

Competitive strategy, dynamic capability and value creation: Some empirical evidence from the UK telecommunications firms

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**COMPETITIVE STRATEGY, DYNAMIC CAPABILITY AND VALUE
CREATION: SOME EMPIRICAL EVIDENCE FROM THE UK
TELECOMMUNICATIONS FIRMS**

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COMPETITIVE STRATEGY, DYNAMIC CAPABILITY AND VALUE CREATION: SOME EMPIRICAL EVIDENCE FROM THE UK TELECOMMUNICATIONS FIRMS²

Main message:

The overall interplay between competitive strategies and dynamic capabilities is an integral part of value creation in terms of novelty, lock-in, complementarities and efficiency.

Short title:

Competitive strategy, dynamic capability and value creation

Key points:

-In response to insufficient systematic research on the impact of competitive strategies and dynamic capabilities on value creation, this study expands prior studies (e.g., Rashidirad *et al.*, 2013) by proposing carefully testable research hypotheses and empirically explore the research phenomenon.

-This study analyses the complex interrelationships between competitive strategies and dynamic capabilities and the resulting impact on value creation through adopting a multidimensional approach in which each construct is decomposed to its dimensions, so the relationships between each dimension of the research constructs are investigated.

-This study prompts rethinking of the impact of dynamic capability and competitive strategy on value creation in firms by using a multidimensional perspective.

² JEL classification codes: L10, L25, M15, O32

Prior studies (e.g., Song *et al.*, 2008; Parnell, 2011; Rashidirad *et al.*, 2013) highlight the paramount importance of the nature of relationship between the quality of strategy decisions and improved dynamic capabilities. This emphasis has attracted resurgent academic interest in the strategic relationship between competitive strategies and dynamic capabilities as a departure point for firms to create value (see Rice *et al.*, 2015). While the relationship between competitive strategies and dynamic capabilities, and its impact on value creation is well researched, there has been a tendency on the part of the organisational scholars to primarily employ a more conventional approach, in which a bivariate relationship is used to demonstrate the intricacies of the competitive strategies-dynamic capabilities relationship and its value creation impact (see Wang and Ahmed, 2007; Drnevich and Kriauciunas, 2011). Although this approach has been a touchstone for several seminal studies (Foss, 2011) that were conducted under the periods of stability, it has recently drawn a significant amount of critical attention. While some studies have postulated that competitive strategies and dynamic capabilities have a direct impact on a firm's performance/value (e.g. Soto-Acosta and Meroño-Cerdan, 2008; Parnell, 2011), other research evidence has supported an indirect relationship (e.g. Drnevich and Kriauciunas, 2011; Pavlou and El Sawy, 2011). The root of this inconsistency could be in considering these organisational constructs as unidimensional and disregarding the fact that while a competitive strategy may be best supported by developing a specific dynamic capability to provide firms with a particular type of value, the other types of competitive strategies and dynamic capabilities may not be quite helpful.

Hence in this study, in order to address the interplay between competitive strategies and dynamic capabilities and its potential for value creation for firms in today's increasingly networked, uncertain and interconnected business world, we argue that adopting a multidimensional approach is deemed essential to study the research phenomenon. As this approach considers each research construct, i.e., competitive strategy, dynamic capability and

value through its different dimensions, it has the potential to analyse the complex interrelationships between different competitive strategies and dynamic capabilities and the resulting value for firms. To achieve this aim, empirical data were taken from a sample of UK telecommunications firms. This paper heeds the suggestions offered by several scholars (e.g. Cao *et al.*, 2011; Yarbrough *et al.*, 2011; Rashidirad *et al.*, 2013) who have called for more empirical evidence to explore and analyse the potential impact of dynamic capabilities along with competitive strategies on a firm's value creation. As such, this study makes a contribution to the extant knowledge base in several important ways. Chief among these are as follows: the results of the current study extend the debate on the need for identifying and utilising more specific types of capability and their relationship with different competitive strategies which a firm could adopt. It also creates a platform to use the empirical evidence as a point of departure to statistically examine the prior untested theoretical conceptualisations of the research phenomenon (e.g., Rashidirad *et al.*, 2013).

