

The influence of managerial attention on the deployment of dynamic capability: a case study of Internet Platform

Firms in China

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Abstract

We examine the interaction of processes of managerial attention and dynamic capabilities deployment, drawing on qualitative data from the development of two Internet Platform Companies – Alibaba and Tencent – over their first fifteen years of existence. Informed by senior management interviews, we create a process model of the relationship between activities of managerial attention and dynamic capability deployment within context. We show how the focus of managerial attention on aspects of the organizational context leads to the deployment of specific dynamic capabilities. Further, we propose that a continuing focus of managerial attention to any aspect of the organization's context gives rise to core dynamic capabilities – a set of continually deployed processes for changing the resource base in a way that corresponds with the strategic logic of the organization. We find that core dynamic capabilities are complemented by contingent dynamic capabilities – intermittently deployed strategic change processes which enable and enhance the use of core dynamic capabilities.

Key words: dynamic capabilities, attention-based view, qualitative research, core dynamic capabilities

Introduction

Many strategy scholars have examined dynamic capability as an extension of the resource-based view to explain the sustainable competitive advantage of the firm (Ambrosini and Bowman, 2009; Eisenhardt and Martin, 2000; Karna, Richter and Riesenkampff, 2016; Katkale, Pitelis and Teece, 2010; Peteraf, Di Stefano and Verona, 2013; Protogerou, Caloghirou and Lioukas, 2012; Teece, Pisano and Shuen, 1997; Winter, 2003). Referring to an organization's "capacity to purposefully create, extend or modify its resource base", dynamic capability emanates from organizational processes by which managers attempt to create new or renew existing productive assets in an ever-changing organizational context (Helfat, et al., 2007:4).

Recently, theoretical and practical challenges have been highlighted which need to be addressed if dynamic capability is not to lose its meaning and fail to fulfil its initial promise as a strategic management concept (c.f. Connor, 2007; Danneels, 2008; Arend and Bromiley, 2009; Barreto, 2010; Leiblein, 2011; Peteraf, Di Stefano and Verona, 2013; Wilden et al., 2016). In this article, we address one such challenge – a need to open up the 'black box' of how dynamic capabilities are deployed in practice (Helfat et al., 2007; Pavlou and El Sawy, 2011). Specifically, we examine the role played by managerial attention to aspects of the organizational and environmental context in the deployment of dynamic capability (Ocasio, Laamanen and Vaara, 2018).

To develop understanding of how dynamic capability is deployed in organizational life, we draw on insights from an attention-based view (ABV) of the firm (Ocasio, 1997, 2011; Ocasio et al., 2018; Simon, 1947). An ABV provides insight into how matters of management control influence business outcomes (Hansen and Hass 2001; Ocasio, 1997; Simon, 1947). According to the ABV, a firm's decision makers have limited ability to attend

to and act on the “superabundance” of information at their disposal (Ocasio, 1997). The ABV examines the consequences of selective noticing, encoding, interpreting and focusing of time and effort by organizational decision makers towards *aspects* of any situation (Hansen and Hass 2001; Ocasio, 1997; Simon, 1947). Managerial attention determines which stimuli are recognised and identified from the organizational or environmental context as inputs to strategic decision-making processes (Helfat and Peteraf, 2015). As managerial attention is a scarce resource, the direction of managerial focus can have a profound impact on how an organization survives and grows (Ocasio et al., 2018). We use the ABV to develop insights as to how managers focus on aspects of their ever-unfolding organizational and environmental context, and how this focus of managerial attention influences and is influenced by the deployment of dynamic capabilities.

We draw on analysis of qualitative case data from two Internet Platform Companies (IPCs). An IPC is defined as a company that was established from inception around a web-based platform enabling direct interaction or value creation between interdependent constituents (Zeng and Glaister, 2016). IPCs extract revenue from interactions on their platform, such as eBay profiting for transactions between buyers and sellers, or Google from interactions between content providers, consumers, and advertisers. We choose IPCs as the research setting as the turbulent virtual market environment in which IPCs operate is characterized by features such as high connectivity (Dutta and Segev, 1999); regular customer-oriented innovation (Shapiro and Varian, 1999); and highly competitive conditions (Porter, 2001), meaning that firms that survive and grow are likely to be doing so through dynamic capabilities (Eisenhardt and Martin, 2000; Wang, Senaratne and Rafiq, 2015). Previous studies have found IPCs to be firms engaged in “continuous morphing” to regenerate their transient competitive advantage on the internet (Rindova and Kotha, 2001). A focus on IPCs

successfully surviving and growing over time thus provides relevant data to explore the influence of managerial attention on dynamic capability deployment.

In this article, we adopt a case study approach tracing the evolution of Alibaba and Tencent, two of the largest internet platform companies in China over a period of 15 years from formation to market dominance. We identify patterns in reported management concerns, decisions, actions and corresponding organizational changes over time. We translate these patterns into a process model describing how managerial attention continually influenced the deployment of specific dynamic capabilities as the firms developed. Further, we show how managerial attention shaped the deployment of dynamic capability in response to a continually unfolding organizational context.

Analysing these findings allows us to contribute to knowledge of how dynamic capabilities are deployed in an organization. Complementing recent theorising about parallel development of dynamic capabilities (Bingham et al., 2015), we explain how managerial attention can instigate contemporaneous deployment of multiple dynamic capabilities. Our dynamic capability deployment process model deepens understanding of how organizational context influences, and is turn influenced, by dynamic capabilities. We build a case for developing further insights into dynamic capabilities as a ‘situated phenomenon’ which, in practice, must be continually re-evaluated before deployment (Ambrosini and Bowman, 2009). Connecting with a learning perspective (Zollo and Winter, 2002), we introduce the concept of core dynamic capabilities - a set of continually deployed processes for changing the resource base, underpinned by ongoing focus of managerial attention. In the IPC case data, core dynamic capabilities are complemented by contingent dynamic capabilities – intermittently deployed resource base change processes- in response to learning arising from managerial focus of attention on aspects of the changing organizational and environmental

context. Through examination of these findings, we address the existing gap in knowledge as to the processual underpinnings of how dynamic capability is deployed in practice over time.

