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# **The Interplay and Growth Implications of Dynamic Capabilities and Market Orientation**

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## **The Interplay and Growth Implications of Dynamic Capabilities and Market Orientation**

### **Abstract**

This article clarifies the growth implications of a firm's dynamic capability deployment conditional on its market orientation. We develop a framework based on an abductive research approach that is grounded in existing research and draws on data from business-to-business service firms. We outline that frequency, timeliness, and speed are the three relevant temporal qualities that characterize dynamic capability deployment and that affect firm growth conditional on the firm's market-driving vs. market-driven orientation. While proficiency in all three temporal qualities is beneficial irrespective of a firm's type of market-orientation, we substantiate that market-driven firms with their exploitative, reactive conduct benefit even more from rapidly going through the processes of sensing, seizing, and reconfiguring than market-driving ones do. Also, while market-driven firms benefit from frequently deploying sensing dynamic capabilities, market-driving firms with their explorative, proactive conduct benefit even more from a timely and frequent deployment of seizing and reconfiguring processes than market-driven ones do.

**Keywords** Market Orientation; Dynamic Capabilities; Strategic Orientation; Firm Performance; Market-driven; Market-driving.

## 1. Introduction

Market orientation has a particularly strong performance impact among business-to-business (B2B) service firms (Frösén, Jaakkola, Churakova, & Tikkanen, 2016). Previous research has stressed the importance of firms responding to current market needs but also prepare for future market changes (e.g., Herhausen, 2016; Morgan, Vorhies, & Mason, 2009; Teece, 2007; Wilden, Hohberger, Devinney, & Lavie, 2018), which requires firms to be market-oriented (Oktemgil & Greenley, 1997; Vorhies, Harker, & Rao, 1999). However, how a firm's market orientation affects its ability to effectively deal with or drive strategic change and to achieve firm growth remains little understood (Liao, Chang, Wu, & Katrichis, 2011). To identify and capitalize on market opportunities and create growth, B2B firms benefit from deploying dynamic capabilities – that is, processes that concern the sensing and seizing of opportunities, and the reconfiguring of the firm's resource base (Saul & Gebauer, 2018; Storbacka, 2011; Wilden, Gudergan, Akaka, Averdung, & Teichert, 2018). However, not only does it remain unclear whether a firm's market orientation conditions its dynamic capability deployment but also how such deployment takes place and at what pace.

The deployment of dynamic capabilities enables B2B firms to achieve fit with their market environment, when facing changes, and to grow (Helfat et al., 2007). Although some of the processes that make up dynamic capability deployment may happen intuitively and can be emergent (McGuinness & Morgan, 2000), most require conscious effort to be appropriately deployed (Helfat & Martin, 2015). Thus, decisions concerning the temporal qualities of such deployment (when, how fast, and how often to deploy dynamic capabilities) become essential. However, little attention has been dedicated to understanding how the temporal qualities of dynamic capability deployment affect firm growth (Wilden, Devinney, & Dowling, 2016; Zahra

& George, 2002; Zott, 2003). Related, whether a firm's market-driven versus market-driving orientation influences decisions regarding when to respond to market developments remains little understood (Kessler & Chakrabarti, 1996). Hence, understanding whether and how different temporal qualities that characterize dynamic capability deployment influence firm growth contingent on the firm's specific market orientation is crucially important.

Therefore, we seek to answer the following two research questions: 1) How do the temporal qualities that characterize the deployment of dynamic capabilities affect firm growth?; and 2) How does a firm's market orientation condition this relationship? In answering these questions, we follow Giudici and Reinmoeller's (2012) call for clarifying boundary conditions of dynamic capabilities, and more specifically, Wilden et al.'s (2016) call for investigating the role of market-driving versus market-driven orientation in the context of dynamic capabilities. Drawing on an abductive research approach, we posit timeliness, speed, and frequency as the three relevant temporal qualities that characterize dynamic capability deployment to foster firm growth, but their importance differs depending on the market-driving versus market-driven orientation of a B2B firm. Specifically, we explain that market-driven firms with their exploitative, reactive conduct benefit more from a rapid dynamic capability deployment than market-driving ones do; whereas market-driving firms with their explorative, proactive conduct benefit more from a timely and frequent deployment than market-driven ones do. In doing so, this article advances current thinking on the growth implications of the interplay between market orientation and dynamic capabilities.

## **2. Market orientation and dynamic capabilities**

Previous research on market orientation in B2B firms has found support for the positive implications of market orientation on firm performance (Herhausen, 2016) and firm growth

(Pelham, 1999). For market-oriented B2B firms to respond to, or drive, market change, we argue in line with previous research (Naidoo, 2010) that they require dynamic capabilities. Dynamic capabilities comprise sensing, seizing, and reconfiguring processes (Gebauer, 2011) that enable firms to respond to or shape market changes (Teece, 2007). Greenley et al. (2004) highlighted the active role of dynamic capabilities by emphasizing the role of dynamic capability deployment in shaping new markets. Although previous research has discussed the importance of market orientation and dynamic capabilities in affecting firm performance, research has not sufficiently investigated the interplay between these important constructs. In a rare exception, Naidoo (2010) suggests the performance impact of a firm's market orientation is mediated through dynamic capabilities, whereas Menguc & Auh (2006) argue that market orientation may create dynamic capabilities if complemented by innovativeness. Wilden et al. (2016) suggest that *“future DC scholarship needs to address DCs' role in interacting with and shaping markets – in other words, there needs to be more understanding of the market-driven versus market-driving aspects of DCs.”*

Contingency theory (e.g., Drazin & Van de Ven, 1985; Ketchen, Thomas, & Snow, 1993) implies that the growth impact of a firm's dynamic capability deployment and market orientation depends on how these elements fit. Venkatraman (1989) presents six criterion-specific perspectives on organizational fit, two of which are salient to understanding the growth impact in the context of this work: fit as moderation and fit as mediation. The fit as mediation argument would imply that dynamic capabilities deployment mediates the impact market orientation on firm growth. In the context of this work, and as described by Naidoo (2010) and Menguc & Auh (2006), this would suggest that adopting a market orientation would lead to the deployment of dynamic capabilities, which in turn would lead to firm growth. Fit as moderation implies that the growth impact of a firm's dynamic capability deployment is conditioned by its market orientation. Figure

1 illustrates high-level links between market orientation, dynamic capabilities, and firm growth according to prior literature.