Theoretical background and hypotheses development

Competitive strategies

We have chosen Porter's generic strategies (1980) to conceptualise and empirically operationalise competitive strategies. The choice of Porter's generic strategies was for several reasons, *inter alia*: it is an appropriate typology in terms of acceptability, adaptability and applicability to study competitive strategies of today's businesses (e.g. Kim *et al.*, 2004a; b); it has received the most research attention in comparison to other typologies of business strategies (Koo *et al.*, 2004); and finally it is not contradictory to other strategy typologies such as Miles and Snow's (1978) framework. Originally, Porters' generic competitive strategies were composed of cost leadership, differentiation and focus strategies. However,

his typology has been modified in several follow-up studies to better fit the diffusion of online business in today's firms. Kim et al. (2004a) suggest that focus, as a necessary condition for any business to become successful, is no longer a strategic option but a competitive imperative. Moreover, some scholars (e.g. Koo *et al.*, 2004) have updated Porter's generic strategies with a particular focus on differentiation strategy. In doing so, they have identified 'product-service' and 'marketing' as the two fundamental aspects of differentiation strategy (Miller, 1988). Therefore, we adopt the three strategies of cost leadership, product-service differentiation and marketing differentiation to develop a testable research hypotheses for further empirical scrutiny.

Dynamic capabilities

Recent work on the notion of capabilities and their associated typologies highlights several processes of dynamic capabilities. Of these, we gain insights from Pavlou and El Sawy's (2011) four processes of dynamic capabilities. *Sensing* is the ability to understand, create and interpret opportunities in a market (Wohlgemuth and Wenzel, 2016), and consequently calibrate the requirements for change (Teece *et al.*, 1997). The Internet and web-based technologies have a great capacity to assist businesses in fulfilling several fundamentals of sensing capability. These are: generating market intelligence, disseminating market intelligence and responding to market intelligence (Jaworski and Kohli, 1993). *Learning* is the ability to address the opportunities that are identified by the sensing capability through proposing new products and services (Teece, 2007). In order to benefit the firms and their stakeholders (Lawson and Samson, 2001), learning allows firms to employ Internet-based technologies for the continuous acquiring, assimilating, transforming and exploiting of knowledge (Zahra and George, 2002). *Integrating* enables firms to absorb and embed new

knowledge from external resources into their operational capabilities (Jiang, 2015). It combines the individual pieces of knowledge acquired by the learning capability and creates a shared understanding and collective sense-making (Pavlou and El Sawy, 2011). Finally, *coordinating* is the ability to govern activities, resources and tasks with the new operational capabilities (Pavlou and El Sawy, 2011). Assigning resources to meet customers' demands (Zhu and Kraemer, 2002), appointing human resources to the tasks, and orchestrating iterative assets and activities (Teece, 2007) are regarded as the major elements of coordinating process of dynamic capability.

Value creation

Several studies have investigated value sources (e.g. Amit and Zott, 2001; Zhu and Kraemer, 2005). Of these, Amit and Zott's study of value creation (2001) has been widely used in previous studies (e.g. Sainio *et al.*, 2011). According to Zott and Amit (2007, p. 181), value is determined by business models which "elucidates how an organization is linked to external stakeholders, and how it engages in economic exchanges with them to create value for all exchange partners". Based on the insights gained from NICE business model design (i.e. Novelty-centred, Lock-in-centred, Complementarities-centred and Efficiency-centred business models, see Zott and Amit, 2007; 2010), they propose the following four sources of value creation respectively:

Novelty is one of the traditional sources of value through the innovative provision of new products, services, distribution and marketing channels (Zott and Amit, 2008). However, Zott and Amit (2010, p. 6) have placed a greater emphasis on the "adoption of new activities (content), and/or new ways of linking the activities (structure), and/or new ways of governing the activities (governance)". *Lock-in* is created in two main ways: customers who are

motivated to repeat their transaction, and partners who are willing to maintain their association (Zott and Amit, 2010). According to Zott and Amit (2007), Internet-based technologies such as data mining, click streams, a personalised interface and target emails are available to assist firms to enhance this value source. *Complementarities* create value for customers by offering bundles of products, services and distribution channels (Zott and Amit, 2007), which benefit them more than the total value that a firm obtains when it offers its products and services separately (Amit and Zott, 2001). In other words, it represents the ability of resources to create greater value when they are used in the companionship of one or more resources (Zhu *et al.*, 2004). Finally, *efficiency* deals with decreasing costs to provide higher benefits for vendors and customers. Today, the Internet enables firms to keep their costs at the lowest level in order to compete in the marketplace.

Developing research hypotheses

Offering highly innovative and tailored products and services to customers through product-service differentiation strategy may not be possible if this competitive strategy is not supported by firms with a high capacity to sense and identify new opportunities in the market. Arguably, differentiation strategy may be difficult for competitors to imitate, particularly in electronic markets, unless this strategy is underpinned by firm-specific dynamic capabilities. Viewed in this way, Calantone *et al.* (2003) assert that due to an oversupply of products and services, firms must be innovative in order to keep their customers satisfied. They claim that failure to be as innovative as their competitors may result in the firm losing its market share or even collapsing. Therefore, we argue that firms (particularly those which adopt product-service strategy to deliver high novelty value) are more successful if they are able to extract new ideas from customers as the main sources of innovation through using Internet-based

technologies. One explanation is that these firms focus on identifying the key attributes of products and services and effectively respond to customers' needs. In order to deliver differentiated business value (Floris *et al.*, 2001), it is therefore necessary to have a differentiated business configuration. Hence, it is argued that firms could pursue superior novelty value by properly allocating resources through sensing capabilities, and providing innovative value-added products and services for customers.

H1: Firms adopted product-service differentiation strategy and developed sensing capability yield novelty value.

The key objective of firms which pursue lock-in value is to develop long-term relationships with their customers and partners (Amit and Zott, 2001). However, it can be argued that achieving this goal may not be feasible if firms do not develop their competitive strategies properly according to their market position, and if their planned competitive strategies are not fostered by their dynamic capabilities. The extant literature places a particular emphasis on developing high coordinating capability, if firms are to assign and orchestrate resources and assets to meet stakeholders' demands (Zhu and Kraemer, 2002), thereby achieving lock-in value through establishing a durable relationship with stakeholders (Wiengarten *et al.*, 2013). In short, a dynamic coordinating capability which enables firms to sustain their competitive position (Lichtenthaler, 2012) constitutes an integral contributor to value creation (Tece, 2007).

Today's firms with high level of coordinating capabilities through employing Internet-based technologies should be more able to address the dynamic process of responding to changes in customers' preferences and therefore prevent their migration (Harrison *et al.*, 2012). In this regard, Kim *et al.* (2004a, p. 23) assert that "firms that reduce customer search costs engender trust, and offer products, services, and online experiences tailored to their users' needs are likely to elicit initial and repeat purchases". This can be achieved if firms have a strong

coordinating capability which provides superior lock-in value by actively aligning and configuring multiple processes (Helfat *et al.*, 2007).

The ability to retain customers is not solely attainable through highly developed coordinating capabilities within a firm. It can also be achieved through establishing a marketing differentiation strategy which positively contributes to customers' loyalty (Cretu and Brodie, 2007) and consequently results in increasing lock-in value (Amit and Zott, 2001). In fact, developing a marketing differentiation strategy enables firms to create a corporate image which is regarded as a powerful component of explaining customers' value creation. Overall, lock-in value can be associated with both marketing differentiation strategies and coordinating dynamic capabilities.

