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Dynamic Capability Building in Service Networks: An exploratory case study

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Abstract

Purpose – *The purpose of this paper is to examine how collaboration in a service network of a major Telco, involving a key partner and its affiliate network, enables dynamic capability building for achieving services innovation.*

Design/methodology/approach – *The method for this paper is a case study of a large Telco, including its distribution channels and franchised retail centres; and a key trading partner, TPartner, and its affiliated network. Interviews were conducted, transcribed, coded, and similarities in views by different participants were incorporated into emergent themes and patterns for analysis.*

Findings – *The findings are that collaboration, collaborative organisational learning, collaborative innovative capacity, entrepreneurial alertness, and collaborative agility are all core dynamic capabilities that foster innovation in services. Second, collaboration enables firms to redefine their strategic and operational capabilities. Third, partnering allows managers to rethink, rearrange and reposition their sourcing strategies to better meet customer demand. Lastly, through partnering with customers and their ensuing engagement, managers are equipped with superior ability to anticipate discontinuity in customer preferences across channels, and through customer knowledge managers are able to meet future demand expediently.*

Originality/value – *This study advances our understanding of how organisations can build competence based on dynamic capabilities through collaboration in order to foster service innovation.*

Keywords: *Dynamic capabilities; service innovation; service networks; case study methodology; semi-structured interviews.*

JEL Classifications: L96; M10

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FoR Codes: 1503

Introduction

The *resource-based view* of the firm is one of the most widely used theoretical frameworks in management literature for deriving competitive advantages (Barney 1991; Kraaijenbrink, Spender & Groen 2010; Penrose 1955, p. 503; Powell 2001; Wernerfelt 1984). The basic assumption is that firms need to use and manage valuable, rare, imperfectly imitable and not substitutable resources in order to develop long-term competitive advantages (Barney 1991). Yet, the resource-based view does not provide clear statements, nor illustrates the competitive role of distinct resources, and the interdependencies between them (Kraaijenbrink, Spender & Groen 2010). Therefore, another enhanced theoretical approach has emerged, known as the *competence-based perspective*. This perspective integrates concepts of resources (Barney 1991; Dierickx & Cool 1989; Penrose 1955; Wernerfelt 1984), dynamic capabilities (Amit & Schoemaker 1993; Nelson Richard & Winter Sidney 1982; Teece, Pisano & Shuen 1997a), as well as works on core competences (Prahalad & Hamel 1990). It is argued that a firm needs to possess specific competences in order to exploit its resources in a goal-oriented manner (Freiling 2004) for which a range of workplace skills are required especially due to structural shifts towards service and knowledge-based tasks and roles (Hoidn and Karkkainen, 2014).

Furthermore, firms do not operate in isolation, but rather belong to a larger relationship based network to create value (Agarwal & Selen 2009; Manolova, Manev & Gyoshev 2010; Walter, Auer & Ritter 2006). This 'relationship capital' forges firms into operational networks with appropriate capabilities to create sustainable competitive advantage (Chisholm & Nielsen 2009; Lages, Silva, Styles & Pereira 2009). Adoud, Rondeau and Divoux (2000) concluded that high levels of integration across networks compel greater competitive capabilities. This is due to the fact that networks construct and leverage consummate resources that improve market and firm performance (Anderson 1988; Bonner, Kim & Cavusgil 2005).

A recent empirical study by Agarwal & Selen (2009) identifies several higher-order dynamic capabilities of service networks, centred on the tenet of relationship capital. In particular, higher order capabilities are identified in the context of a service network to achieve service innovation, and include organisational learning, innovative capacity, agility, entrepreneurial alertness, and customer engagement.

Based on the previous study, this research aims to qualitatively outline the process of building higher order dynamic capabilities originating from collaboration, through the use of an exploratory case study. Interviews with various stakeholders in a service network are conducted and transcribed, centred on service provision within a mobile handset supply chain environment, to identify emerging dynamic capabilities that are deployed within a service network to foster service innovation. These capabilities are subsequently analysed for emerging trends and patterns of relationships, and later grouped into different constructs based on existing literature, leading to a Dynamic Capability building-framework through partnering. The paper concludes with managerial implications, and articulation of areas of future research.

