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Rezaei-Zadeh, Mohammad, Haak-Saheem, Washika, Darwish, Tamer K ORCID logoORCID: <https://orcid.org/0000-0003-1815-9338> and Singh, Satwinder (2020) The Impact of Leadership on Absorptive Capacity: New insights from the UAE. Canadian Journal of Administrative Sciences, 37 (4). pp. 448-458. doi:10.1002/cjas.1561

Official URL: <https://doi.org/10.1002/cjas.1561>
DOI: <http://dx.doi.org/10.1002/cjas.1561>
EPrint URI: <https://eprints.glos.ac.uk/id/eprint/7517>

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The Impact of Leadership on Absorptive Capacity: New insights from the UAE

Abstract: *This paper investigates the impact of transformational and transactional leadership on the absorptive capacity of firms within an emerging market setting. Unlike some findings from the Western world, the results indicate that both transformational and transactional leadership styles positively influence the learning processes of absorptive capacity. More specifically, the results indicate that transactional leadership style positively influences the exploratory and transformative learning processes, whilst the transformational leadership style positively affects the exploitative learning process. Given the unique context under investigation and the fluid institutional arrangements associated with it, the results reflect the need for leadership guidance. The implications for theory and practice are drawn.*

Keywords: *Transformational and transactional leadership, absorptive capacity, learning, institutions, UAE.*

Introduction

Research recognises that emerging market firms have relatively underdeveloped absorptive capacity (Bilgili, Kedia, & Bilgili, 2016; Darwish et al., 2019). Yet scant attention has been paid to the conditions that constrain or facilitate firms' absorptive capacity development within the emerging market economies. In this article, we explore how different leadership styles influence firms' absorptive capacity in the context of the emerging economy of a Gulf petro-state. We suggest that leadership styles influence firms' ability to utilise external knowledge through three sequential learning processes: exploratory, transformative and exploitative (Lane, Koka, & Pathak, 2006). Although there is a burgeoning body of literature on absorptive capacity and how it can enhance organisational performance (Zahra & George, 2002; Todorova & Durisin, 2007; Volberda, Foss, & Lyles, 2010), the role of intra-organisational factors remains relatively under-

investigated (Flatten, Adams, & Brettel, 2015; Vera & Crossan, 2004). From this perspective, leadership constitutes a particularly important internal dimension (Nonaka & Takeuchi, 1995; Darwish et al., 2019). Existing research indicates that leadership is the core of organisational activities that influences the development of organisational capabilities and learning processes (Singh, 2008; Aragón-Correa, García-Morales, & Córdón-Pozo, 2007; Pablo et al., 2007), and leadership is critical to the enabling and sustaining of capabilities such as absorptive capacity (Berson et al., 2006; Teece, 2007).

Building on the organisational learning perspective, we investigate how firms' learning strategies influence their preferences with respect to sources of new knowledge, and consequently the implications of these strategic choices for their absorptive capacity. More specifically, absorptive capacity through its learning processes (see, Lane, Koka, & Pathak, 2006; Easterby-Smith et al., 2008; Volberda, Foss, & Lyles, 2010) enables organisations to look for new knowledge outside their boundaries, acquire and assimilate that knowledge, and utilise it for commercial ends (Cohen & Levinthal, 1990). In order to make the best of unstable external circumstances, and particularly when external knowledge bases are limited and difficult to access, absorptive capacity is vested with particular importance (c.f. Lane, Salk, & Lyles, 2001); however, in turn, this is dependent on internal governance and leadership (Tsai, 2001; Lane, Koka, & Pathak, 2006; Lewin, Massini, & Peeters, 2011). In this study, we explore the interplay between leadership and absorptive capacity, and how this differs from existing research evidence compiled in more balanced economies, and we draw out the implications for theory and practice. Unlike firms in developed economies, firms in less mature markets depend largely on the external environment to acquire knowledge (Darwish et al., 2019). Whilst the term 'emerging market firms' implies a uniform category of firms, existing research shows that emerging economies vary greatly with regard to

their overall progress towards economic development (Hoskisson et al., 2013). Accordingly, firms operating within emerging markets are presented with different opportunities and are exposed to diverse challenges in their local institutional environments (Haak-Saheem, Festing, & Darwish, 2017). However, firms operating in less developed institutional settings are latecomers to the global marketplace, and in order to achieve competitive advantage they must not only upgrade existing capabilities through continual learning but also develop new competencies. This is particularly true for firms operating within the context of the Gulf countries.