H2: Firms adopted marketing differentiation strategy and developed coordinating capability yield lock-in value.

In addition, firms can increase the value of their complementarities by offering their customers innovative products and services as part of their complementary bundles. This is in particular the case for those managers who deploy resilient customer relationship management strategies as leverage to produce a superior value bundle. In fact, one of the main aspects of complementarities in today's firms is offering customers multiple channels (Kim and Lim, 1988). Compared to traditional brick-and-mortar players and pure online players, click-and-brick firms can provide greater customer service by offering both online and physical product returns, which can lead to greater complementarities value (Kim *et al.*, 2004b). However, this may never happen if firms have low level of integrating dynamic capabilities to combine their online and offline resources, activities and channels. Hence, a high level of integration between physical and virtual presence, legacy and web-based systems, online and offline processes, applications and tasks is necessary, if firms are to provide superior customer service. In the absence of a strong integrating capability, it can be

argued that firm may not be able to yield high complementarities value (Harrison *et al.*, 2001). Of the different competitive strategies, product-service strategy seems to have the clearest relationship with complementarities value source (Amit and Zott, 2001). Those firms which intend to become product-service leaders in the market should provide complementarities value for their customers by using a configuration of their capabilities. In this respect, integrating dynamic capability is perceived to play a crucial role. The reason is that a firm and its customers may not benefit from a range of complementary offerings if the offerings are not fully integrated. Therefore, the ability of a firm to use information technologies for integrating and coordinating its resources, processes and systems is viewed as the key to providing integrated and supplementary offerings.

H3: Firms adopted product-service differentiation strategy and developed integrating capability yield complementarities value.

Finally, in today's digital environment customers are more sensitive, demanding, informed and impatient. They look for lower prices, but better service and efficient processes to benefit from exceptional value. The Internet aids firms to decrease their cost, take advantage of a higher level of pricing flexibility and consequently enhance their operational efficiency (Kim *et al.*, 2004b). Enhanced level of efficiency will in turn bring about profitability, effectiveness, and other nonfinancial benefits to the firms (Homburg *et al.*, 1999). Lumpkin *et al.* (2002) postulate that firms adopting cost leadership strategy and offer cheaper prices to customers are more likely to be efficient, as they have to keep the prices at the lowest possible level to compete in the market. Since the advantages of this value source can be easily imitated, they further argue that if a cost leadership strategy is underpinned by a learning dynamic capability which is difficult to be imitated by or transferred to a firm's competitor (Schroeder *et al.*, 2002), it can be a significant contributor to efficiency. Therefore, firms which develop their learning capability to further employ Internet-based

technologies for continuous acquiring, assimilating, transforming, and exploiting knowledge as well as seizing optimal cost-cutting processes (Zahra and George, 2002) are more efficient. While some firms may decide to solely work online, as they can cut costs related to physical locations, other firms may reduce their costs by outsourcing their activities to third parties, or even to their customers. Although these types of decision are all strategic in nature and could result in higher efficiency, they may not be implemented successfully if they are not supported by highly developed learning capabilities (Lin and Wu, 2014). It is therefore argued that efficiency is not the effect of isolated practices; rather, it is the result of potential value sources of synergies that emerge from the specific arrangements of cost leadership, competitive strategies and learning dynamic capabilities.

H4: Firms adopted cost leadership strategy and developed learning capability yield efficiency value.