To frame our study, we begin by briefly reviewing current theoretical discussions concerning managerial attention, organisational context, external environment and dynamic capability.

We then explain our methodology and outline the recent case histories of our focal organizations, Alibaba and Tencent. This is followed by a thematic analysis and dynamic model of how the focus of managerial attention might influence the deployment of dynamic capability. We conclude a discussion of how core dynamic capabilities might explain the influence of environmental and organisational context on the development and deployment of dynamic capability through patterns of managerial attention.

Theoretical review

Since Teece, Pisano and Shuen's (1997) seminal article, the dynamic capability view (DCV) has gained momentum within the strategic management literature (Easterby-Smith and Prieto, 2008), generating a wide array of alternative insights and definitions from diverse research activities (Easterby-Smith et al, 2009; Pisano, 2017). In this article we consider dynamic capability as the "organizational capacity to purposefully create, extend or modify its resource base" (Helfat et al, 2007, p4), comprising sensing, seizing and reconfiguration capabilities (Teece, 2007). In the terms of this broad definition, 'capacity' describes the potential for organizational resource base adaption in reaction to, or in stimulation of, changes to the internal and external context of an organization. This capacity might emanate from organizational routines (Winter, 2003), capabilities (Karna et al., 2016) or processes (Helfat and Peteraf, 2009), deliberately deployed by organizational actors towards achieving purposeful resource base change. The term 'resource base' refers to the assets available to the

organization through either direct ownership or on a preferential basis in the ‘external’ environment (Helfat et al, 2007).

As the notion of a resource base extends beyond the traditional boundaries of the firm, we consider dynamic capability to be shaped in part by the ecosystem in which an organization operates as well as its internal resource endowment (Ahn, Mortara, and Minshall, 2018; Teece, 2007; Katkalo et al, 2010; van der Borgh, Cloudt and Romme, 2012). In other word, dynamic capability can be considered a situated phenomenon (Ambrosini and Bowman, 2009), determined by the history of the organization in combination with the nature of the current business context (Vergne and Durand, 2011) and the external environment (Girod and Whittington, 2017; Wilhelm et al., 2015), requiring a system-wide appreciation of how it develops and is deployed (Kay, 2010; Pitelis and Teece, 2010).

Recent studies have examined how the level of environmental dynamism experienced by an organization influences the potential of dynamic capability to benefit organizational performance through the modification of operational routines and capabilities (e.g. Ahn et al., 2018; Girod and Whittington, 2017; Karna et al, 2016; Wilhelm et al, 2015). Other authors have found that the internal context is more influential than the external environment on the application and value of dynamic capability (Wang et al, 2015). However, there is a lack of studies explaining how the deployment of dynamic capability is triggered by the internal or external environment, and how the use of dynamic capability changes over time as internal and external contexts change.

In this article, we utilise an attention-based view (ABV) to explore the influence of the internal organizational and external environmental context on decision makers, and strategic choices as to how dynamic capability is deployed over time (Ocasio et al, 2018). Connecting with Chandlerian notions of capability development (Teece, 2010; Winter and Teece, 2010)

through the actions of actors within an organization, an ABV enables exploration of how, as resource allocating decision makers, matters of importance to managers have a bearing on the dynamic capability of a firm (Adner and Helfat, 2003; Teece, 2012; Walrave, Romme, van Oorschot, and Langerak, 2017). In other words, an ABV offers potential to build new insights as to how managers choose between alternative capability development options in response to learning from internal context and external environmental scanning activities (Helfat and Peteraf, 2015; Pisano, 2017).

The ABV draws attention to how stimuli are noticed, encoded and transformed into a limited set of organizational moves, addressing selective, situational and structural aspects of management activity as decision-makers focus their attention in a limited set of concerns (Ocasio, 1997, 2011). Ocasio (1997) pointed out that firm's attention structures channel and distribute the limited attention of upper management through the valuation and legitimization of issues and opportunities. If the attention structure is externally oriented, the decision makers are more likely to notice latent opportunities in new markets and less likely to notice shadow options within existing markets (Barnett, 2008). Following this line of logic, we then can expect that as firm evolve over time, the firm's attention structures may vary as managers focus on different types of issues and opportunities. Therefore, the frequency, manner and extent to which managers focus on particular aspects of the system in which they are embedded might shape how dynamic capability is developed or deployed (Barrales-Molina, Bustinza and Gutiérrez-Gutiérrez, 2012; Helfat and Peteraf, 2015; Kor and Mesko, 2013).

Responding to challenges to develop understanding of managerial awareness (Ocasio et al, 2018) and the nuances of the environmental context on the deployment of dynamic capability (Wilhelm et al., 2015), in this study we use the ABV to develop explanations of how the focus of attention of decision makers— considering both their internal and external environments – leads to the deployment of dynamic capabilities over time . In addressing a

question of ‘how’ dynamic capabilities are deployed in practice, we focus on an interplay of management and organizational processes (Van de Ven, 1992; Langley, 1999) such as attentional, sensing, resource allocation and reconfiguration processes, that drive strategic change (Ocasio et al, 2018).

Research method

Research context and sampling

The context of our study is Internet Platform Companies (IPCs) operating in a highly volatile industrial context where the deployment of dynamic capabilities seems vital for survival (Rindova and Kotha, 2001). As our research examines how managerial attention to aspects of organizational and environmental context influences the deployment of dynamic capability over time, we broadly follow convention on how to study processes embedded in an organizational context (Langley, 1999) using multiple cases (Eisenhardt, 1989). Following Walrave et al. (2017), our focus on a high-tech sector enables us to trace the implications of multiple episodes of managerial attention and associated deployment of dynamic capabilities in a shorter timespan than more traditional industries. Two case study organizations were adopted in order to enable comparison of organizational information, augment external validation, guard against observer bias and allow for analytical replication logic (Eisenhardt, 1989; Miles and Huberman, 1994; Yin, 2003). The case firms selected are Alibaba, the biggest internet business to business (b2b) platform, and Tencent, the biggest Social Networking Site (SNS) in China.

