HCP dependence was high for cytostatic drug compounding, as this type of service works in close cooperation with oncologists. It is somewhat expected for a medication use review service, since identified medication issues are communicated to the physician (e.g. P07). However, it was a choice of P08 to intensify cooperation with the immunologist for the HIV service and the choice of P12 to offer IBS counselling independent from physicians (although patients were encouraged to talk to their physician about their issues).

Although the analysis of service nature dimensions did not reveal a specific 'success combination', it emerged that the dimensions of patient benefit, innovativeness, and "advertisability" had some influence on service demand, which was, as discussed in the previous section, a key success indicator.

Patient benefit seemed to be the most important aspect to achieve demand. The literature review showed that patients' expectations were related to the traditional dispensing function and that awareness about the existence of professional services and expectancies about the services' benefits was low, and that some patients expressed doubts about pharmacists' competence (Carter et al., 2012; Eades et al., 2011; Wirth et al., 2010). Current findings support this, as the services, which were perceived as successful, had in common that they provided a recognised patient benefit. It was not sufficient when pharmacist-owners believed that a service provided a health benefit; the patients also had to understand the service and perceive it as beneficial for them.

P15: *"Well, a service with all its features must bring the patient THE benefit he expects. Well, if I provide a service and tell the patient a result and he says 'Okay, now I know that but I don't know what to do with it', then the service has no value."*

The analysis identified that such recognised service benefits were getting a service on prescription, convenience (saving time and effort and / or money), obtaining new, useful and relevant information and getting time, attention and individualised solutions to a health problem from a healthcare practitioner. This resonates with findings from White et al. (2012), reporting that patients perceived acquiring medicine information, feeling appreciated and tended to as well as receiving reassurance about their medication use as benefits from home medication review services. It also resonates with those of Thornley (2006) who identified accessibility and the possibility of receiving ad-hoc service delivery as perceived patient benefits, which fits with convenience. Whilst for most services, patient benefit was determined through customer orientation (acting on customer demands) or healthcare professional knowledge, this appeared more difficult for innovative professional services, since the medical benefits perceived by pharmacist-owners were not necessarily seen or understood the same way by patients. For instance, Hessemer (2016) found that about one third of interviewed diabetic patients, who are organised in self-help groups, did not perceive a need for medication use reviews.

"Advertisability" refers to the possibility of mass advertising to generate awareness for and interest in a service. As exposure to professional services was found to increase knowledge, acceptance and satisfaction (Eades et al., 2011; Naik Panvelkar et al., 2009), communication efforts regarding patient benefits are necessary. The most common marketing avenue is personal selling (Patterson et al., 2013), which was perceived as likely to take time (Hopp et al., 2005). This was confirmed by the current study, since for most services, patients were approached one by one thus needing an extended period of time to build image or (indirectly) generate income. Most pharmacist-owners advertised their professional services on the pharmacy website, and via posters and informational brochures in the pharmacy which are handed out to patients (e.g. P05, P07); some also informed nearby physicians (e.g. P12, P14). Yet, as most patient-centred professional services are provided individually and are time-consuming, mass advertising is not profitable causing such services to grow slowly, as indicated by P19.

P19: *"But if you, as a single small business, want to offer your services; to really get awareness is only possible amongst your own customers. To advertise publicly gets very quickly very expensive and you have to see, services are nice but one (laughs) wants to earn some money with it and not only invest money into it."*

Exceptions were made for services, which were recurring and demanded, e.g. a weight and nutrition management course (P10), or had the potential to draw a larger audience such as patient seminars (e.g. P18). Specifically, patient seminars served as platform to draw customers to the pharmacy, explain patient health benefits and promote the possibility of individual counselling on a given topic (e.g. IBS counselling, P12). Patient seminars also seemed to be a useful tool for testing patients' interest in a topic, since seminars which attracted interest, resulted in immediate bookings of individual counselling sessions (P12, P15, P18).

Innovativeness of a service had an impact on patient benefit, as for traditional or standard services the benefits are either known or easy to establish. Services with known patient benefits such as fitting of compression stockings do not need much explanation, as patients likely know why they need compression therapy (since the stockings are provided upon

prescription). The asthma inhaler services required some conversation with the patient to establish the need. However, the benefit could be demonstrated by helping patients to use their inhalers correctly and thus achieve an immediate effect, for which, as P14 reported, patients tended to be very grateful. In contrast, pharmacist-owners experienced difficulties in attracting patients to innovative professional services less known regarding their existence and patient benefit, exemplified by the following quote regarding a unit-dosing service.

P01: *"We currently only have about ten customers, who use the unit-dosing service. And we are wondering why there are so few. Still, I believe that this will increase. […] There is a market for convenience products. […] And pharmaceutically, this is a great thing, […]."*

Innovative services needed more explanation and this, at least initially, appears to limit service provision to a special clientele of patients with more scientific interest (P05), higher education levels, or a strong need, e.g. chronically ill patients (P09, P19), echoing findings from the literature (Carter et al., 2013; Stevenson et al., 2008). Yet, the IBS counselling service (P12) illustrates how advertisability combined with patient benefit led to high demand. The service was offered as a result of a seminar on the very topic, which had been advertised by the pharmacist-owner, resulting in very high attendance. Thus, the pharmacist-owner realised that the topic of IBS was 'hitting a nerve' with patients, i.e. that there was a patient need to obtain relevant information. In addition, the individual counselling provided the benefit of spending time with a healthcare practitioner (Thornley, 2006; Tinelli et al., 2011). Due to the high demand, IBS counselling was thus incorporated into the pharmacy's general service offer, whereby income was generated via a counselling fee and product sales.

Interestingly, the analysis showed that remuneration for a service could not be directly connected to service success in either way. Against some pharmacist-owners' beliefs that patients are unlikely to be willing to pay for professional services, service fees did not impact negatively on service success but seemed to be accepted by patients, as experienced by P12.

P12: *"There is a sufficient number of people, who are willing to pay for the information and one has to implement this [charging service fees] more confidently in public than it is currently practised [amongst pharmacists]."*

This indicates that, if a service provides a recognised patient benefit, willingness to pay may increase, which is in line with Painter, Gressler, Kathe, Slabaugh, and Blumenschein (2018), who suggest that understanding for which types of services patients are willing to pay, will help the transition to a sustainable business model for professional services.

5.5.2.2 Resources: competent and motivated staff

In line with results from the literature review, current findings indicate that professional services were often provided by staff pharmacists and that service success depends on employees who are competent, have had training on the service, have a genuine interest in helping patients and the ability to communicate in a friendly and respectful way whilst meeting patients' individual information needs. This is important as healthcare professionally motivated and competent staff is needed to reach the goal of binding customers or building image and it further confirms the mechanisms of loyalty creation identified by identified by Elvey et al. (2015); Perepelkin and Zhang (2014); Planas et al. (2005) found within the traditional dispensing-based business model. In further support, the reverse, i.e. lack of competence and self-efficacy, as well as lack of communication skills in the patient encounter have been reported as barriers to professional service provision (Bradley et al., 2008; Bryant et al., 2010; Eades et al., 2011).

Pharmacist-owners appeared to be aware of this and acknowledged the need to assign service provision to motivated employees. They believed that those who provide the service (employee or owner) must have interest in patient care, a personal interest in the service, be convinced about it, and must want to provide the service (e.g. P05, P15, P18, P19). For instance, P09 perceived intrinsically motivated employees with a healthcare professional orientation and a focus on helping patients as instrumental for general counselling as well as for PPS provision. According to Deci and Ryan

(2008), intrinsic motivation leads to tasks being done volitionally but also with better efficiency and persistence. In fact, the current findings confirm this, as motivated staff volunteered to go on service-related trainings, tended to have confidence into own capabilities, and personal interest in the service. Regarding the latter, pharmacist-owners perceived it easier to communicate a service to their patients if they were personally convinced about its usefulness.

P12: *"I can't act like a natural medicine enthusiast and not stand behind it. I think that people realise that after a while."*

In the case of P12, personal interest was linked to image building as it seemed to provide authenticity, which was perceived necessary to build a credible image. Being transparent about what a patient can expect from a service also helped credibility (P12), as was being patient-centred and showing that one was making an effort (P06).

Thus, having staff with a healthcare professional orientation, specialised knowledge, and communication skills to 'sell' the patient benefits of a service and provide good counselling are important resources. This is emphasised by P18, having an alternative practitioner pharmacist working for the pharmacy, who initiates and provides majority of services and has the ability to communicate the service benefits, as indicated below.

P18: *"She does that really well with presenting the messages she takes from the results [of the service] to people."*

Due to the importance of having knowledgeable staff, pharmacist-owners were willing to invest financially into the necessary knowledge via training and continued education to build a competent team.

P03: *"The most important aspect was the consistent training of my team."*

This is linked to the motivators for PPS provision, as sending employees to training courses or letting interested employees specialise in the service topic and take the lead in service was done to motivate and retain qualified staff.

5.5.2.3 Capabilities

Whilst the nature of a service contributed to demand and hence service success, it appeared not to be sufficient to explain successful PPS provision. As the identified service properties are generally manageable (albeit with different difficulty), successful service provision also depended on how pharmacist-owners approached service provision within a pharmacy's resource endowment. Pro-activeness and role ambidexterity were capabilities at the personal and organisational levels needed to manage service provision successfully.

Pro-activeness emerged as an overarching theme related to professional services, which were perceived as successful. This research thus confirms previous findings of the importance of pro-activeness for PPS provision and innovative practices identified in leading edge practitioners (Tann et al., 1996) and highly entrepreneurial pharmacy clusters (Jambulingam et al., 2005). In addition, current findings demonstrate the pervasiveness of pro-activeness across the overall PPS provision process, relating to business role and healthcare professionally oriented aspects. Being proactive was not only needed for opportunity recognition, but also for implementing service opportunities and actual service delivery by persistently looking for cues in patient conversations and actively offering the professional services to patients. Without some degree of activity from the pharmacist-owners and their teams, professional services cannot be recognised, developed and provided to patients. As discussed before, pharmacist-owners differed regarding their pro-activeness. Those with a more proactive attitude tended to open to new ideas (e.g. P05, P12), scanned their environment (e.g. P01, P07), kept up to date on new developments or healthcare trends (e.g. P07, P12, P19), and were alert to upcoming opportunities and willing to seize them. Pro-activeness thus included being implementation-focused (P05) and just doing things (P01). Being the first to detect and then exploit a local demand provides a competitive advantage, especially if the resultant service is provided in high quality (P01, P07).

However, to achieve success, a 'can do-attitude' needed to be supplemented by focus and tenacity during service development and delivery. Pharmacist-

owners had experienced and believed that to build a service, one needed to focus and persistently follow through, and rather offer some services well instead of trying to offer everything and then not being able to deliver, as pointed out by P08.

P08: *"And when you start a thing then you have to do it right. Half-hearted does not work. Then you really have to pick a few [service] topics and really push them through."*

However, in order to build a service, pharmacist-owners and staff needed to be tenacious in steadily identifying appropriate patients, offering the service to patients (P09) and continuously promoting the service (P19). Since most professional services were advertised and provided individually (due to mass advertising being too expensive (P19)) and were rarely directly requested by patients, services needed to be offered persistently, e.g. by looking for and acting on cues from prescriptions or conversations with patients (e.g. P06, P10, P12, P14, P18).

P12: *"[…] we have the big advantage that we can see from the prescription what kind of problem the patients have. And then, one can cautiously ask whether they are doing well with their medication and so on and then people usually start talking if they have a problem and then one can go back to telling them about these things [services]."*

It also required tenacity to keep a service going and avoid that it gets forgotten amongst daily routines.

P15: *"[…] it has to be constantly promoted. Yes, like a perpetuum mobile – it has to ALWAYS be in motion or repeated like a mantra."*

This is linked to personal interest as personal conviction appeared to help enduring the investment of time and effort into the service and enabled service provision with enthusiasm.

P05: *"Above all, it does not make sense to copy a colleague. To advise someone who does not have ideas of his own, a vision or interest, that does not work. That's how I see it. In the beginning, you have to invest so MUCH more than you get out of it. You sit in your pharmacy for 50, 60 hours per week if need be. Doing that AGAINST your inner drive – forget it."*

Eventually, networking, a feature of pro-activeness that was identified as important to identify service ideas, was also needed to ensure or improve service features and service quality. Networking for PPS provision also included actively seeking collaboration partners, e.g. physicians (P07, P08), midwives (P08, P09) or care facilities (P05), actively addressing self-help groups in order to improve a service, learn more about a health condition, and increase awareness for the service (P07, P08), working with companies to provide services for them (P02, P10), cooperating with other pharmacies to gain economies of scale (P19), contacting the pharmaceutical industry to garner service support (P07), or utilising memberships in specialty associations (e.g. the association of cytostatic drug manufacturing pharmacies (P03)) to be up to date and ensure quality of services. A good relationship with other healthcare providers (e.g. physicians, midwives) was as a success factor for those professional services requiring collaboration and / or support (e.g. drawing blood for pharmacogenetics therapy, medication management reviews). Physicians, for example, have the power to obstruct service provision by refusing to collaborate as experienced by P05 but their endorsement can add positively to a service offer.

P08: *"Then it makes sense, of course, to contact these physicians separately and, for example, check whether the physicians are willing to make internal trainings in the pharmacy. With this, I have made positive experiences, when one approaches the physicians."*

Hence, some pharmacist-owners built relationships with physicians, e.g. by signalling to physicians and other HCPs that pharmacy is willing to help, e.g. in compounding individual medications according to physician needs (P09) or establishing regular meetings to improve a service by augmenting patient benefit (P08). Such relationships, which have been identified as important facilitator for PPS provision (Roberts et al., 2008) can be regarded as a resource and having the skill to establish trusting working relationships as a capability leading to a competitive advantage. The underlying mechanism to pro-activeness appeared to be experience and a belief that getting active is possible and leads to desired outcomes such as building a beneficial working relationship with other HCPs.

Role ambidexterity also emerged as an overarching theme. Linked to the dual role of pharmacists, role ambidexterity crystallised as a success factor for running a pharmacy and for PPS provision. Role ambidexterity is the ability to combine healthcare professional attitude and practices with applying management tools, marketing and communication skills to create demand for services, 'selling' them, manage patient expectations, and ensure that the necessary knowledge and specialists are available. As discussed earlier, healthcare professional and business orientations manifest across service development process. The dual role is ingrained in pharmacy practice as running a pharmacy and providing professional services requires 'jumping' from healthcare professionally oriented tasks to business oriented tasks and vice versa, which had also been observed by Hopp et al. (2005). From the involvement of the dual role in all process stages, role ambidexterity emerged as an individual and organisational mechanism for successful PPS provision.

In relation to the traditional dispensing business, role ambidexterity was demonstrated by giving attention to business aspects of inventory management as well as to patient-centred counselling, thereby acting on two different pathways leading to customer satisfaction, as discussed in section 5.4.1.3 / figure 33, whereby being able to apply both roles to their respective effects, constitutes a competitive advantage. This application of role ambidexterity was present in all pharmacist-owners and perceived as the cornerstone of the viability of their business.

In support of the tentative explanatory framework (figure 19), both role orientations also influenced the service provision process and contributed to service success. The business-oriented aspects relate to organisation and marketing and the healthcare professional aspects to knowledge, patient-centredness and empathy. Application of the health professional role aspects helped ensuring service quality (mainly through knowledge acquisition and empathetic communication) whereas the business role orientation provided structure and focus. The main impact of role ambidexterity is manifested in managing the nature of the service, specifically the service dimensions of advertisability and patient benefit, and managing the resources needed for the service.

Role ambidexterity was linked to the resource of motivated staff. Pharmacist-owners applying role ambidexterity were interested in providing quality services with a healthcare professionally oriented service design and offering a patient benefit. Hence, healthcare professional orientation was applied to identify motivated staff, enable staff to obtain the necessary factual knowledge and also look after the necessary social skills so that services were provided empathically, which P08 stated was a reason for the success of the HIV service.

P08: *"[…] well, we definitely have distances of more than 300 km between a customer's home and our pharmacy, we thus must give him reasons why he obtains his medication from OUR pharmacy and not from another one, for example near his home. And this has to do with this, especially with this empathy. That the employees approach this with much sensitivity."*

Business orientation was applied to manage staff and professionalise the service process, e.g. by training staff to offer services. Yet, whilst P12 actively offered professional services, he admitted that the process could be further improved.

P12: *"This concept [scheduling individual counselling and charging service fees] is not perfected yet. […] There are colleagues, who get this done better than me. […] There, the pharmacist spends the whole day in the counselling room and the staff is well instructed and schedules the counselling appointments."*

Furthermore, balancing healthcare professional and business interests was also demonstrated by only training a limited and selected number of specialists for a service, to whom patients can get referred to, instead of requiring all staff to provide a service. This is a rational decision, not only from a profitability perspective (saving money by not training all staff in one service) but it also avoids forcing employees into providing a service they may be uncomfortable with. This questions the assumed necessity of needing all staff to be able to provide professional services (Kaae & Christensen, 2012), unless the service is provided in very high frequency. Yet, current findings suggest that this is rarely the case, since pharmacies cater to a diverse range of healthcare needs.

Aside from deploying existing staff according to their skill-set in relation to the business requirements, role ambidexterity as a capability is needed to identify a professional service's relevant patient benefits and the ability to communicate them to patients / potential service users. Since some service benefits were difficult to communicate, having a working communication approach constitutes a marketing capability and a success factor. The identification of a patient benefit requires reflections about overall patient needs, including social aspects as shown in the quote from P08 above, but also marketing and communication skills to convey the benefit. Communication skills related to service success were those healthcare professionally oriented skills also needed in general patient counselling. They included, for instance, asking questions and checking for any medication use problems and continuously offering help (P06), the ability to explain medical issues in a consumer-friendly language to ensure that the medication information is understood by patients (e.g. P07, P08), to give explanations about lifestyle improvements (e.g. P16), to manage expectations by not making exaggerated promises (e.g. P12) and showing empathy (e.g. P08, P17). Communicating the service benefit also requires some creativity; for instance, some pharmacist-owners used devices to support counselling such as a handheld computer for calorie counting (P14) or a nutrition booklet for calorie counting (P16) to support patients in a weight loss and diabetes service, respectively.

Ultimately, role ambidexterity manifested in combining service provision with income generation, exemplified by rounding up a PPS offer with an assortment fitting the needs of the respective patient or customer groups. For instance, pharmacist-owners specialising their pharmacies in diabetes care also tended to offer a wider choice of diabetes related products. Where specific product sales could be linked to a patient group and service, it was easier for pharmacist-owners to measure the impact (success) of the chosen specialisation on their pharmacies.

5.5.2.4 Contextual factors

Whilst context as a largely uncontrollable element did not emerge as directly impacting on PPS success, some contextual factors had the power to tip the service success scales in either direction. These were pharmacy location, competitive situation, and pharmacy size.

Location, e.g. urban or rural, or shopping centre or residential area did not seem to have an impact on perceived service success, as successful services were offered in all location types. Yet, location often determined demand and therewith the service offer. Due to a limited catchment area, pharmacist-owners tended to respond to customer needs or gaps in their local market, e.g. by scanning the market for opportunities. Likewise, nearby physicians provide the pharmacy with a certain patronage profile and potential for service demand. Hence, location rather seemed to support success with the exception of services, where demand and survival depended on the proximity to a (specialty) physician (e.g. cytostatic drug compounding, HIV service). In these cases, having success-generating capabilities would likely not be sufficient to keep a service alive, as these services could lose their patient base if the physician surgery driving the demand would close down or move away.

Competition had some impact on service success. Competitive activity can impact on the attractiveness of a service. For instance, competition can lead to market saturation and decreasing demand as experienced by P09 for a weight management service. On the other hand, the competitive situation can trigger service improvements and reinforce quality as a differentiator. This was exemplified by P08 who focused on service quality as a competitive strategy which seemed to pay off as it was recognised by patients, thereby raising the bar for neighbouring pharmacies.

Pharmacy size also did not seem to impact on service success per se. However, as demonstrated before, larger pharmacies seemed to be advantaged due to their better resource endowment. Thus, as shown in table 16, larger pharmacies offered on average 4.2 professional services, whereas medium-sized and small pharmacies offered less (3 and 2.2 PPS,

respectively), leading to a higher number of perceived successful PPS in larger pharmacies (2.7 PPS vs 1.3 and 1.5 in medium and small pharmacies).

Table 16: Service success and pharmacy size

Pharmacy size	Average number of PPS	Thereof average number of successful PPS	Share of successful PPS on total PPS in %
large	4,2	2,7	63
medium	3,0	1,3	44
small	2,2	1,5	69

Source: own data

Yet, the share of successful services on total services did not show differences between large and small pharmacies. Whilst this effect is likely due to the small sample, it could mean that smaller pharmacies, lacking 'critical mass' in terms of staff and financial resources, concentrate on successful services and quickly discard less successful ones.

Despite a pro-active attitude, some pharmacist-owners were not able to pursue (further) service ideas as they tended to run on full capacity and were lacking the means to build further capacity (e.g. P11, P14, P16, P17). Whilst more evident in small pharmacies, larger pharmacies (which are still micro or small firms) also experienced capacity restraints and were not able to implement all their service ideas, at least not right away. This was due to already providing a range of service and engaging in other activities relating to daily pharmacy practice, taking up energy and resources.

P08: *"I have demanded a great deal from my employees due to remodelling this pharmacy here, restructuring the inventory management system, due to several events, and continued education, and therefore I say that for now, I let this sink in a bit."*

Size can be thus regarded as a boundary condition to PPS provision in German pharmacies (being micro firms), which can limit the overall number of services. Hence, focusing on a few services may be the best strategy.

5.5.3 Role ambidexterity and professionalising as competitive advantage

Current findings suggest that pharmacist-owners, who achieve business and healthcare professional ambidexterity, seem to be better equipped to achieve a competitive advantage. Such advantage was hypothesised by Schmidt and Pioch (2005) and can be confirmed by this research. Furthermore, Heinsohn and Flessa (2013) found that a customer-oriented and strategic management was correlated with business success of German pharmacies, further supporting the importance of role ambidexterity. This competitive advantage is realised by deployment of well-trained and motivated staff (as discussed in the previous section), and by management professionalising PPS provision via re-applying process knowledge and successful service design templates on new services, and by using management tools for the service provision process.

Resulting from research on facilitators for professional service provision, it was suggested that “New services must be part of a greater strategic plan or change management strategy, and each service must have an implementation strategy that includes all of the individual and organisational elements outlined above.” (Roberts et al., 2008, p. 867). The elements referred to are relationships with physicians, remuneration, knowledge and infrastructure (consultation room), having sufficient staff, team communication and external help, which in essence refers to professionalising the service development and provision process. This echoes findings that preparing business plans help turn abstract goals into actionable steps and organise activities (Delmar & Shane, 2003) and that small businesses generally appear to profit from a positive relationship between planning and performance (Brinckmann, Grichnik, & Kapsa, 2010). Yet, as addressed previously, current findings indicate that professionalising was limited for PPS development and provision, demonstrated by scarce utilisation of market research, planning, controlling or analysis, the reasons being the subordinate role of services compared to the traditional dispensing business.

Interestingly, current findings also showed that professionalising depended on the degree of affinity to management topics. More importantly, though, the importance of an issue to the viability of the pharmacy was identified as a mechanism at the domain of the real that can trigger professionalising. The latter is evidenced by findings at the domain of the empirical that all pharmacist-owners engaged in thoroughly managing and optimising their inventories to ensure supply readiness, which is in stark contrast to the relative lack of professionalising PPS provision. Yet, the supply function is an established area of pharmacy practice, where much experience is available and which is directly linked to dispensing, the main source of income generation. This view can be further supported, since pharmacist-owners did more service planning when high investments were involved (otherwise planning was seen as unnecessary) and engaged more in professionalising service provision and evaluation when services were successful, i.e. in high demand and contributed to income generation.

Professionalising as a result of service success and importance also meant gaining PPS provision experience. Pharmacist-owners reflected on positive experiences, i.e. what was found to work well for a given service and the assumed reasons for the positive effects, and used these learnings to expand existing services (e.g. compression stockings P19) or develop new services. Some pharmacist-owners thus used their insights and experiences as templates for new services and two types of re-application emerged. One was pattern recognition, which was applied in opportunity recognition, as illustrated in the example of P14, who recognised an opportunity for an intra-ocular pressure check service as it fit the same pattern as an already offered hearing aid check service. The other type was process re-application. This means that pharmacist-owners used processes that had worked well for existing services to new service ideas. An example is P08, developing a mother and child service based on process experience made from an HIV service. By providing and developing the HIV service, P08 had developed distinctive capabilities such as communication skills to approach patients or building relationships with physicians (the example of P08 on the application of the different success factors can be found in Appendix 12). This re-application of learnings from existing services is a form of professionalising,

since it involved an increasing and more systematic use of management tools (e.g. market research).

The competitive advantage of gaining process knowledge lies in having experience in creating a service, specifically in building and using networks, identifying knowledge needs and patient benefits and team alignment. Thus, service-experienced pharmacies may be faster at seizing and implementing service opportunities than inexperienced competitors. Since, experience appeared to impact on motivation (value expectancies) and decision criteria, it thus closes a (virtuous) learning circle.

In addition to importance and experience, a further explanation for the limited use of professionalising is that, at the domain of the empirical, most services tended to be started on a relatively low scale and were found to take different trajectories in relation to demand and expectations, giving pharmacist-owners the possibility to incrementally build and professionalise the services depending on their development and growing importance. This combines importance and experience and supports the view of business planning and resource allocation as dynamic and concomitant (Brinckmann et al., 2010). For instance, P18 indicated that an alternative medicine counselling service was offered more frequently due to high demand.

P18: *"We just try it and see how people accept it and they are beating the path to our door for this [service]. […] In the moment we realise that people do this and ask for the service, we are almost forced to offer it repeatedly."*

As professionalising was applied with increasing success and importance of a service, it also impacted sustainability, as discussed in the following.

5.5.4 Factors affecting sustainability of PPS provision

Sustainability was linked to service success and achieved, when a professional service was permanently included in the pharmacy's service portfolio. This supports the definition proposed by Crespo-Gonzalez et al. (2017) that services can be regarded as sustained when they are routinely offered and attain the expected results. Current findings demonstrate that

generally, service provision can be sustained and indicate that sustainability is linked to service success, as professional services, which generated (frequent) demand and contributed notably to income generation, increased in importance for the pharmacy and tended to be(come) a permanent service offer. The factors enabling sustainability were identified as availability of service specialists, demand and patient benefit, as well as remuneration and a positive cost-benefit assessment. Whilst external influences could impact these factors, pharmacist-owners demonstrated that they can be pro-actively managed via internal processes, focus and tenacity.