The UAE is a member of the Gulf Cooperation Council (GCC); it is also a member of the Organization of Petroleum Exporting Countries (OPEC), and about 40 per cent of the country's gross domestic product is based directly on oil and gas output (World Bank, 2012). Since the discovery of oil in the UAE, the country has become a modern state with a high standard of living, rooted in Islamic-based societal structures; over the last few decades, the UAE has applied an economic developmental model that strongly emphasises market liberalism and economic openness, embracing globalisation while at the same time refraining from challenging the traditional neo-patrimonial leadership structure in the country (Haak-Saheem, Festing, & Darwish, 2017). It has also been found that leaders have a positive and significant role in facilitating organizational change in the UAE (see Haak-Saheem and Darwish, 2014; Al-Ali et al., 2017).

The fast and rapid growth of oil-rich countries has depended on the income generated from their oil and gas resources. However, since more attention is paid to the natural resources in countries such as the UAE, it started to diversify its economy and so ensure the sustainable development and growth. Like other countries with similar status, the concept of talent management and enhancing local peoples's knowledge gain significant interest in the UAE (Budhwar et al., 2018). Accordingly, the creation of a knowledge-based economy is the ultimate goal of the government

and knowledge is identified as a key driver of the competitive economy. In this view, absorptive capacity is critical to the dynamic development of the UAE.

From the institutional perspective, the developmental state paradigm highlights the critical role of government intervention in the country's economy and focuses on the institutional and political bases for effective intervention (Hvidt, 2009). As indicated in the UAE Vision 2021, a major aim of the government is to guide and support the preparation of the workforce for the high-value, knowledge-driven economy. Attracting and retaining highly skilled employees and improving nationals' qualifications and their levels of motivation are of specific importance. Furthermore, the challenges of absorptive capacity in the UAE are special as the ratio of 'nationals' to 'expatriates' is among the most disproportionate in the world (Harry, 2007; Hvidt, 2009; Forstenlechner & Mellahi, 2014). Less than 20% of Dubai's total population are local citizens, which indicates that nationals are in the minority (Hvidt, 2009). Al-Waqfi and Forstenlechner (2014) further argue that the situation is even more problematic in the private sector, where almost 99% of employees are expatriates. Given the demographic factors, it is therefore important to firms to acquire external knowledge (e.g. from the highly skilled international workforce). Yet little insight has been offered into how firms in such an institutional environment approach this.

Existing literature have shown how leaders have an important role in developing absorptive capacity (see, for example, Zahra & George, 2002; Sun & Anderson, 2012; Rezaei-Zadeh & Darwish, 2016). However, the majority of studies have focused on Western contexts where the institutional setting, organisational environment, and leadership styles are different from emerging economies, particularly the one under study. To tackle the lack of understanding on how companies can develop and use absorptive capacity in emerging economies, we investigate the effect of leadership on absorptive capacity in the UAE.

The central aim of our study is to connect the theoretical link between different learning processes of absorptive capacity and leadership. Whilst existing literature (e.g. Darwish et al., 2019) shows there is an underlying assumption concerning the role of different leadership styles in absorptive capacity and innovation, in this paper, we offer insights into how specific leadership styles, such as transformational and transactional leaders, facilitate and promote the development of stocks and flows of different learning processes of absorptive capacity.

Further, this research seeks to enhance our understanding of how firms in an emerging petro-state explore and transform external knowledge successfully. Lastly, we aim to contribute to the theoretical discussion on the multi-dimensional nature of absorptive capacity by examining the relationship between the different learning processes and the effects of transformational and transactional leadership.

In the remainder of the article, we first provide a review of the existing literature on the concept of absorptive capacity, differing learning strategies and the role of leadership. Next, we introduce the key factors of our conceptual model and develop our hypotheses. Then, we discuss our methodological approach and present our findings. Finally, we discuss the implications of our research for theory and practice.

Theoretical and Contextual Background

The notion of absorptive capacity is considered one of the most important constructs to emerge in organisational research in recent decades (Lane, Koka, & Pathak, 2006). Cohen and Levinthal (1989) define absorptive capacity as the fundamental learning process: an organisation's ability to identify, assimilate and exploit knowledge from the external environment. In this view, developing and maintaining absorptive capacity is critical to firm's long-term competitiveness because it can

reinforce, complement or refocus the knowledge base (Zahra & George, 2002; Lane, Koka, & Pathak, 2006; Gebauer, Worch, & Truffer, 2012). Within management research, absorptive capacity is referred to by a wide range of theories, of which a large number address the context of learning (Lane, Koka, & Pathak, 2001), innovation (Tsai, 2001) and the knowledge-based view of the firm (Zhao & Anand, 2009). Moreover, Zahra and George (2002) divide absorptive capacity into potential and realised absorptive capacity. Potential absorptive capacity captures knowledge acquisition and assimilation, which refers to a firm's capacity to identify and exploit externally generated knowledge. Realised absorptive capacity refers to abilities to transform and exploit knowledge for commercial purposes. Both potential and realised absorptive capacity are cumulative and depend on past experiences. Accordingly, absorptive capacity is not static, but, rather, emerges through learning processes over time (Todorova & Durisin, 2007).