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Insert Figure 1  
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Jaworski et al. (2000) define market orientation at a comprehensive strategic level and discuss market orientation in terms of market-driven versus market-driving, with the latter approach taking customers, competitors, and broader market conditions into account (Schindehutte, Morris, & Kocak, 2008). A *market-driven orientation* is based on the firm's understanding of, and reaction to, the preferences and behaviors of customers within a given market. That is, market structures and market behaviors are accepted as a given; notwithstanding that they change exogenously. In contrast, *market-driving firms* aim to proactively change market structures and/or behaviors of market players to improve their own competitiveness. Market-driving firms intend to change competitive conditions, for example, through introducing new products into (new or existing) markets or even by creating entirely new markets (Jaworski et al., 2000). While a market-driven orientation represents a reactive business logic and a market-driving one a proactive business logic (Jaworski et al., 2000), behaviors associated with the former are more exploitative and those with the latter are more explorative (Kyriakopoulos & Moorman, 1998). Market-driven exploitation is typically refinement-led, and entails developing new knowledge about the firm's existing markets, products, and capabilities. Market-driving exploration is discovery-led and encompasses challenging existing ideas and developing new knowledge about new markets, products, and technologies (e.g., Lisboa, Skarmas, & Lages, 2011).

Our conceptualization of market orientation follows that of Menguc and Auh (2008) who consider market orientation as an element of organizational culture, which is operationalized in a firm's set of market-oriented values that affect a firm's conduct (Deshpande et al. 1993; Narver and Slater. 1990). This is in line with findings of O'Cass and Ngo (2012) who suggest that market orientation should be distinguished from, and theorized as conditioning, more functionally oriented capabilities within B2B firms.

This perspective is in contrast to that taken by authors such as Kohli and Jaworski (1993; 1990) who focus on observable behaviors that make up a firm's market orientation such as behaviors to gather intelligence, process information, and coordinate functions. While Jaworski and Kohli (1990) do not indicate that market orientation may be considered as an aspect of organizational culture, they, however, suggest that market-oriented behaviors rest on certain organizational values and norms (Tuominen, Rajala, & Möller, 2004). Similarly, conceptualizing market orientation as an organizational culture contrasts with previous work that posits market orientation as a collection of marketing capabilities (e.g., Vorhies et al., 1999).

Thus, and in line with Wilden and Gudergan (2017), we conceptualize a B2B firm's market orientation as its philosophy of how to conduct business through a deeply rooted set of values and beliefs that guide the firm's attempt to achieve growth. These values and beliefs are operationalized as dichotomous concepts representing proactive (market driving) versus reactive (market driven) beliefs and values.

Previous research has found that market orientation affects speed to market and timing of organizational processes (Kessler & Chakrabarti, 1996). Time is also an important contingency when explaining how organizational processes influence firm growth (see also D'Aveni, Dagnino, & Smith, 2010). Some studies have touched on the terms 'time' and/or 'timing' in their



conceptualization of dynamic capabilities. For example, in their introduction of the dynamic capability logic, Teece et al. (1997) stress that it is timely responsiveness to change with effective redeployment of internal and external capabilities that lead to competitive advantage. Time is also found to be an essential attribute when investigating the learning processes underlying dynamic capabilities (e.g., Romme, Zollo, & Berends, 2010).

Despite the apparent importance of temporal qualities that characterize the deployment of dynamic capabilities, little research has investigated these in greater detail. In a rare exception, Zott (2003, p. 107) states that timing includes both the point of time of deploying dynamic capabilities and the speed of response; he defined timing as “the rapidity with which existing resources are reconfigured, and [...] the rapidity with which entirely new resources are acquired.” Also, the temporal qualities of dynamic capability deployment were only operationalized as the speed at which dynamic capabilities were deployed, omitting the richness of temporal qualities that is contained in the deployment of dynamic capabilities. In following Zott’s (2003) emphasis on the speed and timeliness and Wilden and Gudergan’s (2015) study concerning the frequency of dynamic capability deployment, we argue that ‘timing’ should be broken into sub-components.

As a firm’s strategic orientation affects its activities (Noble, Sinha, & Kumar, 2002) and processes (Zhou & Wu, 2009), the guiding principles that are encapsulated in its market orientation may condition the impact of a firm’s dynamic capability deployment. Therefore, following an abductive research approach, we argue that three growth-relevant temporal qualities of dynamic capability deployment are associated with timing; namely frequency, timeliness, and speed. Furthermore, our research examines whether the importance of these three temporal qualities differs depending on the dominant market orientation within B2B firms.

### **3. Research process**

This research employs a qualitative research design (Patton, 1990) because such an approach is consistent with the process-character of dynamic capabilities and the extent to which they are embedded in the organizational context (Eisenhardt & Martin, 2000; Lee, 1999; Schilke, Hu, & Helfat, 2018). We followed an abductive approach by collecting and analyzing data, and reviewing complementary theories in iterative fashion (Dubois & Gadde, 2002). Thus, we were able to develop a framework by exploiting “the systemic nature of existing theoretical models, and modify and iterate conceptualizations and the research frame in the course of the process, partly as a result of unanticipated empirical findings” (Aarikka-Stenroos & Jaakkola, 2012, p. 17).

#### *3.1. Sample and data collection*

The selection of case firms and interviewing followed a purposive sampling approach (Eisenhardt, 1989a) until saturation was achieved (Charmaz, 2006; Strauss & Corbin, 1998), which allowed us to gradually build the framework. We chose to sample B2B services firms to achieve maximal variation in the identification of solid data patterns, and to substantiate implications from our findings (Aarikka-Stenroos & Jaakkola, 2012). Our final sample comprises 12 B2B service firms. So that we were able to study organizational settings within which processes that underlie dynamic capabilities were more likely employed, we only included firms that experienced moderate to high turbulence in their environment in the previous three years. As the aim of this research is to develop a robust and generalizable framework, we chose case firms that varied substantially in size (between 30 and 6,500 employees), with an annual turnover ranging from US\$3.2 million to US\$1,833 million (see Table 1).

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Insert Table 1  
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Senior managers were chosen as informants, because they are involved in strategic actions and possess knowledge about their firm's market orientation and dynamic capability deployment, which comprises tacit organizational processes that are difficult to observe (Chen, Farh, & MacMillan, 1993). Data relating to managers' understanding and perceptions of their firm's market orientation, dynamic capability deployment and growth were collected through in-depth interviews, supported by a theory-derived interview guide in a semi-structured format (Lee, 1999). Whenever interviewees mentioned a certain event specifically, we used it as basis for further discussion. Subsequently, we asked which processes the firm had engaged in to prepare for these changes, which processes were used to identify these changes, how the changes had affected the business, and how the firm had dealt with the changes. Finally, we asked informants to report business performance data and to offer their views into how precisely these processes and activities related to their business's growth. To stay away from imposing our own theoretical frame of reference on our interviewees' interpretations, we carefully avoided referring explicitly to concepts such as 'dynamic capabilities' or 'market orientation'. Further, we avoided directly inquiring about characteristics such as the frequency, speed, and timing of processes underlying dynamic capabilities that describe how and when dynamic capabilities have been deployed. The predefined questions were supplemented with further questions that emerged during the interview (Eisenhardt, 1989b). Following the approach by Patton (1990), informants were not given predetermined categories of responses or topics to be covered. This helped minimize interviewer bias and maximize information regarding the empirical relevance of the

concepts included in our study. The interviews lasted on average about 70 minutes and were digitally recorded and transcribed in full.