Research methodology

Survey development and data collection

In this research, the UK Information and Communication section was chosen according to the UK Standard Industrial Classification (UK SIC). Within the chosen section, the focus was on the telecommunications division which provides telecommunications service related activities to transmit voice, data, text, sound, and video mainly through wired, wireless, and satellite broadcasting. The data were obtained through a self-completion survey, which enabled us to collect a larger sample of data for population representativeness. Following the steps proposed by Neelankavil (2007), a survey instrument was carefully developed. Using a seven-point Likert scale, an extensive literature review was conducted to measure and operationalise the research variables. For the independent variables various measures from a

range of existing measures were employed. For competitive strategies, 16 items were used to measure three independent variables of cost leadership, product-service differentiation and marketing differentiation, which were all adopted from prior sources to the telecommunications context (e.g. Zahra and Covin, 1993; Gonzalez-Benito and Isuarez-Gonzalez, 2010). Similarly, the measures for dynamic capabilities, i.e., sensing (six items), learning (seven items), integrating (seven items) and coordinating (seven items), were all adopted from prior work (e.g. Jaworski and Kohli, 1993; Saini and Johnson, 2005; Bhatt and Grover, 2005; Ettlie and Pavlou, 2006; Pavlou and El Sawy, 2011). For dependent variables, multiple items were used to measure novelty (seven items), lock-in (seven items), complementarities (eight items) and efficiency (seven items), as the four sources of value creation. All these items were taken from Zhu and Kraemer (2005), Banker et al. (2006), Eikebrokk and Olsen (2007), and Zott and Amit (2007; 2010). Additional data were collected to remove any confounding effect on the results. These data included: (1) firm's size; (2) year of establishment; (3) business model, i.e., purely online or online and offline (click-and-brick model) (Kim *et al.*, 2004a), (4) the percentage of sales outside the UK to indicate the scope of operation, (5) IT spending, i.e., IS spending and web-based spending, as a percentage of a firm's total revenue, and (6) IT human resource.

On completion of the draft survey, a pilot study was undertaken to ensure (i) the reliability of the scale, (ii) comprehensiveness of the contents, and (iii) an appropriate wording of the survey. To do so, 243 questionnaires were e-mailed to UK telecommunications firms to obtain at least 30 fully completed responses for pilot test the survey instrument. During the pilot test, some amendments were made to the draft survey. For instance, to avoid any source of misunderstanding and confusion, the negative items were turned into the positive wordings. As a result of the pilot test, the final draft of the questionnaire was found to be reliable, comprehensive and fit for the purpose of data collection and follow-up analysis.

A single key-informant survey design was then employed to collect the required data from the most reliable source of information. In order to minimise the potential bias associated with data from a single respondent, data were collected from the most knowledgeable sources in each firm, who were typically directors, top managers or founders of the telecommunication firms across the UK. In order to increase the response rate for our Internet survey, other methods such as phone calls and in some cases mail surveys were used to encourage those firms that missed the initial e-mail communications. In using this multi-method approach, a short letter, encompassed a link to the survey website, was e-mailed to the founder/director/managers of the 2000 telecommunications firms on some directory portals, i.e., Keynote, LexisNexis, Freeindex directory, Qualtrics Panels service and I.T.Professionals. Overall, the process resulted in the collection of a total of 491 usable questionnaires. This multi-method process of data collection (i.e. web-link and postal mail) constituted a 19 percent response rate (491 useable data of 2845 distributed questionnaires). The response rate is acceptable in telecommunications settings and comparable to similar studies where the average response rates ranged from 11 to 63 percent (e.g. Barczak, 1995; Lai at al., 2009; Shin at al., 2011). Over half of the responding firms (n= 267) were established over the past 10 years. A majority of the sample (n= 379) had both online and offline business models. In terms of organisation size, most of the sample were small and medium enterprises (SMEs), with fewer than 250 employees.

In order to ensure that the data gathered from the two methods of online and offline surveys could be combined, a series of Chi-square tests were undertaken to check for nonresponse bias. Analysing the results of this test demonstrated no significant difference ($p > 0.05$) between the two sets of survey data. Furthermore, a comparison of early respondents against late respondents (those who responded after one or two reminders) revealed no response bias

in the dataset. Given the existence of no response bias in the data, the whole set of the collected data were combined to create a single dataset for further statistical analysis.