In the present study, we deploy the conceptualisation of Lane, Koka, and Pathak (2006), in which absorptive capacity is defined as the firm's ability to utilise external knowledge through three sequential learning processes: exploratory, transformative and exploitative. The separation is necessary to understand the distinct processes behind each element (Lane, Koka, & Pathak, 2006). The exploratory learning process of absorptive capacity refers to the acquisition of external knowledge. The exploitative learning process describes the firm's ability to apply acquired knowledge. The transformative learning process links the exploratory and exploitative learning processes (Zahra & George, 2002; Gebauer, Worch, & Truffer, 2012).

It is held that developing absorptive capacity enhances organizational performance (Cohen & Levinthal, 1990; Zahra & George, 2002; Todorova & Durisin, 2007). Hence, we suggest that researching factors (e.g., leadership) which facilitate developing absorptive capacity pave a way

to enhance organizational effectiveness. There are extensive research showing that leadership facilitate absorptive capacity (Sun & Anderson, 2012; Rezaei-Zadeh & Darwish 2016; Darwish et al., 2019). The behaviours and attitudes of leadership, known as leadership style, encourage the processes of acquiring, assimilating, transforming, and implementing external knowledge (Sun & Anderson, 2012).

Leadership style reflects the assumptions that managers make regarding their roles in an organisation (Aragón-Correa, García-Morales, & Cordón-Pozo, 2007). As Burns (1978) argues, two distinct leadership styles can be defined. A transformational leadership style promotes employees' needs and aspirations to a higher level and motivates employees to perform beyond their expectations (Bass, 1995; Jung, 2001). Transformational leaders have four characteristics: idealised influence, inspirational motivation, intellectual stimulation and individualised consideration. Through idealised influence, leaders instil a sense of pride, respect and faith in their employees. Through inspirational motivation, leaders establish and guide employees towards a challenging organisational vision by motivating them to meet higher expectations. Intellectual stimulation allows leaders to challenge existing organisational processes to solve problems. With individualised consideration, leaders consider individual differences in order to increase their employees' abilities and skills.

On the other hand, transactional leaders are those who clarify their expectations of their employees (Bass, 1999; Yukl, 1999). It is suggested that transactional leadership has two characteristics: contingent rewards and management by expectations (Avolio, Bass, & Jung, 1999; Bass, 1999; Yukl, 1999). With contingent rewards, leaders clarify the tasks their employees need to accomplish in order to gain rewards. With management by expectation, leaders monitor task progress and correct employees' mistakes.

In comparing these two distinct leadership styles, research has delivered mixed results (Yammarino, Spangler, & Bass, 1993). Some scholars contrast these two leadership styles by suggesting that a transformational leadership style is more strongly associated with organisational change (e.g., Dess & Picken, 2000) and some aspects of learning such as development of employees' abilities (e.g., Barczak & Wilemon, 1992) and allowing experimentation (Snell, 2001).

Furthermore, it is argued that transactional leaders inhibit learning among team members because of their individualistic characteristics (Aragón-Correa, García-Morales, & Cordón-Pozo, 2007). On the one hand, some argue that effective leaders should perform both transformational and transactional leadership styles (e.g., Bass, 1985; Conger & Kanungo, 1998); it is argued that the combination of both is of particular importance for effective management of knowledge and learning processes (Conger, 1999; Vera & Crossan, 2004; Sun & Anderson, 2012; Rezaei-Zadeh & Darwish, 2016; Darwish et al., 2019). On the other hand, it is also held that using transformational leadership alone is associated with superior leadership performance (see Bass, 1990). In general, the existing literature emphasises the positive effect of both transformational and transactional leadership on organisational outcomes (Boal & Hooijberg, 2001). In addition, the differing impacts of distinct leadership styles have also been proven to be context specific (Elenkov & Manev, 2005).

Lane and Lubatkin (1998) note that the institutional context impacts on the extent and relative importance of absorptive capacity. The notion that organisations are embedded in a wider institutional environment suggests that organisational practices are often either a direct reflection of or responses to rules and structures existing in their wider environment (Paauwe & Boslie, 2003).

Despite being among the wealthiest nations, as is common with many petro states, the Gulf countries face severe shortages in indigenous human capital and remain over-reliant on foreign knowledge and skills (Al Waqfi & Forstenlechner 2010, 2014; Haak-Saheem, Darwish, & Al-Nasser, 2016). Unlike other fast-developing markets, the UAE began its growth trajectory without surplus labour and has relied on a significant scale on expatriates, both skilled and unskilled (Thorpe & Connell, 2013). Further, as mentioned earlier, the ratio of ‘nationals’ to ‘expatriates’ is among the most disproportionate in the world (see Harry, 2007; Hvidt, 2009; Forstenlechner & Mellahi, 2011). According to Al-Waqfi and Forstenlechner (2014), the disparity is even more pronounced in the private sector, where almost 99% of employees are expatriates.