Demand emerged as the main factor impacting sustainability. Since demand was linked to direct or indirect income generation and perceptions of service success, this finding supports that of Moullin et al. (2016) that services are sustained when they are financially viable or are otherwise advantageous for a pharmacy. Demand, as revealed by current findings, can be diminished by external circumstance such as changes in regulations, a physician practice closing down, or influx of competition leading to market saturation. In most cases, however the issue affecting sustainability was building and keeping up patient demand, which makes sustainability predominantly a marketing issue. As demand is linked to patient acceptance, identifying relevant patient benefits and communicating them appropriately was found to lead to service success and thus to sustainability, as was continually developing successful services. For instance, to keep patient information seminars attractive for an important patient group, pharmacist-owners regularly asked patients for relevant topics and tried to gain knowledgeable speakers to provide such novel and relevant information (P07, P08). Similarly, others invested into additional staff and knowledge to keep the service at high quality e.g. for cytostatic drug compounding P03, P07, P09).

In addition to identifying relevant patient benefits, sustaining service provision also needs internal processes. A challenge for pharmacist-owners at the domain of the empirical was to keep service provision top of mind, as current findings suggest that service provision competes with the requirements from the traditional dispensing model (e.g. compliance with discount contract regulations), reinforcing importance as a mechanism at the domain of the

real. This danger of de-prioritisation was also found by Moullin et al. (2016), who identified that different tactics were used by pharmacy management to sustain service provision such as using goals and KPIs, providing reminders or incentives or conducting performance reviews, i.e. applying professionalising to sustain services. Interestingly, financial incentives were not identified from the German pharmacist-owners' reports (as P08 even felt that setting individual targets would neither be beneficial for patients nor for the atmosphere within the team). Pharmacist-owners rather used team meetings or informal conversations to remind the team to be alert and act on cues from prescriptions or conversations with patients. The issue of prioritising was confirmed by pharmacist-owners but only seemed to be applicable to services requiring a one-to-one advertising approach, as services actively demanded by patients were obviously provided. Hence, the success factors of tenacity (Tann et al., 1996) and pro-activeness (Jambulingam et al., 2005) were needed by pharmacist-owners to persistently remind themselves and staff to look out for opportunities to actively approach patients who could benefit from a given service.

The analysis further identified that sustainability depended on the availability of a service specialist, since findings demonstrated that some services were terminated when the specialist left the pharmacy (e.g. an asthma counselling service, which had been offered by P01). Hence, to reduce the risk of unwanted termination, pharmacist-owners ensured that further specialists were trained when a service was successful to lower dependence on a single skilled employee (e.g. spagyric mixes P01) and / or to meet increasing demand (e.g. fitting of compression stockings P19).

P19: *"This [fitting of compression stockings service] increased further over the last years. And in the meanwhile, we have many employees who are qualified to provide the service. And this service is offered almost daily."*

This means that ultimately, sustainability of a service depends on the size and quality of the (mostly local) labour market and on the attractiveness of the individual pharmacy as employer. Pharmacist-owners at the domain of the empirical indicated that finding good staff is generally difficult due to the market in Germany being empty. This is confirmed as the labour market for

pharmacists shows more vacancies than job-searching pharmacists, which seems to depend on the lower attractiveness of community pharmacy versus the pharmaceutical industry regarding payment and working conditions (Müller, 2016).

Eventually, cost-income or cost-benefit relations, which are regarded as necessary for PPS sustainability (Albrecht et al., 2006; Noain et al., 2017), were also found to have an impact on long-term sustainability for German pharmacist-owners. Current findings suggest that time-consuming, labour-intensive and therefore costly services may reach a stage where the costs outweigh the benefits. For example, when (depending on the business model applied to generate income from professional services) income from traditional dispensing cannot balance the service cost. This affects the feasibility of upscaling, i.e. making a service available to a wider patient population. These are not only marketing and advertising issues. As offering professional services takes time and binds personnel, large scale service provision becomes expensive for a pharmacy. Hence, service sustainability is not only affected by changes in demand but also by the financial impact on a pharmacy and eventually by the organisational capability of a pharmacy to adapt and optimise service provision processes as also indicated by Moullin et al. (2016). This indicates a cost-benefit threshold and therefore a need to obtain remuneration, either via health insurers or designing fee-based or mixed-calculation based service income models.

Pharmacist-owners indicated that they would welcome remuneration of services and would be more inclined to offer time-consuming services such as medication management. This therefore questions the feasibility of changing the pharmacy business model to a pure professional service provider, unless remuneration can be obtained. This view is supported by Hessemer (2016) who suggests that based on a quantitative assessment of barriers for medication management services in German pharmacies, adequate remuneration is necessary for sustainable service provision given the high costs involved. Remuneration could lead to an uptake, scalability and sustainability of professional services in Germany, as this could increase utility for the pharmacies due to generating income or covering costs *and* the

possibility to gain or maintain customers and / or build image. An indication for this possibility is the (now terminated) family pharmacy programme, in which the vast majority of German pharmacies participated. Pharmacist-owners assumed that the reason for the high participation rate was the structure of the programme, which a) asked patients to choose a permanent family pharmacy in exchange for health insurance cost savings and b) remunerated pharmacists for some professional services. Thus, the programme tapped into pharmacists' motivation of gaining and binding customers. Yet, the programme failed, which pharmacist-owners attributed to remuneration being relatively low compared to the effort needed for billing the services, a lack of a clear delineation from 'regular' counselling, and a lack of perceived patient benefit and demand. The latter again reinforces the importance of the success factor of having a recognised patient benefit.

Interestingly, though, it emerged from the service analysis that sustainability was not always important for pharmacist-owners, as some did not appear to be disappointed about the termination of a service and others wanted to keep some capacity free to respond to opportunities from changing healthcare trends. This reflects and supports the finding that professional services are parts of a portfolio offered to meet different patient needs, influenced by customer orientation. As these needs can change, or other needs can become more prominent, services may have different purposes and lifecycles.

5.6 Final explanatory frameworks– explaining provision, success and sustainability of professional pharmacy services in Germany

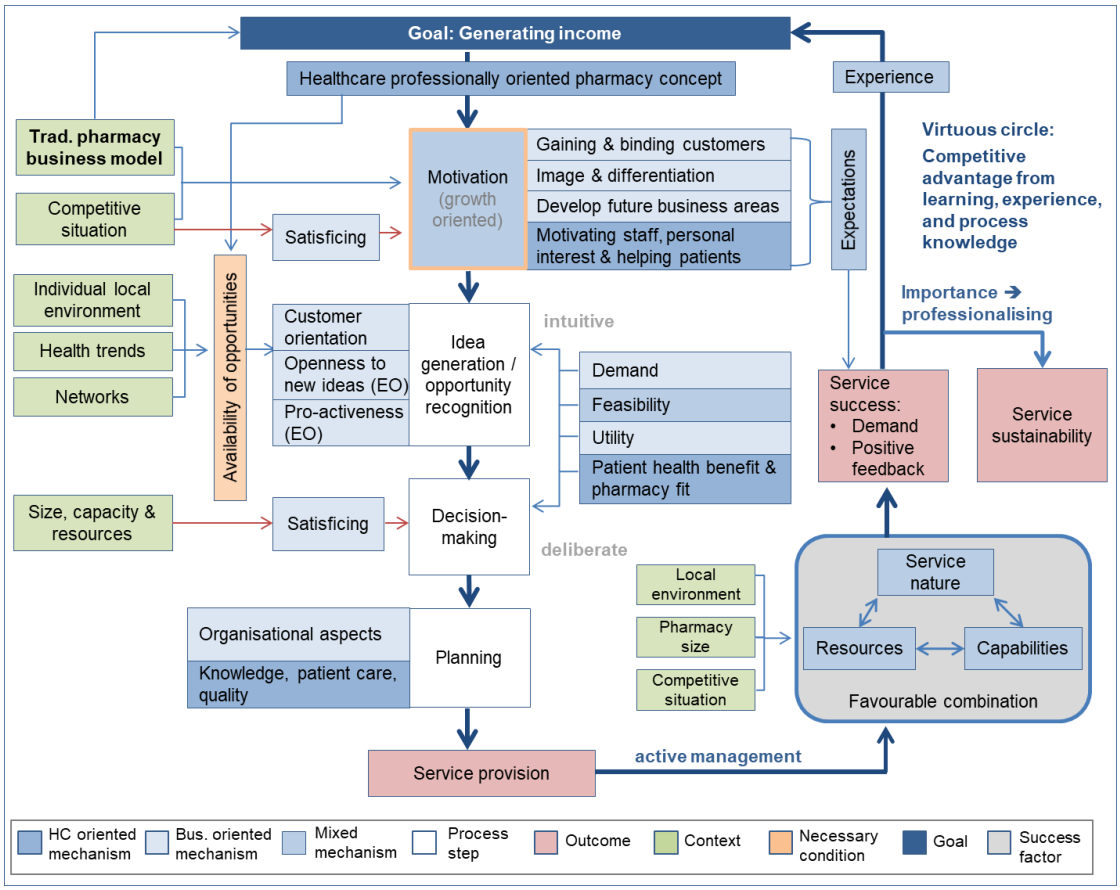
In the following, the final explanatory frameworks are presented, which are based on the empirical research with German community pharmacists in comparison with the literature-based tentative explanatory frameworks. Current findings provide evidence in support of much of the tentative explanatory frameworks and add clarifications about the impact of role orientations on the PPS provision process, service success and sustainability, addressing RQs 1 through 4. Specifically, the inter-dependencies between the front-end and implementation phase are

showcased and the mechanisms and contextual factors to explain PPS provision and success are identified. This includes the embeddedness in time referring to the time frame of data collection and the specific context of German community pharmacies. This summary further highlights the pervasiveness of the recurring themes of traditional dispensing-based business model, pro-activeness and role ambidexterity along the process and provides answers to the research questions.

5.6.1 Explaining service provision

The first explanatory framework (figure 37), depicted as CMO configuration, addresses the complete service development process encompassing front-end decision-making, implementation and sustainability.

Figure 37: Final explanatory framework – influence of role orientations on the PPS development and provision process



Source: own illustration

In answering RQ 2, the framework shows motivators and decision criteria as mechanisms driving PPS provision, as well as influencing contextual factors. In line with the tentative explanatory framework, the traditional dispensing-based business model was identified as a major contextual influence on the PPS development and provision process. As a contextual structure, it shows its effect through the primary business goal of generating income from medication supply with concomitant counselling. Within this traditional pharmacy business model, professional services are regarded as building blocks of an overall pharmacy offer. Since generating income can only be achieved through a sufficiently large customer base, the traditional business model influences the motivation for PPS provision. Motivation (value expectancies) is thus predominantly driven by the business need to generate income via gaining and binding customers and / or creating an image that pulls customers to the pharmacy, albeit within a healthcare professionally oriented concept or strategy. Being linked to income generation, motivation is growth-oriented and it is both, mechanism and necessary condition for searching and / or identifying PPS opportunities. The final explanatory framework confirms competition as a contextual influence to motivation, as he motivators of gaining customers and building image and developing further business areas are inherently competitively driven, as it tends to be achieved by taking customers from other pharmacies.

Besides motivation, a healthcare-oriented pharmacy concept, customer orientation, openness to ideas and pro-activeness as elements of entrepreneurial orientation, as well as experience with successfully provided professional services are mechanisms for recognising and acting on an opportunity. Specifically, a pro-active mindset is a key mechanism for opportunity recognition and actively driving service planning and development. For the former, it manifests in alertness for new opportunities, scanning the market for opportunities, and establishing and exploiting networks. For the latter it manifests in gathering information for decision-making (e.g. via market research), and in initiating the necessary planning steps, which includes gaining team support.

The results further demonstrate that pharmacist-owners follow a decision-making process and apply a small range of decision-criteria, which are demand, feasibility, utility, as well as patient health benefit and fit to pharmacy practice. The final explanatory framework confirms decision-making as a two-step process, whereby, contrary to the tentative framework, findings suggest that opportunity recognition is part of the decision-making process as a first intuitive evaluation of the opportunity against existing value expectancies, followed by a more deliberate assessment, whereby decision criteria appeared to be used in both steps.

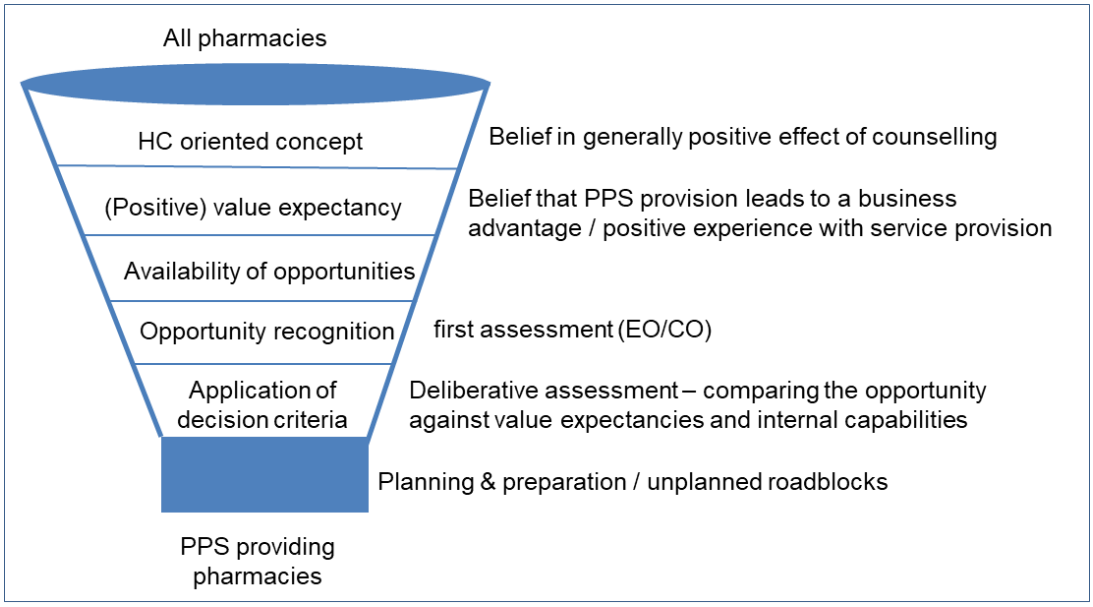
The traditional dispensing-based business model also manifests in decision-making, albeit indirectly, as it is geared towards selecting services that are likely to succeed in achieving the mainly business-interest driven goals behind the motivations. It thus has the power to inhibit service development via utility considerations, as dispensing was regarded as the benchmark to compare a service's cost-benefit ratio against. The traditional dispensing model can further lead to de-prioritising the provision of professional services and impede positioning of pharmacists as advisors if situations occur where generating income is threatened. For instance, when the interviews were conducted, the focus on discount contracts was reported to take time away from counselling. This highlights the influence of national regulations on professional services at a given point in time.

Pharmacy size is a further contextual factor, which influences motivation, decision-making, actual PPS provision, and sustainability. German pharmacies being small businesses, there is evidence that the "condition of smallness" (Anderson & Ullah, 2014, p. 326) applies to pharmacies and is a boundary condition to growth and thus to professional service provision, the reasons being satisficing and / or limited capacities. Figure 37 shows that satisficing, i.e. being satisfied with a current status quo (relative to individual aspiration levels), is a mechanism affecting motivation and decision-making. As indicated by the red arrow, satisficing can inhibit the growth-oriented motivators, especially when the need for competitive differentiation is low, e.g. due to low perceived competitive intensity, leading to low interest in PPS provision. Satisficing influences decision-making by comparing utility of a

service to the dispensing business and explains the lack of searching for better alternatives to a PPS opportunity. Thus, the small business perspective adds to elucidating the emergence of some of the barriers to service provision, as these are not exclusively related to pharmacists, but are characteristic of small businesses.

As it was one of the objectives to explain PPS provision, the identified mechanisms involved in the PPS development process can work as negative selection process, which as shown in figure 38, can be perceived as a funnel. This funnel shows how a large potential adopter group with high affinity for the healthcare professional role is reduced to a smaller number of pharmacies that are actually offering PPS.

Figure 38: Service provision funnel



Source: own illustration

This reduction occurs as fewer pharmacies perceive services to be beneficial for the pharmacy business, have an environment where service opportunities are available, recognise service opportunities, can match opportunities with internal standards of utility and patient health benefit, and have the necessary resources and capabilities to ensure service provision. It thus provides an explanation to where and when certain barriers to service provision are most prominent and why the number of pharmacists who

perceive PPS as positive, is higher than the number of actual service providers.

5.6.2 Impact of role orientations

Answering RQ1, the role orientation of participating service-providing pharmacist-owners resembled the dual orientation first identified by Quinney (1963), i.e. pharmacist-owners placed high importance on both, healthcare professional and business aspects of pharmacy practice, due to increasing pressures on business viability, whilst liking the healthcare professional role better as it constitutes a source of professional identity and satisfaction. Current findings indicate that a dual role orientation is beneficial for pharmacies to help navigate role conflicts as described by Roche and Kelliher (2014), as healthcare professional orientation provides guidance in balancing business and healthcare professional interests. Providing answers to RQ3, the analysis shows that the dual role orientation is exhibited throughout the service development and provision process. As shown in figure 37 role orientations serve different functions, and depending on that vary in their importance in the process. The predominance of business interest at the front-end of the PPS development process appears to be a contradiction to pharmacists' preference of the healthcare professional over the business roles. Yet, at closer sight, this may be less of a contradiction but rather an adaptation of personal preferences to practice realities. as a manifestation of role ambidexterity. This means that the need to generate income, influenced by the traditional pharmacy business model, is a main driver, especially for pharmacist-owners (as against salaried pharmacists) whose livelihoods depend on their pharmacies' business performance.

In line with previous research (Willink & Isetts, 2005), healthcare professional orientation manifests as the basis of pharmacist-owners' business concept, since an openness towards professional services appears to be a part of the cognitive framework enabling opportunity recognition (Baron, 2006). It also serves as an influencer to service decisions by assessing patient health benefits and fit to pharmacy practice. During actual service provision, healthcare professional orientation promotes empathy in dealing with

patients, the identification of patient benefits and the acknowledgement of the importance of service quality via knowledge acquisition and continuous training. Business orientation manifests in the belief (and often experience) that a counselling and service strategy aids in generating income through patient satisfaction and loyalty (Perepelkin & Zhang, 2014), which strongly influenced motivation for service provision. It also manifests, in the application of different business level strategies. Entrepreneurial orientation, customer orientation and market orientation were all found to be linked to business performance and thus to competitive advantage in small businesses (e.g.Baker & Sinkula, 2009; Tajeddini et al., 2013). Current findings not only corroborate previous studies but also demonstrate that EO and CO / MO are mechanisms that work mainly at the front-end stage of the service development process. Yet, only openness to new ideas (corresponding to innovativeness) and pro-activeness resulted as relevant features of EO (irrespective of which conceptualisation is used). Openness to ideas, pro-activeness and CO / MO together with a healthcare professional orientation are instrumental for recognising PPS opportunities via networking, and scanning the market for health trends, market gaps and patient needs. Additionally, pro-activeness shows during the service implementation stage via actively approaching patients to promote and provide professional services. Furthermore, business orientation aids in channelling healthcare professionally oriented behaviours into financially viable realms, for instance by evaluating service opportunities according to organisational, financial and market aspects (i.e. feasibility, utility and demand). A lack of business orientation may thus explain the phenomenon reported in the literature that some pharmacists do not perceive value of service programmes as they did not differ from their current practice (Fraeyman et al., 2017).

Current findings, as shown in the final explanatory framework, thus place the impact of healthcare professional and business role orientations along the service development steps where they exert their influence, providing a more nuanced picture of the dual role in community pharmacy. The dual role orientation is operationalised in role ambidexterity, which can be seen as a personal and / or organisational capability to apply and align the roles appropriately to achieve a wanted effect or objective. Role ambidexterity can

be actively managed to achieve service success and competitive advantage. The targeted application of business and healthcare professional orientations thus provides a possible explanation to the questions asked by Kronus (1975, p. 182) “How are service values translated into specific work activities and decisions between alternative modes of occupational behaviour; how does the service theme affect the relationships between practitioner and patron?”

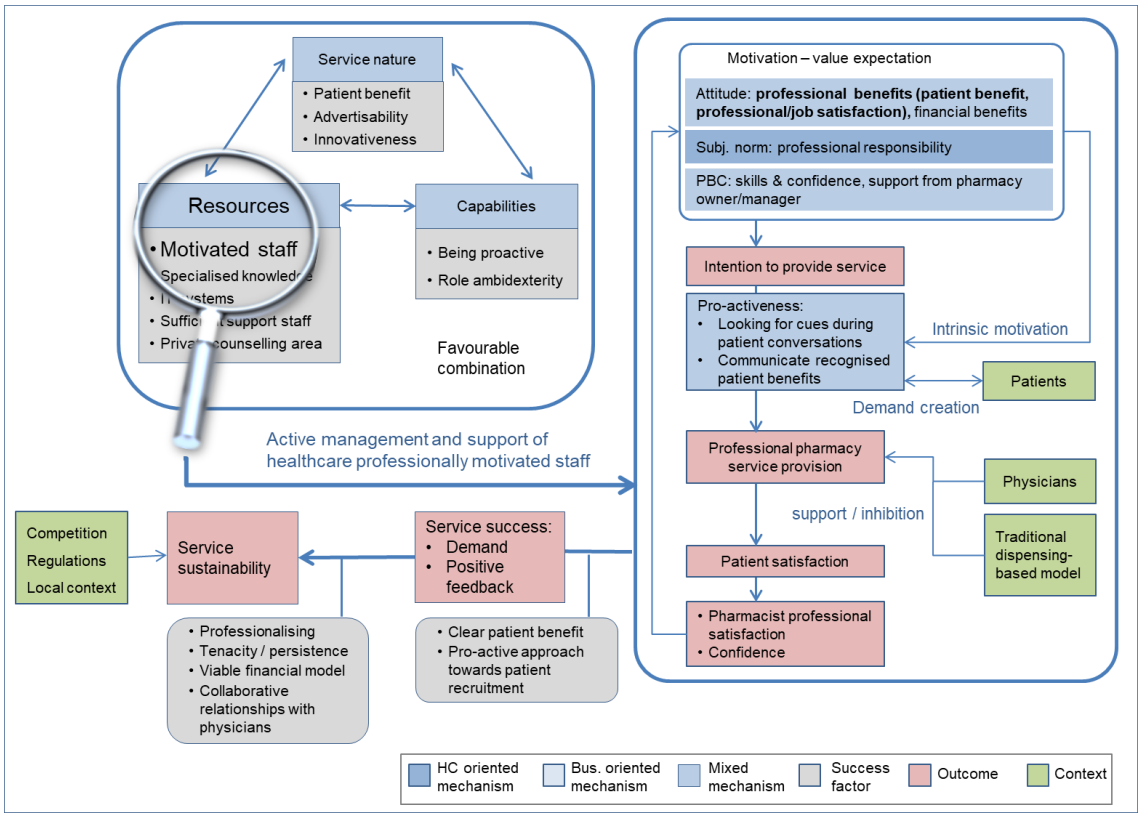
5.6.3 Success factors and agency

Most importantly, the final explanatory framework connects the front-end decision-making with actual PPS provision, success and sustainability. It shows that the traditional pharmacy business model also indirectly impacts success perceptions, which are determined by comparing PPS outcomes to expectations related to value expectancies from motivation.

With regards to answering RQ4, the final explanatory framework demonstrates that service success, is contingent upon the nature of the service, a pro-active attitude, how the pharmacist-owner and the pharmacy team apply role ambidexterity to approach and manage the service, and upon the pharmacy resources and contextual factors. Each of the factors, depending on their direction, has the power to support or counteract service success. It further demonstrates the effect of service success on sustainability as successful services increase in (economic) importance and get professionalised to ensure continued delivery. The final explanatory framework also highlights the influence of service success on motivation via the achievement of business goals. A successful service is able to reinforce value expectancies and strengthen the value a pharmacy attaches to a healthcare professional strategy, thereby closing a virtuous circle. As, service provision has an inherent notion of competitiveness, a successful service constitutes a competitive advantage. This advantage is related to experience gained from service provision and the possibility to re-apply the process knowledge and capabilities to further services, which can breed further successes.

The second explanatory framework (figure 39) specifically addresses the implementation phase with emphasis on the success factors and depicts in more detail the factors influencing success and sustainability of professional services.

Figure 39: Final explanatory framework for PPS provision and sustainability



Source: own illustration

This framework highlights the key role of healthcare professionally motivated and knowledgeable staff with the abilities to identify patient needs and to communicate relevant patient benefits in order to achieve the expected value of a service as a success factor. As patient-centred counselling is believed to result in patient satisfaction and loyalty and the increase or retention of a regular customer base, which equals one of the valued outcomes identified by Scahill (2012), it constitutes the main mechanism behind service provision. Since pharmacist-owners acknowledged the importance of motivated and idealistic staff for PPS provision and service success, current findings provide indirect evidence that actual service provision entails more intrinsic motivation (Ryan & Deci, 2000a), derived from professional

satisfaction and enjoyment attained from helping patients (Emmerton et al., 2012).

It also confirms the tentative framework at the level of the individual service encounter, especially with regards to the application of the TBP as motivational construct leading to an intrinsic motivation for service provision. This, together with pro-actively approaching patients, leads to service provision and via increased demand and positive patient feedback to perceived success. It further supports the suggestion by Thornley (2006) regarding the need to differentiate between the motivation for *including* a service into a pharmacy's overall business offer and the motivation of a single person (pharmacist-owner or employee) to *deliver* a service. The predominance of business-oriented motivators relating to the decision to add a professional service to the pharmacy offer is a key finding in support of the tentative explanatory framework and highlights that such differentiation is necessary, as these are different steps in the service provision process which are also different in nature.

Service provision, service success and sustainability are thus primarily outcomes of agency at the levels of pharmacist-owner and employees, bounded by structural (contextual) components within the different domains. Such an agentic view was largely suspected within different pharmacy practice literature streams, but with a more negative connotation, i.e. suspecting a lack of agency (e.g. Rosenthal et al., 2010). Results from this research show that indeed, the pharmacist-owners are the driving force behind service provision (or non-provision) within a small business context. Agency for (successful) professional service provision manifests as a purposeful management of the overall pharmacy business and professional service provision via personal role values and beliefs, pro-activeness, and role ambidexterity. Specifically, pro-activeness was found across the whole service provision process, for opportunity search and identification, networking, enabling structures and also for approaching patients for actual service provision, and can be characterised as a personal attitude and / or a strategic stance, often linked to a creative will to shape their pharmacies according to their ambitions.

Thus, whilst pharmacist-owners' service provision may not change the overall traditional dispensing-based business model structure, as they are reinforcing it via adaptive and optimising behaviours regarding the medication supply function, pharmacist-owners demonstrated their general ability in shaping the structures on a local level within their community or catchment area.

6 Conclusion

As extant research on professional pharmacy service (PPS) provision was diagnosed with lacking theoretical frameworks and cause-effect relationships (Crespo-Gonzalez et al., 2017; Patwardhan et al., 2014), this thesis set out to address this call and to expand existing knowledge by identifying pharmacists' motivation for providing professional services and the decision-making processes leading to service provision as well as factors leading to service success and sustainability. This chapter presents key contributions and their implications for theory and practice, including implications for German community pharmacy in the light of changing external conditions, and concludes with limitations and areas for future research.