### 3.2. *Data analysis*

The analysis followed the principles of abductive research (Dubois & Gadde, 2002), aimed at bringing together concepts, which have not been associated with each other in previous research (Reichertz, 2007). We aimed at combining various theoretical lenses including dynamic capability literature, market orientation literature, and wider marketing strategy literature to break “free from the constraints associated with taking a single paradigmatic stance, and [...] to produce new understandings with multiparadigmatic theories” (Aarikka-Stenroos & Jaakkola, 2012). Based on our notion that the growth impacts of the three temporal qualities of dynamic capability deployment are conditioned by a firm’s dominant market orientation, we evaluated this initial theoretical reasoning against the data.

We used peer debriefing and spent a prolonged time in the field to enhance our understanding of our sample firms and their industries before we conducted interviews. Finally, we used rich, thick descriptions to present our findings to offer a more comprehensive understanding of the settings and data obtained. As recommended by Scroggins (2006), the interview data were triangulated with other data to improve the validity of our findings (Denzin & Lincoln, 2000; Eisenhardt, 1989a). We collected diverse secondary data (financial reports, industry studies, press releases, news clippings, and data from the firms’ websites), which was examined to develop an understanding of the context of firm actions, verify respondents’ comments and provide additional insights into the activities related to market orientation, the

temporal qualities of dynamic capability deployment (to the extent identifiable), and firm growth. This triangulation of data between multiple sources provides greater accuracy and depth to our findings (see Tables 2 and 3) (Yin, 1994).

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Insert Tables 2 & 3  
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#### **4. Temporal qualities in dynamic capability deployment, market orientation, and firm growth**

Our findings indicate that the two types of market orientation require similar dynamic capabilities, but the deployment of such differ. A more precise discussion of timing of dynamic capability deployment requires, in accordance with our initial theoretical reasoning, the concept to be broken into three time-related characteristics: frequency, timeliness, and speed. In its basic form, we refer to timeliness as the instant (i.e., point in time) when a firm engages in a process, speed as the pace with which a firm moves through a process, and frequency as the number of occurrences a process happens within a given period. We further find that the importance of each of these characteristics differs in market-driven versus market driving firms.

##### *4.1. Frequency of dynamic capability deployment in market-driven versus market-driving firms*

Our analysis reveals that B2B firms differ in how often they deploy dynamic capabilities within a given time frame. Zahra et al. (2006) state that the effectiveness of capabilities improves commensurately with the frequency with which they are used, thus increasing their technical fitness (that is, how good the capability is at performing its intended function). As firms use their dynamic capabilities in similar and dissimilar situations, “they learn more about cause-and-effect

relationships and how to achieve desired results” (Zahra et al., 2006, p. 927). The more frequently firms engage in processes relating to sensing and seizing opportunities and reconfiguring their resource base, the more these processes become part of the organizational memory and increase the speed with which the firm can deploy them. In general, Jantunen et al. (2005) found that frequent reconfiguring of the resource base improves firms’ ability to compete and, in turn, improves performance. Firms that effectively implement new strategies and processes to align their resource base with environmental conditions achieve greater growth than their more reactive counterparts (Jantunen et al., 2005), and will be less likely to experience organizational inertia (Levinthal, 1991). In contrast, firms with limited familiarity in seizing opportunities and reconfiguring their resource base will have weak reconfiguring processes and will find adjusting resources more costly, more difficult, and less effective, reducing the firm’s evolutionary fitness (i.e., lower firm growth) (Helfat et al., 2007).

The decision about how often dynamic capabilities are deployed and the ensuing impact are linked to the firm’s market-driven vs. market-driving orientation. Interestingly, our findings indicate differences between the frequency of deploying dynamic capability processes. Previous research has stressed that a more reactive, *market-driven* approach requires strong generation of market intelligence and thorough analysis of collected information (Slater & Narver, 2000). Market-driven firms rely more strongly on real-time information and strong communication with the external market (Eisenhardt & Martin, 2000). Real-time information alerts firms “early on to the need to adjust their actions since problems and opportunities are spotted more quickly” (Eisenhardt & Martin, 2000, p. 1112). Furthermore, real-time information produces tacit knowledge about the market, which renders firms capable to more quickly understand market opportunities and seize them (Eisenhardt, 1989b). To have access to real-time information, market-

driven firms require the implementation of continuous sensing processes relying on frequent sensing. Thus, a market-driven orientation strengthens the positive effect of frequent sensing activities.

Further, we find differences in the frequency of seizing and reconfiguring between market-driven vs. market-driving firms. As in the case of a logistics services provider, the business model was heavily built on low margins, leading to responding to changes in a market-driven, reactive manner. Consequently, costs become an important consideration of how often to seize opportunities and make adjustments to the firm's resource base. Frequent use of seizing and associated reconfiguring may have had unanticipated negative performance consequences. For example, frequently adjusting the resource base leads to short-term inefficiency (see also Helfat & Peteraf, 2009), and may foster superstitious learning, which results in overconfidence in a firm's use of its capabilities. Both may adversely affect the firm's growth (Zollo, 2009). Market-driven firms consciously make trade-offs between the potential learning from dynamic capability deployment and the costs involved. Although infrequent use of dynamic capabilities will lead to lower technical fitness of dynamic capabilities due to forgetting cause-and-effect relationships, firms also need time to learn from deploying dynamic capabilities. Previous empirical research found that – in the case of the reconfiguring process acquisition – too many acquisitions done too frequently have a negative impact on performance (Hayward, 2002). Furthermore, given that market-driven firms have a clearer identified target of their sensing activities, that is, they focus on existing customer segments, these firms benefit more from sensing trends early, which is more likely to occur as a result of frequent sensing activities. Given the more targeted market sensing activities, and lower likelihood to experiment with proactive alternatives, less frequent investments in seizing opportunities and related

reconfiguring are needed. This logic is summarized by a manager of a market-driven B2B service firm:

[We do not respond to change] that often, as it takes a long time of execution. You cannot change that often; you have to see the opportunities through. We are quite cautious to decide what we do, as it is in this industry that it is a lot of investment of time and money. (General Manager, Company F)