The government aims to reduce the reliance on the foreign workforce and has introduced localisation policies (Emiratisation) to increase the participation of the local population in the workforce. Emiratisation has been in place for decades, with the application of three core tenets: the first long-term target is diversifying the economy and reducing over-reliance on the capital-intensive hydrocarbons sector; the second is overhauling the education system in order to align education to market needs; and the third is implementing a range of labour market intervention measures, such as setting quotas and allocating jobs to be staffed solely by nationals, to reduce the reliance on international labour. However, progress has been slow and uneven (see Forstenlechner & Rutledge, 2011). Prior work (Haak-Saheem & Festing, 2018) highlights the steering role of the government to push the development of the country further. Hence, the government plays an important role in shaping firms’ leadership practices. Empirical evidence (Haak-Saheem & Festing, 2018) demonstrates the powerful mechanisms of how the vision of the country is cascaded to the organizations. Because of the strong link between the government and businesses, leadership style is an important factor influencing the absorptive capacity of organizations.

Conceptual Model and Hypothesis Development

Influence of transformational leadership on the absorptive capacity learning processes

Some of the existing literature argues that leadership influences the development of absorptive capacity. For instance, it has been held that the cognitive structure of leaders affects absorptive capacity (see Mom, Van den Bosch, & Volberda, 2007). Similarly, Sun and Anderson (2010) suggest that individuals, specifically leaders, through intuition influence the exploratory learning process of absorptive capacity. As Lane, Koka, and Pathak (2006) mention, the exploratory learning process of absorptive capacity enables organisations to value and acquire knowledge from the external environment. Employees utilise their intuition to search for external knowledge (Sun & Anderson, 2010) and they explain and interpret their intuition together (Nonaka & Takeuchi, 1995). Hence, the exploratory learning process of absorptive capacity includes individual and group level learning.

Then, the acquired knowledge is assimilated from group level to other organisational units through the transformative learning process of absorptive capacity (Sun & Anderson, 2010). As Lane, Koka, and Pathak (2006) state, organisations combine acquired knowledge with their existing knowledge through the transformative learning process of absorptive capacity by analysing, interpreting and understanding external knowledge. We suggest that individuals have a prime role in the exploratory and transformative learning processes of absorptive capacity. On the other hand, the exploitative learning process of absorptive capacity refers to institutionalising external knowledge in order to implement knowledge continually (Lane, Koka, & Pathak, 2006; Sun & Anderson, 2010). Institutionalisation is defined as learning that facilitates an interactive process to

change organisational processes, systems and structures (Crossan, Lane, & White, 1999). Therefore, the exploitative learning process of absorptive capacity takes place at the organisational level.

Successful knowledge acquisition and assimilation rely on organisations' desire to change their flexibility levels and their employees' creativity levels (Cepeda-Carrion, Cegarra-Navarro, & Jimenez-Jimene, 2012). By considering the importance of change for external knowledge acquisition and assimilation (Zahra & George, 2002), individuals employing the exploratory and transformative learning processes of absorptive capacity are looking for new solutions to organisational problems. Transformational leaders' intellectual stimulation and individual consideration characteristics encourage employees to look for new solutions, be more creative in their thinking and more readily adopt new organisational practices (García-Morales, Lloréns-Montes, & Verdú-Jover, 2008). Transformational leaders influence employees' learning by acting as mentors, facilitators and trainers (Ulrich, Von Glinow, & Jick, 1993). Transformational leaders provide support for organisational members to create and use knowledge (Senge et al., 1994; Snell, 2001) and also promote collaboration and teamwork (Aragón-Correa, García-Morales, & Cerdón-Pozo, 2007), which are essential for knowledge assimilation. Hence:

Hypothesis 1: Transformational leadership style positively influences exploratory learning.

Hypothesis 2: Transformational leadership style positively influences transformative learning.

Successful implementation of external knowledge, on the other hand, requires employees to be ordered and controlled and the context to be rendered stable (Cepeda-Carrion, Cegarra-Navarro, & Jimenez-Jimene, 2012). Implementation of external knowledge occurs through reusing knowledge

in the exploitative learning process of absorptive capacity (Lichtenthaler, 2009; Sun & Anderson, 2010). Organisations develop routines to implement and exploit external knowledge continually (Zahra & George, 2002). The development of routines allows organisations to perform tasks in a consistent fashion over time. Since the transformational leadership style is more strongly associated with change (Gardner & Avolio, 1998; Lowe, Kroeck, & Sivasubramaniam, 1996; Howell & Avolio, 1993) and the exploitative learning process of absorptive capacity requires stability in organisational tasks, we therefore suggest the following:

Hypothesis 3: Transformational leadership negatively influences exploitative learning.