Literature review

Dynamic capability refers to a firm's ability to deliberately produce, amplify or transfigure current resources and/or skills (Helfat 2007) to exploit opportunities (Teece, Pisano & Shuen 1997b). In order to do this, firms must undergo processes that integrate, reconfigure, gain and release resources to adjust or create market change (Eisenhardt & Martin 2000). Accordingly, Kale and Singh (2007) point out that it is not the resources themselves but it is the ability of the management to invest and utilise resources in the most appropriate manner. Kale and Singh (2007, p. 995) further suggest these '*higher-order*

capabilities ... help a firm extend, modify, or improve its ordinary or operational capabilities that are relevant to managing any given task”.

Dynamic capabilities holistically encompass those capabilities which can be distinguished from ordinary or mere technical capabilities. According to Teece (2009, p. 206), dynamic capability is defined as “*the ability to sense and then seize new opportunities, and to reconfigure and protect knowledge assets, competencies and complementary assets so as to achieve sustained competitive advantage*”. It has been articulated that dynamic capabilities constitute a source of competitive advantage (Teece, Pisano & Shuen 1997b), and its importance on firm superior performance in changing markets has been convincingly laid out (Madhavaram & Hunt 2008; Teece 2007). Furthermore, dynamic capability is defined to incorporate concepts of resource configurations (Collis & Montgomery 1998) as theoretically supported by Teece (2009).

Dynamic capability building requires a holistic and evolving approach in order to foster a range of key capabilities that can synergistically contribute to strategic benefits and firm success. Cepeda and Vera (2007) distinguish between operational (how you earn your living) capabilities and dynamic (how you change your operational routines) capabilities, and clarify the link between the two. Not only that, ordinary capabilities underpin how an organisation can do things well, while dynamic capabilities reflect on an organization’s ability to do the right thing right, at the right time, keeping sight of the external forces and volatility (Teece 2009). Den Hertog et al. (2010) propose six dynamic service innovation capabilities to manage service innovation: signalling user needs and technological options, conceptualising, (un-)bundling, co-producing and orchestrating, scaling and stretching, and learning and adapting. As stated earlier, dynamic capability building is an integral part of the competence based-perspective. Competences are crucial to deliver services, and foster innovation. This is true for both product and service innovation (Ordanini & Parasuraman 2011; Tidd, Bessant & Pavitt 2005).

The literatures on dynamic capability building have been developed in various key streams. Teece (2009) emphasises on the *organisational capability to identify opportunity*, and take necessary action to exploit the opportunity through successful reconfiguration of internal and external resources and competencies. Eisenhardt and Martin (2000), on the other hand, emphasise on the *importance of resource reconfiguration* in building dynamic capability to maintain meaningful relevance of the organisational intangible and tangible resources in response to changes in the external marketplace. Another view of dynamic capability focuses on the role of top management in balancing the organisational tension to *maintain an equilibrium between exploring opportunities and efficient exploitation* (O’Reilly III & Tushman 2011).

This research focuses on how a large Australian based telecom company successfully reconfigured internal processes to achieve excellence in service delivery through effective collaboration with external partners. The importance of collaboration is evident in the extant literature. Welbourne and Padro-del-Val (2009) identify that relationship capital possesses significant strategic advantage for small and medium sized firms to create strategic advantage. Agarwal & Selen (2009) empirically provide evidence of relationship capital being core to innovation in services when applied to a service network. Mahmood, Zhu and Zajac (2011) find that multinational corporations are increasingly relying on various modes of collaboration to build dynamic capability within their organisations in response to changes in the external environment. Hawass (2010) identifies that inter-firm collaboration plays a positive role in reconfiguring organisational capability in pursuing dynamic capability building. In a similar vein, Martin (2011) emphasises on the role of business groups in building dynamic capability during a time of extensive environmental changes and volatility in markets. Chad, Fawcett, Wallin and Magnan (2011) confirm the association between collaboration and competitive advantage of a firm in a dynamic

environment. Finally, Holzweber et al (2012) provide empirical evidence that service companies are increasingly relying on collaboration with suppliers and top clients to excel the service outcome and deliver a unique service experience.

Agarwal & Selen (2009; 2011a, 2011b; 2013) theoretically deduce and empirically validate various dynamic capabilities that collaborating organisations have developed to foster service innovation in the form of elevated service offerings as well as the mediating effect of such capabilities. Components of such dynamic capability building include strategic capabilities such as knowledge management, entrepreneurial alertness and collaborative engagement, as well as operational capabilities like, organisational agility, customer engagement, and capacity to deploy innovation.