We selected these firms following a purposeful sampling method (Eisenhardt, 1989; Miles and Huberman, 1994), focusing on a single industry and selecting the key performing firms from different strategic groups. As suggested by Rouse and Daellenbach (1999), this sampling improves the potential for generalizability of any findings. Further enabling the

research process, Alibaba and Tencent are listed on the Chinese stock exchange, and therefore similar profiles of available secondary data exist for both firms. As advised by Block and McMillan (1985), we chose case firms that were closely matched in terms of starting conditions and milestones of new venture development (see table 1 for a chronology of the development of both firms). This research design also allowed emerging conceptual insights from one case to be evaluated against comparative evidence from the other case (Yin, 2003). Table 1 provides an overview of the firms.

[Insert table 1 about here]

Data collection

To gather primary data, we first approached the focal firms through personal contacts as under the Chinese Confucian culture, personal contacts help gather quality information that informants may not willing to share with an unfamiliar interviewer (Tsang, 1998). Between June and August 2012, semi-structured interviews were arranged with 14 participants from Alibaba and 11 participants from Tencent. Between October and December, 2013 we conducted repeated interviews with informants with a purpose of further probing their recent developments and review our case study findings, and also engaged in archival research with both organizations. This approach enabled the collection of both real-time (e.g., two round of interview data) and retrospective data (e.g., both interview data and archival data), thus providing better grounding for theorisation and mitigating any effects of retrospective bias (Leonard-Barton, 1990). Consistent with our research aims, this approach allowed us to observe how events evolved over time and why they evolved in a particular way (Van de Ven & Poole, 1995; Langley, 1999; Pettigrew, 1990).

We interviewed senior managers involved in the strategy planning and execution as they have key “interpretational” roles (Bennis and Nanus, 1985; Smirich and Morgan, 1982) and the

‘visibility’ of the objects of inquiry (Pettigrew, 1990) with respect to the theme of dynamic capability and managerial attention. All the managers involved in this research held comparable positions in the sample firms with at least six years’ experience in each organization. 6 of our 25 interviewees had been working in the firm since its founding (4 from Alibaba and 2 from Tencent).

We used a semi-structured interview protocol (Ying, 2003)- reflecting dynamic capabilities and ABV concepts -to provide consistency between interviews whilst leaving spaces for other themes to emerge. During the data collection process, rather than probe for information or suggest ideas, we focused on understanding and clarifying the meanings and interpretation each participant set forth to capture as authentic as possible record of participant views (Eisenhardt, 1989). The interviews normally lasted 60-120 minute and were transcribed and translated verbatim within 36 hours of the interviews. Where ambiguity of transcription surfaced, we contacted the interviewees for clarification.

In addition to interview data, we followed Glaser and Strauss’s (1967) recommendation to use diverse sources of data to obtain multiple vantage points of the phenomena of interest. For both firms, we collected secondary data from the organization’s archives and media sources such as investment and industry reports, published news and magazine articles, and internal documents. For example, we conducted thematic analysis of strategic meeting minutes from over the case study histories of both firms. Through this, we developed an emergent list of discussion topics from the content of the minutes, with topics such as initiatives to improve customer experiences, experimentation and learning, and external relationships with broad range of partners being identified. We then summarized individual categories covered by 120 strategic memos in order to identify temporal patterns of attention within and across the meetings following the guideline suggested by Yu, Engleman and Van de Ven (2005).

Data analysis

Following established within-case and cross-case comparison methods (Eisenhardt, 1989; Yin, 2003), we developed thick descriptions of each case and built individual case histories (Brown and Eisenhardt, 1997) as previously described in Table 1.

To keep the data manageable, we decomposed each case chronology into analytical periods as we reviewed the shifting focus of managerial attention and events associated with dynamic capability deployment. We generated codes describing the aspects of the organizational context or external environment on which the managers focused, and how these focal aspects affected manager's decision to attempt purposeful resource base change. We then reduced these codes to interpretative clusters (Miles and Huberman, 1994) according to whether they were qualitatively similar or different in character and purpose.

Three critical insights emerged from this process that guided our subsequent analysis. First, informants described specific issues that commanded managerial attention and subsequently guided resource re-configuration – we focused on these issues as a primary unit of analysis (Maitlis, 2005). Second, informants shared their general views of how managers focused their attention, and how these focus areas helped them make decisions. These insights guided our focus on patterns of responses across different informants. Finally, early insights suggested patterns in focus of managerial attention and resource- reconfiguration activities that helped to guide continuing analysis, in which we systematically coded raw data to develop theoretical constructs and a process model (described later in this article). This analysis was followed by cross-case analysis, comparing findings, constructs and themes in the case organisations (Eisenhardt and Graebner, 2007). The emergent findings and theoretical model was peer-reviewed in a research workshop organized by the first author at her institution in

June 2015. The results were also shared with all interviewees, inviting their feedback and comments through email, Skype and Wechat between May and July 2015.

We also recognise the limitations introduced by the centrality of interview data in our study, as participants may have told versions of historical events which exaggerated their role, downplayed luck or mistakes, and attempted to please the interviewers by telling us what they thought we wanted to hear (Alvesson, 2003). To counter these possibilities, we followed established protocols for effective case study research, including triangulating sources, methods and interviewees, reviewing findings with participants after elapsed time, and connecting emergent findings with literature (Eisenhardt, 1989; Yin, 2003). Nonetheless, we acknowledge that further replication studies in alternative contexts would enhance the reliability and generalizability of our findings.

Findings

In this section, we present our findings about how both organizations appear to have adapted and survived since inception, describing the focus of managerial attention at each phase. We organize these findings according to three main phases in the life of both organizations – initial growth, diversification to defend market share, and opening up of the platform to nurture an open innovative network. In each section, we offer a summary narrative of the events, managerial attention and deployment of dynamic capability of each organization as described by participants. These narratives are supported by tables of illustrative comments from interviewees from both case organizations.