The influence of the transactional leadership style on the absorptive capacity learning processes

It is suggested that the transactional leadership style facilitates learning processes (Vera & Crossan, 2004). Unlike transformational leadership style, this leadership style prohibits experimentation (Rosing, Frese, & Bausch, 2011) and encourages the type of learning that promotes existing organisational activities and processes (Vera & Crossan, 2004). Successful exploratory and transformative learning requires some degree of change (Zahra & George, 2002). Moreover, by giving freedom to their employees leaders enhance group-level learning – that is, transformative learning (McGrath, 2001). Because transactional leadership style is less strongly associated with change and freedom for experimentation, we thus propose the following:

Hypothesis 4: Transactional leadership negatively influences the exploratory learning process.

Hypothesis 5: Transactional leadership negatively influences the transformative learning process.

It is held that the transactional leadership style facilitates exploitative learning (see Sun & Anderson, 2012). It is suggested that transactional leaders' behaviours encourage top-down decision-making, developing standard procedures for producing products and services (Aragón-Correa, García-Morales, & Cordon-Pozo, 2007). Developing routines helps organisations to establish standard procedures, which ensures organisations' activities, procedures and processes are performed in a predetermined way. Transactional leaders clarify tasks to their employees by developing an exchange relationship with them and take corrective action when necessarily (Bass, 1999). Therefore, we suggest the following:

Hypothesis 6: Transactional leadership positively influences exploitative learning.

Methodology

Sample and Procedures:

Data for this study comes from a questionnaire administered on managers of a randomly selected sample from different sectors (Education, Banking; Healthcare; Hospitality; Consultancy and others) in the UAE. Potential respondents were assured that participation was entirely voluntary and confidentially. The survey had four sections: section I included questions on controls--gender, age group, education, experience, year the company was established and the total number of employees. Section II had eighteen questions on Likert scale addressed to managers in their role in searching, acquiring, assimilating, and using knowledge from other organisations. Section III had twenty five questions drafted to elicit characteristics of a firm's capacity to absorb new knowledge from other organisations (exploratory learning) ability to assimilate and transform acquired knowledge (transformative and exploitative learning process). Section IV was addressed

to elicit information on understanding the speed of innovation introductions in their respective sectors. Questionnaires with 20%+ missing responses were not considered. The final sample size yielded 986 usable answers generated from 1,500 distributed questionnaires, making a response rate of 65.7%. About 2/3rd of respondents were male (63%), with the largest age group falling between 30 and 39 years of age (36%).

Measures:

We implemented the measurement items which were developed and tested in previous studies. For our dependent variables, we adopted the scales which have been developed by Lichtenthaler (2009) to measure the exploratory, transformative and exploitative learning processes. All questions were measured using a 5-point Likert scale. Our independent variables are leadership styles. We combined Podsakoff, Mackenzie & Bommer (1996) and MLQ (Form 5X) (Bass & Avolio, 1995) to measure our predictors. These two scales have been well-established and used by a number of researchers (see, for example, García-Morales, Lloréns-Montes, & Verdú-Jover, 2008; Gumusluoğlu & Ilsev, 2009). Questions were also measured using a 5-point Likert scale.

Data Analysis

Scale validity and reliability:

In the first stage of data analysis, one-dimension confirmatory factor analysis (CFA) was used. CFA is used to determine whether the number of factors (dimensions) and the loadings of measured items on them conform to what is expected on the basis of the proposed model (see Kim & Mueller, 1978). Factor loadings below .40 were removed from the CFA Model. Further to using

CFA to fit the results to one factor for our model, a Principal Components Analysis (PCA) with a Varimax rotation was carried out. The total variance explained for the overall model is .44%. This would also indicate acceptable construct validity. The latter can also be reflected by the results of the Average Variance Extracted (AVE) for each construct which is greater than the .5 cut-off (Fornell & Larker, 1981). Discriminant validity is also established based on the Fornell & Larker (1981) criterion since the square roots of the AVE (diagonal elements) are larger than the correlations of the constructs. Finally, the reliability coefficient Cronbach's alpha for data consistency in the scales is satisfactory, ranging between 0.63 (ELVP) and 0.80 (TFL) (see Table 1).