Kirca et al. (2005) report a lack of research in regard to implementation of dynamic capability building in fostering service innovation. In particular, research findings could be strengthened with more practical evidence to understand the underlying process of dynamic capability building in the context of collaboration. This is the area where this research aims at making a contribution to the literature, by analysing a Mobile handset case study in a collaborating Telco service network from the perspective of building dynamic capabilities resulting in service innovation.

Research Methodology

Case studies are widely used in organisational studies and social sciences with increasing confidence (Hartley 2004). Yin (2009) stated that in order to illustrate the desired complexity of social phenomena, distinctive case studies are needed because they provide the researcher an opportunity to accumulate meaningful characteristics of events, such as processes or causes, while remaining holistic to the context. Applying a case study method to investigate dynamic capability building processes in the context of collaboration is not new in the literature. For example, Awuah et al (2007) conducted two in-depth case studies to identify factors that influence a professional service firm's competence development over time. A main finding is that competence development over time is to a high extent influenced by the firm's close and regular interactions with their immediate customers, as well as some third parties in their network of exchange relationships. It is also echoed by Yin (2009) that the case study method can be applied in situations where the boundary between the context and the phenomenon are not clearly manifested.

For our qualitative study, semi-structured interviews were conducted to build an exploratory case study in order to explore, discover and identify how to build key processes and dynamic capabilities to foster innovative advantage. In our research context the boundary of the collaborative organisations are often obscured due to complex interrelatedness between organisational processes across partnering organisations. As such, the case study method is particularly suitable to investigate the complex process of dynamic capability building in blurred boundaries between organisations. Furthermore, a case study methodology allows for enhanced reliability and credibility due to the presence of multiple perspectives (Eisenhardt 1989). Cassell (2009, p. 503) states that interviews are semi-structured for their purpose and thus give 'in-depth' data which is normative and not 'standardised', and were conducted by a professional and experienced interviewer. This is contrary to quantitative studies where participants' views are solicited in the context of a pre-determined framework. For this research qualitative methods will be better suited to discover new outlooks, qualities and purposes and outcomes in developing higher-order capabilities.

Research design consists of logically combined steps including data collection, interpretation and analysis, which are linked to the research question (Hartley 2004; Yin 2009). Miles, Huberman and Salanda (2014) and Stake (1995) argued that propositions of

the case study guide the data collection sources, and also establish direction and scope of the study, as well as shape the conceptual framework of the study. Yet, in exploratory or intrinsic case studies there may not be any propositions at the start of the study as researchers have little information about the context of the study. The key research question that we aim to address in this research is how companies can successfully build dynamic capability through effective collaboration, and as it is an exploratory study we do not consider any prior propositions to guide our inquiry. The collaborative project under study consisted of a mobile handset supply chain reconfiguration attempt, set in a rapidly changing external environment.

Interviews were conducted with 15 managers and staff employed by a Telecommunications company operating in Australia (Telco) and their trading partner (TPartner), and the average length of each interview was 45 minutes. According to Creswell (1998) ten subjects represent a reasonable sample size to conduct an in depth exploratory case study. Interviewees were selected based on their engagement with the selected collaborative project in order to inform the researchers about the underlying dynamics of the capability building processes. Interviews were conducted after receiving signed consent, after which they were professionally transcribed.

In the case study method it is recommended to identify the similarity in views by different participants through incorporating them into emergent themes and patterns (Creswell 1998; Miles, M & Saldana 2014). The semi-structured interviews were coded using NVIVO software to identify emerging themes and patterns within the data. Whenever any theme demonstrates higher frequency, that theme is converted into an independent 'Node' having a number of items. We used constructs developed by Agarwal and Selen (2009, 2014) in the context of a service network to assign names of emergent themes of higher order capabilities from the interview data in order to ensure consistency with existing literature and definitions of different constructs (see Appendix A for full definitions of such constructs). Based on this mapping of the findings of the interviews to well-known dynamic capabilities, a framework is developed to illustrate the dynamic capability building process in the context of a service network. Hartley (2004, p.330) recommend researchers to verify the case findings with the participants in order to increase the validity of the study. As such, findings were cross-checked with the interviewees for the purpose of validation.