Stage 1: Initial Growth

From launch, a key focus for both Alibaba and Tencent senior managers was building a large customer base, nurturing long term customer relationships and developing deep insights into customer preferences. As illustrated in table 2, despite the financial pressures of starting a new business, the customer was placed at the centre of managerial attention as a strategic manoeuvre to guide long term development and sustainability of the nascent organizations.

[Insert table 2 about here]

From the earliest stages of the firm's operation, a high level of managerial attention was dedicated to creating and maintaining close dialogue between Alibaba and its customers (buyers and sellers of products and services) through online and offline mechanisms. This dialogue shaped resource allocation decisions, as priority was given to the creation of internal resource configurations and activities targeting the creation of distinctive products for the customers and growing the size of the customer base.

During the early days of the social media organization Tencent, which was founded in 1998, we identified a similar theme. As with Alibaba, there was an initial strong focus on growing the customer base, even at the expense of short term profit potential. This was deemed a matter of long term survival. From the earliest days, Tencent's development was driven by customer needs to the extent that Pony Ma, the founder of Tencent, was described as the company's "chief customer experience officer". A recurring theme in the interviews about the launch phase was the importance of engaging the customer in dialogue as a way of understanding how to shape the resource base. Interviewee perspectives consistently emphasised that the delivery of services and resources relevant to customer needs was a co-production arising from managerial attention and customer suggestions.

In interactions with customers, rapid responses to customer dialogue through prototyped rapid product launches were encouraged to gather "trial-and-error" learning. For example,

after gathering initial customer feedback, Alibaba quickly introduced different value-added services such as “Chinese suppliers” to enable export for Chinese SMEs and a “Trustpass” service where the member can be verified by a third-party credit reporting agency before their membership is approved. Similarly, Tencent quickly modified its initial offering based on customer feedback to provide enhanced search engine capabilities and augmented services such as QQ coin (a virtual currency). Dialogue from the customer base was sustained by this prototypical response – *“trial and error was the only way to learn, and it was the only way to move forward”* as one senior product development manager explained.

Many participants highlighted that the “agility” of their firms to execute change in a rapid way that was valued by the customer was enabled by both placing the highest value on customer interactions and treating the customer as effectively part of the organization. As both companies launched and attempted to establish a market presence, managerial attention to customer dialogue and relationship building enabled co-direction of resource base development activities. In effect, managerial learning from scrutinising the impact of trial and error product development on customers views continued to (re-)direct the deployment of dynamic capabilities in the start-up phase of both organizations.

As illustrated in table 2, the co-direction of resource base change also seemed to be informed at this phase by managerial attention on building dialogue and partnership arrangements with supplier organizations to create collaborative profit potential. For example, although Tencent QQ built a large customer base, it struggled to find a way to monetize its platform between 2000 and 2001. In 2002, Tencent co-operated with China mobile to embrace mobile value-added services for its customers through mobile QQ and started to make a profit.

Similar comments were also offered by interviewees from Alibaba, referring to their work with third parties in order to introduce ‘Trustpass’, a bolt-on service to bolster the credibility

of the suppliers at a key stage in their development. A managerial focus on interaction with suppliers or partner firms generated resource adaption and profit creation outcomes for both organizations.

In the initial growth phase, we also noted that in order to satisfying evolving customer needs whilst working in synchronicity with external partners, the firm's internal agility and flexibility was also a focus of managerial attention. From both primary and secondary data, three issues surfaced repeatedly: governance structure, managerial decision making autonomy and team collaboration. In both organizations, a priority focus for senior managerial attention was described as how to configure a decentralized organization structure that best allowed individual business unit to respond quickly to the fast-changing market.

The data suggests that managerial attention in both firms was directed towards creating an environment that encouraged autonomy, information sharing and collaboration. This involved senior management facilitation of interaction and coordination between different business units to encourage both efficient use of resources and innovative development of customer offerings. Informants consistently reported how such decentralized structures enabled them to be more effective in managing resource-reallocation.

Stage 2: Reinforcing Market Leadership

After experiencing similar initial rapid growth phases, both Alibaba and Tencent achieved market leadership (by volume of users) after about four years. As illustrated in table 3, at this stage of development, a key challenge facing both management teams was how to adapt the organization to protect the user base and sustain their leading position. Mechanisms of customer dialogue and interaction remained a managerial focus, taking on new significance as drivers of diversification.

[Insert table 3 about here]

In 2003, guided by Chinese customer feedback Alibaba launched Taobao, an online customer to customer (C2C) platform in response to the challenge posed by eBay. Alibaba invested approximately 14 million dollars to build Taobao and developed many affiliated services including Wangwang and Alipay to alleviate Chinese customer's concern over online shopping. With its free service, it quickly started to gain momentum with more customers shifting their attention from eBay to Taobao. In 2006, eBay market share declined to 6.2% and it soon quit the Chinese market.

In delivering diversification initiatives, in an extension of activities from their earlier rapid growth phase, in both Alibaba and Tencent there was a management focus on interacting extensively with customers, business partners and non-traditional partners such as local communities and universities. The management logic of this manoeuvre, as articulated by the participants, was that successful change could best be delivered by engaging as far as possible with the whole external system in which each firm was embedded.

As shown in table 3, interviewees observed that as both companies generated more platforms to create more online traffic, new management challenges around co-ordination of internal systems started to emerge. In 2005, Tencent re-organized to protect their capacity to engage with and react to external stakeholders. The interviews suggested that there remained a managerial focus on preserving the capacities which had served the organizations well to date. Preserving their trial and error approach, there remained a management focus on keeping work processes simple, flexible and co-directed by customer feedback.