Table1: Percentage (%) of variance, Cronbach's alpha and component loading range

Dimension	Number of Cases	Cronbach's Alpha	Factor Loading Range	AVE
TFL	986	.80	.61 - .75	.551
TCL	986	.70	.65 - .62	.621
ELP	986	.77	.54 - .74	.775
TLP	986	.70	.57 - .71	.709
ELVP	986	.63	.65 - .57	.723

Notes: CFA was conducted using AMOS 21. Factor loadings below .400 were removed from the CFA Model. TFL = Transformational Leadership, ELP=Exploratory Learning Process, ELVP= Exploitative Learning Process, TCL=Transactional Leadership, TLP= Transformative Learning Process.

Model testing:

The research model was tested using a linear structural equation modelling (SEM) with latent variables as this approach is well-suited to highly complex predictive models (Jöreskog, 1973). SEM is appropriate when theoretically derived paths amongst multiple exogenous and endogenous variables are estimated (Bollen, 1990; Byrne, 2013). In order to

minimise the ratio of parameters to observations in estimating the model, scale values for each variable were calculated and corrected for random measurement error. In an effort to adjust for measurement error in the scale values, the error variance was set equal to the variance of the scale value multiplied by 1.0 minus the reliability (Jöreskog & Sörbom, 1989). SEM has several strengths, which make it appropriate for this study, including its ability to handle both reflective and formative constructs.

Results

Table 2 provides the descriptive statistics and correlations for all variables. A brief analysis of the correlation matrix shows support for some of the stated hypotheses. In an effort to estimate the strength of the relationships between the suggested model variables, correlation analysis was performed. The mean, standard deviation and the correlation coefficient of all factors in the proposed model have been computed and tabulated in Table 2.

Table 2: Descriptive statistics and correlation coefficients

	Descriptive Statistics		Pearson's Correlation Coefficient				
	Mean	SD	TFL	TCL	ELP	TLP	ELVP
TFL	4.33	.58	1				
TCL	4.13	.65	.51**	1			
ELP	4.17	.60	.47**	.40**	1		
TLP	4.13	.60	.44**	.38**	.38**	1	
ELVP	3.99	.64	.40**	.35**	.34**	.37**	1

Notes: n = 986. **. Correlation is significant at the 0.01 level. *. Correlation is significant at the 0.05 level.

TFL = Transformational Leadership, ELP=Exploratory Learning Process, ELVP= Exploitative Learning Process, TCL=Transactional Leadership, TLP= Transformative Learning Process

Structural equation modelling of data:

Hair et al. (2006) and Hu and Bentler (1999) claim that a general set of criteria enables an evaluation of whether models are characterised by an acceptable fit. SEM analyses were performed using a covariance matrix as input to the Analysis of Moment Structure software (Arbuckle & Wothke, 2003) using maximum likelihood estimation. The missing data were replaced through the use of the expectation maximisation (EM) approach prior to analysis. Moreover, for evaluating the model, residual means squared error (RMSEA), standardised root mean square residual (SRMR), normed fit index (NFI), comparative fit index (CFI) and goodness of fit index (GFI) values were taken into consideration, noting that a fit index value of more than 0.90 and a means squared error of less than 0.08 would indicate a close fit of the model. The fit of the measurement model was acceptable (see Table 3), with a significant chi-square= 370.234, $P < 0.000$; SRMR = .0395; GFI = .957; NFI =.925; CFI = .946 and RMSEA =.048).

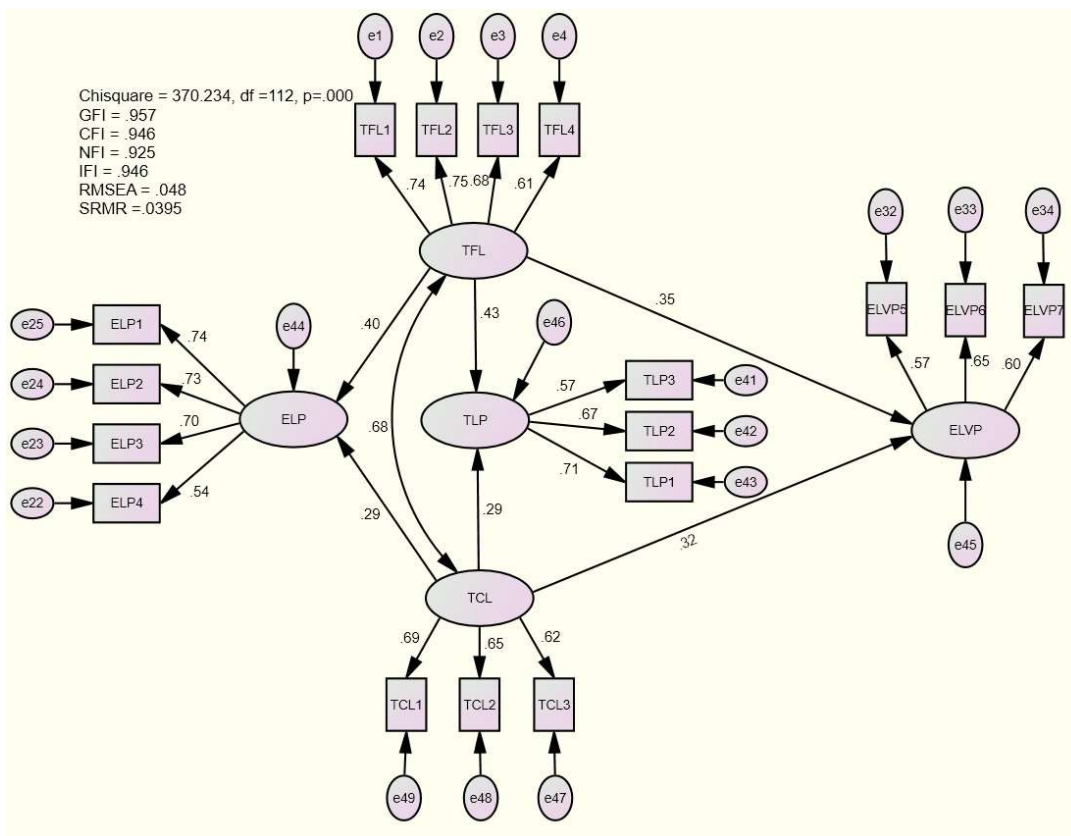
Table 3: Standardised estimates of the model