*Market-driving* B2B firms, on the other hand, are characterized by learning by doing processes and frequent experimentation to seize opportunities. They are set up to learn more efficiently from the experience gained from frequent use of dynamic capabilities (Eisenhardt & Martin, 2000). Unlike market-driven firms, whose focus is on developing effective resource allocation strategies (Venkatesan & Kumar, 2004), market-driving firms are required to more frequently generate new resource combinations (Chen, Li, & Evans, 2012; Covin & Slevin, 1991), which necessitates the deployment of seizing and reconfiguring processes. For market-driving firms 'learning-by-doing' and experimentation are beneficial, implying frequent dynamic capability deployment, while so-called 'learning-before-doing' is conducive for a market-driven orientation (Baum & Wally, 2003; Eisenhardt, 1989b; Pisano, 1994). Market-driving firms engage in sensing to increase their knowledge of competition, markets and technologies with the objective of coming up with new solutions and resource combinations. The inherent exploration focus in such firms requires the frequent experimenting with resource configurations, thus necessitating frequent reconfiguring to achieve firm growth. Thus, for market driving firms, frequent seizing and reconfiguring activities are of utmost importance.

For example, BigInvest is a large, multinational investment bank, serving largely business customers. BigInvest experienced a period of decline in the financial services sector at a time when



overall risk in the industry was higher than the ten-year average (IBISWorld, 2012); however, its previous learning from similar situations allowed BigInvest to be quicker in reconfiguring its resource base through better management processes:

It doesn't matter whether it is growth or shrinking or the recession or merger or acquisition. The ways around how to manage people [when making adjustments to your business] are equally applicable. People worry whether it is good news or bad news, people are always concerned about what does it mean for me. So, applying lessons from this becomes really important. (CEO, BigInvest)

This learning enabled BigInvest to reconfigure its resource base early ahead of competition by quickly changing its target market and changing the way it conducted business by implementing an online ordering system once an opportunity was identified. This resulted in both sales growth and efficiency gains. In BigInvest, frequent use of dynamic capabilities improves the processes of seizing and reconfiguring (i.e., technical fitness) and ultimately enhances its evolutionary fitness (i.e., firm growth) – even if the specific contexts in which the dynamic capabilities have been deployed previously differ. Closely related to this, BigInvest's previous learning from frequently deploying dynamic capabilities in similar situations of financial turmoil enabled it to seize market opportunities early and improve overall sales. BigInvest emerged stronger from this financial turmoil than most competitors. This was attributed to the firm's previous frequent engagement in international expansion and merger and acquisition activities. BigInvest quickly reconfigured its resource base through acquiring competitors and expanding into new international markets. These behaviors of BigInvest show that improving the processes that make up dynamic capabilities improves the effectiveness of their deployment and ultimately strengthens a firm's rate of growth.

Summing up, market-driven firms respond to environmental changes as they occur rather than proactively attempting to create change. These firms do not seize opportunities through changing behaviors of other market stakeholders but once latent needs or demand has been recognized (Narver, Slater, & MacLachlan, 2000). To identify such latent demand frequent sensing is needed, but less frequent deployment of seizing and reconfiguring processes. On the other hand, market-driving firms continuously experiment with solutions and alternatives, to be able to create opportunities and preempt threats in their markets (Day, 1994), and so require frequent deployment of seizing and reconfiguring.

#### *4.2. Speed of dynamic capability deployment in market-driven versus market-driving firms*

The data further indicate that the speed of dynamic capability deployment is an additional important temporal quality. We define the speed of dynamic capability deployment as how quickly a firm undertakes the processes of sensing, seizing, and reconfiguring. It describes the speed with which firms sense and handle, in a reactive or proactive fashion, environmental change (Chakravarthy, 1982; McDaniel & Kolari, 1987; Oktemgil & Greenley, 1997; Zott, 2003). Being faster in deploying dynamic capabilities increases strategic flexibility (Brown & Eisenhardt, 1995) by allowing the firm to pick more freely the point in time in which it seeks to deploy dynamic capabilities. The speed with which firms respond to changing environments is an important driver of growth (Porter, 1985). Teece et al. (1997, p. 521) observe that it is essential for firms “to scan the environment [...] and to quickly accomplish reconfiguration and transformation ahead of competition.” For instance, Chang (1995), Delios and Henisz (2003), and Vermeulen and Barkema (2001) show that the speed with which firms make use of experience-based knowledge – which is embedded within dynamic capabilities – positively influences firm growth. Empirical studies have

revealed that firms that respond quickly to environmental change improve their alignment with their environments (Bourgeois III & Eisenhardt, 1988; Collis, 1991; Powell, 1992). Finally, Baum and Wally (2003) show that fast strategic decision-making predicts firm growth and profit.

Dynamic capability deployment speed and timeliness are distinct from each other, yet closely connected. Speedy deployment of dynamic capabilities precedes timeliness; only when firms go through the deployment process quickly they can make an informed decision about when is the best time to seize a strategic opportunity. Being able to quickly go through the deployment process increases strategic flexibility, offering the firm the option to determine the point in time of dynamic capability deployment, consequently leading to better deployment decisions. When considering the speed at which firms deploy their dynamic capabilities, it is beneficial to understand the context in which the firm operates, and to consider general normative statements such as the following by Rupert Murdoch (IBM, 2006) with some care: “The world is changing very fast. [...] It will be the fast beating the slow.” First, being fast only matters when the planning and implementation of growth strategies are appropriately timed. That is, the timely deployment of dynamic capabilities represents an essential condition. Second, while putting in place new growth strategies quickly is important even in stable environments, in more dynamic environments such strategic adaptations must occur even more quickly.

Previous research indicates that the narrow focus of finding information, which is typically closely related to market-driven B2B service firms’ existing knowledge and business activities slows down the speed with which *market-driven* B2B firms can respond to market change (Hamel & Prahalad, 1994; Levinthal & March, 1993). Although this may be the case, our data indicate that market-driven firms especially benefit from being fast in responding to identified opportunities and/or threats. Given the reactive nature of this type of market orientation, latent customer demand

is typically not identified ahead of competition and seizing such opportunities quickly becomes critical. Consequently, firms following such orientation benefit from quickly deploying seizing and reconfiguring processes once an opportunity is sensed. This is evident in the behaviors of a logistics services provider (NatCou). Besides changing the way clients book services, the Internet caused a major change in the target market. Most players in the industry were slow to identify and understand the latent impact that the Internet would have on the way orders were made, the business model and the client base. Growth within the industry was possible through making fast decisions and initiating early marketing investments and swift reconfiguration of operations. Many competitors were slow to assess the implications of the market change and took much longer to respond. NatCou responded faster than their competitors and changed their focus from moving documents to moving larger physical items; as a consequence, they grew sales more quickly than their competitors:

So instead of having [...] salespeople targeting customers who mainly moved documents, such as solicitors, accountants or advertising agencies, we basically felt that these would be most impacted by the Internet and e-mail. A lot of those people operated in the densely populated central business district. So, we took our efforts away from the city, we focused our selling to the suburbs and told our salespeople to focus on people who had products to move. Sales efforts [were focused] away from accountants to people who move products ... The new service allowed [the company] to grow. Probably ten years ago, the courier service [of documents] was about 90% of our business, now it is about a third, it is a huge change. (CEO)

Overall, we contend that speedy behaviors in response to environmental changes positively influence firm growth in any B2B firm (Dess, Lumpkin, & McGee, 1999; Helfat et al., 2007; Zahra et al., 2006). This is in line with Peteraf, di Stefano and Verona (2013) in that the growth effect of dynamic capabilities is contingent on the speed of their deployment, where a firm's higher-order capabilities, in turn, affect this deployment pace. However, speedy deployment of dynamic capabilities is especially important for market-driven firms. These firms exploit and deal with expressed needs of customers rather than latent and tacit needs (Foxall, 1984). Consequently, these firms use reactive learning and will typically not be the first to identify opportunities. Therefore, it becomes even more crucial to move through the processes of making necessary strategic decisions and investments (i.e., seizing) and making necessary capability and resource adjustments (i.e., reconfiguring) in line with market requirements rapidly in order to respond to identified opportunities quickly to pre-empt competitors.

#### *4.3. Timeliness of dynamic capability deployment in market-driven versus market-driving firms*

Our data indicate that decisions around dynamic capability deployment typically refer to identifying a point in time to deploy them. A large IT and telecommunication services provider (MobilCo) was a late comer to the industry, and thus followed a very aggressive growth strategy. Solely responding to latent client demand (as predominant in market-driven organizations) would have been a risky strategy. Consequently, it resembled an orientation that can be best described as *market-driving*. Through engaging in sensing, the firm identified early signs of changing market realities in the form of technological advancement, the merging of IT and communication technologies and concluded that the nature of client demand is likely to change. Consequently, MobilCo decided to seize this opportunity by making quickly investments in technology

development and company acquisitions, leading to reconfigurations of available technologies and creating new business divisions. Here it shows why timeliness and speed need to be differentiated. Timely dynamic capability deployment is especially important for market-driving B2B firms. Given the early investments into seizing the identified opportunity, MobilCo was able to decide whether to wait until technological and marketing uncertainties were resolved, or to be one of the first to respond to this opportunity through learning-by-doing (thus, the overall high speed of dynamic capability deployment allowed the firm to decide on the timing of market entry). Thus, the fast seizing decisions once the opportunity was identified allowed the firm to decide on the timing of reconfiguring. Aiming to change the market structure in the telecommunications industry and guided by the assumption that establishing an early reputation as a ‘triple-player’ in the market was important, it chose to deploy dynamic capabilities early to seize this opportunity, thus investing heavily when entering the landline and broadband markets. This led to a reconfiguration of MobileCo’s strategies, internal technologies, and staff resources. In retrospect, utilizing dynamic capabilities early and entering the broadband market as one of the first movers was a poorly timed decision for the firm. This venture was also more complex than MobilCo had anticipated and crucial complementary internal capabilities were lacking. As such, MobilCo had to deal with the consequences of limited product knowledge and financing issues arising from their inappropriately timed implementation of the new strategy for some time:

The complexity of selling a broadband [ADSL] product is much higher compared to just selling a SIM card to customers ... As we sold the broadband product first to our best clients and the product didn’t work, this had a massive negative impact on customer satisfaction and we lost high-quality customers. (Head of Division Strategy & Business Development, MobilCo)

Such *market-driving* B2B firms aim to be first to the market with new products and/or business models in order to change existing market structures or even to create new markets (Jaworski et al., 2000), which indicates the important impact of timeliness in their dynamic capability deployment. When deploying dynamic capabilities, market-driving firms take all market players into consideration and not only the customer, as do market-driven firms (Chen et al., 2012). Consequently, these firms need to align their resources and capabilities with multiple external factors, which makes the timing of dynamic capability deployment especially important. This becomes even more relevant given that, when creating new markets, some conditions may not be perfectly assessable such that taking advantage of an opportunity in a timely fashion becomes essential (Eisenhardt & Martin, 2000). Literature on market orientation relates to first-mover advantage research that suggests that it is not simply the speed but rather the timeliness of an initiative that yields improved performance and firm growth (Lieberman & Montgomery, 1998). Dynamic capabilities can support the firm to either create or overcome resource position barriers. Thus, firms consciously deploying their dynamic capabilities in a timely fashion may require certain resources and capabilities to do so (Schoenecker & Cooper, 1998). This aligns with March's (1991) and Baum and colleagues' (2000) view that explorative market-driving firms engage in planned experimentation and risk-taking behaviors that, in turn, require the timely deployment of dynamic capabilities so that growth can be facilitated, which is less relevant for exploitative market-driven firms that focus on efficiency and risk-avoidance.

Although our conclusion that timeliness matters appears rather common sense, it is largely ignored in existing research concerning the effectiveness of dynamic capabilities. We assert that, notwithstanding a firm's well-developed organizational routines to support planning (i.e., seizing) and implementation (i.e., reconfiguring) efforts, the timeliness of the firm's deployment of

dynamic capabilities will influence growth. We define *timeliness* in dynamic capability deployment as the firm's ability to choose the best point in time of deploying dynamic capabilities relative to the opportunity and competitors. This requires the firm to assess the risks of premature deployment and missing a market opportunity due to late deployment. The firm's choice of the point in time of dynamic capability deployment should not only match its competitive and market environments, but also its internal resources and capabilities to deal with environmental change (e.g., Miles & Arnold, 1991; Zahra, 1993). Teece (2014, p. 331) explicitly states that "dynamic capabilities are about doing the right things, at the right time" whereas "ordinary capabilities are about doing things right." Abell (1978, p. 21) suggests that there are "limited periods during which the fit between the key requirements of a market and the particular competency of a firm competing in the market is at an optimum." Bucknell (1982) highlights the need for timeliness in the deployment of dynamic capabilities, suggesting firms need to distinguish between occasions when the strategic window is open (optimal entry), when the strategic window moves (poor timeliness) and when the strategic window does not exist (improper market assessment). Related, Langerak et al. (2008) find that appropriate timing in market entry leads to firm growth.