6.1 Contribution to knowledge

To the best of the author's knowledge, this is the first study that applied a critical realist informed research design to identify mechanisms explaining PPS provision and to explicitly investigate the impact of pharmacist healthcare and business role orientations on PPS provision in German community pharmacies. It thereby adds to the growing body of pharmacy practice literature an empirical study from other than the dominating English-speaking countries. As this study takes a business perspective and includes different theories and models (motivation, decision-making) and research fields (pharmacy, small business, entrepreneurship), it provides a number of contributions to knowledge, which are:

- the development of explanatory frameworks for the PPS provision process and for PPS success
- the impact of role orientations on the PPS development process stages and its implications
- the influence of role orientations on factors affecting success, sustainability and competitive advantage

Thus, this research not only contributes to better understanding mechanisms and contextual factors explaining PPS provision, success, and sustainability,

but also adds knowledge about the achievement of competitive advantage in community pharmacy and provides further contributions beyond pharmacy practice, as detailed in the following.

Development of explanatory frameworks: The main contribution of this thesis is the development of explanatory frameworks for the PPS provision process (figure 37) and additionally for PPS success (figure 39). As the final explanatory framework (figure 37) depicts the overall PPS provision process, it shares similarities with the implementation framework developed by Moullin et al. (2016). Whilst, the latter is more descriptive of the process activities, the explanatory framework additionally differentiates between front-end decision-making and implementation stages and elucidates the mechanisms driving PPS provision and the circumstances under which pharmacist-owners decide for (or against) offering professional pharmacy services. It also went further to identify and include the mechanisms that influence PPS success and sustainability and highlights the influence of the dual role, which is inherent in the pharmacy professional culture (Jacobs et al., 2011), on the identified mechanisms across the process. Applying a critical realist research design enabled the argumentative (retroductive) identification of mechanisms and contextual factors from an extensive two-phase realist literature review and empirical research via semi-structured interviews with German pharmacist-owners. Through the empirical aspect of this research, tentative frameworks including potential mechanisms extracted from the literature were confirmed and refined and the identified mechanisms and contextual factors sorted according to process steps, thereby depicting complex, interlinked mechanisms in a condensed format.

The outcomes from this research, which are summarised in the final explanatory models, confirm a range of previous findings. At the front-end decision-making stage, the structural and pervasive effect of the traditional dispensing-based business model on pharmacy practice and PPS provision is confirmed by providing empirical evidence on its influence on motivation and decision-making. It does so by shaping the value expectancies for PPS provision as a function to support income generation from dispensing (e.g. by gaining customers) and serves as a major reference point for the decision

criteria to check whether the relative advantage can be attained (i.e. checking demand, feasibility and utility).

This study also adds to better understanding 'opportunity recognition' for professional services. It proposes that motivation is a necessary condition for opportunity recognition and that value expectancies are strengthened by previous positive experience with services. It confirms the involvement of the business orientations of entrepreneurial orientation (EO) and customer / market orientation (CO/MO) in aiding PPS opportunity recognition. However, only the EO dimensions of innovativeness and pro-activeness were involved in opportunity recognition but risk-taking was not, which reflects the small business perspective and adds to arguments finding merit in assessing the impact single EO dimensions for explanatory purposes (Kreiser et al., 2013). Furthermore, a two-step decision-making process is confirmed, but different to existing models and the tentative explanatory framework, it links motivation, opportunity recognition and decision-making. Current findings suggest that with PPS opportunity recognition, a first, intuitive assessment regarding an opportunity's general attractiveness is made, which is then assessed against the decision criteria in a more deliberative fashion. This study therefore connects research on entrepreneurship and decision-making and provides empirical evidence to a theoretical model of entrepreneurial intuition proposed by Sadler-Smith (2016), which suggests that opportunities are recognised and first evaluated via intuitive processing, followed by more deliberative assessment.

Role orientations and differentiation between PPS development process stages: This research differs from the existing pharmacy practice literature as it clearly differentiates between the front-end and implementation stages of the PPS development process, which has theoretical and practical implications. By applying the process view of new service development, it could be empirically demonstrated that the decision for PPS provision needs to be distinguished from actual service delivery, the first being a business decision and the latter its execution. Thus, current findings suggest that previously, conceptually different aspects of barriers and facilitators have been conflated. Particularly the view held by critical realism that reality is

stratified, allowed the disentangling of these conflations and to sort barriers and facilitators into stages along the service development process, leading to more nuanced findings. For instance, taking facilitators quantified by Roberts et al. (2008), it shows that remuneration (an aspect of utility), patient expectation (interpreted as demand), and manpower (an aspect related to feasibility) are relevant as decision criteria at the front-end of the process, whereas aspects such as cooperation with physicians or communication and teamwork are important for planning and implementation (as these are emergent and ongoing aspects).

Through analysing the impact of role orientations, the necessary distinction between front-end decision-making and implementation phase manifests in motivation. This study shows that motivation for introducing a service and actual service delivery need to be separated due to being related to different goals. Whilst the former is more business-oriented (generating income), motivation for service delivery is more healthcare professionally oriented (helping patients). This strengthens previous findings demonstrating that the motivators are often not related to the same person, as the business decision is made by pharmacist-owners (or managers) and actual service provision tends to be executed by healthcare professionally motivated pharmacy staff (Thornley, 2006). This differentiation of motivators and subsequently of actors can thus explain why healthcare professional orientation with inherent patient-centredness is a necessary but not sufficient mechanism for introducing service offers in a pharmacy, as it primarily shows the level of service execution but not the preceding level of business decision-making.

The distinction also has methodological implications for applying theories such as the TPB to research PPS provision. Disentangling the business decision for a service from intending to deliver a service highlights the importance of the compatibility of the factors under investigation with the situation, i.e. attitudes, subjective norm and perceived behavioural control need to be assessed in relation to the same specific goal (Ajzen & Klobas, 2013). This means that not only a distinction needs to be made between the owner / manager and staff but also that the situation needs to be specified, since blending actors and situations may lead to inconclusive or misleading

results. Furthermore, findings show that at the front-end of the PPS development process, motivation and decision criteria are related but not identical and thus need to be distinguished, which challenges the usefulness of the TBP for assessing business decisions. Whilst the identified motivators resonate with the attitude construct regarding value expectancies, the PBC construct did not relate to motivation but to the decision criteria of feasibility and utility, which got activated and compared against value expectancies in the presence of a specific opportunity. Subjective norm, according to its original conceptualisation, i.e. the motivation to comply with social pressure (Ajzen, 1991), was not found, unless it is interpreted as feeling compelled to respond to patient demands. This, however, rather corresponds to customer orientation (CO). Hence, the influence of the subjective norm construct and therewith the application of the TPB may be limited for business decisions. Alternatively, this construct would have to be aligned with CO and include market aspects to better fit with the business context. Different to the front-end decision-making, though, the TPB appears to be a suitable theory to explain service delivery (as depicted in figure 39), as this is dependent on the individual providing the service.

Role orientations, success, sustainability and competitive advantage: This research further reveals new insights regarding success and sustainability of PPS provision and adds knowledge about the achievement of competitive advantage in community pharmacy. Regarding factors affecting success and sustainability of PPS provision at the implementation stage (figure 39), this research identified the nature of the service, resource availability, and capabilities as interrelated mechanisms influencing PPS success. It thereby confirms the importance of pro-activeness as a mechanism for PPS opportunity recognition *and* as a success factor for PPS delivery and corroborates having a recognised patient benefit and competent and motivated staff as key success factors (Thornley, 2006). Findings further provide empirical evidence that perceptions of success depend on expectations related to the motivators and demonstrate that success factors can be actively managed. Whilst the need to have a healthcare professionally oriented strategy and the necessary healthcare professional and pharmaceutical skills (i.e. competent and motivated staff) for service delivery

is confirmed, current findings highlight the importance of business skills and management professionalising, by demonstrating that PPS success and sustainability depend on management and marketing capabilities. This manifests in organisational skills for planning service implementation and delivery, in the possibility and need to manage the nature of a service, in applying marketing skills to assess demand, and, most importantly, in the identification of a relevant patient benefit and the ability to communicate the benefit in a way that resonates with patients. Thus, by including role orientations, current findings demonstrate that a dual role orientation operationalised as role ambidexterity, i.e. having the ability to manage role orientations appropriately to realise benefits for their pharmacies and patients, is beneficial for a pharmacy business.

As to sustainability of a service, empirical evidence shows that it may not always be the ultimate goal and that it can be negatively impacted by staff attrition or market saturation (diminishing demand). Most importantly, though, sustainability depends on the perceived success of a service. This research thus identified that with success, the importance of a service to a pharmacy's overall business increases, which triggers professionalising of services and activities aimed at ensuring service continuation or expansion (e.g. training more staff).

This research further proposes that successful PPS provision constitutes a competitive advantage for pharmacies. Current findings show that PPS provision can contribute to overall pharmacy success by aiding income generation as part of a service and assortment portfolio that addresses the needs of a community pharmacy’s, usually diverse clientele (e.g. in terms of age, health conditions, or health literacy). The theory of the resource-based view of the firm (RBV) suggests that “sustained competitive advantage derives from the resources and capabilities a firm controls that are valuable, rare, imperfectly imitable, and not substitutable” (Barney, Wright, & Ketchen, 2001, p. 625). This includes processes, knowledge, and managerial capabilities. Thus, in line with the RBV, successful PPS provision is a competitive advantage for a pharmacy, as it helps to gain customers and build customer loyalty and therefore to sustain or grow income.

The competitive advantage is achieved by the application of role ambidexterity as a capability needed for successful PPS provision The resources, capabilities and practices making up competitive advantage from PPS provision thus manifest in opportunity recognition, creation of a value proposition, management professionalising PPS provision and, most importantly, in the ability to turn experiences made in service provision into process knowledge and to re-apply this to new services, thus potentially creating a virtuous circle. The ability to learn is regarded as important for gaining sustained competitive advantage (Barney et al., 2001). Since services alone do not necessarily provide a competitive advantage as they can become outdated, get copied by competitors, or fall prey to market saturation, this research suggests that the competitive advantage gained through experience and accumulated process knowledge should be more durable. Such process knowledge is likely to help pharmacist-owners to continuously improve existing PPS provision processes and be faster in recognising service opportunities and introducing new services compared to service 'newcomers' who may struggle with approaching service provision. Current findings thus contribute to the identification of combinations of intangible resources promoting professional service development (Jambulingam et al., 2005) and provide further support that different business level strategies are not mutually exclusive but need to support each other to achieve superior performance (Baker & Sinkula, 2009). This research thus demonstrates that role orientations, which are perceived as conflicting, can, when operationalised as role ambidexterity, benefit pharmacy owners, staff and patients alike and create competitive advantage.

In summary, much of the literature on PPS provision is portrayed from a re-professionalisation perspective (Savage, 1994), i.e. on enhancing the profession by changing pharmacy practice from a product to a patient-centred focus (e.g. Rosenthal et al., 2010). This implies that all pharmacies should provide professional services and that general barriers should be overcome and facilitators be fostered. However, findings from this study challenge the normative view that pharmacies should provide professional services, which is in contrast to actual service provision levels, by positing that PPS provision for small, independently owned community pharmacies is

locally embedded, resource-dependent, situational, and thus changeable depending on new circumstances (e.g. hiring of new talent). Hence, decisions for PPS provision must be viewed in the light of ecological rationality within a country's national pharmacy regulations and predominant pharmacy business model. As successful PPS provision is a competitive advantage, re-professionalisation therefore not only needs a change in pharmacy practice towards patient-centredness and the provision of professional services. The practice and business model changes also need to be accompanied by management professionalisation of service provision to foster sustainability of a re-professionalised business model.

6.2 Implications for pharmacy practice

The findings from this research also have practical implications, which are detailed in the following.

- Being focused on the individual pharmacy level, the findings primarily suggest a range of implications and recommendations for pharmacy owners or managers, which relate to managing the PPS development process, staff management, and service sustainability.
- For pharmacy associations, policy makers and payers (especially in Germany), findings show implications for the upscaling of professional services and changing the pharmacy business model, should this be politically wanted.

Implications for pharmacy owners and managers: The finding that the front-end and implementation stages are differently motivated has implications for staff management. The distinction between front-end planning and implementation in the NSD process and the different motivation foci means that role ambidexterity is more relevant for pharmacy owners or managers than for service-providing staff. For the latter, the research implies that healthcare professionally oriented intrinsic motivation is more important for empathy, service quality and thus achieving patient satisfaction and loyalty, as well as professional satisfaction. This therefore questions the usefulness of setting objectives to incentivise the number of services

provided, found to be practised with MURs in the UK (McDonald et al., 2010), since not only the practice appeared to irritate staff pharmacists but linking service provision to extrinsic rewards may also reduce intrinsic motivation (Cerasoli et al., 2014). Therefore, it is recommended that pharmacy owners or managers apply role ambidexterity to foster employees' intrinsic motivation and rather help employees in balancing efficiency and efficacy of service provision without compromising the service features leading to patient satisfaction. Additionally, they need to be aware of their employees' preferences (healthcare professional orientation) and deploy staff according to their abilities (business orientation), or refrain from service provision if sufficient service quality cannot be ensured (healthcare professional orientation).

The findings that (sustainable) PPS provision is an *emergent activity* dependent on the (growing) importance of a service for the pharmacy business and that importance of a business area fosters management professionalising, which has the power to positively influence business and service performance, has implications for PPS decision-making, planning and evaluation. Results demonstrated that in line with the literature on small business management, little use is made of management tools to support decision-making and service success evaluation, and a preference for short-term planning is exhibited (Blankson & Stokes, 2002; Jocumsen, 2004). Whilst being perceived as 'over-engineered' by pharmacist-owners, business planning for new (i.e. entrepreneurial) ventures was shown to have advantages (Shane et al., 2003). Hence, it is advisable for pharmacies to engage more in market research, planning and analysis, as current findings provide evidence of the successful utilisation of market and customer information to develop and improve service offers.

Advantages of professionalising PPS decision-making and evaluation are that pharmacists should be able to (better) align the available resources, assess costs and also think of a service marketing strategy early on, including the identification of a recognised patient benefit. Whilst customer orientation was largely present and helped identifying service opportunities, market orientation (MO), which relates to using market intelligence to

understand latent customer needs (Slater & Narver, 1998) and is linked to business success and competitive advantage (Narver et al., 2004), was only present in few pharmacies As patients perceived service benefits differently from healthcare professionals, including pharmacists (Whitty et al., 2015), which also shone through in current findings, advancing from a customer to a market orientation should help decision-making, (better) identifying relevant patient benefits, and designing targeted communication messages. It should also lead to better alignment of service choice with patient and pharmacy needs. Furthermore, expectations influenced perceptions of PPS success and subsequently sustainability. Hence, planning is likely to help setting more realistic aspiration levels regarding the speed of service uptake and to reconsider the attractiveness of a service against existing or potential alternative opportunities, especially if service alternatives exist which are both beneficial (to patients and pharmacy) and easier to promote.

The latter aspect links to the important finding that professional services are perceived as part of an overall pharmacy service (and assortment) portfolio in addition to the traditional medication dispensing with concomitant counselling. Due to different opportunity detection modes and different needs within a pharmacy's local environment, this leads to a highly individualistic and eclectic service portfolio that caters to different customer/patient types and needs, and that contains services of different maturity and importance to the pharmacy. Given the smallness of pharmacies, specifically manifested in limited staff availability and the preference to avoid step costs involved with hiring new staff (which negatively impacts profitability), new professional services tend to be added on top of other activities, leading to capacity restrictions for further services. This can be a dilemma for pharmacist-owners as they need to decide whether to discontinue a current service in favour of a new one or refrain from pursuing any further, potentially promising, opportunities. Whilst findings suggest that pharmacist-owners terminate unattractive services and replace service offers, this does not appear to be done in a planned fashion.

Hence, based on current findings, the introduction of a portfolio management is recommended as part of professionalising PPS provision. However, as

pharmacies are small business with limited capacities and a preference to spend time on patient care (instead of analyses), basic professionalising approaches regarding market research, planning, and service analysis as well as portfolio management may suffice, especially for pharmacies with little experience in PPS provision. This is in line with research showing that the need to professionalise increased with experience and that for new firms basic planning is suggested to be sufficient (Brinckmann et al., 2010). A possible solution to approaching service provision more strategically whilst catering to the emergent nature of services and including aspects of role ambidexterity, could be to use the business model canvas by Osterwalder and Pigneur (2010) for each existing service as well as for new service ideas. Figure 40 shows a prototype for a PPS business model canvas, filled with findings from this research, specifically including the identified motivators, decision criteria and success factors.

Figure 40: Professional pharmacy service business model canvas

<table>
<tr><th>Key Stakeholders</th><th>Key Activities</th><th>Value Proposition</th><th>Customer Relationships</th><th>Customer Segments</th></tr>
<tr><td>• Patients
• Physicians
• Employees
• Community
• Institutions / network partners (e.g. nursing homes)</td><td>• Assessment of strategic fit
• Networking
• Market research
• Service design (key service features)
• Staff training
• Communication strategy
• Identification of eligible patients
• Quality assurance
• Success evaluation</td><td>For pharmacy
• Gain/bind customers
• Build reputation
• Employer branding

For employees
• Job satisfaction
• Self-realisation

For patients
• Relevant patient benefit(s)
• Benefit easy to understand?

For the community
• Healthcare partner</td><td>• Customer card
• Exclusive patient information seminars (e.g. for diabetics)</td><td>• Patient / customer segment (e.g. young mothers)
• Indication (e.g. asthma)
• Institutions</td></tr>
<tr><td>Key Resources
• staff availability / motivated service expert(s)
• Demonstration aids (e.g. dummy inhalers)
• Specialised knowledge</td><td></td><td></td><td>KPIs
• No. of new customers
• No. of service users
• Sales of product /medication packages preferred by service users (e.g. products for diabetics)
• Customer satisfaction
• Patient feedback
• Health outcomes</td><td>Nature of service
• Planability (ad-hoc or appointments?)
• Physician involvement needed?
• Potential for standardisation
• Innovative or standard?
• Advertisability (individual or mass?)</td></tr>
<tr><th colspan="3">Cost Structure</th><th colspan="2">Revenue Streams</th></tr>
<tr><td colspan="3">Investment
• Initial and continued training
• Investment into equipment
• Additional staff

Cost per service
• Staff cost per minute
• Opportunity costs</td><td colspan="2">Direct revenue
• service fees
• prescription income
• NPM sales (linked to PPS)

Indirect revenue (mixed calculation)
• Additional income (prescription and NPM from new customers)
• prescription income from service users
• NPM sales to service users (not linked to service)</td></tr>
</table>

Source: adapted from Osterwalder and Pigneur (2010)

Based on current findings, the canvas includes staff availability, patient benefit(s), and a reflection about what the pharmacy expects to gain from the service, and ideas about KPIs to measure, which can aid decision-making,

planning and marketing a professional service. The last two points should be reviewed regularly and adapted accordingly, which should then help to identify changes to be made. With regards to the expectations on the service, these should contain identified value propositions for patients, employees, the community being served, and for the pharmacy, and include direct and indirect revenue streams from PPS provision. This research and examples from the literature (Moullin et al., 2016; Willink & Isetts, 2005) evidenced that it is possible for pharmacies to charge service fees, indicating that patients are willing to pay for services if they perceive them to be valuable, which was also found by Sriram, McManus, Emmerton, and Jiwa (2015). Hence, developing PPS payment models requires that pharmacists are very clear about patient needs and relevant patient benefits to convince patients to invest into a pharmacy service and to capture the service value. As the business model canvas was shown to enable capturing different layers of a business (Joyce & Paquin, 2016), the PPS business model canvas also allows the inclusion of healthcare professionally oriented values and a healthcare professionally oriented business strategy needed for gaining patient loyalty and the responsible delivery of services to patients; not only to achieve patient benefits but also to benefit a pharmacy as a business. The latter is of interest as community pharmacies, having a public function and responsibility, may increasingly need to showcase their strengths regarding patient care and accessibility in competing with internet pharmacies. Due to their simplicity, the service canvasses could be entered into a pharmacy's QM system and can then be easily compared to form the basis for portfolio management.

In addition, given the importance of role ambidexterity for generating service success and competitive advantage, previous calls for more management training for pharmacists (Feletto, Wilson, Roberts, & Benrimoj, 2010a) are supported. Such training should increase awareness of value creation and provide knowledge about management tools that can be applied to create service models and measurements to track service results. However, the healthcare professional side would have to be included as well since services not only have monetary impact (in terms of costs and additional income) but can also create value in terms of employee motivation and retention, patient

loyalty, and patient health benefits. Specifically, the latter is not only of importance to individual pharmacies but to the legitimacy of community pharmacy.

Implications for pharmacy associations, policy makers and payers: The analysis demonstrated that PPS provision is generally feasible and that services can be successful and sustainable. However, should policy makers and payers wish to scale up service provision, i.e. introduce certain PPS on a regional or national level, such services should be remunerated. This echoes previous recommendations (e.g.Roberts et al., 2008) and is based on the finding that decisions to offer professional services are mainly motivated by business interests and that a service opportunity needs to be sufficiently attractive to be recognised and to meet the feasibility and utility criteria. It is further based on the finding that remuneration is likely to increase the importance of PPS provision, thus ensuring that the necessary focus is given on optimising service provision processes and on catering to a higher number of patients.

Regarding the specific situation in Germany, pharmacists fulfil many of the prerequisites identified for PPS provision from extant literature above and beyond dispensing-based counselling, and are or can be easily qualified for more advanced services such as medication management (Hessemer, 2016). However, German pharmacist-owners act within an unsupportive regulatory environment. This is reflected and reinforced by four developments during the time this thesis was written, which are

(1) giving physicians the sole responsibility and remuneration to perform medication management reviews,

(2) a decision of the European Court of Justice to exempt non-German pharmacy mail order companies from the German fixed price regulation for prescription medications, to which German pharmacies are bound, which, if enforced, disadvantages German pharmacies in competing for business especially from chronically ill patients,

(3) allowing statutory healthcare insurers to tender for individual cytostatic drug manufacture, which may advantage industry-style cytostatic drug

compounding labs over regular pharmacies putting those at risk of losing part of their clientele, income, and investments,

(4) a report ordered by the German Ministry of Economics, which suggested the possibility of saving over one billion Euros for the statutory health insurance by reducing the fixed dispensing fees for prescription medicines and redistributing parts of the remuneration to increase individual compounding fees and other items (PZ-online, 2017).

The first development directly impacts on pharmacies' potential for re-professionalisation and ensuring new, knowledge-based business areas and may demoralise those who have invested into more advanced PPS delivery. The other three developments affect the current pharmacy business model, i.e. the income generated from prescription dispensing. All have in common that they cater to the interest of statutory health insurers to cut their costs and reduce income to pharmacies. Altogether, the aforementioned developments, if enforced or maintained, mean that pharmacies will not receive any remuneration incentivising them to change their business model towards more professional services whilst at the same time, the traditional dispensing-based business model is under increasing competitive pressure. Thus, if there is no change in legislation regarding PPS remuneration, current findings suggest that professional services are likely to remain one possible strategy to competitively differentiate a pharmacy and that existing structures are reinforced, making service provision unattractive unless there is at least a perceived utility for the pharmacy in binding customers and thereby creating a loyal customer base.

Yet, the recommendations of the latest report (development no. 4) could also be a chance for the pharmacy profession to convince statutory health insurers to re-distribute health insurance funds to remunerate PPS provision instead of paying flat fees regardless whether counselling has been provided or not. However, if the pharmacy profession in Germany wants to maintain its place in the healthcare system, it must ensure that first of all, minimum dispensing-based counselling requirements are met across the board, since this service is paid for through the statutory health insurance. This is even more important for additional (more advanced) professional services, as

these require not only gaining the trust of patients (and physicians) but also that of institutional payers. Hence, should comprehensive, nation-wide PPS provision be politically wanted in Germany, increasing competitive pressure on the dispensing and retailing side might only result in more professional services across a larger number of pharmacies if these are a) remunerated and b) have clear minimum quality standards (Hessemer, 2016). This would allow competition based on quality.

Remuneration would also be necessary to allow small rural pharmacies to sustain their businesses when offering PPS. Current findings point towards a virtuous circle consisting of positive experience with PPS provision, learning, and re-application to further services. This may lead to growing differences between service-providing and non-providing pharmacies by potentially redistributing customers across proactive, service-oriented pharmacies. As this is likely to increase the competitive advantage of larger pharmacies, this could lead to a decrease of predominantly smaller and less active pharmacies, at least in areas with higher pharmacy density. Thus, it may be necessary for policy makers to consider supportive means to maintain accessible healthcare in areas where pharmacies are needed but existing businesses are less profitable and not able to afford the required training and employment of further staff to ensure quality PPS provision. This could be the case for remote areas, similar for instance to Norway, where financial support is provided to maintain rural pharmacies and thus accessibility to healthcare (Busse, 2016). To ensure quality standards across pharmacies in Germany and to support smaller pharmacies, external support may be needed (e.g. Roberts et al., 2008). Whilst in Germany most pharmacists appear to have dispensing software, which helps in detecting drug-related problems, pharmacists with experience in medication management indicated that more specialised software is necessary. Furthermore, P08 suggested that for complicated cases, there should be a central clinical specialist unit, which community pharmacists can contact for support. This could be provided by the ABDA, which would also be a clear signposting of the association's commitment in driving and supporting role expansion.

6.3 Limitations

The aim of the research was to add knowledge for explaining provision of professional services in community pharmacies. In order to achieve this, a research approach was deemed necessary which allows for exploration, linking different subject areas and examining potential causal relationships. Taking a critical realist stance has proved helpful in gaining a deeper understanding of professional service provision and, providing the philosophical underpinning for causal explanation. However, the research approach had some limitations.

One limitation relates to the sampling choice. As the choice was to interview German pharmacist-owners, who provide professional services, the explanatory frameworks may not (fully) apply to all pharmacists, since extant literature shows that there are pharmacy owners, who lack the identified motivators and have little interest in differentiation (Pioch & Schmidt, 2001), or have chosen a different strategy for their pharmacies, such as a retailing or pricing focus (Feletto et al., 2010b). Likewise, there are differences between pharmacy owners or managers and staff pharmacists. As the empirical investigation was conducted with German pharmacist-owners, the results may not be (entirely) transferrable to other country contexts. Current findings have shown that the national regulatory context and the predominant business model can influence value expectancies for services or how the pharmacist role is defined confirming the conclusions of Al Hamarneh et al. (2012). Results from this research confirm a range of previous findings, indicating that some aspects of pharmacy practice and service provision apply to pharmacists and pharmacies irrespective of national culture or regulations as these seem to be grounded in the medicine supply function common to pharmacies. Nevertheless, when re-applying the explanatory frameworks to pharmacies in other countries, specifically the national context relating to regulations and practices needs to be examined for its influence on value expectancies and decision criteria for service provision. This is also suggested by Hessemer (2016) who found that e.g. compared to extant literature, the availability of a counselling area was not an issue for German pharmacists as this is required in the German ordinance of pharmacies

(which current results confirm as this did not surface as decision criterion). Furthermore, as German pharmacies are independent pharmacist-owner managed small businesses, the results may only apply to countries with similar pharmacy structure. Due to larger size, more economic power, a professional top management and more hierarchy levels, the framework may have to be adjusted for large chain or supermarket pharmacies since it could be assumed that politics and power influence decision-making (Eisenhardt & Zbaracki, 1992) and that these companies are likely more advanced regarding business professionalising.