Hypothesis	Standardized Estimate β	Estimate	SE	T	P
H1: TFL \rightarrow ELP	.40	0.51	0.08	6.64	.000
H2: TFL \rightarrow TLP	.43	0.57	0.09	6.57	.000
H3: TFL \rightarrow ELVP	.35	0.44	0.09	5.06	.007
H4: TCL \rightarrow ELP	.29	0.38	0.08	4.77	.012
H5: TCL \rightarrow TLP	.29	0.39	0.09	4.42	.048
H6: TCL \rightarrow ELVP	.32	0.40	0.09	4.37	.000

Notes: n = 986. TFL = Transformational Leadership, ELP=Exploratory Learning Process, ELVP= Exploitative Learning Process, TCL=Transactional Leadership, TLP= Transformative Learning Process

Figure 1 shows the significant parameter estimates for the structural equation model. Surprisingly, there are significant positive effects identifiable for all of the tested hypotheses. As the results indicate, H1 and H2 are positively and strongly supported in that the estimate of the relationship between transformational leadership and both learning processes, exploratory ($\beta = .40, P = 0.000$), and transformative ($\beta = .43, P = 0.000$). Furthermore, H3 is rejected as transformational leadership is positively related to exploitative learning process ($\beta = .35, P = 0.000$). With regards to transactional leadership, unlike what have predicted, H4 and H5 are both rejected as the predictor is positively related to both learning processes, exploratory ($\beta = .29, P = 0.000$), and transformative ($\beta = .29, P = 0.000$). Finally, the results indicate that H6 is supported as transactional leadership is positively related to exploitative learning process ($\beta = .32, P = 0.000$). We discuss these results further in the discussion section.

Figure 1: Structural parameter estimates



Further tests:

The findings may reflect potential exogenous factors stemming from the diversity of the sample; therefore, in order to assess our findings, we conducted a multigroup analysis on the model (see Floh & Treiblemair, 2006). We particularly attempt to test whether or not the gender of the employee may have an impact in relationship between leadership style and learning processes. Behavioural researcher proposes several strategies to discern disparities related to behavioural differences of working female and male adults in organisations. Generally speaking, gender differences are mainly associated with either culture value systems (Hofstede, 1991) or personal attributes (Eagly, 1992; Malach-Pines & Kaspi-Baruch, 2008). However, Eagly, Wood, and Diekmann (2000) outline that males and females show different social behaviours owing to different societal and cultural expectations for the two genders. Social role theory proposes that all types of women's and men's social behaviour can be framed within the two extremes of a continuum: males are agentic and females are communal. Whitoak et al. (2006) argue that the Arab culture has a significant impact on behavioural differences between males and females; thus, in an effort to capture any potential difference, the sample was divided into two groups. Hence, we reran the model with this subsample and repeated the procedure to test whether or not there would be any significant changes. None of this further analysis resulted in any significant changes in the findings.

Discussion and Conclusions

The main purpose of this paper was to investigate the impact of leadership styles, namely transformational and transactional, on the learning processes of absorptive capacity in a Middle Eastern emerging market. Although the existing literature (see, e.g., García-Morales, Lloréns-

Montes, & Verdú-Jover, 2008; Sun & Anderson, 2012) indicates a positive relationship between transformational leadership and the learning processes of absorptive capacity, the present results, surprisingly, indicate that both transformational and transactional leadership styles positively influence the learning processes of absorptive capacity. More specifically, the results indicate that transactional leadership style positively influences the exploratory and transformative learning processes, whilst the transformational leadership style positively affects the exploitative learning process.