Next, we report on the research findings of how dynamic capability building can foster innovation (denoted as an elevated service offering), using the dynamic capability constructs of organisational relationship capital, collaborative innovation capacity, organisational learning, entrepreneurial alertness, collaborative agility, and customer engagement.

Research Findings of the Mobile Handset Case Study

Case Study Setting

First we elaborate on the context that compels the Telco to engage collaboratively with a relatively smaller company, TPartner in an urge to seek competencies they seem to be lacking at the time. Telco is a privatized company which has been facing internal resistances to transform itself as a dynamic organisation that can respond with high clock speed within the Australian telecom industry. On the other hand, deregulation of the telecom industry opened up avenues for private investors, which intensified competition. Entrance of several international private telecom companies into the Australian market created tremendous pressure on Telco to respond effectively to changes in the market place. In particular, due to its lengthy decision lead time (6 weeks on average) and bureaucratic organisational structure, Telco's lack of organisational capability to rapidly introduce new products and

services into the market forces senior management to rethink their strategies for reconfiguring their mobile handset supply chain. Rather than relying on existing suppliers and partners, Telco establishes a strategic partnership with TPartner to reconfigure its mobile handset supply chain. The TPartner was a well-recognised company and possessed specialised expertise in the global mobile handset industry. As stated by one of the senior managers of Telco : “*it may take 6 months for us (Telco) to do that by ourselves, whereas they (TPartner) have exactly the system which we need right now*”.

The resulting service network encompasses the entire distribution channel of Telco, including the distributors operating in Telco’s marketing channels, as well as downstream franchised retail centers. Through engaging with TPartner, the service network is able to access TPartner’s extensive global network capabilities, including leading mobile handset manufacturers and operators resources and competencies.

For this research we primarily concentrate on the dynamics between Telco and TPartner to investigate how this relationship facilitates dynamic capability building for Telco and TPartner to build service innovation, measured as elevated service offerings (Agarwal & Selen 2009).

The Importance of Organisational Relationship Capital in Facilitating Dynamic Capability (DC) Building

The first step that Telco underwent towards implementing a successful relationship with TPartner was to understand the company through a formal due diligence process. The partner company was assessed in terms of “...*the capability, the robustness of the organization, their financial stability. What... are their relationships, what is the expertise of their key people.*” It became evident that partnering with a competent organisation is an important prerequisite for success in turbulent environments. The literature also suggests that relationship capital is a critical firm resource (Chisholm & Nielsen 2009; Lockett, Thompson & Morgenstern 2009; Pollard & Jemicz 2010) which is further viewed as a means to access further resources of value (Deakins *et al.* 2007). In the seminal work, Agarwal and Selen (2009) found that collaboration helps partnering companies to capture sensitive information that enable them to learn and deliver successful innovation within the context of a service network. Based on the case study interview data we found that organisational relationship capital acts as an important driver through nurturing active relationships with customers, suppliers and partners to learn to innovate through developing entrepreneurial alertness, agility and customer engagement capability, and thus improve their service offerings.

Building Innovation Capacity and Organisational Learning Across Partnership is Fundamental to DC Building

Several empirical studies provide evidence that learning processes within organisations form the basis for developing dynamic capabilities (Agarwal & Selen 2009; Cepeda & Vera 2007; Kale & Singh 2007). One manager states that the evolving relationship between Telco and TPartner enables Telco network to learn and change (innovate) in three ways, namely systems, skills and behaviours. In relation to collaborative partnerships, Kale and Singh (2007, p.985) suggest that knowledge sharing processes “*involve exchanging and disseminating individually and organizationally held alliance management knowledge, which is both tacit and/or codified, through interpersonal interaction within the organization*”. Agarwal and Selen (2009) state that firms learn through many different mechanisms - learning by doing; learning by using; learning from external knowledge - including through hiring, training, and deploying consultants; learning from other’s experiences - vicarious learning; learning from interacting with suppliers, customers, parent

firms; learning from problem solving; and learning by searching- including R&D and more systematic problem solving.