The focus on services, which were touched upon by the researcher and mentioned by pharmacists, i.e. the focus on the most important or especially innovative services out of the total of 207 professional and non-professional services, could be seen as a limitation as it can be regarded as a bias towards important or successful services and excluding other services, the pharmacies offered. Yet, given that even one-to-one interviews have a time limitation and that the researcher needs to weigh research interests against participant interests and not overstrain interview participants regarding both information and time, focusing on those services that may provide the thickest possible description in order to identify mechanisms was deemed appropriate. However, since pharmacist-owners provided unsolicited information on other services, including those having been discontinued, some negative service cases were indirectly included and thus, this limitation can be regarded as minor. Nevertheless, unsuccessful, terminated and insignificant services could be studied and used to corroborate the results from this research.

Approaching a research project with a CR philosophy also has limitations. Identifying generative mechanisms and the conditions under which they manifest required the familiarisation with literature from different research fields including professionalism, entrepreneurship, decision-making, strategic management, small business management and, of course, pharmacy practice. The resulting explanatory frameworks thus represent the explanations coming closest to reality for the time being (Bygstad & Munkvold, 2011). However, despite an extensive literature search, an

investigation of the contextual factors in Germany and interview data, and a resulting identification of CMO configurations, it may be that not all mechanisms have been identified, nor all properties of the identified mechanisms. It thus needs further research to ascertain the identified mechanisms as well as theories which may increase explanatory power of the herein developed framework. Furthermore, being the sole researcher in this project, there is the possibility that the researcher's personality and values have influenced the way the interviews were conducted as well as the interpretation of the interview data. Being aware of this, much reflection was done on the role as researcher as well as on the interpretations of the results of the interview analysis compared to results from the extant literature. Yet, as CR views knowledge as tentative or fallible (Easton, 2010), the results and conclusions drawn from it can only be an invitation to fellow researchers to critically assess the findings and further increase our knowledge about the mechanisms driving professional service provision and thus shape healthcare delivery.

Eventually, two areas linked to service provision and service success were not covered by this research. One is quality control for services, which is considered important for remunerated services and may also be necessary to establish broad acceptance of pharmacists' capability to provide services and to measure effects on health outcomes. Yet, in this study, assessment of service quality was not possible, which needs separate studies to assess. Furthermore, a clear link between a healthcare professionally oriented strategy with PPS provision and overall performance of the pharmacy could not be established, which also calls for further clarification of the impact of such a strategy on 'hard' business outcomes.

6.4 Future Research

Based on the results of this research, future research is recommended to address aspects relating to corroboration, refinement, and extension of the explanatory frameworks, particularly aspects relating to the influence of role orientations, success factors, sustainability, and competitive advantage.

This is one of few studies that have linked role orientations to specific processes in community pharmacy. However, given the limitation of investigating the perspective of service-providing pharmacist-owners, it needs further research with other pharmacist types or strategies (e.g. retail / price focused) to corroborate the retroduced mechanisms and adapt or expand the explanatory frameworks developed in this research. Potential research questions in that respect are, for instance, whether different strategy types differ with regards to their role orientations, whether PPS can be offered successfully if the owner has a strong business orientation but lacks a healthcare professionally oriented concept, whether pharmacists with different role orientations choose different types of services or business models (e.g. retail / price based), or whether different business models lead to different value expectancies and the recognition of different types of opportunity.

In addition to other pharmacy strategy types, the perspectives of pharmacy employees and patients are needed. As the explanatory framework suggests that a reason for and potential effect of professional service provision is the motivation and retention of capable employees, future research could address the impact of professional service provision on employee satisfaction, attrition, and business results. This is specifically interesting for Germany as it is an employee market. Given that service sustainability hinges upon specialised providers, losing an employee can stop service provision or stall service development projects. Future research should thus quantify the importance of this issue to single pharmacies and to the profession. Likewise, a further avenue for future research could be to identify whether the possibility of PPS provision is a promising recruitment strategy and a competitive advantage regarding attracting talent for a pharmacy. Moreover, there are indications that a healthcare professionally oriented pharmacy concept not only fosters service provision but also has impact on overall pharmacy management culture. Feletto et al. (2010b) found that pharmacies focused on a healthcare positioning had an empowering approach to management and encouraged their employees to come forward with ideas. Findings from the current research support this observation. As the mechanism behind this appears to be a focus on healthcare professional

values, future research should investigate further to ascertain how professional and business values influence management style, pharmacy organisational culture and therewith PPS provision and performance.

With regards to the patient perspective, current findings suggest that the identification of a relevant patient benefit is a key success factor but that there may be a discrepancy between services, which are perceived as having a health benefit for patients and services that are well accepted by patients. Thus, more research is needed about which professional services are demanded by patients and which service features are attractive to patients to identify services with a higher likelihood for success and design better communication messages. As findings, in line with Hessemer (2016), further suggest that specific patient types may have higher interest in using PPS (specifically the more innovative or advanced services), future research could thus investigate different service user groups in relation to different service offers in order to identify the market potential as well as differences in patient relevant benefits for each of these groups. Results could help pharmacists to professionalise their service offer and communication and help moving towards a market orientation, whilst substantiating their role as healthcare professionals.

Regarding professionalising PPS provision, more evidence is needed on the overall planning of the pharmacy business and the inclusion of professional services within that process. This is important as services are regarded as building blocks of the overall business and have different functions, which in turn form the expectations and success perception. Yet this is in stark contrast to the lack of measurement. Hence, future research could investigate how pharmacists can make better use of analysis and which management professionalisation strategies are most effective for service success, including the identification of suitable KPIs to measure success. Effective measurement tools could then help pharmacists to identify growth or mitigation strategies and also help in exit decisions. The introduction of QMS in Germany was also aimed to increase professionalisation of pharmacy management (not only pharmaceutical quality issues). As pharmacists indicated that the QMS had made them aware of planning and

optimising, future research could investigate how the use of QMS affects service provision, professional and business values and pharmacy success.

Eventually, role ambidexterity was identified as a capability and its targeted application of healthcare professional and business-oriented tasks and values as competitive advantage. There are indications that active and customer oriented management leads to pharmacy success (Heinsohn & Flessa, 2013). Furthermore, a recent research has shown that both a utilitarian identity (similar to business orientation) and a normative identity (similar to healthcare professional orientation) are positively linked to perceived superior business performance versus the competition (Nunes, Anderson, Martins, & Wiig, 2017). Whilst this supports the nature of role orientations as mechanisms and the importance of a dual orientation on overall business performance, more research regarding the application and outcomes of dual role alignment appears useful. For instance, the impact of role ambidexterity on a range of outcomes (sales, profits, staff motivation, customer/patient satisfaction, patient health outcomes) needs to be assessed and it should be investigated how differences in the strength of the respective role orientation affects pharmacy and PPS management and success. This would also have to include contextual factors such as competition to further ascertain the influence of small business satisficing on PPS provision levels. Likewise, its existence and effects in other contexts where the dual role is present (e.g. hospitals) could be corroborated. If the positive effects of role ambidexterity hold, this might encourage more pharmacies to embrace the dual role and potentially strengthen community pharmacy as an easily accessible healthcare provider.

Eventually, due to the application of theories that have already been used in a range of research fields and situations, the results may find application for future research beyond pharmacy practice and the German context in other service industries, especially those dealing with different role orientations or value sets.

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Appendices

1. Comparison of small business decision-making models
2. Interview guide in German and English
3. Pharmacy questionnaire in German and English
4. Number of interviews and interview lengths of comparable semi-structured interviews
5. Follow-up email to pharmacist-owners (example) in German and English
6. Consent form in German and English
7. Confidentiality agreement in German and English
8. English translations and German original of the respondent quotes used in the results chapter
9. List of analysed services (with selected themes)
10. Example of the application of success factors for new service development

Appendix 1: Comparison of small business decision-making models

Author, Country, Firm type, Industry	Type of decision	Method	Results / Advantages / Disadvantages
Jocumsen, 2004 Australia small business Different industries	Strategic marketing decisions➔ impacting the whole business and the survival of the firm	Literature review and 6 in-depth interviews to develop framework and propositions, followed by confirmatory interviews on 46 specific strategic marketing decisions	• Simple model mirroring a concurrent and reduced approach of small business owners to decision-making • Includes personal and business goals and social/ethical considerations (personal motivation) • Decision style mainly intuitive based on experience / learnings with limited information gathering and analysis • Silent about the origins of the decisions
Liberman-Yaconi et al., 2010 Australia Micro firms Information Technology	Strategic decisions, ➔ complex, aiming for competitive advantage and affecting performance	Case study design with specific decision as unit of analysis, 11 micro firms, e-mail questionnaires and interviews plus analysis of secondary data (e.g. meeting minutes)	• Simple model showing decision-making as circular and concurrent • emphasises influence of owner-manager's values and intuition and limited internal resource on decisions • Experience most important for decision-making but also seeking external advice • External triggers predominant: proximity to customers a key source of ideas
Hang & Wang, 2012 Australia SMEs manufacturing & service / different industries	Strategic decision ➔ non-routine with significant impact on a firm's economic or competitive situation	13 semi-structured interviews, mainly with owners, each on one important strategic decision	• External triggers predominant • Two-stage decision-making: ideas first pass internal finance and competence assessment based on owner knowledge and experience; model includes possibility of decision-making after stage 1 • Model includes development of alternative options • Silent on owners' motivations and values

Appendix 2: Interview guide

- Structured alongside 5 topics.
- Black font: interview guide for first round of interviews
- Blue font: additional questions for second round of interviews

Topic 1: Roles

Themenbereich: Aufgaben und Rollen des Apothekers	***Topic: Tasks and roles of a pharmacist***
Bitte beschreiben Sie in wenigen Worten, was ein Apotheker macht.	*Can you please tell me in a few words "What does a pharmacist do?"*
Welche Aspekte Ihrer Tätigkeit machen Ihnen am meisten Spaß?	*Which aspects of your work do you enjoy most?*
Gibt es manchmal Konflikte zwischen verschiedenen Aufgaben und wie gehen Sie mit diesen Konflikten um?	*Do you sometimes experience conflicts between the different tasks and how do you deal with these conflicts?*
Welche Rolle spielt Professionalität?	*What role does professionalism play?*
Wie wichtig sind die kaufmännischen und betriebswirtschaftlichen Aspekte der Apotheke bzw. betriebswirtschaftliches Wissen im Vergleich zu pharmazeutischem Wissen?	*How important are the business aspects of running a pharmacy and business knowledge compared to pharmaceutical knowledge, respectively?*
Wie läuft die normale Beratung zum Rezept ab? Führen Sie Wechselwirkungschecks durch?	*How does regular dispensing work? Do you do drug-drug interaction checks?*
Wie ist das Verhältnis zum Arzt?	*How is the relationship to physicians?*
Wie unterscheidet sich eine Landapotheke von einer Stadtapotheke?	*How does a country-side (rural) pharmacy differ from a city (urban) pharmacy?*

Topic 2: Managing the pharmacy

Themenbereich: Das Management der Apotheke	***Topic: Management of the pharmacy***
Haben Sie eine bestimmte Philosophie oder Strategie für Ihre Apotheke? Wie würden Sie diese Strategie beschreiben?	*Do you have a specific philosophy or strategy for your pharmacy and how would you describe this strategy?*
Wie managen Sie Ihre Apotheke und wie führen Sie ihr Team?	*How do you manage your pharmacy and your team?*
Welche Kennzahlen nutzen Sie?	*Which KPIs do you use?*
Was unterscheidet Ihre Apotheke(n) vom Wettbewerb?	*What distinguishes your pharmacy from the competition?*
Beobachten Sie die Aktivitäten Ihrer Wettbewerber und beeinflusst das Verhalten der Wettbewerber Ihre Aktivitäten und Entscheidungen?	*Do you watch your competitors' activities?*

Topic 3: Service development process

Themenbereich: Planung, Einführung und Betreiben der Dienstleistung(en)	***Topic: Planning, implementation of the service and service provision***
Bitte beschreiben Sie die Dienstleistung(en), vor allem wessen Idee es war, wann die Dienstleistung eingeführt wurde, die Hauptmerkmale, wie die Dienstleistung abläuft, das Geschäftsmodell und was die Dienstleistung Ihrer Meinung nach besonders macht.	*Please describe the service(s), specifically whose idea it was, the main features, the business model and what, according to your opinion makes the service(s) special.*
Was waren die Gründe, weshalb Sie erwogen haben, diese Dienstleistungen anzubieten?	*What were the reasons for offering the service*

Themenbereich: Planung, Einführung und Betreiben der Dienstleistung(en)	Topic: Planning, implementation of the service and service provision
Was waren die Kriterien, nach denen Sie die Dienstleistung ausgewählt haben?	*What were the criteria for deciding to offer the service?*
Welche Schritte haben Sie bei der Planung und Implementierung der Dienstleistung unternommen? Bitte erzählen Sie wenn möglich in zeitlicher Reihenfolge und nennen Sie, welche Erfahrungen Sie gemacht haben, und welche Personen, Investitionen und Technologien involviert waren.	*Which steps did you take for planning and implementing the service? Please, if possible, list the steps in historical order and tell me about the experiences you have made, and which people, investments and technologies were involved.*
Haben Sie für die Dienstleistung einen Business Plan (eine konkrete Planung) erstellt oder die Dienstleistung durchkalkuliert?	*Did you prepare a business plan or calculate the costs for service delivery?*
Gab es bestimmte Risiken in Bezug auf das Angebot der Dienstleistung und wie sind Sie damit umgegangen?	*Did you make a risk assessment? Were there any risks involved regarding offering the service?*
Gab es bei der Implementierung Schwierigkeiten und wenn ja, welche und wie wurden diese Schwierigkeiten gelöst?	*Did you experience any difficulties during implementation and if so, how were the difficulties solved?*
Wie läuft die Dienstleistung ab?	*How does the service work?*
Wie gewinnen Sie Kunden/Patienten für die Dienstleistung / wie wird die Dienstleistung beworben?	*How do you gain patients for the service / how do you advertise the service?*
Könnten Sie sich vorstellen, Patienten/Kunden ihre Dienstleistung in Rechnung zu stellen? Warum ja/nein?	*Can you imagine asking patients to pay a service fee? Why yes/no?*

Topic 4: Success factors

Themenbereich: Erfolg der Dienstleistung und Erfolgsfaktoren	***Topic: Success of the service and success factors***
Wie würden Sie die Ergebnisse der Dienstleistung bis dato beschreiben? In wieweit hat die Dienstleistung die Erwartungen erfüllt?	*How would you describe the service results to date? In how far did the service fulfil expectations?*
Messen Sie die Auswirkungen der Dienstleistung auf die Kennzahlen in der Apotheke?	*Do you measure the effects of the service on your pharmacy's / pharmacies' KPIs?*
Was sind die Rolle und der Wert der Dienstleistung für die Apotheke im Vergleich zu den anderen Tätigkeiten und Sortimenten?	*What are the role and the value of the service for the pharmacy compared to other tasks and assortments?*
Zusammenfassend: Was würden Sie anderen Apothekern raten, die eine solche Dienstleistung einführen wollen? Was sind aus Ihrer Erfahrung die wichtigsten Aspekte, (Erfolgsfaktoren) damit die Erbringung der Dienstleistung funktioniert?	*To summarise: What advice would you give other pharmacists, who want to provide a professional service? What, from your experience, are the most important aspects (success factors) to make service provision work?*
Welche Rolle, Verhaltensweise oder persönliche Einstellung erachten Sie als wichtig für die Erbringung der Dienstleistung?	*Which role, behaviour or personal attitude would you consider important for service provision?*
Welche Strategie haben Sie für Ihre Apotheke für die nächsten 5 Jahre? Planen Sie, weitere Dienstleistungen oder Innovationen einzuführen?	*What strategy do you have for your pharmacy for the next 5 years? Do you plan to introduce further services or innovations?*

Topic 5: Closing questions

Abschlussfragen / Medikationsmanagement / Deutschlandkontext	***Final questions / medication management / German context***
Was denken Sie, sind die Gründe dafür, dass solche besonderen Gesundheitsdienstleistungen in deutschen Apotheken noch nicht so weit verbreitet sind?	*What do you think are the reasons why professional services are not widely available in pharmacies?*
Hatten Sie am Hausapothekenmodell teilgenommen? Warum denken Sie ist das Modell gescheitert?	*Did you participate in the family pharmacy programme? Why do you think the programme was not successful?*
Was denken Sie über das (eben gestartete) ABDA-KBV Pilot-Modell (Projekt ARMIN)? (Wirkstoffverordnung und Medikationsmanagement)	*What do you think about the ABDA-KBV pilot programme (Project ARMIN)? ((Active pharmaceutical ingredient prescribing, medication management)*
Sind die Apotheker ausreichend ausgebildet / qualifiziert Medikationsmanagement anzubieten oder muss „nachgerüstet“ werden?	*Are pharmacists sufficiently trained to offer medication management or is there a need to upgrade?*
Was ist Ihre Meinung zur Standesvertretung?	*What is your opinion about the pharmacy association?*
Wir sind jetzt am Ende des Interviews. Gibt es noch etwas, dass Sie gerne hinzufügen möchten?	*We are at the end of the interview. Is there anything you would like to add?*

Vielen Dank, dass Sie sich die Zeit genommen haben! *Thank you for taking the time!*

Appendix 3: Pharmacy questionnaire (German and English versions)

Ergänzungfragebogen zum Interview

Kontaktdaten Doktorandin	Kontaktdaten Erster Supervisor
Maret Rauch Adresse E-Mail: Telefon	Dr. Elke Pioch Adresse: E-Mail:

Forschungsvorhaben: „Implementierung von Gesundheitsdienstleistungen in deutschen Apotheken“

Bitte die jeweils passende Antwort ankreuzen, bzw. frei ergänzen.

Wenn Sie bestimmte Fragen nicht beantworten möchten, können Sie diese offen lassen.

Teil 1: Daten zu Apotheker und Apotheke

Alter

25-35	
36-45	
46-55	
56-65	
66+	

Geschlecht

M	
W	

Wie viele Apotheken besitzen Sie? _____

Seit wann besitzen Sie Ihre Apotheke(n)

Apotheke	Jahre
Apotheke 1	
Apotheke 2	
Apotheke 3	
Apotheke 4	

Sind Sie Mitglied in Apothekerverbänden oder Apothekervereinigungen?

Nein	
Ja	

Wenn ja, in welchen? _____

Was ist die Größe Ihrer Apotheke(n)?

Apotheke	Quadratmeter
Apotheke 1	
Apotheke 2	
Apotheke 3	
Apotheke 4	

Wie viele Angestellte arbeiten in Ihrer Apotheke / Ihren Apotheken?

	Apotheke 1	Apotheke 2	Apotheke 3	Apotheke 4
Apotheker				
PTAs				
Andere				

Hat die Apotheke einen separaten Beratungsraum?

	Ja	Nein
Apotheke 1		
Apotheke 2		
Apotheke 3		
Apotheke 4		

Ist die Apotheke Teil einer Kooperation?

	Apotheke 1	Apotheke 2	Apotheke 3	Apotheke 4
Nein				
Lokale/regionale Kooperation				
Marketingkooperation				
Franchise				

Wie haben sich der Umsatz und die Profitabilität in den letzten drei Jahren entwickelt?

	Umsatz	Profitabilität
Gestiegen		
Stabil / keine Veränderung		
Rückläufig		

Mit welchen der folgenden technischen Hilfsmittel ist die Apotheke ausgestattet?

	Apotheke 1	Apotheke 2	Apotheke 3	Apotheke 4
Dispensierautomat				
Software zur Erkennung von Wechselwirkungen				
Software für Kundenkarten				
Software für Patientenakten				
Labor für diagnostische Tests				
Patientenwaage				
Andere Geräte oder Systeme (Welche?)				

Teil 2: Wettbewerbsumfeld[9]

Wie schätzen Sie das Wettbewerbsumfeld für Ihre Apotheke(n) ein?

	sehr gut	gut	befriedigend	schlecht	sehr schlecht
Apotheke 1					
Apotheke 2					
Apotheke 3					
Apotheke 4					

Warum haben Sie diese Einschätzung?

_____

[9] Quelle der Fragen in Teil 3:übernommen von Heinsohn, J., & Flessa, S. (2013). Competition in the German pharmacy market: an empirical analysis. BMC Health Services Research, 13(1), 407

Wie beurteilen Sie Ihre Apotheke(n) hinsichtlich der folgenden Faktoren (im Vergleich zum Wettbewerb)?

	sehr gut	gut	befriedigend	schlecht	sehr schlecht
Innovation					
Beratungsleistung					
Dienstleistungs-angebot					
Umsatz					
Marketing					
Kundenbasis					

Teil 3: Welche Dienstleistungen bietet Ihre Apotheke an?

Dienstleistung	Apotheke 1	Apotheke 2	Apotheke 3	Apotheke 4
Lieferservice				
Mietservice (z.B. Milchpumpen)				
Beratung und Zusammenstellung einer Reiseapotheke				
Impfberatung				
Anmessen von Kompressionsstrümpfen				
Wechselwirkungs-Check				
Medikations-Check und Beratung (medication use review)				
Diagnostische Tests (z.B. Blutzucker)				
Beratung zu spezifischen Krankheiten / Disease Management Programm (z.B. Diabetes, Asthma)*				
Ernährungsberatung				
Diätberatung / Gewichtsreduktion				
Raucher-Entwöhnung				
Kundenkarte				
Andere Dienstleistung(en)*				

*Für welches Krankheitsbild / welche anderen Dienstleistungen?

_____

Supplementary questionnaire to the interview

Contact details researcher	Contact details first supervisor
Maret Rauch Address: E-Mail: Phone::	Dr. Elke Pioch Address: E-Mail:

Research project: **“Implementation of professional services in German pharmacies”**

Please tick the suitable answer, or enter free text respectively where indicated.

If you do not want to answer certain questions, please leave those open.

Part 1: Information about the pharmacist and pharmacy

Age

25-35	
36-45	
46-55	
56-65	
66+	

Gender

M	
F	

How many pharmacies do you own? _____

Since when do you own your pharmacy/ies

Pharmacy	years
Pharmacy 1	
Pharmacy 2	
Pharmacy 3	
Pharmacy 4	

Are you a member in pharmacy organisations / associations?

No	
Yes	

If yes, in which ones? _____

What is the size of your pharmacy/ies?

Pharmacy	Square meters
Pharmacy 1	
Pharmacy 2	
Pharmacy 3	
Pharmacy 4	

How many people do you employ in your pharmacy/ies?

	Pharmacy 1	Pharmacy 2	Pharmacy 3	Pharmacy 4
Pharmacists				
Pharmacy assistants				
Other				

Does the pharmacy have a separate consultation room?

	yes	no
Pharmacy 1		
Pharmacy 2		
Pharmacy 3		
Pharmacy 4		

Is the pharmacy part of a franchise or buying group?

	Pharmacy 1	Pharmacy 2	Pharmacy 3	Pharmacy 4
No				
Local/regional cooperation				
Marketing cooperation				
Franchise				

How did turnover and profits develop in the past three years?

	Turnover	Profits
Increase		
Stable / no change		
Decrease		

Which technical equipment does the pharmacy have?

	Pharmacy 1	Pharmacy 2	Pharmacy 3	Pharmacy 4
Automated dispensing system				
Software for detection of drug interactions				
Software for customer cards				
Software for patient files				
Laboratory and diagnostic equipment				
Scale for weight measurement				
Other technical equipment or systems (which ones?)				

Part 2: Pharmacy competitive environment [10]

How do you rate the competitive environment for your pharmacy/ies?

	very good	good	acceptable	difficult	very difficult
Pharmacy 1					
Pharmacy 2					
Pharmacy 3					
Pharmacy 4					

What is the reason for this assessment?

_____

[10] Source of the questions in part 3: Heinsohn, J., & Flessa, S. (2013). Competition in the German pharmacy market: an empirical analysis. BMC Health Services Research, 13(1), 407Heinssohn & Flessa, 2013

How would you rank your competitive position vs. nearby competitors regarding the following elements?

	very good	good	acceptable	poor	very poor
Innovation					
Counselling service					
Service offer					
Turnover					
Marketing					
Customer base					

Part 3: Which services do you offer in your pharmacy?