For *market-driven* B2B firms, timely deployment of dynamic capabilities is also of crucial importance. However, given that these firms are focusing on being responsive to market developments and respond to developments that are already in motion – that is, it is likely that a market-driving firm has a time-based advantage – market-driven firms already may be disadvantaged in terms of timeliness; thus, the speed of making necessary investments (i.e., seizing) and making adjustments to, for example, the service strategy and required resource base (i.e., reconfiguring) becomes time-critical.



Overall, linking timeliness to the earlier discussion about frequency of dynamic capability deployment, Teece and Al-Aali (2011, p. 514) state that “sensing includes detecting the right timing for market entry”; that is, they are more likely to detect suitable windows of opportunity and, thus, achieve timeliness. This indicates the reason why frequent sensing may be important for market-driving firms. For example, increased market knowledge is necessary to increase market performance (Dierickx, Cool, & Barney, 1989; Kohli & Jaworski, 1990; Narver & Slater, 1990); the increased stocks of market knowledge are deployed through the firm’s marketing capabilities (Barney, 1991; Day, 1994). Frequent engagement in sensing may further lead to early detection of technological developments and may ultimately increase a firm’s technical knowledge (Cohen & Levinthal, 1990). Increased technical knowledge may positively affect technological capabilities, for example by improving efficient and effective production, through which firm profitability increases. Consequently, the more often the firm scans the environment for opportunities and threats, the more likely it is that the firm identifies market developments and can make timely investment decisions (i.e., seizing processes) and well-timed decisions about adjustments to their resource base (i.e., reconfiguring), achieving growth as a result (Wilden & Gudergan, 2015). As outlined in our previous discussion, timeliness is especially important to market-driving firms, thus further supporting the importance of frequent dynamic capability deployment for such B2B firms.

## **5. Discussion**

### *5.1. Main contributions*

This article explores three growth-relevant temporal qualities of dynamic capability deployment, highlighting the usefulness of integrating market orientation literature (Kohli & Jaworski, 1990), learning theory (March, 1991; Zahra & George, 2002; Zollo & Winter, 2002), and the dynamic

capability framework (Teece, 2007; Zahra et al., 2006; Zott, 2003). The framework that we have developed in this research is illustrated in Figure 2.

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Insert Figure 2  
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The article contributes to our understanding of the role of market orientation in the context of dynamic capabilities by providing new insights into when dynamic capabilities affect firm growth. Previous research has mainly focused on the development and existence of dynamic capabilities; few studies explore the growth implications of dynamic capability deployment (Wilden, Gudergan, Nielsen, & Lings, 2013). Consequently, scarce insights are available into why it is important for firms to develop dynamic capabilities and when they may be deployed. This article identifies frequency, timeliness, and speed as important growth-relevant qualities of dynamic capabilities. In doing so, this article provides insights concerning the boundary conditions under which dynamic capabilities may affect firm performance in line with Peteraf, di Stefano and Verona's (2013) contingency theoretic conceptualization of dynamic capabilities.

In consideration of Venkatraman's (1989) conceptualization of fit as moderation versus fit as mediation, the findings from this research challenge the work by Naidoo (2010) and Menguc & Auh (2006). We conclude that a firm's dynamic capability deployment does not mediate the impact of its market orientation on growth. Instead, we show that a firm's market orientation moderates the growth impact of deploying dynamic capabilities. We find that differences in frequency, timeliness, and speed of dynamic capability deployment lead to differences in growth between firms subject to the firms' market orientation. We outline that, conditional on whether a firm may follow a market-driving or market-driven orientation, the growth impact of dynamic capability processes differs depending on how often they are deployed, the timeliness of their deployment,

and how quickly the B2B firm deploys these processes. Frequent dynamic capability deployment is positively related to firm growth through two mechanisms. First, frequent engagement in sensing increases market knowledge and increases the likelihood that opportunities and threats are identified, allowing seizing (such as planning and investment decisions concerning, for example, new business models) and reconfiguring (such as implementing new business models and transforming operations) to be deployed as appropriate. Accordingly, greater frequency in deployment of dynamic capabilities also improves their timely and speedy deployment. Second, frequent deployment of dynamic capabilities leads to an improved understanding of how to best use them, enhances their quality and ultimately increases the likelihood of achieving the desired outcomes of their deployment; that is frequent dynamic capability deployment strengthens the technical fitness of dynamic capabilities. This positive learning effect that yields improved technical fitness of dynamic capabilities is greater for market-driving firms than it is for market-driven firms. Overall, these two mechanisms produce firm growth when dynamic capabilities are deployed more frequently; albeit more so for market-driving firms.

Speedy deployment of dynamic capabilities – that is, quickly undergoing the processes of sensing and seizing opportunities and reconfiguring the resource base – is positively related to firm growth. This is in line with previous research that states that firms that swiftly react to change experience an increased likelihood of survival and growth. Furthermore, this conceptualization implies that timeliness of dynamic capability deployment is positively related to firm growth. Timeliness refers to utilizing dynamic capabilities at a time when organizational resources are aligned with internal and external conditions. The timeliness of deploying dynamic capabilities is a fundamental condition for their capacity to affect firm growth. Moreover, while the growth impact of a timely dynamic capability deployment is even more relevant for market-driving than

for market-driven firms, the speed of this deployment is more so associated with market-driven firms than market-driving ones.

### *5.2. Future research opportunities*

While our framework draws on an abductive research design and empirical, predominantly qualitative, data from B2B service firms, survey-based quantitative data could assist in further testing the extent to which the temporal qualities of dynamic capability deployment affect growth and to what extent such impact is more pronounced for market-driving firms (in regard to dynamic capability deployment frequency and timeliness) or market-driven firms (in regard to their deployment speed), respectively. Such investigation, in turn, would also allow examining whether the impact of a frequent and speedy deployment of dynamic capabilities diminishes with a higher frequency and speed, respectively. That is, although the present empirical insights do not allow drawing conclusions about the marginal impact of these two temporal deployment qualities, we presume that growth implications temper off as frequency and speed increase.

Future research may want to investigate further organizational factors that may influence dynamic capability deployment. While Winter (2003) examined costs associated with dynamic capabilities (see also Ethiraj, Kale, Krishnan, & Singh, 2005; Maritan & Florence, 2008), more research on these costs is needed to better understand the trade-offs firms have to make when deploying dynamic capabilities in a more or less frequent, timely, and speedy manner.