It is stated that TPartner facilitates the necessary change through providing the system's expertise (processes). Furthermore, as TPartner is an external company, their influence to change behaviours faced less resistance due to their position of expertise and Telco's learning orientation. Thus, there was significant change in the behaviours of Telco personnel and processes. All of the above was said to have enhanced Telco processes and elevated the company's talent capabilities:

"So, I think it is important for people to be taught of the use, or be taught how to think in a different way, or do something that is requiring change managements which can only be started once the portal is up and running, so I think this is to begin as an example. There is still a way to go, but I think this is the expectation so far, so before we get the portal we cannot start with change management, and without change management we cannot expect the people to change behaviours on their own".

Entrepreneurial Alertness: A Crucial Sensing Capability in a Competitive Environment

This study also discovered tensions underpinning the dynamic capability theory, in particular between processes, paths- and positions- taxonomy (Teece 2007, 2009), and the sensing-, seizing- and transforming- taxonomy required in competitive market environments (Teece 2007, 2009) for firm level competitive advantage. The major influence upon Telco engaging in a partnership with TPartner lies in the fact that the Telco operates within the telecommunications industry, which is highly competitive. According to Yu (2001), there is a need for a strong entrepreneurial alertness system to be always active, where this is not the case opportunities may not be perceived or exploited. Entrepreneurial alertness is important so that enterprises not only adapt to changes but also seek to shape business systems through innovation and collaboration.

Engagement with TPartner provided Telco with access to "needed systems... We didn't have systems to provide us with the data to be able to do the analysis to make the decisions that we needed to make..." This enabled the Telco to capture market information which could be integrated with TPartner's information portal, and positioned the Telco in a very strategic and advantageous position. Through such knowledge, the Telco was able to analyse data and make informed decisions allowing the company to achieve its strategic aim of providing customer-focused offerings. In addition, it provided the Telco with an ability "to monitor the performance of different suppliers and lead them one against the other or look at different handset performance and compare one hand set against another" at short notice, which enables Telco to differentiate its competitive service offerings. With this new partnering arrangement, the Telco was able to access detailed competitive information such as 'what's the differentiator, what are all the elements that make up the product...' It was also stated by one manager that without TPartner "we would never have had access to that" information and possess the ability to make such intelligent decisions at our fingertips.

Achieving Agility: The Role of Collaboration in Building an Agile Organisation

Decision making within the Telco was attributed to the lack of alignment between different business units of the Telco, resulting in an inability to initiate change or take operational actions. However, collaboration and goal alignment between the Telco and TPartner enabled Telco to initiate change faster than before, and as a result made the organisation more agile, and increased the speed of delivery, informed decision making, or enhanced resource capacity planning as evidenced by: "so when you have that kind of intense alignment that allows you to move much faster in bringing about the necessary changes in an organisation". The reciprocal processes of responsiveness also allowed Telco to procure the right handset for customers at the right time. Continual monitoring of

performance from various perspectives both internal and across collaborating partners allowed Telco to create and customise the final service offering which were more appealing to customers: *“in my mind you continually monitor it for a period of what is happening by fault factor, by calibre, shape, or brand. All those attributes make up a product.”* As a result, partnering not only facilitates the process of managing seasonal demand, but also provides measurement tools to assess Telco’s and TPartner’s performance in meeting customer demand promptly.

Telco was able to redefine its sourcing strategy by utilising TPartner’s expertise in this area, and as a result rearranged their strategy and secure better sourcing contracts. Telco could receive and process information from the retail channels and utilise pertinent information in sourcing planning to perform better in terms of meeting customer demand. On the other hand, improvements in warehouse operations also resulted from supply chain outsourcing contracts. One respondent noted *“the supply chain outsource contract was set to be simplified to a point..., that is, it was just running a warehouse more efficiently, but they were not able to get the best prices consistently through the suppliers, that means we need to tell which of the products is worth stocking... which products are not..., so we need to provide information from the shop level, the more information we can provide to these vendors, the better...”*. Through the sharing of information in relation to both retailers and suppliers, Telco was not only able to gain an edge in warehouse resource utilisation, but also benefited from economies of scale, and improved bargaining power when purchasing the handset in larger volumes and at a better price. The collaboration of the Telco and TPartner has improved its ability to replenish stock at short notice, therefore increased stock availability when needed, and reduced the probability of ‘stock outs’ as evident from the following statement: *“so the day they place the first order and the stock was delivered... People went wild, did TPartner do their job...”*