As shown in table 3, a recurring comment was that in this period in both firms' histories, there was an emergent focus of managerial attention on the 'health' of the external context as an influencer of organizational resource base change initiatives. In an attempt to create the

right conditions for growth and market leadership to continue, the IPCs sought to support the modification and extension of the resource base of external stakeholders. For example, in addition to supporting logistics firms to develop their businesses, Alibaba also formed many relationships with local training agencies, universities and trade associations to provide free training and education sessions for its existing and potential customers. Furthermore, Alibaba built collaborative relationships with many Chinese villages' trade associations to assist farmers to set up their own virtual business on Alibaba, Taobao or Tmall. Some villages in China were even coined as "Taobao Villages."

This focus of managerial attention on nurturing favourable external conditions reflected a belief in "*the importance of cooperating with others to reach a higher value creation for all*" (senior manager, Alibaba). Because of the success and now market leading scale of Alibaba and Tencent, they had to develop collaborative mechanisms in which they acted as guides and enablers for others in their external environment. This managerial focus on deep connection with the external context was also described as having the benefit of improving decision making and success in executing successful change.

This theme recurred frequently amongst participants- internal capability to deliver change was set in the context of external surrounding conditions. Many participants highlighted that their firm's ability to understand the future uncertainties and potential challenges, and its ability to actively address the challenges at the appropriate time with its external partners, is crucial for a firm's ability to continually manage its resources in support of sustainable growth.

Stage 3- open platform development phase

From 2007 and 2008, both companies increasingly undertook initiatives to move from proprietary platforms to 'open' platforms e.g. by 2012, Qzone, Tencent Weibo, Tenpay,

Tencent e-commerce, Soso, cb.qq.com and QQ were open platforms for Tencent, and in 2013 Taobao re-launched as a self-organizing open platform ecosystem. In both organizations, we found that managerial attention was extensively focused on whether to open-up proprietary platforms prior to the enactment of an open strategy. The emphasis in these discussions was mainly around protecting customer experience and the challenges of managing relationships with external partners in an open network.

[Insert table 4 about here]

By opening up their platform, both organizations were able to attract more alliances and partners with whom to engage, stimulating platform growth and innovation. As illustrated in table 4, this had the added benefit of growing the capacity of the IPC without permanently internalizing the resource. As one senior manager from Alibaba commented, this reflected a managerial focus on remaining nimble and effective through staying small but highly connected with the external context.

Both case organizations undertook major organizational restructuring in order to build up an open ecosystem, with a supporting management logic that this would deliver even further mutual benefit to the firm and its partner. For Alibaba, restructuring created Taobao Marketplace, a consumer-to-consumer platform designed for consumers and small businesses; Taobao Mall, a business-to-consumer marketplace; and eTao, which targets the shopping search market. All three companies continue under the Alibaba Group.

A similar example can be found in Tencent. In May 2012, to help its operation to move smoothly from PC to mobile internet and from closed platform to an open platform, Tencent underwent a restructuring of its business units into six groups including TEG (Technical Engineering Group), SNG (Social Networking Group), CDG (Corporate Development Group), IEG (Interactive Entertainment Group), MIG (Mobile Internet Group), and OMG

(Online Media Group). Echoing the intentions of their re-organization in 2005, one of the purposes of this restructuring was to create small, accountable organizational units that retained an ability to deeply connect with and respond quickly to feedback from external stakeholders. Hierarchical structure was replaced by self-managed groups that focused on agile execution, reflection, collaboration and continuous experimentation.

By creating small teams within a broader supporting structure, swift responses to the customer needs were enabled through effective collaboration potential with developers. The management perspective on this approach suggested a focus in decision making on developing the whole system, not just the resources under control of the IPC.

Participant reflections on each IPC and its external stakeholders repeatedly emphasised themes of interdependency and co-evolution with managerial attention in both firms directed towards building partnerships with complementors, local communities and even competitors to further redefine their business boundary, increase customer ‘stickiness’ and nurture sustainability. For example, in 2012 Alibaba built a partnership with one of its main rivals Dangdang, one of the other largest e-commerce firms in China. In the following year, Alibaba further partnered with Sina Weibo, the largest Chinese micro blogging website, to attract more mobile users. Tencent teamed up with competitors Sogou and complementors JD to expand its business into e-commerce. Both companies compete on attracting small/niche platforms as sources of diversity and future growth

Efforts to protect and nurture the external system extended to addressing an institutional void (Mair and Mharti, 2009) in the case of Alibaba. In 2014, Alibaba introduced Alipay finance service, a new money market fund for the SMEs and consumers, a mobile app and a private bank that transform the business and consumer finance services in China. This initiative

represented Alibaba's response to a continuing challenge for their customer base – unlocking new potential for customer value creation through, and beyond, Alibaba's offerings.

In this section, through further analysis of our findings, we propose a model and explanation of how managerial attention might influence the deployment of dynamic capabilities.

Modelling the dynamics of Managerial Attention and Dynamic Capability Deployment

Once we had constructed the historical narratives in the preceding sections, we re-read the case data multiple times to attempt to model the dynamics of managerial attention and dynamic capability deployment. Using the visual sense-making conventions of Bryson, Ackermann, Eden and Finn (2004), we created simple box and arrow diagrams to map the causes and consequences of managerial attention and dynamic capability deployment events from the case findings. This was an iterative process akin to emergent coding (Maxwell, 2012), in which we worked back and forth through the historical narratives, elaborating and refining the contents of the boxes and the interlinkages between them. Eventually a point of saturation was reached with an abstract process model – as depicted in figure 1 - which could be applied across the case narratives to describe the dynamics of managerial attention and dynamic capability deployment in both organizations.

[Insert figure 1 about here]

The model contains two overlapping loops – a managerial attention loop and a dynamic capability deployment loop. The managerial attention loop indicates a sequence in which management interactions lead to a renewal or confirmation of strategic priorities, which in turn leads to managerial attention focussing on certain aspects of the organizational context. Using relevant mechanisms to 'sense' aspects of the organizational context, management insights are generated about the type of resource base change required by the current

situation. These insights lead to resource allocation decisions intended to adjust the resource base to better meet strategic priorities now or in the future. Resource allocation decisions and insights from evaluating the organizational context then become part of ongoing managerial interactions and dialogue.