Service	Pharmacy 1	Pharmacy 2	Pharmacy 3	Pharmacy 4
Medicine home delivery				
Rental of medical equipment (e.g. breast pumps)				
Travel medication counselling				
Immunisation counselling				
Fitting of compression stockings				
Drug interaction check				
Medication use review				
Diagnostic tests (e.g. blood glucose)				
Counselling regarding specific health conditions / Disease Management Programme (e.g. diabetes, asthma)*				
Nutrition advice / counselling				
Weight management				
Smoking cessation				
Customer card				
Other services*				

* Please state for which disease / which other service(s)

_____

Appendix 4: Number of interviews and interview lengths of comparable semi-structured interviews

- Information taken from articles regarding pharmacy practice and professional service provision
- Average no. of interviews: 25; average duration: from 42-63 minutes

First author	Year	Title	no. of inter-views	duration in minutes from	duration in minutes to	Target group
MacKeigan	2017	Implementation of a reimbursed medication review program: Corporate and pharmacy level strategies	42	60	60	key informants, 4 executives, 15 managers/ franchisees, 11 owners
Moullin	2016	Qualitative study on the implementation of professional pharmacy services in Australian community pharmacies using framework analysis	25	20	50	pharmacists
Elvey	2015	Patient-centred professionalism in pharmacy: values and behaviours	53	n/a	n/a	early-career pharmacists, tutors, support staff, in community and hospital pharmacy
Hanes	2015	Consolidating innovative practice models: The case for obstructive sleep apnea services in Australian pharmacies	22	24	51	17 pharmacists, 5 non-pharmacists
Lucas	2015	Community pharmacists' experience and perceptions of the New Medicines Service (NMS)	14	n/a	n/a	pharmacists

First author	Year	Title	no. of int.	duration from	duration to	Target group
Morton	2015	A qualitative study of English community pharmacists' experiences of providing lifestyle advice to patients with cardiovascular disease	15	20	50	pharmacists
Woods	2015	A grounded exploration of the dimensions of managerial capability: A preliminary study of top Australian pharmacist owner-managers	5	60	90	pharmacists
Wells	2014	Views and experiences of community pharmacists and superintendent pharmacists regarding the New Medicine Service in England prior to implementation	5	48	48	pharmacists
Feletto	2013	Practice change in community pharmacy: using change-management principles when implementing a pharmacy asthma management service in NSW, Australia	35	n/a	n/a	pharmacists
Jacobs	2013	Identifying and managing performance concerns in community pharmacists in the UK	20	n/a	n/a	senior managers from community pharmacies and locum agencies
Chui	2012	A qualitative assessment of a community pharmacy cognitive pharmaceutical services program using a work systems approach	6	60	60	pharmacists
Kaae	2012	Exploring long term implementation of cognitive services in community pharmacies-a qualitative study	12	55	55	pharmacists (9) and technicians (3)
Kibicho	2012	A patient-centred pharmacy services model of HIV patient care in community pharmacy settings: a theoretical and empirical framework	28	40	100	pharmacists, pharmacy managers

First author	Year	Title	no. of int.	duration from	duration to	Target group
White	2012	Service quality in community pharmacy: An exploration of determinants	33	20	45	pharmacy assistants, pharmacists
Grindrod	2011	Pharmacy Owner and Manager Perceptions of Pharmacy Adaptation Services in British Columbia	31	28	28	pharmacists
Bryant	2010	Community pharmacists' perceptions of clinical medication reviews	20	30	30	pharmacists
Feletto	2010	Flexibility in community pharmacy: a qualitative study of business models and cognitive services	57	n/a	n/a	pharmacists
Kaae	2010	Sustaining delivery of the first publicly reimbursed cognitive service in Denmark: a cross-case analysis	29	n/a	n/a	pharmacists, pharmacy assistants
McDonald	2010	Professional status in a changing world: The case of Medicines Use Reviews in English community pharmacy	49	n/a	n/a	pharmacists
Benson	2009	Understanding pharmacists' values: A qualitative study of ideals and dilemmas in UK pharmacy practice	38	n/a	n/a	pharmacists (n=38), thereof community pharmacists (18), hospital pharmacists (10), key informants (10)
Gastellurutia	2009	Facilitators for practice change in Spanish community pharmacy	33	n/a	n/a	pharmacists and pharmacy strategists
Albrecht	2006	Cognitive pharmaceutical services: financial facilitators	18	15	35	pharmacists

First author	Year	Title	no. of int.	duration from	duration to	Target group
Hopp	2005	Implementation of cognitive pharmaceutical services (CPS) in professionally active pharmacies	20	n/a	n/a	pharmacists
Roberts	2005	Understanding practice change in community pharmacy: A qualitative study in Australia	36	n/a	n/a	23 pharmacists & staff + 13 strategists
Schmidt	2005	Community pharmacies under pressure–can branding help?	12	n/a	n/a	pharmacists
Willink	2005	Becoming 'Indispensable': Developing Innovative Community Pharmacy Practices	4	30	120	pharmacists
Pioch	2001	German retail pharmacies – regulation, professional identity and commercial differentiation	11	n/a	n/a	pharmacists
Ottewill	2000	Management competence development for professional service SMEs: the case of community pharmacy	6	60	60	pharmacists
Odedina	1996	Providing Pharmaceutical Care in Community Practice: Differences Between Providers and Non-Providers of Pharmaceutical Care	20	25	65	pharmacists
Tann	1996	Leading edge practitioners in community pharmacy: approaches to management & innovation	37	120	120	pharmacists
		Total highly comparable interviews	**736**	**715**	**1067**	
		Average	**25**	**42**	**63**	

Appendix 5: Overview study population (from online pharmacy search)

The list includes 107 pharmacies identified from the first web-based search and personal contacts, plus the two pharmacies identified via referral, and 11 pharmacies identified through the second web-based search for rural pharmacies.

Pharmacies that participated in this research are highlighted in green, the two pharmacies that have been recommended to the researcher (and participated) are highlighted in blue, and pharmacies that have been contacted but declined are highlighted in orange.

In addition to the information listed in the table, the original list contained the names of the pharmacies and the full contact information as given on the pharmacies' websites, which is not listed here for reasons of confidentiality and anonymity. The column "Services listed on website" includes professional and non-professional services as advertised on the pharmacies' websites, whereby professional services are highlighted in bold letters.

Gender of owner	No. of branches incl. main pharmacy	Services listed on website	Location
f	1	medicine home delivery, customer card, medication advance order, natural medicine, **unit-dosing**, rental of medical equipment, **health counselling, nutrition counselling, detoxification**	urban
f	1	**patient seminars**, medicine home delivery, medication advance order, rental of medical equipment, **unit-dosing, skincare counselling, blood pressure check, cholesterol check**	urban
f	1	**diabetes counselling**	urban
f	1	**diabetes counselling, cytostatic drug compounding, natural medicine, counselling for athletes**	urban
f	1	medication advance order, medicine home delivery, t**ravel and immunisation counselling, natural medicine, smoking cessation counselling, individual medication counselling**	urban

Gender	No. of branches	Services listed on website	Location
f	1	medication advance order, medicine home delivery, **mother & child (counselling & assortment), fitting of compression stockings, nutrition counselling, diabetes counselling**, cosmetics	urban
f	1	**health check (checking blood pressure, blood sugar, cholesterol, body fat, weight check) diabetes counselling, asthma counselling, fitting of compression stockings**, rental of medical equipment, **Immunisation counselling**, medicine home delivery, homeopathy, **spagyric mixes**, medication advance order	urban
f	1	**natural health, mother & child (counselling & assortment),** customer card, medicine home delivery, rental of medical equipment, **health check, diabetes counselling, asthma counselling, nutrition counselling**, animal health	urban
f	1	**diabetes counselling, HIV counselling, COPD counselling**, medication advance order	urban
f	1	medication advance order, **fitting of compression stockings, blood sugar check, cholesterol check**, homeopathy, medicine home delivery, customer card, animal health, **nutrition counselling, diabetes counselling, immunisation counselling**	urban
f	1	medication advance order, **HIV counselling**, rental of medical equipment, cosmetics, **travel and immunisation counselling, intestinal health counselling**	urban
f	1	customer card, rental of medical equipment, medicine home delivery, **fitting of compression stockings**	urban

Gender	No. of branches	Services listed on website	Location
f	1	**health check (blood pressure, blood sugar, cholesterol, liver function) fitting of compression stockings, pharmaceutical care**, cosmetics, rental of medical equipment, customer card	urban
f	1	**health check**, homeopathy, phyto therapy, cosmetics, rental of medical equipment, **travel and immunisation counselling, diabetes counselling, fitting of compression stockings, blood pressure check, cholesterol check, blood sugar check, pharmaceutical care**	urban
f	1	medicine home delivery, rental of medical equipment, **travel and immunisation counselling, fitting of compression stockings, medication management, nutrition counselling**, customer card, **patient seminars, counselling oncology patients, cytostatic drug compounding, cystic fibrosis counselling, mother & child (counselling & assortment)**	urban
f	1	customer card, **counselling oncology patients, cytostatic drug compounding, travel and immunisation counselling, micro nutrition counselling, asthma counselling, diabetes counselling, fitting of compression stockings, blood pressure check, blood sugar check**, medicine home delivery	urban
f	1	rental of medical equipment, medicine home delivery, customer card, medication advance order, **blood pressure check, hypertension counselling, diabetes counselling, asthma/COPD counselling, counselling oncology patients, travel and immunisation counselling**, cosmetics	urban
f	1	rental of medical equipment, customer card, medicine home delivery, aroma therapy, phyto therapy, **fitting of compression stockings, patient seminars, health check**	urban

Gender	No. of branches	Services listed on website	Location
f	1	medication advance order, customer card, cosmetics, **travel and immunisation counselling, fitting of compression stockings, nutrition counselling**	urban
f	1	customer card, rental of medical equipment, **travel and immunisation counselling, fitting of compression stockings, blood pressure check, blood sugar check, cholesterol check, medicine home delivery, diabetes counselling, HIV counselling**, homeopathy	urban
f	1	medication advance order, **environmental analysis (check for pollutants in a customers' home),** medicine home delivery, customer card, rental of medical equipment, free health magazines, **travel and immunisation counselling, nutrition counselling, diabetes counselling, blood pressure check**, cosmetics	urban
f	1	**blood pressure check, blood sugar check, cholesterol check, weight check, travel and immunisation counselling, diabetes counselling, asthma counselling**, rental of medical equipment, medicine home delivery	urban
f	1	medicine home delivery, customer card, **blood pressure check, cholesterol check, blood sugar check, body fat analysis, travel and immunisation counselling, fitting of compression stockings, diabetes counselling**, cosmetics	urban
f	1	customer card, rental of medical equipment, **intestinal health counselling, environmental analysis (check for pollutants in a customers' home), food intolerance check, micro nutrition analysis, blood pressure check, blood sugar check, cholesterol check, hair mineral analysis**	urban

Gender	No. of branches	Services listed on website	Location
m	1	customer card, **patient seminars**, 24-hour hotline, medicine home delivery, medication advance order, **health checks (blood pressure, blood sugar, body mass index, cholesterol)**	urban
m	1	**diabetes counselling, travel and immunisation counselling**, cosmetics, **blood pressure check**, medication advance order, medicine home delivery	urban
m	1	medication advance order, medicine home delivery, rental of medical equipment, **unit-dosing, diabetes counselling, asthma counselling, travel and immunisation counselling**, cosmetics, **fitting of compression stockings**	urban
m	1	**fitting of compression stockings**, free health magazines, cosmetics, customer card, medicine home delivery, rental of medical equipment, **travel and immunisation counselling, nutrition counselling, smoking cessation counselling, diabetes counselling**, tissue salts, **mother & child (counselling & assortment)**	urban
m	1	rental of medical equipment, homeopathy, aroma therapy, **fitting of compression stockings, blood sugar check**, cosmetics, **blood pressure check, body mass index calculation**	urban
m	1	**blood pressure check, blood sugar check**, rental of medical equipment, **diabetes counselling, weight reduction counselling, skincare counselling, travel and immunisation counselling, intestinal health counselling**	urban
m	1	24-hour hotline, medication advance order, medicine home delivery, **health check**, customer card, rental of medical equipment, **asthma counselling, diabetes counselling, travel and immunisation counselling, cosmetics**	urban

Gender	No. of branches	Services listed on website	Location
m	1	**fitting of compression stockings**, rental of medical equipment, medicine home delivery, **pharmacogenomics therapy**, phyto therapy	urban
m	1	medication advance order, rental of medical equipment, **asthma counselling, diabetes counselling**, b**lood pressure check, weight check, blood sugar check**, medicine home delivery	urban
m	1	**fitting of compression stockings**, medication advance order, **diabetes counselling**, cosmetics, customer card, **cholesterol check, blood sugar check, smoking cessation counselling, nutrition counselling**	urban
m	1	**diabetes counselling, cystic fibrosis counselling, rheumatism counselling, counselling on growth disturbances**	urban
m	1	**micro nutrition counselling, HIV counselling, diabetes counselling,** customer card, **fitting of compression stockings,** rental of medical equipment, **blood pressure check, blood sugar check**, medicine home delivery	urban
m	1	medication advance order, rental of medical equipment, **fitting of compression stockings**, customer card, **nutrition counselling, travel and immunisation counselling, diabetes counselling, blood pressure check,** homeopathy	urban
m	1	rental of medical equipment, medicine home delivery, medication advance order, free health magazines, **environmental analysis (check for pollutants in a customers' home), blood pressure check, blood sugar check, cholesterol check, fitting of compression stockings, diabetes counselling**	urban

Gender	No. of branches	Services listed on website	Location
m	1	rental of medical equipment, **pharmaceutical care for asthma, diabetes, and hypertension, travel and immunisation counselling, nutrition counselling**, cosmetics, **fitting of compression stockings**, medication advance order	urban
m	1	medication advance order, **patient seminars**, rental of medical equipment, customer card, **nutrition counselling**, medicine home delivery, s**kin analysis, blood sugar check, blood pressure check, vitamin D screening, micro nutrition analysis, travel and immunisation counselling, medication management**	urban
m	1	medicine home delivery, rental of medical equipment, homeopathy, cosmetics, **nutrition counselling, fitting of compression stockings, mother & child (counselling & assortment)**	urban
m	1	medication advance order, **pharmaceutical care, counselling oncology patients**	urban
m	1	rental of medical equipment, customer card, free health magazines, animal health, homeopathy, **travel and immunisation counselling, diabetes counselling**, natural medicine, **environmental analysis (check for pollutants in a customers' home), blood pressure check, blood sugar check, cholesterol check, hair mineral analysis**	urban
m	1	customer card, medicine home delivery, homeopathy, phyto therapy, **micro nutrition counselling, mother & child (counselling & assortment), fitting of compression stockings, diabetes counselling, asthma counselling, weight check, hypertension counselling, osteoporosis counselling, rheumatism counselling**	urban

Gender	No. of branches	Services listed on website	Location
m	1	rental of medical equipment, **patient seminars, blood pressure check, diabetes counselling, nutrition counselling**	urban
m	1	customer card, **blood pressure check, blood sugar check**, medicine home delivery, rental of medical equipment, **diabetes counselling, travel and immunisation counselling**	urban
m	1	**pharmaceutical care, fitting of compression stockings, blood pressure check, body fat analysis**, cosmetics, animal health, **cholesterol check, blood sugar check**, traditional Chinese medicine,	urban
m	1	rental of medical equipment, customer card, **travel and immunisation counselling, weight reduction counselling, asthma counselling, diabetes counselling, osteoporosis counselling, smoking cessation counselling**, free health magazines, fitting of compression stockings, **environmental analysis (check for pollutants in a customers' home), blood pressure check, blood sugar check, cholesterol check**, traditional Chinese medicine, homeopathy	urban
m	1	medicine home delivery, customer card, animal health, **travel and immunisation counselling, diabetes counselling**, phyto therapy	urban
m	1	rental of medical equipment, **travel and immunisation counselling, fitting of compression stockings, blood pressure check, blood sugar check, cholesterol check**, customer card	urban
m	1	customer card, medicine home delivery, **fitting of compression stockings, pharmaceutical care**	urban
m	1	customer card, medicine home delivery, **fitting of compression stockings**, medication advance order, unit-dosing, **nutrition counselling, diabetes counselling**, homeopathy, **blood pressure check**	urban

Gender	No. of branches	Services listed on website	Location
m	1	traditional Chinese medicine, customer card, medicine home delivery, rental of medical equipment, **body mass index calculation, blood pressure check, nutrition counselling, fitting of compression stockings**, cosmetics	urban
m	1	rental of medical equipment, **fitting of compression stockings, blood sugar check, cholesterol check, nutrition counselling, diabetes counselling,** homeopathy	urban
m & f	1	rental of medical equipment, homeopathy, **fitting of compression stockings**, cosmetics, **cholesterol check**	urban
f	2	**medication management, unit-dosing, natural health, fitting of compression stockings, counselling oncology patients**, customer card, medication advance order, medicine home delivery, customer card, **blood pressure check, cholesterol check, body fat analysis, travel and immunisation counselling**, rental of medical equipment	urban
f	2	**HIV/Hepatitis counselling, COPD counselling, medication management, patient seminars**, cosmetics, homeopathy, phyto therapy	urban
f	2	medicine home delivery, **skin analysis, nutrition counselling, blood sugar check**, customer card, **spagyric mixes**, rental of medical equipment, **diabetes counselling**	urban
f	2	medication advance order, medicine home delivery, customer card, free health magazines, rental of medical equipment, **smoking cessation counselling, travel and immunisation counselling, diabetes counselling, asthma counselling, nutrition counselling**, cosmetics, homeopathy	urban
f	2	medicine home delivery, **blood pressure check, blood sugar check, weight check, fitting of compression stockings, diabetes counselling**, cosmetics, medication advance order	urban

Gender	No. of branches	Services listed on website	Location
f	2	rental of medical equipment, medicine home delivery, customer card, **unit-dosing, fitting of compression stockings, patient seminars, medication management, nutrition counselling, diabetes counselling, asthma counselling**, cosmetics, extended opening times, **blood pressure check, cholesterol check, blood sugar check, weight check, venous function check**	urban
m	2	medicine home delivery, customer card, rental of medical equipment, **blood pressure check, blood sugar check, body mass index calculation, immunisation counselling,** homeopathy, **fitting of compression stockings, nutrition counselling**, aroma therapy	urban
m	2	medication advance order, **cytostatic drug compounding, counselling oncology patients, nutrition counselling, travel and immunisation counselling, medication management, unit-dosing, fitting of compression stockings**, customer card, medicine home delivery, rental of medical equipment, **mother & child (counselling & assortment), blood sugar check, cholesterol check**	urban
m	2	**cystic fibrosis counselling, HIV counselling, rheumatism counselling, cytostatic drug compounding**, customer card, medication advance order, cosmetics, **travel and immunisation counselling**, medicine home delivery, **blood pressure check**	urban
m	2	**cytostatic drug compounding, nutrition counselling, diabetes counselling, asthma counselling**	urban
m	2	**diabetes counselling, HIV counselling**, medication advance order	urban
m	2	**fitting of compression stockings, asthma counselling, smoking cessation counselling, blood pressure check, cholesterol check, blood sugar check**	urban

Gender	No. of branches	Services listed on website	Location
m	2	customer card, rental of medical equipment, medicine home delivery, **fitting of compression stockings, cosmetics, HIV counselling,** free health magazines, **travel and immunisation counselling, diabetes counselling, nutrition counselling, asthma counselling**	urban
m	2	customer card, medicine home delivery, **blood pressure check, blood sugar check, patient seminars, nutrition counselling, fitting of compression stockings**	urban
m	2	customer card, homeopathy, phyto therapy, **blood sugar check, cholesterol check**, rental of medical equipment, **fitting of compression stockings, nutrition counselling, unit-dosing, pharmacogenomics therapy**	urban
m	2	medication advance order, rental of medical equipment, customer card, medicine home delivery, animal health, **diabetes counselling, nutrition counselling, micro nutrition counselling, environmental analysis (check for pollutants in a customers' home), hair mineral analysis, blood sugar check, cholesterol check, blood pressure check**	urban
m	2	medication advance order, customer card, medicine home delivery, **mother & child (counselling & assortment)**, homeopathy	urban
m	2	customer card, **fitting of compression stockings**, **unit-dosing, blood pressure check, blood sugar check**, rental of medical equipment, **nutrition counselling**	urban
m	2	**medication management, mother & child (counselling & assortment), blood pressure check, cholesterol check, blood sugar check**, customer card, medicine home delivery, **unit-dosing**, rental of medical equipment, animal health	urban

Gender	No. of branches	Services listed on website	Location
m	2	**fitting of compression stockings, infertility counselling, travel and immunisation counselling**, homeopathy, tissue salts, traditional Chinese medicine, medicine home delivery, customer card, cosmetics	urban
f	3	**blood pressure check, blood sugar check, cholesterol check, weight check, skin analysis**, cosmetics, rental of medical equipment medication advance order, **patient seminars**, free health magazines	urban
f	3	**fitting of compression stockings**, medication advance order, **medication management, pharmaceutical care,** rental of medical equipment, medicine home delivery	urban
f	3	**rheumatism counselling, cytostatic drug compounding**, homeopathy, **travel and immunisation counselling, fitting of compression stockings**, animal health, cosmetics	urban
f	3	**fitting of compression stockings, cytostatic drug compounding, individual medication counselling,** customer card, medicine home delivery	urban
f	3	medicine home delivery, **mother & child**, homeopathy, **fitting of compression stockings**	urban
m	3	**asthma counselling**, homeopathy, cosmetics, **fitting of compression stockings, unit-dosing**, medicine home delivery, rental of medical equipment, **patient seminars**, medication advance order	urban
m	3	rental of medical equipment, **water analysis (for pollutants), travel and immunisation counselling, nutrition counselling, fitting of compression stockings**, free health magazines, customer card, **blood pressure check, blood sugar check, cholesterol check, unit-dosing**	urban

Gender	No. of branches	Services listed on website	Location
m & f	3	**nutrition counselling**, customer card, cosmetics, **cytostatic drug compounding, counselling oncology patients, counselling on palliative care, cystic fibrosis counselling**	urban
m	4	extended opening hours, medicine home delivery, **nutrition counselling**, customer card, cosmetics, **mother & child (counselling & assortment)**, rental of medical equipment, homeopathy, **health check, travel and immunisation counselling, fitting of compression stockings, cytostatic drug compounding, HIV counselling, counselling for chronic and rare diseases**	urban
m	4	medication advance order, **diabetes counselling, HIV counselling, health check,** customer card, medicine home delivery, **patient seminars,** phyto therapy	urban
m	4	medicine home delivery, medication advance order, **fitting of compression stockings**, cosmetics, homeopathy, medicine home delivery, animal health, rental of medical equipment, **blood pressure check, blood sugar check**	urban
f	1	**fitting of compression stockings, rental of medical equipment, unit-dosing, body mass index calculation, blood pressure check, blood sugar check, cholesterol check**, medicine home delivery	rural
f	1	**cholesterol check, blood sugar check, intraocular pressure check, hearing aid check, blood pressure check**, rental of medical equipment, **fitting of compression stockings, micro nutrition analysis**, homeopathy, **diabetes counselling, asthma counselling**	rural
f	1	n/a (no website)	rural
f	1	n/a (no website)	rural

Gender	No. of branches	Services listed on website	Location
f	1	customer card, **diabetes counselling, travel and immunisation counselling**, rental of medical equipment, medicine home delivery, **fitting of compression stockings**, homeopathy, animal health, **blood pressure check, blood sugar check**	rural
f	1	customer card, rental of medical equipment, **diabetes counselling, weight reduction counselling, travel and immunisation counselling, natural medicine, fitting of compression stockings**, medicine home delivery, cosmetics, free health magazines	rural
f	1	n/a (no website)	rural
m	1	**alternative medicine**	rural
m	1	n/a (no website)	rural
m	1	n/a (no website)	rural
m	1	rental of medical equipment, **fitting of compression stockings, diabetes counselling, travel and immunisation counselling**	rural
m	2	**cytostatic drug compounding, patient seminars, pharmaceutical care, diabetes counselling**, medicine home delivery, **unit-dosing, alternative medicine**	rural
f	1	medicine home delivery, customer card, rental of medical equipment, **blood pressure check, blood sugar check, body mass index check, body fat analysis, uric acid check, heart check, diabetes counselling, nutrition counselling**, cosmetics	outlying area
f	1	medication advance order, **health check**, medicine home delivery, customer card, rental of medical equipment, **diabetes counselling, intestinal health counselling, nutrition counselling**	outlying area
f	1	**micro nutrition counselling**, homeopathy, **travel and immunisation counselling, intestinal health counselling**	outlying area

Gender	No. of branches	Services listed on website	Location
f	1	customer card, **asthma counselling, diabetes counselling**, animal health, **travel and immunisation counselling**, cosmetics, homeopathy, medicine home delivery, **fitting of compression stockings**	outlying area
f	1	medication advance order, customer card, rental of medical equipment, medicine home delivery, **fitting of compression stockings**, homeopathy, **blood pressure check, body fat analysis, travel and immunisation counselling**	outlying area
m	1	**nutrition counselling**, aroma therapy, **blood pressure check, immunisation counselling,** customer card, medicine home delivery, **individual micro nutrition mixes, diabetes counselling, spagyric mixes**, rental of medical equipment, **blood tests, mother & child (counselling & assortment)**	outlying area
m	1	**traditional Chinese medicine counselling**, aroma therapy, rental of medical equipment, **fitting of compression stockings, cholesterol check, blood sugar check**, customer card, **immunisation counselling**, cosmetics	outlying area
m	1	**pharmaceutical care, blood pressure check, cholesterol check, blood sugar check, travel and immunisation counselling, nutrition counselling**, medicine home delivery, rental of medical equipment, customer card	outlying area
m	1	medication advance order, customer card, tissue salts, **patient seminars**	outlying area
m	1	rental of medical equipment, **fitting of compression stockings, blood pressure check, body fat analysis, cholesterol check**, homeopathy, facial analysis, nutrition counselling, **environmental analysis (check for pollutants in a customers' home), metabolism analysis, patient seminars, oxygen therapy**	outlying area

Gender	No. of branches	Services listed on website	Location
m	1	**fitting of compression stockings, blood sugar check, blood pressure check**, rental of medical equipment, medicine home delivery, customer card, homeopathy, **spagyric mixes**	outlying area
m	1	medicine home delivery, customer card, 24-hour hotline, cosmetics, **spagyric mixes**, tissue salts, **fitting of compression stockings**	outlying area
m	1	medication advance order, rental of medical equipment, medicine home delivery, **unit-dosing, fitting of compression stockings, customer card, blood pressure check, weight check, blood sugar check, cholesterol check**, homeopathy, tissue salts, cosmetics, **diabetes counselling, asthma counselling, osteoporosis counselling, hypertension counselling**	outlying area
m	1	**diabetes counselling, mother & child (counselling & assortment), travel and immunisation counselling**, cosmetics, **hair mineral analysis, environmental analysis (check for pollutants in a customers' home)**, cosmetics, rental of medical equipment, customer card, **blood pressure check, weight check**	outlying area
m	1	medication advance order, **fitting of compression stockings, mother & child (counselling & assortment)**, rental of medical equipment	outlying area
m	1	**blood pressure check, blood sugar check**, rental of medical equipment, **fitting of compression stockings, travel and immunisation counselling**, medicine home delivery, medication advance order	outlying area
m	1	**fitting of compression stockings**, homeopathy, rental of medical equipment	outlying area
m	1	**diabetes counselling, travel and immunisation counselling, blood pressure check**	outlying area

Gender	No. of branches	Services listed on website	Location
m	2	medication advance order, **fitting of compression stockings, blood sugar check, blood pressure check**, medicine home delivery, **cholesterol check, body fat analysis**, rental of medical equipment, **diabetes counselling**, homeopathy, **travel and immunisation counselling**	outlying area
m	2	**micro nutrition counselling**, homeopathy, **travel and immunisation counselling, cosmetics, diabetes counselling, medication management, fitting of compression stockings**, rental of medical equipment, medicine home delivery, **blood pressure check, blood sugar check, cholesterol check, lyme disease testing, lactose intolerance testing**, customer card	outlying area
m	2	medicine home delivery, **counselling for athletes, mother & child (counselling & assortment), patient seminars,** rental of medical equipment, **blood sugar check, cholesterol check, blood pressure check**, homeopathy, **micro nutrition counselling**	outlying area
m	3	medicine home delivery, rental of medical equipment, **fitting of compression stockings, travel and immunisation counselling, nutrition counselling,** customer card, **patient seminars, diabetes counselling, environmental analysis (check for pollutants in a customers' home)**, cosmetics, **unit-dosing**	outlying area

Appendix 6: Follow-up email to pharmacist-owners in German with English translation

Sehr geehrte/r Frau / Herr xxx

herzlichen Dank für das angenehme Telefonat heute und dass ich Sie im Rahmen meiner Forschungsarbeit interviewen darf.

Hier noch einmal die Hintergrundinformationen und, wie angekündigt, im Anhang eine Vertraulichkeitserklärung und eine Einverständniserklärung.