Assessment of measures

Prior to hypotheses testing, we assessed the construct validity of competitive strategies, dynamic capabilities and value sources. Using SPSS v.20, we performed Principal Component Analysis to ensure scale validity among the constructs. Consistent with prior work (e.g. Song *et al.*, 2008), the cut-off factor loading of 0.4 was adopted. Moreover, varimax rotation with eigenvalue greater than 1.0 was employed for factor inclusion and as a result items with lower eigenvalue than 1.0 were removed. As a result, the construct of competitive strategy consisted of three components, namely, cost leadership, product-service differentiation and marketing differentiation with eigenvalue over 1.0. Similarly, dynamic capability revealed the presence of four components of sensing, learning, integrating and coordinating. These four components explained nearly 70 percent of the variance in the analysis. The construct of value which presented through the four components of novelty, lock-in, complementarities and efficiency all had eigenvalue of greater than 1.0. Total variance explained by these four components was 67.415 percent. In addition, Kaiser-Meyer-Okin (KMO; see Kaiser, 1974) values of all constructs were above the recommended value of 0.6. Having conducted PCA, we followed Chin's (1998) recommendation of using Cronbach's (1951) alpha to test and increase the inter-correlations among the research constructs. As a result, all scales yielded an alpha score greater than the value of 0.70. In a manner similar to previous work (e.g. Joshi *et al.*, 2003; Gruber *et al.*, 2010), correlation analysis was employed to examine the possible relationships between the factors. As shown

in Table 1, while the correlations between the variables were positive, the strength of the relationships varied.

Insert Table 1 about here

Hypotheses testing

As a broadly applicable method to verify hypotheses, multiple regression was applied to predict the outcomes, i.e., novelty, lock-in, complementarities and efficiency value sources from the two predictor constructs, i.e., competitive strategy and dynamic capability. In so doing, four models were identified, namely, Model 1: Novelty, Model 2: Lock-in, Model 3: Complementarities, and Model 4: Efficiency (Table 2). A discussion of these models is given below.

Insert Table 2 about here

Results

As Table 2 shows, Model 1 examines the impact of the relationship between product-service strategy, sensing capability and novelty value. In this regard, product-service strategy and sensing were taken as predictors and novelty as outcome variable for Hypothesis 1. As the results show, both product-service differentiation ($\beta = .165$, t value= 4.112) and sensing ($\beta = .406$, t value= 10.624) significantly influence novelty creation in telecommunications firms ($p < 0.001$). According to Model 1, 40.7 percent of novelty variation is explained by the interplay of product-service differentiation and sensing capability. Hence, Hypothesis 1 is supported.

Model 2 was built to examine the contribution of marketing strategy and coordinating capability to lock-in. The result of Model 2 (see Table 2) indicates the significant impact ($p <$

0.001) of both marketing differentiation ($\beta = .182$, t value= 5.189) and coordinating ($\beta = .559$, t value= 16.163) on creating lock-in value. In comparison to Model 1, Model 2 represents a better fit ($R^2=0.468$). As a result, Model 2 shows that the ability of a firm to create higher lock-in value hinges on the degree of the synergy between the firm's marketing strategy and coordinating capability. In short, these findings lend support to Hypothesis 2.

Hypothesis 3 examined the relationship between product-service differentiation and integrating capability as predictors and complementarities as the resulting outcome. Based on the results, Model 3 (Table 2) supports the impact of product-service differentiation strategy and integrating capability on complementarities ($p < 0.01$). This implies that the extend of synergy between a product-service differentiation strategy and integrating capabilities is significant for those firms which attempt to acquire a high level of complementarities value. Therefore, these findings strongly support Hypothesis 3.