The leverage that came along with partnering with TPartner made Telco a more responsive company, with a more focused orientation towards customers as evidenced by: *“alignment ...of supply chain cost... and that is right through from the procurement through the delivery”*, while the respondent also acknowledged the associated cost of achieving this as: *“there are cost and service issues associated with that”*. The cost of supply chain reconfiguration can be realised through making better informed decision about product range and pricing, which eventually improves the strategic and performance aspect of service offerings to the end customers: *“it is to give us the abilities of information ... and a supply chain that we can make better management decisions in terms of product ranging and pricing”*. As a result, the whole collaboration process enabled improved elevated service offerings, defined as a service innovation, an enhanced improvement in productivity and performance (Agarwal & Selen 2011b) of the service network (Den Hertog 2000; John & Storey 1998; Kandampully 2002; Menor, Tatikonda & Sampson 2002; Tidd, Bessant & Pavitt 2005; Van der Aa & Elfring 2002).

Customer Engagement, the Epicentre within the Service Network

Competitive actions and innovation can be facilitated through customer engagement by exploring and exploiting new opportunities (Sambamurthy, Bharadwaj & Grover 2003). With this level of contributions made by customers; they, along with their knowledge base, should be perceived as dynamic operant resources (Lusch & Vargo 2006; Vargo & Lusch 2008). Moreover, Holmstrom (2001) suggests that creating a virtual customer community through the use of information communication and technology (ICT) is a way of achieving customer agility. In our research setting customer engagement relationship channels were redefined by incorporating different tools, enabling stores to better connect with their distribution channels. It was then possible to utilise sensitive customer information among all organisational decision making processes. As a result, the Telco and its partnering organisations were enabled to make dynamic sales decisions through the use of available

competitive data: “my centre manager is comparing to other centre managers that we are capturing the competitive data and we are making dynamic sales decisions”.

Increased higher degree of customer knowledge can leverage a company with greater capability to meet future demand. TPartner has provided the Telco a ‘supply collaboration portal’ that allowed the suppliers to access the information about the performance of their products, therefore the Telco can work more effectively with partners to meet customers’ demand in a dynamic manner, as evident from the following statement: “we are also providing a supply collaboration portal.....to access information pertaining to their products and performance of their product in Telco and all these stores”. The efficient flow of customers’ information in real-time also increases performance visibility across each store and product range. This enabled managers to leverage resources more efficiently and effectively, and as a result enjoy more agility in terms of lowering information discrepancies and improving resource capacity planning, as evident from the following extract “...Exactly which handset models, [are] in which shops, which of our competitors change and tell you the 10 Internet plans that changed”.

Customer engagement provides a superior ability to anticipate discontinuity by consolidating inputs from customer preferences from various channels. This richness of information led to a better capacity to perform accurate forecasting: “There is a forecasting ... where all those different inputs are being consolidated and mapped again together ... i.e. consensus forecast”. Moreover, greater availability of information of customers’ choices also allows managers to detect future opportunities and enable them to operationally reconfigure to seize the opportunity: “capture all things, you are going to do..., but very quickly as we move forward is what other opportunities this is going to create for us”. Therefore, Telco gained the ability to identify demand accurately as well as was capable to offer customers product with higher degree of flexibility and customisation.

Based on the above findings we can see that organisational relationship capital (ORC) acts as a critical driver to foster dynamic capability processes within the organisational boundary. We have discussed the important role of dynamic capabilities, such as entrepreneurship alertness (EA), collaborative organisational learning (COL), collaborative innovation capacity (CIC); collaborative agility (CA) and customer engagement (CuE) within the context of a service network to deliver improved elevated service offering (ESO). Table 1 summarises our findings based on the frequency table obtained from the qualitative data from NVIVO, which show the interrelationships between different capability themes through generating a matrix table that displays the frequency of overlap between different constructs described above.