Im Rahmen meiner Dissertation, die ich als Doktorandin an der University of Gloucestershire in England durchführe, forsche ich an der Implementierung von besonderen Gesundheitsdienstleistungen in Apotheken in Deutschland. Zu diesen Gesundheitsdienstleistungen zählen u.a. Pharmazeutische Betreuung (Wechselwirkung-Checks, Medikations-Management Reviews etc.), besondere Beratungsschwerpunkte (z.B. Diabetes oder Asthma), Disease Management Programme und damit verwandte, ähnliche Dienstleistungen. Es geht insbesondere um die Entscheidung, Planung und Einführung der Dienstleistung(en), sowie deren Nachhaltigkeit und Bedeutung für Ihre Apotheke.

Die Dauer des Interviews wird voraussichtlich 60 Minuten betragen und wird digital aufgezeichnet. Die Teilnahme ist freiwillig und die gewonnenen Informationen werden ausschließlich zum Zweck der Forschungsarbeit verwendet und vertraulich behandelt (siehe Anlage).

Ich freue mich auf unseren Termin am xx.xx. 2014 um xx!

Bei Rückfragen erreichen Sie mich unter [redacted] oder [redacted] oder telefonisch unter [redacted]

Mit freundlichen Grüßen,

Maret Rauch

Dear Mrs / Mr xxx

Thank you very much for the pleasant telephone conversation we had today and for agreeing to being interviewed for my doctoral research project.

Herewith, please find a summary of the background information and, as announced, the declaration of confidentiality and a consent form.

As part of my doctoral thesis, which I am conducting as a doctoral candidate at the University of Gloucestershire in England, I am researching the implementation of professional pharmacy services in German community pharmacies. Professional services include, for example, pharmaceutical care (drug-drug interaction checks, medication management reviews), specific counselling foci (e.g. diabetes or asthma) disease management programmes and related or similar services. Specifically, the thesis is about the decision, the planning and implementation of a professional pharmacy service or services as well as service sustainability and the importance of the service or services.

The duration of the interview will be approximately 60 minutes and will be digitally audio-recorded. The participation is voluntary and the resulting information will solely be used for the purpose of the doctoral thesis and treated confidentially (please see attachment).

I am looking forward to our appointment on xx.xx. 2014 at xx:xx hours.

I you have any questions, you can reach me via email under [redacted] or [redacted] or via telephone under [redacted] .

Best Regards,

Maret Rauch

Appendix 7:Confidentiality agreement in German with English translation

Erklärung zur Handhabung der Daten und Vertraulichkeitserklärung

Kontaktdaten Doktorandin	Kontaktdaten Erster Supervisor
Maret Rauch Anschrift / Telefon / E-Mail	Dr. Elke Pioch Associate Lecturer for DBA / Germany Anschrift / Telefon / E-Mail

Forschungsvorhaben: „Implementierung von Gesundheitsdienstleistungen in deutschen Apotheken“

Erklärung der Doktorandin

Hiermit erklärt die Doktorandin, Maret Rauch,

- dass alle von Ihnen gemachten Angaben vollständig anonymisiert werden, sodass ein Rückschluss auf Ihre Person nicht möglich sein wird.
- dass die Audiodatei, die Transkription, sowie die Einwilligungserklärung jeweils getrennt voneinander auf einem nur mir zugänglichen Laufwerk gespeichert werden
- dass die Audiodatei, ausgehändigte Kopien vertraulicher Daten und die personenbezogenen Daten mit Erreichen des Forschungszwecks, der Verleihung des Doktorgrades, gelöscht werden (genaue Angaben, wann das sein wird, erfolgen mündlich). Die anonymisierten Transkriptionen werden bis fünf Jahre nach Erreichen des Forschungszweckes aufbewahrt.
- dass mit einem beauftragten Transkriptionsunternehmen eine Vertraulichkeitserklärung unterzeichnet wird

Das Vorgehen im Forschungsprojekt ist im Einklang mit dem „Handbook of Research Ethics“ der University of Gloucestershire. Das Forschungsprojekt wurde von der University of Gloucestershire genehmigt; die Inhalte und Meinungen des Forschungsprojektes sind die der Doktorandin und repräsentieren nicht die der Universität.

_____

(Ort, Datum, Name, Unterschrift)

Notification about handling of data and assurance of confidentiality

Contact information doctoral candidate	Contact information First Supervisor
Maret Rauch Address / Phone / E-Mail	Dr. Elke Pioch Associate Lecturer for DBA / Germany Address / Phone / E-Mail

Research project: **"Implementation of professional pharmacy services in German community pharmacies"**

Herewith the doctoral candidate Maret Rauch declares

- that all information provided by you will be completely anonymised so that conclusions regarding your identity cannot be drawn.
- that the audio file, the transcript and the consent form will be stored separately on a hard drive that only I have access to.
- that the audio file, any copies of confidential data and personal data will be deleted upon achievement of the purpose of the research, which is the achievement of the award of a doctor of philosophy (specific timing as to when this will be will be announced). The anonymised transcripts will be kept up to five years after the achievement of the research purpose.
- that a non-disclosure agreement is made with an authorised interview transcription service

The approach of this research project is in compliance with the regulations stipulated in the "Handbook of Research Ethics" issued by the University of Gloucestershire. The research project was approved by the University of Gloucestershire; the contents and opinions of the research project are those of the doctoral candidate and do not represent those of the university.

_____

(place, date, name, signature)

Appendix 8: Consent form in German with English translation

Einverständniserklärung

Name:

Apotheke:

Einwilligungserklärung der / des Interviewten (bitte ankreuzen)

- ☐ Hiermit erkläre ich mich bereit, im Rahmen der von der Doktorandin, Frau Rauch, durchgeführten Studie zur Implementierung von Gesundheitsdienstleistungen in Apotheken in Deutschland, ein Interview zu geben.
- ☐ Über die Inhalte und Methoden der Studie wurde ich informiert.

Ich wurde informiert,

- ☐ dass die Teilnahme am Interview freiwillig ist, das Interview jederzeit abgebrochen werden kann und es mir freisteht, einzelne Fragen nicht zu beantworten.
- ☐ dass ich die Teilnahme am Forschungsprojekt nachträglich zurückziehen kann.
- ☐ dass alle erhobenen Daten zu meiner Person anonymisiert und zu rein wissenschaftlichen Zwecken genutzt werden.

Hiermit erkläre ich mich einverstanden,

- ☐ dass das Interview digital aufgezeichnet und im Nachgang transkribiert wird
- ☐ dass die anonymisierte Version des Interviews im Rahmen des oben genannten Forschungsvorhabens (der Dissertation) und damit verbundenen Publikationen und Vorträgen genutzt werden kann.
- ☐ dass die Audiodatei zum Zweck der Transkription von der Doktorandin an einen beauftragten Transkriptions-Service gegeben werden darf.
- ☐ dass die anonymisierten Transkripte durch die Betreuer der Doktorarbeit, Prüfer und Gremien der University of Gloucestershire eingesehen werden dürfen
- ☐ dass die Verwertungsrechte (Copyright) des Interviews bei der Doktorandin liegen.

Ich möchte

- ☐ die Transkription des Interviews zur Prüfung zugesendet bekommen
- ☐ ein Exemplar der Dissertation erhalten, sobald diese abgeschlossen und bewertet ist

_____

(Ort, Datum, Name, Unterschrift)

Interview consent form

Name:

Pharmacy:

Please tick the applicable boxes

- ☐ I give my consent to be interviewed by the doctoral candidate Mrs Rauch regarding her research project regarding the implementation of professional pharmacy services in Germany.
- ☐ I was informed about the content and methods of the research project.

I was informed

- ☐ that participation in the interview is voluntary, that I can end the interview at any time and that it is at my discretion whether to answer specific questions or not.
- ☐ that I can retroactively withdraw participation in the research project.
- ☐ that all data regarding my person will be anonymised and used for scientific purpose only.

I agree

- ☐ that the interview will be digitally recorded and then transcribed.
- ☐ that the anonymised version of the interview can be used for the research purpose (doctoral thesis) as well as publications associated with the thesis.
- ☐ that the doctoral candidate can give the audio file to a transcription service authorised by the doctoral candidate for the purpose of transcribing the interviews.
- ☐ that the anonymised transcripts can be reviewed by the supervisors, examiners and committees of the University of Gloucestershire.
- ☐ that the doctoral candidate has the copyright to the interviews.

I would like to

- ☐ receive the interview transcript for revision
- ☐ receive a copy of the thesis once it is finalised and graded

_____

(place, date, name, signature)

Appendix 9: English translations and German original of the respondent quotes used in the results chapter

	Translated quote	Original quote (in German)
P04	*"The main thing is, of course, to get the basics right, that means the medications must be available and we have to be able to say something qualified about it and to do good counselling."*	„Hauptgeschichte ist natürlich, die Basics müssen stimmen, das heißt, die Medikamente müssen da sein und wir müssen dazu qualifiziert was sagen können und die Leute gut beraten."
P02	*"Yes, of course, that [interaction check, contacting physicians] is a must. That is all done. I did not mention it specifically because for me, those are obvious duties which automatically come with the responsibility of medication dispensing."*	„Ja, natürlich! Das muss alles. Das läuft aber alles mit! Das habe ich jetzt nicht extra genannt, weil das für mich Selbstverständlichkeiten sind, die aus der Verantwortung, dass ich Arzneimittelabgabe mache, automatisch erwachsen."
P01	*"Regarding statutory health insurance, we are only interested in doing our job so well that the patients like to come back with their prescriptions. Of course, we are happy to dispense as many prescriptions as possible, since this is our aim at the moment."*	„Insofern haben wir auf dem ganzen GKV-Bereich, interessiert uns eigentlich nur ein Punkt: unsere Arbeit so zu machen und so gut zu machen, dass der Patient gerne wieder zu uns kommt mit seinem Rezept. Natürlich freuen wir uns darüber, so viele Rezepte wie möglich zu haben, denn die Menge ist unser Anliegen im Moment."
P05	"You *must address [the patient] personally with professional competence. And this is the basis; I believe that without this it does not work. And then you can group everything else around that."*	„Sie müssen eben auch eine persönliche Ansprache mit Fachkompetenz haben. Und das ist die Basis, ich glaube ohne das funktioniert es nicht. Und dann können Sie alles drumrum gruppieren."

P06	*“And yes I think that it‘s important to also clearly mention that in the pharmacy, again, how the medicines should be taken. One always thinks that people know it when they have taken their thyroid tablets for years. […]. And when you then explain why one should ACTUALLY take it (laughing) the half hour before breakfast, then you still find people who are surprised. Then I always think ‘oh, one should not underestimate this (laughing). One should better say too much than too little’.”*	„Und ja, von daher finde ich, ist es schon noch mal wichtig, das auch in der Apotheke halt klar zu sagen, was wie eingenommen werden muss. Man denkt zwar immer, die Leute wissen das, wenn die jahrelang ihre Schilddrüsentabletten einnehmen. […] Und wenn man dann erklärt, warum man es EIGENTLICH (lachend) die halbe Stunde vor dem Frühstück nehmen soll, dann sind, gibt es IMMER noch Leute, die erstaunt sind. Dann denke ich immer so. Oh, es ist (...), man darf das nicht unterschätzen (lachend). Man muss lieber zu viel sagen als zu wenig.“
P12	*“The pharmacy is an immense control instance, without having documented this statistically, I would estimate that at least 20 percent of all prescriptions need amendment.”*	„Das ist eine unheimliche Kontrollinstanz, die Apotheke, ohne dass ich das jetzt mal statistisch erfasst habe, aber ich würde mal schätzen, dass mindestens 20 Prozent aller Rezepte verbesserungswürdig sind.“
P02	*“We are a necessary cog in the wheel to help patients to manage their medication, because the physicians don’t have time. They may also not have the knowledge. In a physician practice, people are in and out in fifteen minutes. And then they stand in front of ME with all their open questions.”*	“Wir sind ein notwendiges Rädchen, um diese, um den Patienten zu helfen, mit der Medikamentation klarzukommen, weil die Ärzte haben dafür nicht die Zeit. Sie haben teilweise auch vielleicht nicht das Wissen. Bei den Praxen sind die Leute in einer viertel Stunde rein/ raus. Und die stehen mit den ganzen offenen Fragen dann hier vor MIR.“

P01	*“Well, it is a very fulfilling moment, when the patient, when one detects an error, when one could help and make the patient ‘happy’ […].”*	„Also es ist ein sehr schöner Moment, wenn der Patient glücklich (schnauft) wenn man einen Fehler entdeckt, wenn man ihm helfen konnte, wenn man ihn glücklich machen konnte, […].“
P03	*“Or we are really utilised for HARMLESS conditions: skin conditions, allergic conditions, common colds and so on. Where people really have questions and where we can really counsel them. (…)”*	„Oder wir werden wirklich in Anspruch genommen für HARMLOSE Erkrankungen: Hauterkrankungen, allergisches Krankheitsbild, Erkältungskrankheiten und so weiter. Wo die Leute wirklich Fragen haben, und wo wir auch beraten können. (...)“
P03	*“Yes, exactly. We also dissuade, we do not sell ‘by hook or by crook’! And when we realise that we have reached our limits, also regarding medication, […], that I say: ‘No, this cannot be treated with [branded product] anymore. With this, please go see a physician!’”*	„Ja, ganz genau. Also wir raten auch ab, wir verkaufen nicht auf "Teufel komm raus!". Und wenn wir unsere Grenzen sehen, auch was die Medikation betrifft, […]: "Nee, also da hilft jetzt auch kein [Markenprodukt] mehr. Da gehen Sie bitte zum Arzt mit!"
P10	*“[For interaction checks] there are different levels, of course, where I can [see] ‘severe’ or ‘minor’, then the question is, is it important that he [the patient] takes it [the medication] and damages himself or that he does NOT take it and damages himself even more. Well, one has to be able to make this judgement.”*	[in Bezug auf Wechselwirkungs-Check]: „Da gibt es verschiedene Stufen natürlich, wo ich dann also "schwer" oder "leicht" oder, ist die Frage, was ist wichtiger, das, dass er es NIMMT, und schädigt sich, als dass er es NICHT nimmt und schädigt sich noch mehr. Also diese Beurteilung, die muss man natürlich schon dann sehen können.“

P06	*“Because (…) one is in a conflict then. I mean, one cannot totally unsettle the patient. If the physician says he is supposed to take the medication like that. And then one asks rather cautiously, whether he takes it over a longer period already and whether he tolerates it well.”*	„Weil (...) man ist ja auch immer im Zwiespalt dann. Ne? Ich meine, man kann jetzt den Patienten nicht komplett verunsichern. Wenn der Arzt sagt, er soll das so einnehmen. Und dann fragt man halt eher vorsichtig, ob er das schon länger so einnimmt und alles gut verträgt.“
P05	*“Well, ultimately we MAKE A LIVING by selling. The pharmacist is a businessperson, also from the legal status.”*	„Na ja, letztlich ist es so, dass wir vom Verkaufen LEBEN. Der Apotheker ist Kaufmann, auch von der Rechtsform her.“
P19	*“[…] eventually it is the purpose of this [pharmacy] business to be economically viable, to earn money, and to pay the people who work here.”*	„[…], sondern letztendlich ist ja schon das Ziel dieses Betriebes wirtschaftlich zu sein und damit Geld zu verdienen und die Leute zu ernähren, die hier arbeiten.“
P07	*“Well, the foundation is the pharmaceutical work. Definitely! I would NEVER question that. But if one wants to run a business VERY successfully, THEN a reasonable business-administration knowledge base is EXTREMELY important.”*	„Also die Basis ist die Pharmazie. Ganz, ganz klar! Und da würde ich auch überhaupt NIE dran rütteln. Aber wenn man eben ein Unternehmen SEHR erfolgreich führen will, DANN ist eine vernünftige BWL-Basis UNHEIMLICH wichtig.“

P08	*“This additional overburdening with ALL possible obligations, be it legal or contractual, which take AWAY our time for what we really like doing, for which we have taken up the profession originally - to be there for patients, to care for patients. This really gets impaired. The time we need for this whole bureaucratic crap is missing in other areas.”*	„Diese zusätzliche Überfrachtung mit ALLEN möglichen, sei es gesetzlichen, sei es vertraglichen Verpflichtungen, die eben uns Zeit WEG nimmt für das wozu wir eigentlich Sp/ oder woran wir eigentlich Spaß haben, weswegen wir auch mal den Beruf ergriffen haben oft. Eben dieses für die Patienten da sein, sich um die Patienten kümmern. Das wird dadurch wirklich beeinträchtigt. Die Zeit fehlt an anderen Stellen, die wir für diesen ganzen bürokratischen Mist brauchen.“
P01	*"Annual plan or short-term plan? We are clearly driven by everyday life, what has to be done now, what new changes have happened to which we have to adapt to?; but the rough direction, for example in which customer segment do we want to grow, what is an interesting market, what are our target numbers, this is explicitly stipulated in the annual plan.”*	„Jahresschema oder kürzeres Schema? Wir sind ganz klar getrieben vom Alltag, was ist jetzt sofort notwendig, was ergeben sich für neue Dinge, die wir jetzt umstellen müssen?, aber grobe Richtung, in welche Richtung wollen wir gehen, wo wollen wir zum Beispiel akquirieren, was ist für uns ein interessanter Markt, welche Zahlen wollen wir erreichen, das ist ganz klar im Jahresplan festgelegt.“
P03	*“As pharmacy, since four years we are ISO-certified. And now I can, I know what a business plan is for. We now have one. We now have a regular management review which we have to submit for our QMS, but this did not exist in former times.”*	„Als Apotheke sind wir seit vier Jahren/ Wir sind ISO-zertifiziert. Und ich kann jetzt was, ich kann was mit Business-Plan anfangen. Wir haben auch einen. Wir haben jetzt ein regelmäßiges Management-Review, was wir für unser QMS abgeben müssen, aber das gab es alles damals nicht.“

P18	I: *“Did the QM bring any advantages?”* P: *“Yes, [the advantages are] that somehow certain structures are reconsidered. Also, that long-time routinised practices are questioned. Are these really useful? And to document things in writing. In this moment one often realises that one does not handle an issue optimally.”*	I: „Hat das QM denn dann auch/ hat das auch Vorteile mitgebracht?“ B: „Ja schon, dass irgendwie mal gewisse Strukturen überdacht werden. Auch mal lang festgefahrene Handlungsabläufe hinterfragt werden. Sind die wirklich sinnvoll? Und die Dinge halt auch schriftlich niedergelegt werden. In dem Moment fällt einem dann oft eben auch auf, dass man (das?) vielleicht nicht optimal handhabt.“
P08	*“I absolutely don’t think much of handing out individual bonuses, because, in my opinion, this leads to a very problematic internal competition. Everyone knows who is a lucrative customer, who then gets all the attention and the other five customers get left waiting. This cannot be. This is rather counter-productive. Thus, I have made positive experience with this team-effort based bonus, as this adds to [employee] motivation.”*	„Ich halte ÜBERHAUPT nichts davon, individuelle Prämien zu vergeben, #00:03:29-5# weil das zu einem sehr, in meinen Augen, sehr problematischen Haus-internen Wettbewerb führt. Jeder weiß, wer ist ein lukrativer Kunde, halt auf den stürzen sich alle und die übrigen fünf Kunden bleiben stehen. Das kann es nicht sein. Das ist eher kontraproduktiv. Und ich habe eben mit dieser Team-Prämie sehr gute Erfahrungen gemacht, weil das eben noch zusätzlich zur Motivation beiträgt.“
P14	*“One spends the other 50 percent with NON-pharmaceutical tasks, office work, writing cost estimates and supply announcements, and, and, and. […] If a specialised employee is available, the employee does this of course, but there are times when this is not the case. Then I have to do EVERYTHING.”*	„Die anderen 50 Prozent verbringt man mit NICHT pharmazeutischen Tätigkeiten, Büroarbeit, Kostenvoranschläge schreiben, Versorgungsanzeigen schreiben und, und, und. […] Wenn ich gerade einen Facharbeiter da habe, dann macht der das natürlich, aber ich habe auch Zeiten, wo ich keinen Facharbeiter da habe. Dann muss ich ALLES machen.”

P18	*“And the business does not only run smoothly by assiduously counselling patients, one must also get best possible purchasing conditions and bundle recommendations; we do that, for example, by defining which products are recommended for which indication, which in turn impacts positively on purchasing.”*	„Und der Laden läuft natürlich nicht alleine nur vom fleißigen Beraten, sondern man muss auch möglichst günstig einkaufen und auch Empfehlungen bündeln, das machen wir zum Beispiel, dass wir genau festgelegt haben für welche Indikation was empfohlen wird, was natürlich dann sich auch wieder im Einkauf gut niederschlägt.“
P02	*“I certainly also take an interest in this, because the customer will come back as a regular. People feel whether one decides according to their interest or not. That is my concept.”*	„Ich habe natürlich auch ein Interesse da dran, weil der als Stammkunde wiederkommt. Die Leute spüren das ja, ob man in ihrem Interesse entscheidet oder nicht. Das ist jetzt mein Konzept.“
P16	*“Yes, of course. [Conflicts exist] every time someone wants counselling for a purchase.”*	„Na, und ob. Bei jedem, der einen Beratungskauf haben will“
P12	*“Yes they [conflicts] exist and one has to draw a clear-cut line for oneself and say – stop! What would be economically beneficial might not be justifiable ethically, medically, or pharmaceutically, […].”*	„Ja, die gibt es, die gibt es natürlich auch und da muss man für sich klar eine Grenze ziehen können und sagen - Stopp mal, was jetzt wirtschaftlich gut wäre oder so, das ist aber unter Umständen nicht zu vertreten ethisch oder medizinisch oder pharmazeutisch, […]“

P14	*“We primarily take products of which we are convinced and if there are several equally convincing products, we decide in favour of the best purchase price. Then we say, ‘Well, we have purchased this and that. This has to be recommended preferably with such and such rationale’; because we sometimes have to justify the product choice to patients.”*	„Wir nehmen in allererster Linie die Produkte, von denen wir überzeugt sind und wenn es mehrere gleichwertige Produkte gibt, dann entscheidet natürlich für uns der Einkaufspreis und das wird allgemein durchgestellt. Dann wird gesagt, „also, wir haben jetzt das und das eingekauft. Das auch bitte bevorzugt abgeben mit der und der Begründung, weil wir müssen ja auch die Patienten auch gegenüber manchmal was begründen.“
P01	*„I think that we have a very high competitive situation in [this city]. Also in this case it prevails to bind customers via counselling and care, via the personal relationship.”*	“Ich denke, wir haben in [Name der Stadt] eine sehr hohe Konkurrenzsituation was das angeht. Auch DA gilt einfach die Kundenbindung über die Betreuung, über die Beratung, über die persönliche Bindung.“
P08	*“And the success, including the gaining of additional customers, especially in the pharmacy where we have a high share of counselling on over-the-counter medications, shows that this concept is accepted by customers, since these customers must have gone away from other pharmacies. So we see that competing on quality actually works.”*	„Und der Erfolg, auch das Gewinnen von zusätzlichen Kunden, gerade in der Apotheke, in der eben auch der Anteil OTC, also Beratung sehr groß ist, zeigt eben, dass dieses Konzept offensichtlich von den Kunden eben auch angenommen wird, denn diese Kunden müssen bei anderen Apotheken weg gegangen sein. Sodass da eben der Wettbewerb über die Qualität durchaus funktioniert.“
P03	*„And we are in the lucky situation, the pharmacy is quite LARGE, we generate sufficient turnover, to - I am saying that explicitly – not having to sell any crap.”*	„Und wir sind in der glücklichen Situation, die Apotheke ist ziemlich GROß, wir machen ausreichend Umsatz, um - ich sage es jetzt mal deutlich -, nicht den letzten Mist verkaufen zu müssen.“

P04	*“And that [survey] was done four times and the last three times, we were the best pharmacy; in this sample, we have the best supply readiness and we are the nicest pharmacy and we provide the best counselling .”*	„Und das ist in (…) jetzt viermal passiert und wir waren die letzten drei Mal jeweils Branchensieger, also wir haben das beste Warenlager und wir sind die freundlichste Apotheke und wir haben die beste Beratung bei dieser Stichprobe.“
P04	*“…and that is where one says, okay, how can we be a bit better than our dear competitors? With many small things and many mosaic pieces.”*	„…das ist das, wo man sagt, okay, wie können wir ein bisschen besser sein, als die lieben Mitbewerber. Mit vielen Kleinigkeiten und vielen Mosaiksteinchen.“
P18	*“Well, yes, as I said, sometimes one also generates additional sales through that and then we have what I mentioned before, that one cannot directly measure this but indirectly increase customer satisfaction and footfall into the pharmacy, right?”*	„Aber ja, wie gesagt, manchmal macht/ generiert man dann dadurch auch wieder zusätzliche Umsätze und dann kommt eben das, was ich vorhin schon gesagt habe, dass man nicht direkt messen kann, sondern indirekt einfach Kundenzufriedenheit erhöhen und Kundenfrequenz, ne?“
P19	*“And small mosaic pieces make a service portfolio. That’s how one must see this. If one would meticulously calculate the cost, one would likely have to discard these things [services]. But altogether, putting one building block on the other is acknowledged by many regular customers and then it tends to work.”*	„Und es sind kleine Mosaiksteine für so ein Service-Portfolio. So muss man das eigentlich sehen. Wenn man das hageklein durchrechnen würde, in vielen Fällen müsste man die Sachen wahrscheinlich auch rausschmeißen wieder. Aber so insgesamt zusammen, ein Baustein nimmt den anderen und viele Stammkunden nehmen das dann eben auch wahr, funktioniert es dann teilweise.“

P01	*“Well, I would say that the basic idea of offering services usually is to have a customer loyalty tool, to bind customers. One has to honestly admit this.”*	„Also ich würde mal sagen, der Grundgedanke von Anbieten von Dienstleistungen im Generellen ist meistens aus einem Kundenbindungs-instrument, aus einer Sicht der Kundenbindung her generiert. Das muss man ganz fair zugeben.“
P16	*“If they [the patients] like it, then they can come back and get their medications from me. I am happy to be available.”*	„Wenn es denen gefällt, dann sollen sie wiederkommen und ihre Medikamente bei mir holen. Gerne. Ich stehe gerne zur Verfügung.“
P11	*“I have always decided for a service if it can generate new customers. That takes precedence. Because we are in the situation that we have many regular customers but we cannot generate more sales from these customers. This means that we could get more sales by binding new customers.”*	“Ich habe es bis jetzt immer so entscheiden, ob eine neue Dienstleistung, die wir anbieten, ob das neue Kunden generieren kann. Also, das steht eigentlich bei uns im Vordergrund. Weil wir sind halt in der Situation, dass wir viele Stammkunden haben, aber aus diesem Stammkundenpotential kann man ja nicht mehr Umsatz generieren. Das heißt also, wir könnten mehr Umsatz haben, indem wir neue Kunden binden.“
P15	*I: “So the purpose of all these activities is to pull customers into the pharmacy and to give them the possibility to form an opinion about the counselling?”* *P: “Correct.”* *I: “That means that the customer or patient has to come in and then it is down to you and your team, well, to excite customers in such a way that they come back?”* *P: “Yes, that is exactly how it is.”*	I: „Bei den ganzen Aktionen, es geht also darum, dass die Leute in die Apotheke kommen und dann die Möglichkeit haben, sich ihr Bild zu machen von der Beratung?“ B: „Richtig.“ I: „Das heißt, der Patient oder Kunde muss erstmal kommen und dann liegt es an Ihnen und Ihren Mitarbeitern, ja, den Kunden so zu begeistern, dass er wiederkommt?“ B: „Genauso ist es, ja.“