A further interesting research avenue is to explore further contexts in which the identified qualities that characterize the rate of dynamic capability deployment are most likely to affect firm growth. Beyond the level of environmental change explored in previous studies (Gelhard, Von Delft, & Gudergan, 2016; Schilke, 2014; Wilden & Gudergan, 2015) and the role of market

orientation explained in the present paper, it remains unclear, whether the influence of the three dynamic capability processes and their growth-relevant temporal deployment qualities varies with other contextual factors. Thus, further studies could investigate in more detail other contextual factors in which the rate of dynamic capability deployment matters, such as a firm's culture. For instance, Baum and Wally (2003) stress the roles of centralization within organizations and formalization of routines in regard to strategic decision speed. Hence, further research can examine the impact of the temporal qualities of dynamic capability deployment in consideration of its ostensive and performative routine aspects (Biesenthal, Gudergan, & Ambrosini, 2018), of the intertwined involvement of top and middle managers in such deployment (Peters, Gudergan, & Booth, 2018) and of a firm's organizational structure (Wilden et al., 2013).

### *5.3. Managerial implications*

Our arguments and findings drawn from the study of a set of B2B service firms show that dynamic capabilities enable firms to respond to or affect change in their environment, and to shape opportunities to achieve firm growth. Thus, it is essential for firms seeking growth to systematically invest in developing dynamic capabilities as well as in their deployment: simply possessing them is not sufficient – the rate of their deployment matters. Sensing activities involve scanning, search and exploration activities across technologies and markets, for example using university and researcher contacts, exchange of staff with relevant firms and attendance at scientific and industry conferences. Further, close customer and employee interactions may enable firms to identify market opportunities ahead of competitors. Seizing and reconfiguring occur through entering new markets, changing business structures and strategies, mergers and acquisitions, and providing new products and services. Faster and timely deployment of dynamic

capabilities may lead to increased firm growth. Further, more frequent use of dynamic capabilities improves the quality of these processes and leads to improved alignment of the firm to environmental conditions. However, and importantly, firms with a market-driving orientation should especially excel in frequent and timely dynamic capability deployment, and those with a market-driven orientation in speedy deployment. These prescriptive insights from the here developed framework point towards two managerial implications: First, firms, irrespective of their market-orientation, benefit from investing in their dynamic capability deployment so that it is speedy, timely, and frequent. Second, for market-driven B2B firms with their exploitative, reactive conduct, investments in increasing the speed of dynamic capability deployment and frequent sensing are most beneficial. Also, managers of market-driving firms, aiming at supporting the explorative, proactive conduct of their firm will benefit even more from investments in achieving timely and frequent deployment of seizing and reconfiguring processes than managers of market-driven B2B firms.

Managers benefit from these insights significantly. Whereas the dominant logic and mindset that permeates a market-driving firm supports proactive and explorative behaviors, such found in a firm with a market-driven orientation stimulate reactive and more exploitative behaviors. However, we find that any B2B firm can benefit from deploying their dynamic capabilities frequently, timely, and quickly. But being less explorative and more reactive comes also with a lesser drive to be quick and timely. That is, the urgency to quickly deploy dynamic capabilities in a timely fashion might not be as expressed in market-driven B2B firms. There, managers may respond to changes in their known markets but do so leaning back and waiting to see what is happening. Their receptiveness to dealing with changes in their markets might come with a general inclination to resist strategic change such that consciously or unconsciously

managers in market-driven B2B firms are also less inclined to quickly and timely deploy their dynamic capabilities. This creates a tension as our developed framework suggests that irrespective of whether a B2B firm is market-driving or market-driven, not only a frequent but importantly also a timely and speedy deployment is beneficial to foster growth. Hence, although in market-driven firms managers may not be as inclined to deploy dynamic capabilities in a timely and frequent fashion, particular emphasis has to be placed in these firms to ensure they can benefit from fast dynamic capability deployment. Therefore, while in market-driving firms this is culturally embedded, in market-driving firms special attention should be placed on stimulating a fast and timely deployment of dynamic capabilities.

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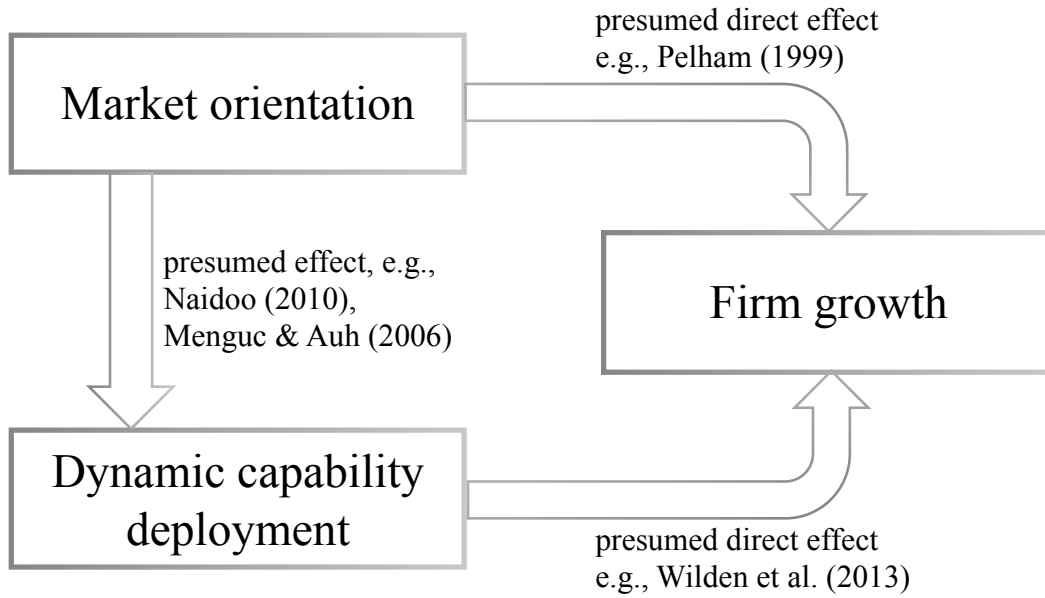
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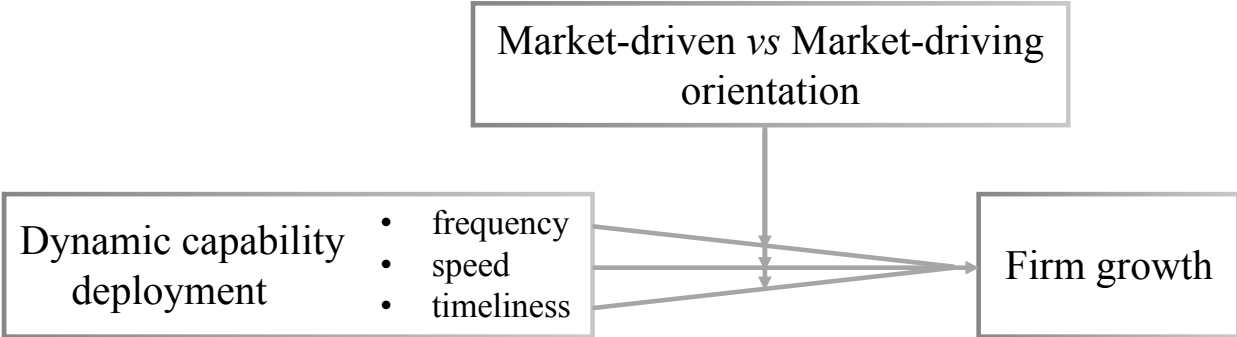
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**Figure 1. Interplay of dynamic capability deployment and market orientation in previous research**