The dynamic capability deployment loop describes how the use of specific dynamic capabilities arise from the communication of resource allocation decisions. As we modelled resource base change episodes from data from our case organizations, we found that the stages in the dynamic capability loop could be aligned with Teece's (2007) categories of sensing, seizing and reconfiguring. The attempted use of dynamic capabilities leads to a *reconfiguring* change to the resource base of the firm (the actual change need not be the one intended). This change then contributes to how the organizational context of internal and external activities and interactions unfolds. Overlapping with the managerial attention loop, this shifting context might then be re-evaluated by *sensing* mechanisms to generate new management insights to instigate further *seizing* resource allocation decisions.

To illustrate this model being applied, consider the example of the creation of Taobao by Alibaba. Through their work steering the organization, senior managers set a priority of developing a customer to customer (C2C) platform to enable growth. Channels of customer feedback about C2C requirements then became a focus of attention for the management team. These sensing mechanisms enabled deep understanding about the required scope of a C2C platform to be grasped by the management team, which in turn led to c.\$14M of resources being allocated to develop a new service. Once the platform was operational, how Alibaba interacted with customers and the broader business environment changed, whilst triggering further activities from external stakeholders (such as the development of competitor offerings). As the strategic focus on C2C growth remained constant from the management team, relevant customer feedback channels remained a focus of attention in the altered

organizational context. New insights were gained that both triggered further deployment of development resources towards improving Taobao and creating new resources through it (the dynamic capability deployment loop), and informed internal management interactions (the managerial attention loop).

It is important to note that the model does not imply that events always unfolded as planned or in a successful way. The arrows indicate the flow of time as activities are attempted (Langley et al, 2013) without implying that any fixed period of time has passed or performance standard has been achieved. Each of the steps in the model is subject to the influence of factors such as human error and unanticipated external occurrences, which in turn had a bearing on the flow of activity and the outcomes achieved from dynamic capability deployments. Such realities were indeed regular features of the historical narratives for both organizations. Over time, through a trial and error approach, the managerial attention loop effectively acted as a learning and control mechanism for dynamic capability deployment, continually detecting and accounting for differences between intended and realized outcomes in focal aspects of the organizational context. Further, the limitations of managerial cognitive capabilities (Helfat and Peteraf, 2015) also introduced errors of reasoning and biases to the dynamic capability deployment process.

Core and contingent dynamic capabilities

Eisenhardt and Martin (2000:1106) state that “dynamic capabilities consist of specific strategic and organizational processes like product development, alliancing and strategic decision-making.” During construction of the process model in figure 1, we observed that certain organizational processes recurred continually, and others intermittently, throughout resource base change events in both case organizations.

The processes used continually during dynamic capability deployment in each case, we propose as the **core dynamic capabilities** of the organization. We define core dynamic capabilities as processes to create, extend or modify the resource base which are *continually engaged* within the organization. Using the process model in figure 1 as an explanatory device, we suggest that core dynamic capabilities are underpinned by a *constant focus of managerial attention* in sensing and interpreting relevant aspects of the organizational context. Core dynamic capabilities are *enabled by deep, specific managerial knowledge*, kept current through learning arising from repeated use of relevant sensing mechanisms.

Beyond the core dynamic capabilities, we also identify a set of **contingent dynamic capabilities**. We define contingent dynamic capabilities as processes to create, extend or modify the resource base which are *intermittently deployed* within the organization.

Contingent dynamic capabilities may be deployed to *deal with unexpected matters* arising from the organizational context as they come to the attention of resource allocators.

Contingent dynamic capabilities may be directed towards *creating complementarities in the resource base* that enable the outcomes of core dynamic capabilities to be exploited by the organization.

From our historical case data for Alibaba and Tencent, the core dynamic capabilities for both organizations would appear to be product and platform development processes, the deployment of which continually create, modify and extend customer value creation resources. Our findings suggested that, since inception, both firms exhibited “constant morphing” (Rindova and Kotha, 2001) through deployment of these core dynamic capabilities. We found that the use of these core dynamic capabilities were matched by a continuing strategic objective to deliver value for customers, and a continual focus of managerial attention on sensing current and future customer requirements. This managerial focus shaped resource allocation decisions consistent with a “customer value” logic, enabling

continuing reconfiguration of the resource base intended to enhance customer value creation. In both organizations, managerial attention to the value attributed by the customer, not those within the firm, to new resource configurations drove the deployment of specific product and platform development dynamic capabilities. Often, this managerial focus resulted in a prioritisation of resource base change towards building and sustaining customer relationships and an ever-growing customer base at the expense of short term financial performance. This was explained by management interviewees from both firms which emphasised the role of customers as ongoing informants, and ultimate arbiters of, value creating resource configurations.

Tracking the continuing adaptation and survival of Alibaba and Tencent highlighted collaboration and external influence processes as contingent dynamic capabilities. Over their histories, managerial attention in both case organizations was directed intermittently towards collaborating with or influencing external stakeholders such as complementor firms, local communities, research institutes, regulatory agencies and even competitors.

Later in their existence, by adopting an open platform approach, both IPCs were able to benefit from close connection with an ever-growing range of external stakeholders (developers), whilst providing a means to sustain those external stakeholders and the organizational context in which the firm was embedded. A recurring aspect of Alibaba and Tencent's management approach was an increasingly frequent focus on the co-execution of resource base change to create jointly owned and accessed resources with external stakeholders.

Through managerial attention to engagement with external organizations the case firms were better able to understand how to establish resource base complementarities which enabled exploitation of efforts to directly satisfy evolving customer demand. For example, Tencent

collaborated with their competitor Sogou to achieve e-commerce outcomes of a scope and timescale which would not have been possible for either firm on its own. Not only was the firm able to keep costs down and flexibility high through effective external engagement, they also increased the diversity of options available for accessing relevant 'external' resources. This is particularly salient in the context of China where infrastructure, such as logistics and credit systems, is relatively underdeveloped, and co-opetition provides a means to accelerate improvements in the operating environment for all firms.