P05	*“You cannot do this [PPS provision] commercially-oriented, I do not make any money doing this; on the contrary, if you add up all costs, I provide this at a loss, that’s logical. But I could imagine that this will bear fruit eventually, if I have built a certain expertise. I mean, ultimately, these people need a lot of medicines. People hear about it. Well, I think that one has to do a lot for the external appearance of a pharmacy, and I do not only mean optically – which is also important – but just for the image.”*	„Das können Sie nicht kommerziell orientiert betreiben, also ich verdiene damit kein Geld, im Gegenteil, wenn Sie da alle Kosten draufrechnen, lege ich drauf, das ist logisch. Aber ich könnte mir vorstellen, dass mittelfristig so was auch mal Früchte trägt, wenn man eine gewisse Expertise sich erarbeitet hat. Ich meine, letztlich brauchen die Leute auch zahlreiche Arzneimittel. So was spricht sich rum. Also ich glaube, Sie müssen für eine Apotheke ganz viel für das äußere Erscheinungsbild, und damit meine ich nicht nur optisch - ist auch wichtig - aber halt auch einfach so fürs Image tun.“
P12	*“Well, binding customers is important, that one makes additional offers, because I want to differentiate myself from other pharmacies. This is a competitive thing, of course. That people from beyond the catchment area hear about the pharmacy and come to the pharmacy and drive past two or three other pharmacies because they know that we offer different things here.”*	„Also Kundenbindung denke ich ist schon wichtig, dass man diese Zusatzangebote macht, weil ich möchte ja mit diesen Angeboten mich auch abheben von anderen Apotheken. Das ist auch eine Wettbewerbsgeschichte natürlich. Dass Leute in einem größeren Umkreis der Apotheke, also über den eigentlichen Umkreis der Apotheke hinaus auf die Apotheke aufmerksam werden und eben auch von weiter her kommen und mal an zwei, drei anderen Apotheken vorbeifahren, weil sie wissen, hier wird irgendwas gemacht, was anders ist.“

P05	*“It was the idea of my wife and me to position the pharmacy with a USP, which does not distinguish itself by homeopathy for small animals or other hocus pocus (laughs) - I say that deliberately – but offers a very rational and very reasonable specialty.”*	„Und die Idee meiner Frau und mir war, eine Apotheke so auszurichten, dass wir ein Alleinstellungsmerkmal haben, was aber sich nicht durch Homöopathie für Kleintiere auszeichnet, oder anderen Hokuspokus, (lacht) ich sage es ganz bewusst so, sondern eine sehr rationale und sehr vernünftige Besonderheit bietet.“
P08	*“And thus I believe that in the future such [medication management] concepts will be an important factor in pharmacies. […] I have participated in respective training concepts with my two pharmacies. We are part of the first round of certified pharmacies in our Federal State. And it becomes apparent that health insurers are in fact interested to cooperate with THESE certified pharmacies in the future […].”*	„Und deswegen GLAUBE ich, dass solche Konzepte sehr wohl ein wichtiger Faktor in der Zukunft für die Apotheken sein werden. […] Ich nehme auch mit meinen beiden Apotheken an entsprechenden Konzepten teil. Wir haben also schon als/ in der ersten Runde, in dem jeweilige Bund/ in dem/ in unserem Bundesland sind wir bei der ersten Runde der zertifizierten Apotheken DABEI. Und es zeichnet sich jetzt schon ab, dass Krankenkassen durchaus Interesse haben, mit DIESEN zertifizierten Apotheken auch in Zukunft zusammenzuarbeiten […].“
P05	*“What makes me do this? It is an exciting thing to accompany and monitor such a project. I have a very capable pharmacy intern who is exceptionally good, whom I wanted to OFFER that and who accepted and acted on it instantly.”*	„Was treibt mich, um das zu machen? Das ist an sich eine spannende Sache einfach so was zu verfolgen, und zu kucken, ich habe einen sehr fähigen Pharmaziepraktikanten, der sensationell gut ist, dem ich das BIETEN wollte sozusagen auch, und der das sofort gut angenommen hat.“

P08	*“And my employees appreciate it very much that I, when suggestions are solid, which they are most of the time, that, even when they incur costs, I am happy to implement them in a timely fashion.”*	„Und meine Mitarbeiter schätzen es sehr, dass ich eben, wenn das Vorschläge sind und das IST meistens so, die wirklich Hand und Fuß haben, dass ich auch wenn das mit Kosten verbunden ist für mich, durchaus bereit bin, dann so etwas auch möglichst zügig in die Tat umzusetzen.“
P12	*“I have not done this because I think ‘this is something special which no one else around here provides’ but because personal interest takes precedence, of course, and that one is convinced of the method [the service] somehow.”*	„Das habe ich jetzt also nicht gemacht, weil ich denke, „das ist mal was Besonderes, das macht noch gar keiner hier, jetzt machst du das“, sondern an erster Stelle steht eigentlich immer das eigene Interesse natürlich und dass man auch überzeugt ist von der Methode irgendwie.“
P19	*“They [pharmacy staff] can pursue their interests. This is the nice thing with a big team; that you don’t necessarily have to do things you don’t like and that you can pick things you really LIKE doing instead. And these can be things someone else does not like at all.”*	„Die suchen sich ihr Steckenpferd raus. Das ist ja das Schöne dann an einem großen Team, dass man auch mal Sachen nicht machen muss, die man nicht mag und dafür mal ein paar Sachen sich raussuchen kann, die man besonders GERNE macht. Und das können ja dann durchaus Sachen sein, die ein anderer ganz doof findet.“
P07	*“And we had earned a lot on these prescriptions and at one point I thought ‘so, now we have to somehow’,…, well I thought that this was not right to earn so much and do nothing else for these [multiple sclerosis] patients.”*	„Und da war es so, dass man extrem viel an dem Beraten verdient hat. Und dass ich da auch gesagt habe: "So, jetzt müssen wir auch irgendwie ein bisschen was/", also das fand ich nicht mehr ordentlich, also da so viel zu verdienen. Und für die Patienten nichts weiter zu machen.”
P19	*“Well, one expects certain services from a pharmacy and we can provide them, of course, no matter whether that is economically reasonable or not.”*	„Naja, bestimmte Dienstleistungen erwartet man von der Apotheke und natürlich können wir das abdecken, egal wie wirtschaftlich sinnvoll oder nicht sinnvoll das ist.“

P02	*“We offer this, because we want to care for our regular customers. I cannot send a customer away to get his compression stockings somewhere else but expect that he continues to come back to me with his prescriptions. That means that this is a bit like an advertising investment.”*	“Wir bieten das an, weil wir einfach unsere Stammkunden versorgen wollen. Ich kann nicht einen Kunden für jetzt einen Kompressionsstrumpf wegschicken, aber erwarten, dass er mit seinen Rezepten weiter zu mir kommt. Das heißt, das ist wie eine Werbung.”
P14	*“But over time we came to realise that just such a piece of plastic is important for some people, and that has also to do with competition, with binding customers and with competition. In this sense, I have to give in to competitive pressure and do things where I do not see a reason, but one just has to do it.”*	„Wir müssen uns aber so im Laufe der Zeit eines Besseren belehren lassen, selbst so ein Stück Plaste in der Hand ist für manche Leute wichtig und das hat auch was mit Wettbewerb zu tun, mit Kundenbindung und Wettbewerb. In dem Sinne muss ich mich natürlich auch dem Wettbewerb beugen und muss Sachen mitmachen, wo ich eigentlich sage, „wozu eigentlich“, aber man muss es einfach tun.“
P01	*“They [ABDA] aren’t people who FOR or in the name of pharmacists offer solutions to influence policy. For years they aren’t. They are just blocking things. And this is how they are perceived by politicians.”*	„Das sind doch keine Leute, die FÜR Ihre Apotheker oder im Namen der Apotheker, der Politik auch Lösungen anbieten. Schon seit Jahren nicht mehr. Das sind reine Verhinderer. Und so werden sie auch in der Politik wahrgenommen.“
P01	*“That is a typical question in a job interview that as ask: ‘Have you done anything special?’”*	„Das ist eine typische Frage im Bewerbungsgespräch, dass ich die Leute frage: Habt Ihr schon mal irgendwas gemacht?“
P12	*“People sometimes ask something like ‘are you also offering…’ and then one, of course, starts thinking: what is this? Would that be an opportunity to do something in that direction?”*	„Die Leute sagen schon manchmal, „machen Sie auch“ oder so irgendwas und dann fängt man natürlich zumindest an zu überlegen. Was ist das überhaupt? Wäre das vielleicht auch eine Möglichkeit, da irgendwas zu machen.“

P08	*“Of course it makes sense to specialise in health topics which are present in the immediate surroundings. Because the likelihood that patients are coming from the surroundings is higher than if one would specialise, let’s say in rheumatology if no rheumatologist is nearby [the pharmacy].”*	“Aber natürlich bietet sich das an, sich dort zu spezialisieren, oder auf das/ auf die Themenbereiche zu spezialisieren, die im unmittelbaren Umfeld sind. Weil die Wahrscheinlichkeit, dass dann Patienten aus dem Umfeld kommen natürlich höher ist, als wenn man sich auf ein Spezialgebiet, beispielsweise jetzt Rheuma fokussieren würde, wo gar kein Rheumatologe in der Nähe ist.“
P01	*“I think, one has to look for deficits [in the local market], where are the needs, and then one has to tackle this fast.”*	„Ich glaube, da muss man einfach sehen, wo sind die Defizite, wo ist der Bedarf und da muss man dann rein grätschen.“
P14	*“With the intraocular pressure check it was easy. […] the optician in [city] had made a flyer […] where he offered to pick up people, who are restricted in their mobility and take them to his shop and to the ophthalmologist, a kind of taxi service. And THERE I had the idea. I thought, we are doing this with the hearing aid check and […] he may as well do this here [at the pharmacy]. And then I gave him a call.”*	„Bei der Augeninnendruck-Messung war es ganz einfach. Die haben einen Flyer angeboten, der Optiker in […]. Der hat einen Flyer angeboten und der flatterte auch bei uns ein, wo er mobil angeboten hat Leuten, die immobil sind, mit einem Fahrzeug abzuholen zu sich nach Hause und die auch diese Fahrt vom Augenarzt zu ihm zu managen, also eine Art Kurierdienst. Und DA bin ich auf die Idee gekommen. Denke ich, das machen wir doch mit Hörakustik so, […dann] kann der das ja auch bei uns machen. Und da habe ich den angerufen.”

P12	*“[…] I find this quite interesting. What are the others [pharmacies] doing? And one can also have a look at trade journals; there are also very many ideas, more than one can implement; well the pool of possibilities you could follow up on is enormous, I think.”*	“[…] Das finde ich schon immer ziemlich interessant. Was machen die anderen [Apotheken] eigentlich? Und man kann ja auch sehr gut gucken in den Fachmedien, da gibt es also sehr, sehr viele Anregungen, mehr als man einfach ausführen kann selbst auch, also der Pool an Möglichkeiten, die man machen kann, ist riesig finde ich.“
P05	*“The topic of prevention increasingly reaches pharmacy and we [pharmacists] can do a lot in this direction which I also find interesting. I believe that as a pharmacy you have to free yourself from any medication-related limits.”*	„Auch Prävention geht immer mehr Richtung Apotheke, da können wir natürlich ganz viel leisten, finde ich auch spannend. Ich glaube Sie müssen sich als Apotheke einfach freimachen von irgendwelchen Arzneimittelgrenzen.“
P15	*“And THAT to me is a classic business thing, that one sees opportunities for the future and takes advantage of them, yes, to unlock them by making offers, eh. And that worked well.”*	„Und DAS ist für mich eigentlich ein klassischer kaufmännischer Bereich, dass man Chancen sieht für die Zukunft, diese Chancen nutzt oder selber auch, ja, sich erstmal erschließt, in dem man Angebote macht, ne. Und das hat funktioniert.“
P07	*“Always scanning in which direction are things moving? Where can one partake? And yes, the most important thing is that one has a good network and simply knows,/ […] […] Well, where are new specialist centres emerging? And who tends to them?”*	„Immer gucken, wo geht es da lang? Wo bringt man sich mit ein? Und, ja, das Wesentliche ist, dass man gut vernetzt ist und eben weiß,/ […] […] Ne, und wo werden jetzt eben entsprechende spezialfachärztliche Zentren gebildet? Und wer versorgt sie?”
P01	*“According to my opinion, a service must be useful and wanted by the customer*.”	„Eine Dienstleistung muss, meines Erachtens, sinnvoll sein und vom Kunden gewollt sein.“

P19	"*A service (…) Well, it must be accepted. And one does not necessarily know that in advance."*	Die Dienstleistung (…) Also die muss halt ankommen. Und das weiß man im Vorwege ja nicht immer unbedingt, ob sie das tut.
P01	*"And if an employee is motivated then he, […], wants to get acquainted with the topic. And if he gets further motivated and sent to training courses, which the pharmacy pays for, then it is fantastic to see how he really digs into this."*	"Und wenn ein Mitarbeiter motiviert ist, dann hat er durchaus Lust, […] sich in irgendwas rein zu arbeiten. Und wenn er dann noch mehr motiviert wird und zu diversen Seminaren geschickt wird, die wir hier immer vom Betrieb aus übernehmen, dann ist das toll zu sehen, wie er sich in sowas rein buddelt."
P15	*"She [the specialist] goes to further training. And other employees do that, too, to keep the [diabetes] counselling service going, when she is not available; that's clear."*	„Sie bildet sich da weiter. Und natürlich auch andere Mitarbeiter auch, um die Beratung aufrecht zu erhalten, wenn sie dann mal nicht da ist, das ist klar"
P15	*"You can't do this without a team decision, because if you use hierarchy like 'You are doing this now' never works. Then you get maximum resistance, like 'No, this is complicated and I don't want to do this and I do not have time for this' and, and, and."*	„Es geht nicht ohne Teambeschluss, denn hierarchisch aufgedrückt „Du machst jetzt das." funktioniert nie. Dann ist der Widerstand maximal, nach der Devise „Nein, das ist ja kompliziert und das will ich nicht und ich habe keine Zeit dazu." und, und, und."
P16	*"I would have to earn much more money here to have more employees to have more possibilities [for services]. I don't have it. The whole thing basically is a liquidity issue, a money issue."*	„Ich müsste viel mehr Geld verdienen hier, um mehr Angestellte zu haben, um mehr Möglichkeiten zu haben. Habe ich nicht. Das Ganze ist im Grunde genommen ein Liquiditätsproblem, ein Geldproblem."

P19	*“When you are offering intensive counselling, measuring [of compression stockings], blood pressure, blood tests, or such things, an employee is busy with ONE customer and therefore it is important that the service earns at least part of its cost. Because, in case of doubt, one [employee] can serve several customers in half an hour.”*	“Wenn Sie eben irgendwie in irgendwelche Intensivberatungen, Anmessung, Blutdruck, Blutwerte oder sowas gehen, ist derjenige Mitarbeiter mit EINEM Kunden beschäftigt und deshalb ist es halt auch wichtig, dass die Dienstleistung zu mindestens einen TEIL des Geldes in irgendeiner Form wieder einspielt, was da eingesetzt wird. Weil im Zweifelsfall kann einer in einer halben Stunde mehrere Kunden bedienen.“
P03	*“Customers can know that there is someone who can also do nutrition counselling but I prefer to have this employee on the shop floor, because, talking business, there she earns me more money.”*	„Man darf wissen, da ist jemand, der berät auch über ERNÄHRUNG, aber ich habe die Dame lieber im Verkauf, weil da, um betriebs-wirtschaftlich zu sprechen, verdient sie mir mehr Geld.“
P15	*“And now we come back to the services which we [the pharmacists] have started a long time ago to build image - WHICH, if we continue to provide them AS IS, will be so costly at one point that it is honorary.”*	„Und jetzt kommen wir wieder zurück zu den Leistungen, die wir [Apotheker], ja, vor langer Zeit schon angefangen haben, als/ zur Imagebildung. DIE, wenn wir SIE SO weiterführen würden, irgendwann so viel Geld kosten, dass es ehrenamtlich ist.“
P06	*“Generally, yes. (…) But, as I said, not as a free of charge service, but, yes, it would have to be remunerated accordingly. Because it [service provision] costs time, getting training does as well (…). Yes. And then, there must always be one person available to provide the service.”*	„Grundsätzlich schon. (...) Aber, wie gesagt, nicht als kostenlose Dienstleistung, sondern ja, muss halt auch entsprechend honoriert werden. Weil es ist ein zusätzlicher Zeitaufwand. Fortbildungen ja auch noch mal. (...) Ja. Und es muss halt dann ja auch immer jemand dafür dann ansprechbar sein.“

P14	*“One can think about it [micro nutrition supplementation] as one likes. If you ask 100 physicians or experts you get 100 different opinions. […] Everyone has to decide for himself where he stands. It is the same with homeopathy, with natural medicine. Everyone has to say for himself this is what I am convinced of and that is what I am doing. And I am convinced about micro nutrition supplementation and this is why I am offering it.”*	„Man kann darüber denken, wie man will. Wenn man gucken würde oder 100 Ärzte oder Fachleute fragen würde, würde man auch 100 verschiedene Meinungen finden. […] Es muss jeder für sich selber entscheiden, wo er da steht. Das ist mit der Homöopathie, mit der Naturheilkunde genauso. Jeder muss für mich sagen, davon bin ich überzeugt und so mache ich das. Und ich bin von der Mikronährstoffsupplementierung eben überzeugt, biete deswegen diese Dienstleistung auch an.“
P10	*“It is more useful to do this [diet counselling for diabetics] at the physician’s. They do this. The diabetologists do this and then one does not want to interfere.”*	„Das ist sinnvoller, das beim Arzt zu machen. Das machen die auch. Die Diabetologen machen das und dann will man nicht ins Handwerk pfuschen.“
P02	*“[…] To reduce the pharmacist remuneration-wise purely to selling shows certain disrespect towards the professional ethos, yes. […], if I, like physicians or lawyers or tax advisors or someone like that, would get remunerated for applying my knowledge, then this would upgrade the profession, because it would then come out of this grocery corner.”*	„Den Apotheker auf das, also von der Vergütung her auf das reine Verkaufen zu reduzieren, hat auch eine gewisse Missachtung für den Berufs-Ethos zur Folge, ja. […] wenn ich für/ das würde den, meiner Ansicht nach, den Beruf aufwerten, wenn ich eine Vergütung wie ein Arzt oder wie ein Rechtsanwalt oder wie ein Steuerberater oder sonst was, wenn ich eine Vergütung für das Wissen, was ich habe, und was ich vermittele, bekomme, dann ist das ja eigentlich eine Sache, die den Beruf aufwertet, weil das dann aus dieser Krämerecke mal rauskommt.“

P11	*“Because things like MTM are done by a pharmacist. And a country-side pharmacy does not support two full-time pharmacists.”*	„Weil AMTS, grade so was, das wird ja von einem Apotheker gemacht. Und so eine Landapotheke trägt nicht zwei Vollzeitapotheker.“
P15	*I: “Do you make use of opportunities, when they appear?”* *P: “No, not right away, no. I’m very critical and very self-critical and I consider it from different angles. I am not a doer who jumps at it right away and says: ‘GREAT, COME ON, let’s do it’ No. I always ask myself first ‘what it the benefit for the patient?’”*	I: „Nutzen Sie Gelegenheiten, die sich bieten?“ B: „Nein, nicht sofort, nein. Ich bin also sehr kritisch und sehr selbstkritisch und ich wende erst nach allen Seiten. Ich bin also nicht der Macher, der gleich reinspringt und sagt "KOMM, TOLLE SACHE, machen wir." Nein, das nicht. Ich frage mich also immer erst „Was nutzt es den Patienten?““
P19	*“It must, as stupid as this may sound, fit with us. For instance, we have never offered this bone density measurement at the heel. That we have never done, because we had informed ourselves and have realised that the evidence-base is really bad.”*	„Es muss/ Es muss, so doof, wie sich das anhört, zu uns passen. Zum Beispiel haben wir niemals diese Osteoporose-Messung angeboten an der Ferse. Das haben wir niemals gemacht, weil wir uns damals schlau gemacht haben und haben gesehen, dass die Evidenz, also die Basis dafür, super schlecht ist.“
P10	*“What can we do? And what do we want to do? What are the prerequisites? What do we have to do, what do we have to acquire, what knowledge do individual employees need to have or where do we need to refresh knowledge, so everyone can do it. This is getting analysed consistently and at one point we have the result. ‘Tell me, is anything missing?’ ‘No / yes.’ This gets complemented and then implemented.”*	„Also was können wir tun? Und was wollen wir machen? Was sind die Voraussetzungen? Was müssen wir dafür machen, was müssen wir dafür anschaffen, welches Wissen müssen die einzelnen haben, oder wo müssen wir Wissen noch ein bisschen auffrischen, damit das auch jeder kann. Da wir also richtig konsequent analysiert, und dann kommt das/ dann ist irgendwann das Ergebnis da. "Sag mal, fehlt uns noch was?" "Nein/ Ja". Wird ergänzt, und dann wird das durchgeführt.“

P19	*“We observe how it goes and if it is accepted, it gets expanded.”*	„Man schaut, ob das läuft und wenn es Anklang findet, dann wird es aus/ dann wird es ausgebaut.“
P19:	*“Well, we have advertised it quite often but the RESULTS are not as we would like to have them. But we strongly believe into this service and we believe that it will become more popular. We maybe still have, are still a bit ahead of time.”*	„Also wir haben das schon relativ oft bearbeitet, aber die ERGEBNISSE sind nicht so, wie wir es eigentlich hätten haben wollen. Also aber wir glauben ganz fest an diese Dienstleistungen. Wir glauben, dass das kommen wird. Wir haben vielleicht einfach noch, sind wir noch ein bisschen der Zeit voraus.“
P19	*“And there, were completely wrong in our estimation. […]. We had not thought that this service would be such a resounding success from the start.”*	„Und da haben wir uns zum Beispiel total verschätzt. […] Wir haben überhaupt nicht gedacht, dass diese Dienstleistung von Anfang an so einen durchschlagenden Erfolg haben würde.“
P18	*“Well yes, like I said, sometimes one also generates additional turnover and then comes the other aspect, which I had mentioned before, that one cannot measure directly, but can just indirectly increase customer satisfaction and customer frequency*.”	“Aber ja, wie gesagt, manchmal macht/ generiert man dann dadurch auch wieder zusätzliche Umsätze und dann kommt eben das, was ich vorhin schon gesagt habe, dass man nicht direkt messen kann, sondern indirekt einfach Kundenzufriedenheit erhöhen und Kundenfrequenz, ne?“
P10	*“One cannot really MEASURE this, but it is not like that this has no impact but this goes over YEARS that one builds an image which then must be nurtured. One has to continue doing it.”*	„Man kann das ja nicht unbedingt so MESSEN, aber es ist nicht so, dass das so UNTERgeht, sondern das geht über JAHRE, baut sich da so ein Name auf, der dann natürlich gepflegt werden muss. Man muss das weiter machen.“

P12	"*Yes exactly. We have this in the computer system, how many measurements we make and the turnover generated.*"	„Ja, genau. Das haben wir in der EDV natürlich erfasst, wie viel Messungen machen wir, was ist dabei rumgekommen."
P18	*"Well, that would be, yes that would actually be a good idea (laughs). We have not done it like this yet. Well, one could really somehow spend the whole day at the desk running analyses."*	"Also, das wäre auch nochmal, ja, das wäre eigentlich auch nochmal eine gute Idee. (lacht) Haben wir bis jetzt noch nicht so gemacht. Ja, also man kann irgendwie wirklich den ganzen Tag nur am Schreibtisch mit irgendwelchen Auswertungen verbringen."
P15	*"Well, a service with all its features must bring the patient THE benefit he expects. Well, if I provide a service and tell the patient a result and he says 'Okay, now I know that but I don't know what to do with it', then the service has no value."*	„Also, die Dienstleistung muss mit allem drumherum dem Patienten DEN Nutzen bringen, den er erwartet. Also, wenn ich eine Dienstleistung erbringe und ihm einen Wert sage und er sagt "Ja, gut, jetzt weiß ich das, aber ich kann damit nichts anfangen.", dann ist die Dienstleistung nichts wert."
P19	*"But if you, as a single small business, want to offer your services; to really get awareness is only possible amongst your own customers. To advertise publicly gets very quickly very expensive and you have to see, services are nice but one (laughs) wants to earn some money with it and not only invest money into it."*	"Aber wenn Sie als einzelner, kleiner Betrieb Ihre Dienstleistungen anbieten wollen, um das wirklich bekannt zu machen, geht das ja nur unter den eigenen Kunden. Nach außen wird es dann auch ruckzuck sehr teuer und Sie müssen ja auch sehen, Dienstleistungen gut und schön, man (lachend) will damit ja auch Geld verdienen und nicht nur Geld reinstecken."