Implications for theory

Given our institutional context, leadership is an important factor influencing organisational practices and decisions; hence, our results reflect the need for leadership guidance. Moreover, transformational and transactional leadership is critical to guide and support learning processes in organisations in such an institutional environment. Furthermore, leadership plays an important role in directing the efforts of a highly diverse workforce towards the common goal to overcome the dilemma of relying on non-replenishable resources.

This study contributes to the growing interest in absorptive capacity studies. Whilst both transformational and transactional leadership styles have a positive influence on the learning processes of absorptive capacity, our results suggest that the influence of leadership styles differs with environment. Hence, different institutional arrangements could have different implications when it comes to the most effective leadership style. As suggested by Sun and Anderson (2012), when the environment is stable, the transactional leadership style facilitates the learning processes of absorptive capacity. Hence, the effectiveness of leadership styles is very much related to the

degree of organisational change. Transformational leadership leads to more effective management of the learning processes when organisations impose radical or breakthrough change. On the other hand, transactional leadership is more effective when the organisational change is incremental. We therefore suggest that the degree of change influences the effectiveness of different leadership styles on absorptive capacity. Further, while existing studies encourage best practice for managing absorptive capacity, we suggest that the success of absorptive capacity processes requires a contingency approach for leadership to be adopted.

The results regarding the relationship between transactional leadership and the processes of absorptive capacity, particularly in relation to exploratory and transformative learning, were rather unexpected. The latter could be explained by the differences in the degree of change associated with absorptive capacity. Todorova and Durisin (2007) suggest two types of change associated with absorptive capacity: there is less divergence from the organisational knowledge structure when change is associated with knowledge assimilation; and there are some changes that require divergence from the existing organisational knowledge structure. It is suggested that the transactional leadership style is more effective when the organisational change is not groundbreaking and it requires some degree of stability (Vera & Crossan, 2004). If the assimilation of knowledge does not involve a breakthrough change, transactional leadership can have a positive influence on the exploratory and transformative learning processes. On the other hand, when the change is radical, a transformational leadership style from top managers encourages their middle managers to stabilise the continual implementation of external knowledge and adapt to changes more effectively. This is because the transformational leadership style is more effective when the

changes are radical (Vera & Crossan, 2004). Hence, we recommend researchers to consider the degree of change for studying absorptive capacity learning processes.

Implications for practice

The present work further contributes by comparing two contrasting leadership styles, transformational and transactional. The findings of this study reveal that leaders can perform both transformational and transactional leadership styles in order to manage the learning processes of absorptive capacity effectively. We provided hard evidence of our findings by conducting a survey in a Middle Eastern country (UAE), which allowed us to generalise our findings beyond our research context. These findings can be a roadmap for managers wishing to manage the learning processes of absorptive capacity and benefit from external knowledge across all sector within the UAE and also in comparable markets.

Although managers should adapt to environmental change, whether or not they decide to impose radical or incremental change in organisations depends on their cognition. Prior work has suggested that managers should perform contradictory behaviours to improve absorptive capacity learning processes. For example, Cepeda-Carrion, Cegarra-Navarro, and Jimenez-Jimene (2012) mention that, while managers promote creativity and freedom to their employees in the early stages of absorptive capacity, the effectiveness of absorptive capacity processes also requires control. Therefore, managers should adopt a contingency approach in order to manage the learning processes of absorptive capacity effectively.

It is suggested the need to provide a guideline for knowledge intensive organizations in the UAE to provide guideline for enhancing knowledge sharing to enhance innovation (Hussein et al., 2016). Our study shows the importance of transformational leadership style in developing learning organization in the UAE where the majority of knowledge workers are come from Western countries. Knowledge workers require freedom in decision making and knowledge sharing to promote innovation and using external knowledge effectively. Transformational leadership behaviours allow knowledge intensive workers to freely participate in the process of learning and knowledge sharing.

Limitations and future directions

This study also has some limitations, which set the direction for future research. First, managers' ability to adopt transformational and transactional leadership styles differs (see Vera & Crossan, 2004). Conducting a quantitative study prevents us from exploring the influence of factors such as managers' values, orientations and preferences on the effectiveness of transformational and transactional leadership styles in relation to absorptive capacity. Moreover, we did not explore the organisational conditions that influence the adoption of different leadership styles. We encourage future researchers to investigate organisational situations that affect the adoption of a transformational or a transactional leadership style. Finally, whilst we only investigated two types of leadership styles, we encourage future researchers to examine whether other leadership styles are also effective for managing the learning processes of absorptive capacity.

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