A less frequently deployed example of contingent dynamic capabilities from the organizational case histories was major internal restructuring processes. Both IPCs were observed to undertake more than one major restructure to support their evolving organizational needs whilst protecting openness to the influence of customers and engagement with external partners. In both Alibaba and Tencent, when the capacity to engage with external stakeholders was threatened by inertia attributed to organic development of hierarchies, action was taken to dissolve these structures to a decoupled, and better externally connected, organizational form. This structuring for openness was vital to the firms' capacity to continuously reconfigure, reshape its resource base and adapt the changing environment (e.g., Ambrosini, Bowman and Collier, 2009; Teece, 2007; Teece, Pisano and Shuen, 1997).

However, the need to deploy internal reconfiguration dynamic capabilities was not a continual focus of the managerial team in either organization. Instead, organizational responsiveness issues detected through a managerial focus on customer value fed back into managerial conversations and strategizing, and in turn triggered a managerial focus towards internal structuring aspects of the organizational context.

Through the intermittent engagement of dynamic capabilities to internally reorganize and engage with external stakeholders the capacity was enhanced for the case firms to create and exploit opportunities through their customer value creating core dynamic capabilities

Discussion – Managerial Attention and Dynamic Capabilities

This article extends our understanding of the influence of managerial attention on the deployment of dynamic capability. Helfat et al. (2007) propose that the deployment of dynamic capability should be purposeful. Firstly, echoing Ackermann and Eden's (2011, p110) observation that "humans are purposeful and employ choice in attempting to realise their goals", our findings show how a discrete deployment of dynamic capabilities can arise as a deliberate managerial response to a focused evaluation of aspects of the organisational context. Further, we found that a continuing managerial focus on specific aspects of the organizational context, such as customer value creation, may lead to a sense of organizational purpose underpinned by core dynamic capabilities. Through ongoing deployment of core dynamic capabilities, reconfiguration activities keep the resource base continually aligned with the focus of managerial attention and purposeful choices of the management team. As dictated by changes in the organizational context detected by resource allocators, contingent dynamic capabilities may be deployed to sustain core dynamic capabilities. Thus, indirectly the deployment of contingent dynamic capabilities can represent a purposeful management choice that protects and reinforces organizational purpose.

Examined through an ABV theoretical lens, our findings help understand dynamic capabilities as a "situated phenomenon" (Ambrosini, Bowman and Collier, 2009). The parallel, intertwined processes of managerial attention and dynamic capabilities deployment influence, and are influenced by, the continually unfolding organizational context. These insights extend Kay's

(2010, p.1216) argument that in seeking to understand dynamic capabilities it is not adequate to focus only on individual decomposable components within a firm (such as processes and routines) as “it is how these parts link together that matters.” Zeng, Simpson and Dang (2017)’s work shares a similar logic that understanding of dynamic capabilities can be developed from process analysis showing how streams of activities occurring over time might lead to organisational outcomes (Langley et al, 2013). Different from Zeng et al.’s (2017) work however, our study illustrates a process model that focusses specifically on the relationship between managerial attention and dynamic capability deployment activities as they might interact over time. Our findings contribute to our understanding of the deployment of dynamic capabilities by showing how deployment processes interface with managerial attentional processes and the unfolding organizational context.

In terms of the debate on the relationship between dynamic and operational processes (e.g. Helfat and Winter, 2011; Hine et al. 2014), our model suggests that the relationship between dynamic capabilities and operational capabilities is mediated by managerial attention. We find that dynamic capabilities will reconfigure the resource base, and thus operational capabilities, in response to managerial insights arising from a focus of managerial attention. However, as part of the unfolding organizational context on which managerial attention focusses, the scope and performance of operational capabilities will have some influence on whether dynamic capabilities are triggered.

Secondly, our study suggests that through managerial learning, the nature of dynamic capability deployment in an organization might be shaped over time by external environmental conditions. Confirming the findings of previous studies (as cited in the literature review), we observed that external environmental factors may trigger the deployment of dynamic capabilities if sensed through focused managerial attention. Based on our case findings, the selection of specific organizational processes to be deployed towards purposeful resource base

change will be influenced by managerial insights arising from interpreting the outcomes of continuing internal and external sensing activities. As cycles of managerial attention and dynamic capability deployment occur, managerial learning might accrue about the type and form of organizational processes required on a continual or intermittent basis to purposefully manage the organizational resource base. To develop these insights further, the process model in figure 1 could be combined in future research with an evolutionary model of learning (Zollo and Winter, 2002) explicating how the deployment of dynamic capabilities influences, and is influenced by, the changing internal and external context of the organization.

Our findings can be aligned with existing dynamic capability conceptual apparatus such as evolutionary and entrepreneurial fitness (Helfat et al, 2007). Our process model provides a foundation for exploring how managerial attention and the unfolding organizational context might influence evolutionary and entrepreneurial fitness in both deliberate and emergent ways. Our findings suggest that where managerial attentional processes are coupled to dynamic capabilities deployment processes, the potential to resist “core rigidities” will be fostered (Leonard-Barton, 1992). In both case organizations, internal routines and capabilities were not able to settle into rigidities as managerial learning continued to be updated through scrutiny of the organizational context. Given the presence of environmental scanning and learning mechanisms in our model, future studies could examine the impact of absorptive capacity (Cohen and Levinthal, 1990) on dynamic capabilities deployment, as influenced by managerial attention.

Our model also provides a point of departure for developing understanding of business ecosystems and dynamic capabilities (e.g., Teece, 2007). Case histories from Alibaba and Tencent showed how managerial attention and dynamic capability deployment processes were directed at times towards developing or influencing the ecosystem in which the

organizations operated. Our process model could be adopted in further studies as the starting point from which to examine the effectiveness of different dynamic capabilities in enhancing the business ecosystem, and the role of managerial attention in achieving an improved organizational context.