P01:	*“We currently only have about ten customers, who use the unit-dosing service. And we are wondering why there are so few. Still, I believe that this will increase. […] There is a market for convenience products. […] And pharmaceutically, this is a great thing, […].”*	„Wir haben jetzt nur relativ wenige, ich glaube zehn Kunden, die zum Beispiel verblistert werden. Da wundern wir uns selber auch: warum ist das so wenig? Ich glaube trotzdem fest dran, dass es irgendwann ist. […] Also gibt es einen Markt für irgendwie Convenience-Artikel und genauso ist es hier auch. […] Und noch unter pharmazeutischen Gesichtspunkten ist das eigentlich eine großartige Sache, […].“
P12	*“There is a sufficient number of people, who are willing to pay for the information and one has to implement this [charging service fees] more confidently in public than it is currently practised [amongst pharmacists].”*	“Es gibt genug Leute, denen ist diese Information auch Geld wert und das muss man eben ein bisschen selbstbewusster unter das Volk bringen als das bislang üblich ist bei uns.“
P12	*“I can’t act like a natural medicine enthusiast and not stand behind it. I think that people realise that after a while“.*	„Ich kann schlecht eben einfach hier als der Naturheilfreak auftreten und es ist nichts dahinter. Ich denke, das kriegen die Leute im Laufe der Zeit auch mit.“
P18	*“She does that really well with presenting the messages she takes from the results [of the service] to people.”*	„Sie macht das eben auch gut, mit den Messages, die Sie praktisch den Leuten da aus ihrem Ergebnis serviert und/ Also das ist irgendwie ein Renner.“
P03	*“The most important aspect was the consistent training of my team.”*	„Die wichtigsten Aspekte waren die konsequente Schulung meiner Mitarbeiter.“

P08	*“And when you start a thing then you have to do it right. Half-hearted does not work. Then you really have to pick a few [service] topics and really push them through.”*	„Und man muss eben dann natürlich auch, wenn man eine Sache anfängt, dann muss man es auch richtig machen. Also halbherzig funktioniert nicht. Dann muss man auch wirklich sagen, man nimmt sich bestimmte Themenbereiche und die zieht man aber auch wirklich durch.“
P12	*“[…] we have the big advantage that we can see from the prescription what kind of problem the patients have. And then, one can cautiously ask whether they are doing well with their medication and so on and then people usually start talking if they have a problem and then one can go back to telling them about these things [services].”*	„[…] wir haben ja den großen Vorteil, wir sehen ja, wenn die mit dem Rezept reinkommen, was die für ein Problem haben im Grunde genommen. Und da kann man ja dann vorsichtig anfragen, ob es ihnen gut geht mit der Medikation und so weiter und dann fangen die Leute schon an zu erzählen, wenn sie ein Problem haben und dann kann man ja immer wieder gut auf diese Sachen zurückkommen.“
P15	*“[…] it has to be constantly promoted. Yes, like a perpetuum mobile – it has to ALWAYS be in motion or repeated like a mantra.”*	„[…] es muss immer gefördert werden. Ja, das muss ste/ wie so ein Perpetuum Mobile muss da IMMER was laufen oder wie so eine Gebetsmühle.“
P05	*”Above all, it does not make sense to copy a colleague. To advise someone who does not have ideas of his own, a vision or interest, that does not work. That’s how I see it. In the beginning, you have to invest so MUCH more than you get out of it. You sit in your pharmacy for 50, 60 hours per week if need be. Doing that AGAINST your inner drive – forget it.”*	„Außerdem glaube ich, es macht keinen Sinn, einen Kollegen zu kopieren. Jemand was zu raten, ohne dass er selbst eine Idee hat, eine Vision, ein Interesse, das funktioniert nicht. So sehe ich es. Sie müssen ja so viel MEHR investieren, als das sie erst mal raus bekommen. Sitzen in Ihrer Apotheke, weiß ich nicht, 50, 60 Stunden die Woche, wenn es sein muss. Das GEGEN einen inneren Antrieb - vergessen Sie es.”

P08	*„Then it makes sense, of course, to contact these physicians separately and, for example, check whether the physicians are willing to make internal trainings in the pharmacy. With this, I have made positive experiences, when one approaches the physicians."*	"Dann macht es natürlich auch Sinn zu diesen Ärzten gegebenenfalls noch gesondert Kontakt aufzunehmen und zum Beispiel zu gucken, sind die Ärzte bereit interne Fortbildungen in der Apotheke zu machen? Damit habe ich positive Erfahrungen gemacht, wenn man die Ärzte anspricht."
P08	*"[…] well, we definitely have distances of more than 300 km between a customers' home and our pharmacy, we thus must give him reasons why he obtains his medication from OUR pharmacy and not from another one, for example near his home. And this has to do with this, especially with this empathy. That the employees approach this with much sensitivity."*	„[…] also wir haben durchaus hier Entfernungen von weit mehr als 300 Kilometern zwischen dem Wohnort des Kunden und unserer Apotheke, müssen wir ihm ja Gründe liefern, warum er weiterhin seine Medikamente von UNSERER Apotheke bezieht und nicht von einer anderen, zum Beispiel in seinem räumlichen Umfeld. Und das hat eben schon etwas zu tun mit eben diesem, insbesondere mit der Empathie. Dass also die Mitarbeiter hier auch mit sehr viel Fingerspitzengefühl vorgehen."
P12	*"This concept [scheduling individual counselling and charging service fees] is not perfected yet. […] There are colleagues, who get this done better than me. […] There, the pharmacist spends the whole day in the counselling room and the staff is well instructed and schedules the counselling appointments."*	„Dazu ist es noch nicht perfekt genug eigentlich ausgebaut. […]. Es gibt auch Kollegen, die das noch besser hinkriegen als ich. […] Da sitzt der Apotheker den ganzen Tag nur hier im Beratungsraum und hat einen Termin nach dem anderen und das Personal ist so gut eingenordet praktisch. Das liefert die Termine zu und der Apotheker macht dann eben die Beratung."

P08	*“I have demanded a great deal from my employees due to remodelling this pharmacy here, restructuring the inventory management system, due to several events, and continued education, And therefore I say that for now, I let this sink in a bit.”*	„Ich habe meinen Mitarbeitern durch Umbau, durch neue teil/ in der neuen Apotheke hier, Umstellung des Warenwirtschaftssystems, durch eben auch diverse Veranstaltungen, Fortbildungen auch eine Menge abverlangt. Und da sage ich jetzt erst mal, ich lasse das jetzt erst mal ein bisschen sacken.“
P18	*“We just try it and see how people accept it and they are beating the path to our door for this [service]. […] In the moment we realise that people do this and ask for the service, we are almost forced to offer it repeatedly.”*	„Wir probieren es einfach mal, mal gucken wie der Zulauf ist" und die Leute rennen uns die Bude ein, (lacht) dafür, […] In dem Moment, wo wir merken, die Leute machen das, da fragen die dann auch nach, da sind wir dann fast gezwungen das dann auch zu wiederholen“.
P19	*“This [fitting of compression stockings service] increased further over the last years. And in the meanwhile, we have many employees who are qualified to provide the service. And this service is offered almost daily.”*	„Das hat sich die letzten Jahre auch immer weiter gesteigert. Und wir haben inzwischen auch viele Mitarbeiter, die das können und das machen. Und das ist eine Dienstleistung, die beinahe täglich auch stattfindet.“

Appendix 10: List of analysed services (with selected themes)

No.	Description	Motivation	Decision criteria	Success factors	Satisfaction (success)
P01_3	spagyric mix compounding	employee motivation, differentiation, creating a niche, gaining reputation with alternative practitioners, pharmacy occupies a niche with this service	market demand, fit with pharmaceutical practice	motivated employee(s), happy professional customers who recommend the service further	very satisfied
P01_4	fitting of compression stockings	generating income	market demand / existing market gap	demand, focus on quality provision of service and continuing staff training, payment via prescriptions	very satisfied
P05_2	medication management for disabled persons to help them manage their medication as self-determined as individually possible (e.g. taking the medication, purchasing their medication)	building image and expertise to draw in customers; motivating an employee, research - investigating future areas for pharmacist interventions/services/ pharmaceutical care, seen as a long-term investment into building expertise	possibility to build expertise and image for the pharmacy - locally with network partners	being open to new ideas and being proactive	very satisfied

No.	Description	Motivation	Decision criteria	Success factors	Satisfaction (success)
P07_2	cytostatic drug compounding	generating income, important income generator	make use of existing hardware and knowledge, availability of oncologists for cooperation	cooperation with specialist physician; being proactive / seizing opportunities, focus on cooperation, communication and quality	very satisfied
P07_4	multiple sclerosis service: organisation of patient information seminars (80-150 participants per seminar)	binds a specific patient group to the pharmacy, drawing in new patients	existing target group, demand	staying in contact with patients and reacting to patient information wishes, staying up to date on latest knowledge, cooperation with pharmaceutical industry	very satisfied
P08_1	HIV/Hepatitis counselling: counselling of newly diagnosed patients and medication checks for regular patients (“umfangreiche Erstberatung”)	gaining new customers and binding customers (within and outside the pharmacy's catchment area), HIV prescriptions important income generator due to large number of loyal/regular customers for this indication, provides professional satisfaction	existing demand; service was already established, specialised physician in the same building	specialist physician nearby; individual counselling and empathy and discreet handling of the HIV medication supply, ensuring patients' privacy - this seems to be meeting a need and providing a real perceived benefit to patients	very satisfied

No.	Description	Motivation	Decision criteria	Success factors	Satisfaction (success)
P08_3	Multiple sclerosis service: organisation of patient information seminars	gaining new customers/patients (increase in patient numbers directly linked to service), binding customers	existing focus on MS at other pharmacy outlet	involving patients in topic choice, fulfilling patient information wishes	very satisfied
P10_2	weight and nutrition management courses for patients which run over ten weeks	marketing instrument: expecting a benefit for the pharmacy - gaining customers, building image; service is understood as free of charge offer	usefulness for patients	offering a professional diet programme which is reimbursable for the patients	very satisfied
P11_1	fitting of compression stockings	gaining new customers and turning them into regular customers	gaining new customers	detecting a market gap / demand	very satisfied
P12_2	metabolism measurement; use of a diagnostic machine to detect nutritional deficits in patients	gaining and binding customers; differentiation and image building (natural pharmacy); getting personal time with customers to make (additional) offers, generating income, pharmacist's positive attitude towards the service	usefulness for own health - pharmacist needs to be convinced of the service in order to convey the necessary credibility and put the necessary energy into promoting the service	communication skills; being alert for patient cues (conversation / prescription products), not making exaggerated promises	very satisfied

No.	Description	Motivation	Decision criteria	Success factors	Satisfaction (success)
P12_1	Health topics: irritable bowel syndrome (patient seminar followed by individual consultations)	differentiation, gaining and binding customers, generating income	patient demand	providing useful information to the patient / "hitting a nerve"	very satisfied
P15_2	Counselling patients with the need for (often expensive) special medications and their families	image building - by word of mouth	concrete/actual demand	good counselling, fulfilling patient needs / providing help where others refuse to give it	very satisfied
P17_1	spagyric mix compounding	source of turnover, bringing in new customers	maintaining income; existing service with an existing regular customer base	n/a	very satisfied
P17_2	Diabetes counselling on medication, helping patients with handling blood glucose meters, counselling on diabetic skin care or wound care	building image and trust, binding customers (to come back with their OTC needs and prescriptions)	existing demand	good counselling, fulfilling patient needs	very satisfied
P18_1	customer card -: storing a customer's medication information, helping to better identify drug interactions, previously used medication and prescription mistakes	binding customers to the pharmacy, making work easier for pharmacies (mainly the counselling, but also inventory management)	patient benefit, benefit for the pharmacy	demonstrating the advantages to customers, being consequent in using / offering the service (exemplifies most other pharmacies)	very satisfied

No.	Description	Motivation	Decision criteria	Success factors	Satisfaction (success)
P19_3	extension of opening times from regular times to 8 am-12 pm including Sundays	generating income; bringing in more customers, building image	financial feasibility	using economies of scale by cooperating with other pharmacies	very satisfied
P19_4	fitting of compression stockings (reintroduction of a service not done for years)	generating income	employees having the skill and wanting to provide the service	being able to offer a benefit compared to competitors, trained and motivated staff	very satisfied
P19_7	milk pump rental service with mother & child assortment	generating income, bringing in new customers from different parts of the city - in this case young mothers/families who are not the usual pharmacy clientele / first contact with new families - gaining new customers	demand via in-coming prescriptions	high number of milk pumps - economies of scale, service routine	very satisfied
P01_1	wound management	differentiation, source of professional pride; but pharmacy existence would not be threatened if the service was terminated; gaining customers	market demand, making use of existing talent / opportunity	depth of specialised knowledge	satisfied
P01_6	patient seminars	advertising, building image, differentiation, gaining customers	n/a	n/a	satisfied

No.	Description	Motivation	Decision criteria	Success factors	Satisfaction (success)
P03_1	diet counselling	differentiation, but not actively advertised	availability of specialised staff	communication skills, specialist knowledge	satisfied
P03_2	cytostatic drug compounding	generating income, important income generator	availability of existing business and skills, personal interest?	cooperation with specialist physician in the same building; investment into training and quality, establishing good relationship with oncologist - regular meetings to improve / remove problems	satisfied
P04_1	asthma service; mainly demonstration of inhaler use	differentiation, having an additional offer	perceived demand	availability of most/all inhaler types; relevant patient benefit - ability to trial inhalers without wasting active medication	satisfied
P04_2	diabetes service: counselling on medication, helping patients in handling their devices, diabetic needs catalogue with health tips and wide assortment of devices and products	demonstrating expertise (building image)	existing base business; fit with / availability of suitable training; personnel interest (who wants to do the training)	trained specialist; motivated staff by giving personnel the choice where to specialise	satisfied

No.	Description	Motivation	Decision criteria	Success factors	Satisfaction (success)
P04_3	unit-dosing service	generating income; pharmacy does not charge extra for the service - service seen as a way to increase the prescription volume	cost for providing the service, profits	good contracts with nursing service, detailing the obligation of the nursing service to take care of acquiring the prescriptions on time	satisfied
P07_1	general counselling of cancer patients, including cosmetics seminars for breast cancer patients	special counselling, not part of the daily routine, relationship building with patients; binding the oncologists to the pharmacy by delivering high performance services and (meeting or creating demands for the oncologists is part of the strategy)	cooperation with oncologists legally allowed	cooperation with specialist physician; relationship building, being knowledgeable and supportive, having a sufficient number of staff / specialist to provide additional services	satisfied
P07_5	medication use review	participation in a project, gaining experience	professional importance for pharmacies	doing and learning, communication skills with regard to patients and physicians; sensitivity regarding dealing with physicians when it comes to questioning the physicians' medication decisions	satisfied

No.	Description	Motivation	Decision criteria	Success factors	Satisfaction (success)
P09_4	compounding and sale of baby colic drops, mother and child	generating income, gaining /binding midwives	employee interest, perceived demand	having a special product, (optimal) placement of the mother & child products in the pharmacy	satisfied
P09_1	cytostatic drug compounding	generating income, important income generator ("*sicheres Standbein*")	availability of market partner - request from physician to supply; after move of pharmacy and physician - staying in the market	training, communication with physicians (prescribers) and physicians' receptionists, supportive and idealistic staff	satisfied
P09_4	compounding and sale of baby colic drops, mother and child	generating income, gaining /binding midwives	employee interest, perceived demand	having a special product, (optimal) placement of the mother & child products in the pharmacy	satisfied
P10_1	counselling larger companies: supplying medication for internal medical service and providing health checks to company employees	income generation from supplying the companies (selling Rx/OTC products)	usefulness for patients, demand	Pro-activeness and communication: discussions with the companies regarding usefulness of services and ideas for improvements	satisfied
P11_2	increase of delivery service	gaining / binding customers - the special clientele of immobile customers	gaining / binding customers, meeting a need	detecting a market gap / demand	satisfied

No.	Description	Motivation	Decision criteria	Success factors	Satisfaction (success)
P12_4	facial analysis according to Schuessler: analysing the patient's face and recommending specific tissues salts	reinforcing the pharmacy's image of natural / alternative medicine, gaining new customers, generating income	fit with positioning as specialist in natural / alternative medicine	being authentic *(“dahinter stehen”*), training, first mover advantage; staff also trained in natural / alternative health	satisfied
P14_2	intraocular tension check, once per year, local service for patients so they do not have to travel for the check	traffic generator: gaining and binding customers (drawing customers into the pharmacy)	seeing the possibility to copy an already practised approach	providing convenience to patients (real perceived benefit)	satisfied
P14_3	micro nutrition analysis; machine-based measuring of a patient’s micronutrient needs - pharmacy provides an individualised nutrient mix to the patient	personal interest and conviction, binding customers (small scale)	personal interest and belief in the concept	personal conviction, achieved perceived health by patients	satisfied
P14_4	asthma service; mainly demonstration of inhaler use	binding customers; patients come back with refill prescriptions	medical need, usefulness for the patient	communication skills - looking for cues from the prescription or patient comments or behaviours, asking questions about medication use; being empathetic	satisfied

No.	Description	Motivation	Decision criteria	Success factors	Satisfaction (success)
P14_5	diabetes service; mainly explaining usage of devices	binding customers; patients come back with refill prescriptions	medical need, usefulness for the patient	communication skills - looking for cues from the prescription, patient comments or behaviours, asking questions about medication use; being empathetic	satisfied
P15_1	(increase of) delivery service; 8 hours per day	advertising / showing presence in the catchment area (pharmacy's delivery cars are moving billboards)	positive market research results	conducting market research / customer survey	satisfied
P15_4	diabetes service; helping newly diagnosed patients or those having issues or to fill a gap left by physicians plus availability of devices, explaining usage of devices	binding customers; patients come back to purchase what they need for their diabetes care; image building - specialisation is known by physicians, nursing homes and customers	personal interest, wanting to be able to offer professional / knowledgeable advice, perceived demand/need	training, specialisation, proximity to specialist physician, consequent building of image	satisfied
P15_5	Patient seminars and counselling about natural / homeopathic treatments for psychological issues (nervousness, restless-ness, burn-out etc.)	gaining new customers, building image and - in the case of general health tips -trust	personal interest, perceived demand (perceived increase in psychological, nervous problems)	taking time for organisation and preparation, good personnel	satisfied

No.	Description	Motivation	Decision criteria	Success factors	Satisfaction (success)
P16_1	diabetes counselling: medication and lifestyle advice, helping patients with the interpretation of blood glucose levels	binding customers	perceived demand	communication skills / personal / patient-centred communication, giving explanations e.g. about lifestyle improvements	satisfied
P18_4	patient seminars on different topics and individual counselling sessions on different topics, e.g. facial analysis	increasing customer frequency, bringing in new customers (especially via customer seminars), building customer loyalty	fit with pharmacy practice regarding level of diagnostic elements and science-base; criteria for repetition: customer demand and acceptance	engaged pharmacy staff, having a specialist, good communication (selling) skills of the service providing staff - in this case the alternative practitioner pharmacist	satisfied
P19_2	seminars for nursing home /- service staff: information on medication handling (by pharmacist staff) and patient care (by external patient care specialist)	n/a	contractual obligation to partner nursing homes	n/a	satisfied
P01_2	unit dosing service	to be developed as income generator, differentiation, gaining customers, but currently it is also for building image with patients and physicians	Patient health benefit (compliance & safety), fit with pharmacy / pharmacy practice	advantage seen in convenience but uptake still low	not yet satisfied

No.	Description	Motivation	Decision criteria	Success factors	Satisfaction (success)
P05_1	pharmacogenomics testing; diagnostic test (sale) and counselling on current or potentially future alignment of medication therapy to individual, genetically determined drug metabolism, requires cooperation with physicians / willingness of physician to collect the patient's blood sample	differentiation; provide the pharmacy with a USP, personal interest	existing knowledge, perceived medical usefulness	being knowledgeable in the area; personal conviction of usefulness	not yet satisfied
P09_2	medication use review- asking patient for diagnosis, medication use counselling, contacting physician if problems detected	polishing up pharmacy image, (potentially) gaining new customers	perceived pharmaceutical need, opportunity to build/polish pharmacy image	training, support from physicians	not yet satisfied
P15_6	counselling on intestinal health - relatively new service- providing counselling on restoration of the intestinal flora	binding customers, building image	perceived demand and patient health benefit (increasing number of intestinal problems, side-effects of antibiotics therapy on the intestinal flora)	having the team on board / getting buy-in: decision for service done with the pharmacy team - ordering employees leads to resistance	not yet satisfied

No.	Description	Motivation	Decision criteria	Success factors	Satisfaction (success)
P19_5	unit-dosing service with automatic medication check for nursing homes and expansion into private use; nursing home provision with high frequency, still irregularly for ambulatory patients	generating income	belief in a demand for private / individual use	patient benefit - however, this benefit seems difficult to communicate - users tend to start the service out of a position of external necessity (on suggestion from family member or physician)	not yet satisfied
P19_6	medication use review (AMTS)	positioning the pharmacy for the future; providing medication management means to take responsibility and accountability and professional opinion needs to be defended against physicians	fit with the pharmacy's counselling competence, anticipated future demand, availability of capabilities; patient benefit: lack of medication therapy counselling at the physicians'	communication skills and deep knowledge about medications and medication management to identify the patients in need of the service and to find out the problems and to solve them; this service requires patient cooperation	not yet satisfied
P12_3	oxygen Inhalation service: inhalation of oxygen to relieve a range of symptoms (e.g. circulation, migraine); therapeutic activity	n/a	perceived fit with pharmacy practice, pharmacist considered inhalation therapy beneficial for patients	missing fit with pharmacy practice - pharmacist thinks physicians may be more believable when offering the service; fee for service too high; missing consequence in promoting the service	not satisfied

No.	Description	Motivation	Decision criteria	Success factors	Satisfaction (success)
P02_1	health check for employees of a company	gaining new customers, building image (*"Habe ich als Werbung aufgefasst."*)	seen as possibility to advertise the pharmacy	n/a	not fully satisfied
P07_3	cystic fibrosis service: counselling patients	income generation	existing demand - used to be high number of ambulatory cystic fibrosis patients from nearby clinic	keeping a service at a lower level in order to keep the knowledge, having / using networks, scanning the market/environment for new developments - keeping up to date with news where new medical centres are built and checking which pharmacy supplies them	not fully satisfied
P09_3	franchised weight management programme (pharmacy advertises the service and sells the products; weight management course is provided by physician and dietician outside the pharmacy)	gaining new customers, generating turnover on diet products - demand has slowed due to increased competition and is seen as a minor contributor to pharmacy turnover ("Standbeinchen"); service attracts customers looking for the special products	n/a; possibility to gain new customers and income	cooperation / participation in a weight reduction programme with physician support	not fully satisfied

No.	Description	Motivation	Decision criteria	Success factors	Satisfaction (success)
P14_1	hearing aid check; hearing aid acoustician comes to the pharmacy to check on patients hearing aids, 4 times per year; local service for patients so they do not have to travel for the check	traffic generator: gaining and binding customers (drawing customers into the pharmacy); pharmacy is in a low disposable income area and dependent on prescriptions - therefore needs services that bring in customers with their prescriptions	n/a (service offered for a long time)	providing convenience to patients (real perceived benefit)	not fully satisfied
P18_3	diabetes counselling and diabetes days where diabetics are invited specifically to get an appointment and clarify any issues	achieving customer satisfaction, binding customers	perceived and actual demand	customer acceptance - not achieved for the diabetes day; assumed to be due to the high level of knowledge diabetics tend to have with their condition	not fully satisfied
P19_1	diet counselling as a complementary counselling for patients with certain diseases, NOT weight reduction counselling (which is perceived as a saturated market)	part of the pharmacy's marketing strategy / overall service offer, building image, personal interest	Usefulness for patients with special nutritional needs (e.g. cancer patients), uniqueness	being able to offer in-depth counselling	not fully satisfied
P01_5	diet counselling	differentiation	n/a	trained specialist	n/a

No.	Description	Motivation	Decision criteria	Success factors	Satisfaction (success)
P08_4	medication use review; certification from the pharmacist chamber of lower Saxony	positioning the pharmacy for the future; to become a preferred partner for health insurers and thus to secure income; pharmacist believes that medication management concepts will be an important factor for pharmacies in the future	conviction that medication manage-ment programmes will be remunerated in the near future; beneficial to pharmacies, patients, physicians, and health insurers, ("win-win situation")	patient-centred communication / consumer language instead of pharmacy/medical terminology	n/a; it seems that the pharmacist is satisfied with the experiences made at the testing stage
P18_2	fitting of compression stockings	generating income	n/a	n/a	n/a
P02_2	fitting of compression stockings	service does not generate income; investment into customer loyalty	felt necessity / obligation; keeping customers	n/a	n/a
P07_6	mother and child	employee motivation, generating income via product sales, differentiation	employee engagement, skills and motivation	motivated employee(s)	n/a
P06_1	counselling on individual issues	binding customers, providing a patient benefit	counselling arising situationally - to be seen as single decisions, i.e. whether to provide more information or look something up for patients	n/a	n/a

No.	Description	Motivation	Decision criteria	Success factors	Satisfaction (success)
P08_2	asthma and COPD service: continuous care / checking if patients have questions / demonstration of inhaler use	binding patients via continuous care and solving problems by taking time and attending to issues patients do not get sufficiently solved by physicians	demand; regular high numbers of prescriptions for asthma / COPD medications	patients come back as specialist physicians are in the building; pharmacy complements the physician by communica-ting with patients, checking for medication problems and offering help continuously	n/a
P08_5	mother and child concept; product range for pregnant women, young mothers and children plus offer of specialised lectures	gaining and binding customers: expecting and young mothers	expected demand; specialty physician (gynaecologist) in the same building; market research indicates no similar offer in nearby pharmacies	n/a; service in preparation stage	n/a
P14_6	diet counselling; educating patients about the basics of weight loss and giving them a computer to calculate their calorie intake	binding customers	patient requests	communication skills, having a device (handheld computer for calorie counting) to support counselling	n/a
P15_3	unit dosing service; manual into week blisters with analysis of medication reach	n/a	n/a	n/a	n/a

Appendix 11: Service nature – service dimensions and their properties

Service dimension	Service dimension properties		Examples from service analysis
HCP dependence	Service is provided without involvement of physicians or other HCPs	Service provision in close cooperation with physicians or needing physician support	P12 IBS counselling P08 mother & child service P03, P07, P09 cytostatic drug compounding; P08 HIV service
Focus	Indication-based Service provided for a specific patient group	Theme-based Service provided under a thematic umbrella	P04, P14, P15, P16, P17 diabetes counselling, P04, P14 asthma counselling P12 alternative / natural medicine positioning; P01, P12, P15, P18 patient seminars
Patient benefit	Easy to understand	Difficult to understand	P01, P11, P19 Fitting of compression stockings P04, P14 asthma counselling P07, P08, P09, P19 Medication management, P05 pharmacogenomics testing
"Advertisability"	Mass advertising possible	Addressing patients individually	P18 patient seminars, P10 nutrition counselling (groups) Any individual counselling service

Service dimension	Service dimension properties		Example
Innovativeness	Standard / traditional	Innovative	Most pharmacies: blood pressure check P01, P03 nutrition counselling P05 pharmacogenomic testing, P01 unit-dosing, P09 medication management
(Potential for) standardisation	Highly standardised procedures	Individualised	P03, P07, P09 cytostatic drug compounding, fitting of compression stockings, P01, P19 unit-dosing P07, P08, P09, P19 Medication management P01, P03 nutrition counselling, P12 IBS counselling
Potential for the pharmacy to plan for PPS provision (“Planability”)	Service provided upon appointment	Service provided ad-hoc	P01, P18 Patient seminars, P10 Nutrition counselling (group) P02, P15, P11, P19 Fitting of compression stockings (in the mornings) Most services (but many could be provided upon appointment)
Effort / Time consumption	Service provision takes little time	Service provision is time-consuming	Fitting of compression stockings Medication management

Service dimension	Service dimension properties		Example
Product dependence	Linked to product / prescription sales	Independent from product sales	P04, P14 diabetes counselling, P04, P14 asthma counselling, P08 HIV counselling, P07 cystic fibrosis counselling, P01, P17 spagyric mix compounding P12 IBS counselling, P14 metabolic measurement P07, P08, P09, P19 Medication management
Remuneration	free of charge	Service fee	Most services (often linked to product/ prescription sales) Prescription-based / remunerated: Fitting of compression stockings, P14 micro nutrition analysis P19 nutrition counselling, P12: IBS counselling, facial analysis, metabolic measurement

Source: own illustration

Appendix 12: Example of the application of success factors for new service development

Source: own illustration based on own data, example from P08 / HIV counselling service