Finally, Hypothesis 4 was examined through regression Model 4, which attempted to analyse the nature of the relationship between cost leadership strategy, learning capability and efficiency. While correlations among explanatory variables were not particularly high (see Table 1), correlations among cost leadership and efficiency ($p < 0.001$), and learning and efficiency ($p < 0.1$) were significant. This model presents the highest goodness of fit ($R^2 = 0.561$); and accordingly lends support to Hypothesis 4.

Discussion

Based on the analysis of the relationship between product-service differentiation, sensing capability and novelty, the current study provides evidence to underscore the positive impact on novelty. This finding is consistent with Miles *et al.* (2012) argument that firms adopting product-service differentiation strategy must continuously change their product/service lines

and compete through seizing new market opportunities in the interest of delivering innovative products/services. To do so, they inevitably require a high level of capability to spot opportunities and identify threats in the business environment. In order to be able to deliver new products/services to the market, firms also require to shape/interpret new opportunities and neutralise threats (Teece, 2007; Schilke and Goerzen, 2010).

As the findings exhibit, the influence of the link between marketing differentiation strategy and coordinating capability on lock-in value is deemed essential. A primary reason is that telecommunications firms with a high level of coordinating capability are able to provide stakeholders with a better online/offline experience (Kim *et al.*, 2004b) through carefully governing, orchestrating and configuring their activities, resources, and tasks (Pavlou and El Sawy, 2006). This, in turn, provides the telecommunications firms with the opportunity to establish a longer relationship with their stakeholders (Wiengarten *et al.*, 2013). As Lichtenthaler (2012) has observed, the use of Internet-based technologies as drivers for renewing and rebuilding resources, enables firms to effectively utilise their dynamic coordinating capability and consequently sustain their unique competitive position.

In respect of complementarities, the results show that the firms adopting product-service differentiation strategy which is supported by their integrating capability can yield complementarities value. In the presence of such a relationship, it is expected that telecommunications firms that are equipped with Internet-based collaborative and integrated applications are able to offer bundles of products/services through integrated distribution channels, i.e., both online and offline (Zott and Amit, 2007). This finding conforms to Eikebrokk and Olsen's (2007) study of competency factors influencing e-businesses success which supports the view that firms that have intention to create supplementary offerings are required to develop an appropriate competitive strategy to integrate and coordinate their resources, processes and systems.

Finally, our findings support a positive link between cost leadership strategy-learning capability and efficiency. This result primarily stems from the fact that firms eventually learn how to employ Internet-based technologies to perform tasks more quickly (Teece and Pisano, 1994) or use optimal cost-cutting processes to perform more efficiently (Zahra and George, 2002) and as a result sustain their competitive position (Verona and Ravasi, 2003). This finding is consistent with a plethora of existing research evidence (e.g. Lumpkin *et al.*, 2002) which propose that cost leader competitors achieve efficiency through obtaining economies of scale. As Schroeder *et al.* (2002) have pointed out, the latter is the direct outcome of a heavy investment in learning capability. This is mainly because learning is one of the firms' strategic capabilities, which is hard for competitors to imitate (Prusak, 1997). Hence, it is not surprising that telecommunications firms attempt to develop and pursue their cost-leadership strategy through enhancing their learning capability to make the best use of their resources and consequently achieve efficiency.

Implications for theory

The first implication relates to the application of a multidimensional view to the research constructs and study the impact of different competitive strategies and dynamic capabilities on various sources of value creation through breaking down these constructs into their components and subcomponents and study each of these (sub)-constructs and their relationship individually. In order to address the whole system of telecommunications environment in terms of the nature and peculiarities of the relationship between competitive strategies, dynamic capabilities and dimensions of value creation, the adopted approach seemed to be more symmetric compared to previous studies. Hence, the results provide new empirical insights into the link between competitive strategy and dynamic capability. Such

careful understanding of the phenomenon is important given that the existing literature on dynamic capabilities (e.g., Pavlou and El Sawy, 2011; Drnevich and Kriauciunas, 2011) and competitive strategy and their impact on value sources is contradicting in several cases. This is partially because it argues that dynamic capabilities and competitive strategies contribute to firms' performance/value which in turn undermines the paramount importance of understanding the synergy between various dynamic capabilities and competitive strategies and their contribution to firms' performance/value.