For practicing managers, there are important implications of our work. Firstly, our findings suggest that core dynamic capabilities can arise from continuing managerial attention towards specific aspects of the organizational context. This may beneficially bring life to organizational purpose through effective management of the resource base. At the same time, it is important to resist tendencies for managerial myopia (Levinthal and March, 1993), recognizing the need for continuing vigilance and deployment of further contingent dynamic capabilities as dictated by the organizational context. In both Alibaba and Tencent, the managerial insights gained from distributing attention between customers, suppliers, external collaborators and internal stakeholders powered a continuing evolution of the firm in a way that was valued by the customer, and through which the firm was rewarded with growth in the customer base and business performance.

Two main limitations of the study must be acknowledged. Firstly, from a small number of cases the generalizability of the findings is necessarily limited. In the discussion section above, we have attempted to achieve analytical generalizability (Yin, 2003) by connecting with established bodies of work on dynamic capability, the attention-based view and managerial learning. Further studies adopting different methods and expanding on the constructs in this paper might work towards statistical generalizability. We believe that replication of our findings will be possible. As Lincoln and Guba suggest, “transference can take place between contexts A and B if B is sufficiently like A on those elements or factors or

circumstances that the A inquiry found to be significant” (2002: 207). All organizations have managers, and through connection with the ABV, our process model of how managerial attention interfaces with dynamic capability deployment seems germane for organizations operating in a shifting context.

This study opens many opportunities for further research. Insights into the relationship between dynamic managerial capabilities and core dynamic capabilities could further enhance our understanding of how the particularities of the management team influence organizational performance (Adner and Helfat, 2003; Helfat and Peteraf, 2015). Studies examining the form and focus of core dynamic capabilities in different organizational contexts are recommended. For example, do core dynamic capabilities have a focus other than customer value creation in different sectors or national settings? And how important is firm size and existing history to the influence of managerial attention on dynamic capabilities? It would also be valuable to examine organizational path dependence in relation to contingent and core dynamic capabilities. Do core dynamic capabilities reinforce path dependence? Do contingent dynamic capabilities offer potential for path-breaking resource reconfigurations? Further researching dynamic capabilities as a situated phenomenon could provide a route to develop understanding of dynamic capability, entrepreneurial management and business ecosystems (e.g. Teece, 2007; van der Borgh, Cloudt and Romme, 2012; Zahra, Sapienza and Davidsson, 2006). We hope that our study sheds further light on the influence of managerial attention on dynamic capability, and equally that it might direct research attention towards progressing understanding of dynamic capability as a situated phenomenon.

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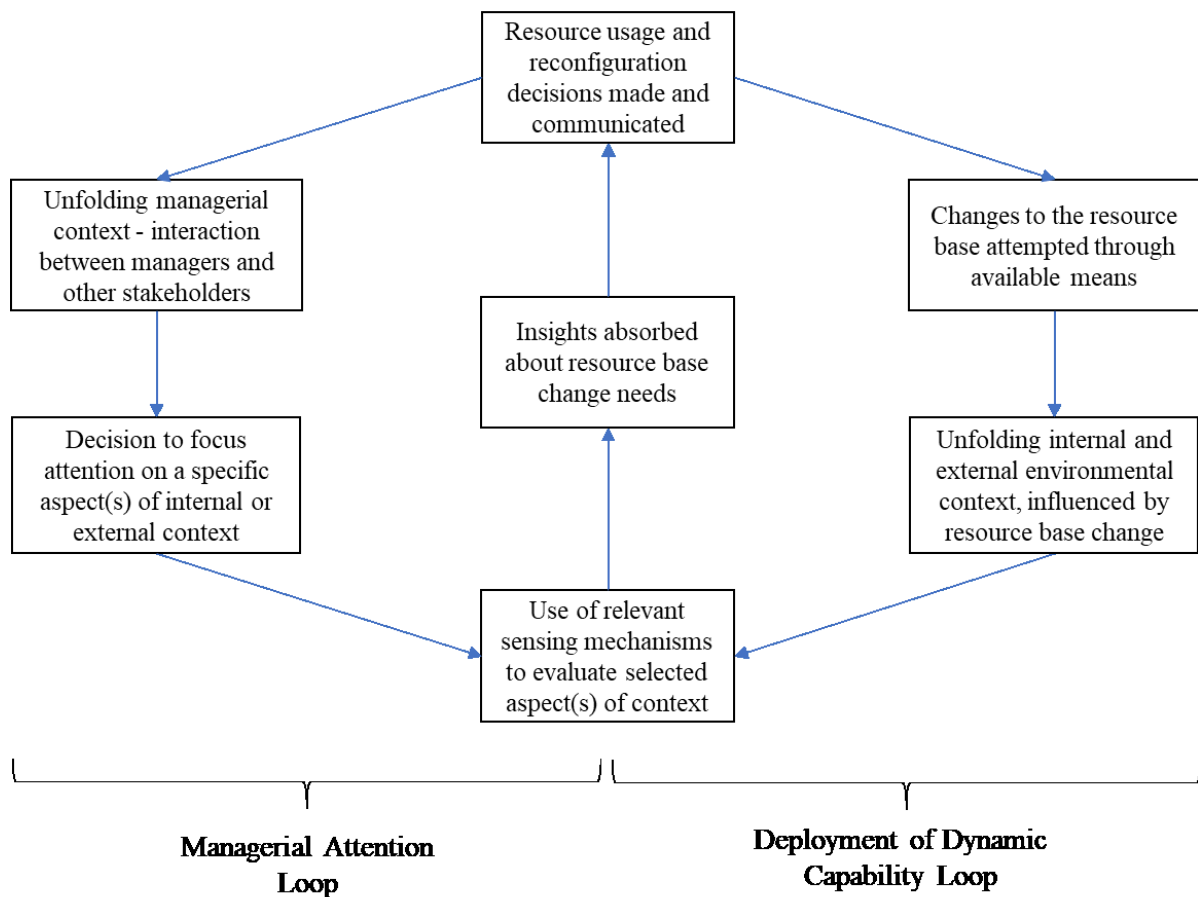


Diagram 1 – Process Model of Interaction Between Managerial Attention and the Deployment of Dynamic Capabilities