**Figure 2. Temporal Qualities of Dynamic Capability Deployment and Market Orientation**





**TABLE 1****Overview of studied business-to-business firms**

<b>Company</b>	<b>Business description</b>	<b>Employees</b>	<b>Data sources</b>
A	Auditing & accounting services	6500	Interviews (Managing Partner; three experienced auditors), company reports, news clippings, industry reports
B	Auditing and accounting services	>900	Interview (Principal Auditing & Assurance), website, news clippings, industry reports
C	IT service provider	3000	Interview (CEO), website, company reports
D	Business services	>80	Interview (General Manager)
E	Business services	>150	Interview (CEO), industry reports
F	Business services	120	Interview (CEO), industry reports
G	Consulting	120	Interview (Managing Director), website, industry reports
H	Market research	372	Interviews (Managing Director; one experienced employee), website, industry reports
I	Market research	>30	Interview (Director Quantitative Research; former employee of new quantitative division)
J	Financial services provider	>1300	Interview (CEO), website, news clippings, company reports, industry reports
K	IT and telecommunication services	3000	Interview (Head of Division Strategy & Business Development; Head of Product Marketing Devices), company reports, news clippings, website, industry reports
L	Contract research provider	400	Director - Finance and Business Operations, company reports, news clippings

**TABLE 2**  
**Categories for data analysis**

<b>Theoretical Categories</b>	<b>Sub-categories</b>	<b>Operationalization</b>
<i>Dynamic capabilities</i>	Sensing & shaping	Frequency and speed of search procedures for knowledge acquisition from internal and external sources to identify opportunities and threats
	Seizing	Frequency, speed, and timeliness of organizational processes aimed at responding to opportunities and threats
	Reconfiguring	Frequency, speed, and timeliness of activities concerning change such as in business strategies, business operations and markets
<i>Market orientation</i>	Market-driven	Aiming at servicing existing customers better in a reactive fashion; focus on efficiency, but not at cost of not responding to customer requirements; not aiming at creating new markets or driving breakthrough service innovation
	Market-driving	Establishing a sense of proactiveness in the organization, aimed at identifying technological, market, and competitive trends early, and taking risky decisions ahead of the market
<i>Firm growth</i>	Firm growth	Growth in sales and market share

**TABLE 3**  
**Categories and data**

<b>Theoretical Categories</b>	<b>Representative Data</b>
<i>Dynamic capabilities</i>	
A. Sensing & shaping	<p>A1. “We have a number of alliances with companies in other states. [...] My fellow director is in a courier association, he has been president of that association and so we gathered information about what was happening in the industry. [...] And also our clients gather information [...]; that is where our salespeople get involved.” (CEO, Company E)</p> <p>A2. “We started the scenario planning exercise; it will capture a lot of information. We developed four scenarios of future state of [our industry]. Against those four scenarios we tested current trends in technology, social aspects, political aspects, consumer drivers.” (Director, Company L)</p>
B. Seizing	<p>B1. “We have reacted to technological changes such as SMS and the iPhone as the market required this.” (General Manager, Company D)</p> <p>B2. “We used to have manufacturing, but funding got reduced there as they give it to nano-technology [due to the growing importance of this sector].” (Director, Company L)</p>
C. Reconfiguring	<p>C1. “Our task was to restructure the organization from ten areas to four areas to build a more transparent organization.” (Managing Partner, Company A)</p> <p>C2. “[Entering into quantitative research created] a few challenges; first of all [...] quant research is fundamentally different to qualitative research. So, it meant new people in the business that had a very different view on research than then qualitative people, so this company is set up as a qualitative shop, it has this qualitative feel about it, but obviously quantitative research is different.” (Director Quantitative Research, Company I)</p>
D. Speed	<p>D1. “[The company’s] ability to respond quickly to new opportunities and realities...” (annual report, Company G)</p> <p>D2. “It was a relatively quick transition; in the space of four years the revenue generated from quant equals the one from qual. So, you are talking about going from relatively nothing to a A\$2 million business which is a lot in a service context in such a short time.” (Director Quantitative Research, Company I)</p>

## Market Orientation and Dynamic Capabilities

### E. Timeliness

E1. “You can also jump too early [...]. So, to me there is always a risk of being the first jumper.” (Managing Director, Company H)

E2. “As we sold the broadband product first to our best clients and the product didn’t work, this had a massive negative impact on customer satisfaction and we lost high-quality customers.” (Head of Division Strategy & Business Development, Company K)

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### F. Frequency

F1. “Yes, there is KPIs that we monitor to assess our performance on a daily, weekly, and monthly basis, so quite frequently [i.e., sensing].” (General Manager, Company D)

F2. “When the senior management team meets, we do that quite regularly, and we talk about more than just financials, we talk more about what is happening out in the market, what clients are looking for, what can change.” (Managing Director, Company H)

F3. “Not that often, as it takes a long time of execution. You cannot change that very often; you have to see the opportunities through. We are quite cautious to decide what we do, as it is in this industry that it is a lot of investment of time and money.” (General Manager, Company F)

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### G. Market orientation *Market-driven*

G1. “We spend a lot of time on understanding on how consumers behave, we don’t go for the easy solutions, we go for the more complex solutions.” (Director quantitative research, Company I)

G2. “I am happy to let the Big Four play their game and I’ll come in underneath their wing and clean up the mess that they have made.” (Managing Director, Company G)

#### *Market-driving*

G3. “We invest in new technologies or new techniques [to offer our clients new services that are different from existing market offerings].” (Managing Director, Company H)

G4. “We discovered the trend that markets are merging [within the telecommunications industry]. [...] Therefore, we decided to enter this market.” (Head of Division Strategy & Business Development, Company K)

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### H. Firm growth

H1. “Fiscal 2007 was another year of steady growth, strong operating performance and continued global expansion for [company x]. Company revenue increased by 16 percent to a \$736 million record. For the past five years, our compound average growth rate has exceeded 30 percent.” (corporate profile, Company G)

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H2. “We have seen growth from \$9 to 14 millions in two years.” (Managing Director, Company I)

H3. “Because we are in a mature industry, growth is 2-3% a year, the new service allowed us to grow.” (General Manager, Company D)

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