Table 1:
Evidence of nodes and associations - NVIVO Frequency Table

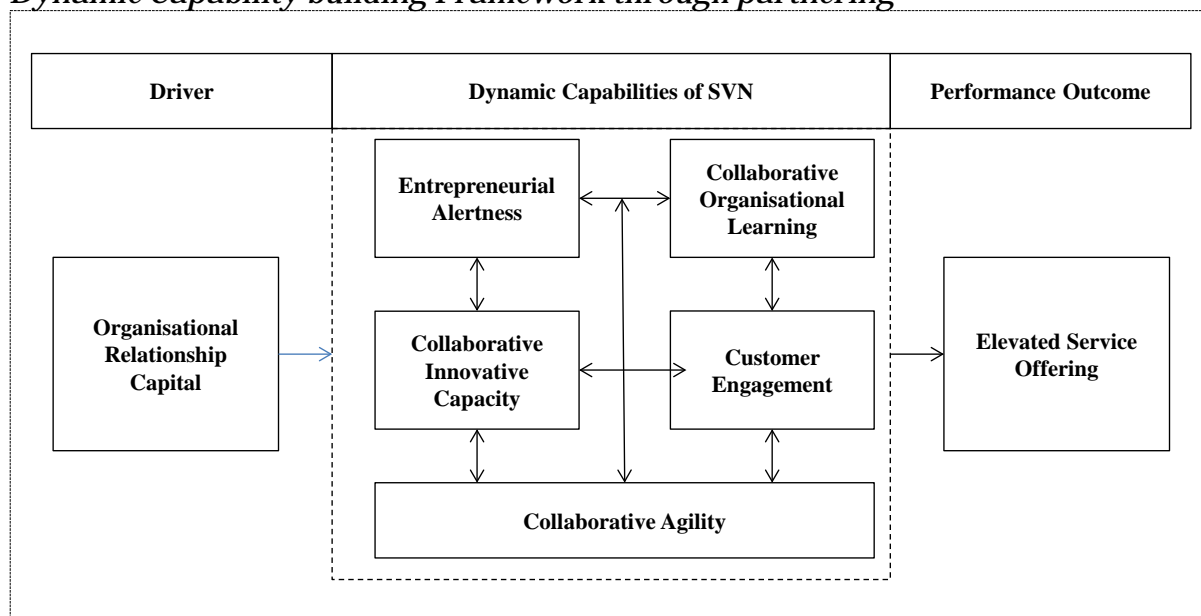
	CA	CIC	COL	CuE	EA	ESO	ORC
CA	175	29	16	20	17	45	7
CIC	29	86	11	9	19	19	4
COL	16	11	129	4	12	23	9
CuE	20	9	4	59	11	14	1
EA	17	19	12	11	86	9	2
ESO	45	19	23	14	9	136	5
ORC	7	4	9	1	2	5	45

where: CA – collaborative Agility; CIC – Collaborative Innovative Capacity; COL – Collaborative Organisational learning; CuE – Customer Engagement; EA- Entrepreneurial Alertness; ESO – Elevated Service Offering; and ORC – Organisational Relationship Capital

Table 1 clearly shows how important these different dynamic capabilities are and that there is clear evidence showing direct and indirect relationship and dependency between various capabilities e.g. Collaborative Agility (CA) has a significant direct association with CIC, COL, CuE, EA and ESO capabilities, except for a very thin relationship with ORC. This indicates that ORC and CA have an indirect relationship via other dynamic capabilities – potentially via COL. This is indicative of how collaboration is important and so is learning and knowledge exchange between partners.

Further, using the constructs summarised in Appendix A, and the various direct and indirect associations between various dynamic capabilities, we posit a research framework within the context of collaboration in Figure 1:

Figure 1:
Dynamic Capability building Framework through partnering



The framework in Figure 1 is an outcome of in-depth analysis of a single case study, and may be further validated in future studies.

Managerial Implications and Areas for future research

Qualitative analysis of interviews of 15 staff from Telco and TPartner supports the quantitative findings that higher order dynamic capability constructs emanating from collaboration clearly affect the dynamic capability building process. Reorganising, realigning and reframing processes across collaborative organisational boundaries were clearly evident. The findings of this paper are aligned with the findings of Agarwal and Selen (2009), Manolova, Manev, and Gyoshev (2010); Johnston and Staughton (2009); Pollard and Jemicz (2010) who also emphasise on organisational network relationship in enhancing organisational capability.

Practical implications of this research are significant. First, managers are made aware that collaboration, collaborative organisational learning, collaborative innovative capacity, entrepreneurial alertness and collaborative agility are all core to fostering innovation in services.