This research can be viewed as a response to several research calls in the extant literature to investigate the interplay of strategy and firms' internal factors (e.g. Short *et al.*, 2008; Yarbrough *et al.*, 2011) and its impact on value creation (e.g. Soto-Acosta and Meroño-Cerdan, 2008; Cao *et al.*, 2011). Given the importance of telecommunications in the current business environment and the frequent calls for such research, our findings could serve a primary knowledge base and point of departure for other strategy researchers who seek to develop a comprehensive research framework for follow-up empirical scrutiny.

Implications for managerial practices

The empirical results have also several practical implications. From a managerial perspective, this research draws attention of strategists and practicing managers to the importance of and potential for the synergistic interaction between dynamic capabilities and competitive strategy development and implementation process. So, in order to develop competitive strategy, it is crucial to not only utilise the existing dynamic capabilities, but also to develop and extend new ones. This is called filling 'resource gaps' in the strategy literature (Caldeira and Ward, 2003). Managers should be reminded that while a firm's competitive strategies need dynamic capabilities (Lawson and Samson, 2001), capabilities also require a

competitive strategy to upgrade, renew and rebuild in an iterative process (Wang and Ahmed, 2007). Managers, therefore, should not underestimate the paramount role of developing an appropriate competitive strategy, which enables them to make dynamic capabilities more rent-generating sources and help them upgrade, rebuild, and reconfigure to smooth the firm's move towards creating value. As such, it is implied that if a competitive strategy is unable to assist a firm's dynamic capabilities in value creation, managers should revisit their adopted strategy. In respect of the interplay between competitive strategy and dynamic capability, our research framework could be used as a point of departure by managers and strategists to consider the necessity of a balanced view of the external environment along with the internal factors in developing competitive strategy. This suggests that managers are required to balance their view of external positioning with an awareness of the significant role of their firm's internal dynamic capabilities. The results show that dynamic capabilities provide the requisite synergy to create value. Hence, on the one hand, adopted competitive strategies can be executed through developing and using the right set of dynamic capacities. On the other hand, prior to establishing any competitive strategy, managers should assess the extent to which they are able to develop and maintain their dynamic capabilities and whether the latter are compatible with the competitive strategy options.

Limitations and future research

One of the limitations is associated with the fact that the data were obtained from a single respondent from the participating firms. Although there is the potential for bias here, as the respondents may exaggerate their firm's status (Song *et al.*, 2008), several studies utilise this approach (e.g. Gruber *et al.*, 2010; Fink, 2011). While we cannot argue that this bias was entirely removed in this analysis, it was minimised by collecting the required data from key

informants (Phillips, 1981). Our database showed that the common method bias was not an issue and that the self-report method was deemed appropriate (see Conway and Lance, 2010). Despite these efforts, further research could enhance the validity and generalisability of these research findings by employing multiple respondents from each organisation. A second limitation relates to the use of a single industrial division of telecommunications as the primary source of data. Given that the context of telecommunications is known as being highly dynamic and turbulent, the generalisability of the findings may be restricted to the context of the study. A similar line of inquiry could therefore be carried out in another industry/sector/division to further assess the generalisability of the findings to other business contexts.

In line with several calls in the literature (Joshi et al., 2003) further research may underpins the argument that the ability of a firm to yield value from its competitive strategies and dynamic capabilities depends on the characteristics of the firm's internal and external contexts (Wilden *et al.*, 2013). Future research could analyse the impact of Technological, Organisational and Environmental contextual factors on the relationship between competitive strategy and dynamic capability and the resulting implication for a firm's value creation.

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