Second, collaboration can initiate and facilitate change; furthermore through collaboration firms can redefine their strategic and operational capabilities through reconfiguring critical resources, assets and capabilities. On the other hand, collaboration

will enhance the corporate entrepreneurial alertness skill-set; therefore increases the chance of improved capability to tap into new business opportunities and also to manage any unforeseen threats.

Third, partnering allows managers to rethink, rearrange and reposition their sourcing strategies which give them an ability to receive, process, and utilize pertinent information in sourcing planning to perform better in terms of meeting customer demand. The leverage that comes along with partnering makes managers more responsive, resulting in the realisation of the cost of supply chain reconfigurations through real-time data access and better informed decision making. This arms managers with a more focused orientation towards customers, and an ability to exceed expectations when delivering service offerings in a timely fashion.

Lastly, through partnering with customers and their ensuing engagement, managers are equipped with superior ability to anticipate discontinuity in customer preferences across channels, and through customer knowledge managers are able to meet future service demands expediently.

A key limitation of this paper is that it covers data from a single case study, therefore further study is required to establish a better understanding through cross-case analysis across data from multiple cases, at which time triangulation of findings will be made possible. In addition, future studies may gather empirical data across several service verticals to enhance external validity of the findings. Furthermore, this paper has focused on a number of higher-order constructs centered around the tenet of relationship capital within a service network. Future studies may research dynamic capability building around other relevant aspects of service networks, such as organisational culture, infrastructure management, architecture management, and governance structure. Future studies could also focus on the transfer process of dynamic capabilities from the service network to partnering companies in different market structures.

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Appendix A

Organizational Relationship Capital (ORC)	Agarwal and Selen (2009) classify organizational relationship capital (ORC) as a higher-order construct, which is made up of three subconstructs: relational capital, employee capital, and prior relationship.
Collaborative Organisational Learning (COL)	Agarwal & Selen (2009) define collaborative organizational learning (COL) as a higher order construct, which is made up two sub-constructs: <i>collaborative organizational learning–yours</i> , and <i>collaborative organizational learning–partner</i> such that there are benefits to each partnering organization. Hence, each partner is seeking a particular set of skills and/or resources that it does not possess, and that both partners promote rapid diffusion of new technologies and mutual learning, such that capabilities are developed via carrying, and exchanging information through the firm’s human capital”.
Entrepreneurial Alertness (EA)	Entrepreneurial alertness (EA) is defined as the “ <i>dynamic capability of an organization to explore its marketplace, and detect areas of current and future market place threats and opportunities</i> ” (Sambamurthy et al 2003, p.250) which comprises of two specific capabilities, namely strategic foresight and systemic insight. Accordingly, Sambamurthy define strategic foresight as the ability to anticipate discontinuities, threats and opportunities of the future whilst making us more vigilant of market place dynamics, and systemic insight as the ability to visualise and apply knowledge and experience in architecting competitive actions, that is, to be in a situation where one can contrast the views from the inside and the outside of the system.
Collaborative Innovation Capacity (CIC)	Lawson and Samson (2001, p.384) define innovation capability as linking to knowledge management and the transition of knowledge into practice defined as “ <i>the ability to continuously transform knowledge and ideas into new products, processes and systems for the benefit of the firm and its stakeholders</i> ”.
Collaborative Agility (CA)	Agility encompasses a firm’s capabilities which are related to interactions with customers, orchestration of internal operations and utilization of its ecosystem of external business partners (Sambamurthy, Bharadwaj and Grewal 2003, p.245).
Customer Engagement (CuE)	Customer engagement (CuE) is “ <i>the ability of the to encourage customers to participate and engage during the service encounter (face to face or technology mediated) and through the customer’s engaging and learning process, judge and respond to customer’s needs and expectations with agility and innovativeness</i> ”. Agarwal and Selen (2009, p.437)
Elevated Service Offering (ESO)	Elevated service offering (ESO) is defined as “ <i>a new or enhanced service offering which can only be eventuated as a result of a collaborative arrangement, one that could not otherwise be delivered on individual organisational merits, and comprises of a new or modified service offering; new client interface/customer encounter; new service delivery system; new organisational architecture or marketing proposition; and/or improvements in productivity and performance through human resource management or capabilities management.</i> ” Agarwal and Selen (2011a, p.1172)