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INNOVATION & THE PROFESSIONAL SERVICE FIRM:

Insights into the Locus, Patterns, and Tensions of Innovation in a Fast-

Growing Information Technology Consultancy in New Zealand.

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Abstract

This research investigated the locus of innovation through a time-frame of ten years for a fast growing, privately-owned New Zealand information technology professional service consultancy firm. Emergent patterns related to the firm's innovations were analysed along with the classic consultancy conundrum - the management of tension between future-focused innovations or present-day profits. An in-depth single case study approach was employed where the units of analysis were each innovation of the firm. Semi-structured interviews of 23 current employees involved in innovation activities across all levels of the organisation were conducted. This led to the discovery that less innovation occurred at the inception of the firm where the priority was to sustain the business in the short term. As the firm matured, the rate of innovations increased. The locus of innovation shifted from Top-down to Bottom-up as the firm grew. Further analysis showed that Top-down innovations had a higher likelihood of resource allocation and scaling at the firm. The consultancy conundrum is a constant tension that will continue to exist for the firm. The firm employs a number of "semi-structures" both formal and informal in nature to manage that tension. The findings of this research present a case for an inverse pattern of innovation for privately-owned professional service firms – where innovation occurs at the later stages of the firm's growth life-cycle.

Introduction

Deliver in the present day to rake in the profits or invest to innovate in the future? This has been, is, and will be the constant dilemma of professional service firms. With one foot firmly in the present and the other finding its footing for the future, firms run the risk of stretching into an unrecoverable split or constantly moving in circles. How does a fledgling information technology consultancy firm that has built a solid reputation and its credibility on the back of delivering a series of challenging projects maintain that external professional identity in the market; yet innovate with the curiosity of a start-up to maintain its relevance and sustain its competitive advantage?

Wakeman and Le (2015) in their report for the New Zealand Productivity Commission noted that smaller, younger firms have higher rates of innovation and this finding was consistent with international evidence. Does this then present the bleak fact that as firms mature and grow to become larger firms, innovation decreases? Sadly yes. It was noted that although there was an increase in research and development activity, innovation output was decreasing which meant, “productivity in the innovation process at the firm level may have declined” (Wakeman & Le, 2015). Another bleak finding in the report was that innovation was primarily driven by export and manufacturing firms with access to global markets or driven by foreign-owned companies rich in resources (Wakeman & Le, 2015). It is estimated that 40% of New Zealand’s productivity gap compared to the OECD average is attributed to low investment in innovation in knowledge intensive sectors (Wakeman & Le, 2015).

Perhaps this could be attributed to the fact that service firms occupy an intensely competitive sector in a small market and the short-term survival imperative trumps the

innovation imperative. This dilemma has been well documented by academic and business researchers (Kanter, 1985; Kanter, 1989; Leonard-Barton, 1992; Kanter, 2006). Often, a firm has to juggle time, resources, and energy to exploit the present and explore the future simultaneously (Kanter, 2006). To achieve both, the firm must often be savvy in employing and deploying almost two contrasting styles of management to cope with the predictability of the present and the uncertainty of the exploration. Levers of prediction cannot be applied to exploring future possibilities, and standardised outputs cannot be left unmonitored.

The objective of this research is to understand these questions. To do so, the locus of innovation of a professional service firm as it evolved from its start-up origins to a more sophisticated professional service firm is examined. Throughout its evolution, several customer-facing innovations were introduced alongside internal organisational changes to the firm's structure, leadership philosophy, business model, and overall vision. The firm under research is a New Zealand owned and operated professional service firm in the information, communications, and technology (ICT) sector. The firm has its origins in serving a niche segment of the software delivery market and has since grown to add service offerings across various aspects of the software development lifecycle (SDLC).

This research report, focusing on one firm, examines the locus of innovation shifting through time. In addition, the research explores and explains how the contentions between innovation and delivery are managed in the firm by accessing information and responses from present employees at all levels of the firm under research. Present day challenges are highlighted and recommendations for managing innovation for the firm are presented.

Literature Review

The literature review section of this report will provide a general overview on innovation followed by how innovation is managed in firms. In addition, the concept and context of the professional service firm will be outlined. Research on how innovation occurs in this context will be presented and this will provide the setting for this particular research.

Innovation & Managing Innovation

Innovation is not only related to growth and competitive advantage. In essence, it is also related to a firm's survival (Bessant & Tidd, 2011; Kuratko, 2010) and a source of growth and competitive advantage (Kuratko, 2010; Mele, Colurcio, & Russo-Spena, 2014; Ross, 2015). Bessant & Tidd (2011) assert that forgoing the innovation imperative exposes firms to the risk of being overtaken by competitors or new entrants. Present day managers are driven by the threat of the prospect that entire industries will vanish (Kandampully, 2002). As such the desire towards an innovation imperative is stronger than ever.

The meaning of the term "innovation" can be succinctly captured as "innovation is anything new to your business" (Ross, 2015, p.33) and "is about deriving value from ideas" (Ross, 2015, p.34). Innovation is driven by the motive power of entrepreneurship – a spirit encapsulating "vision, passion, energy, enthusiasm, insight, judgment, and plain hard work" that transforms the ideas into reality to create value (Bessant & Tidd, 2011, p.10). If entrepreneurship is the driving force of innovation (Bessant & Tidd, 2011), then corporate entrepreneurship is the driving process where employees - individuals or groups - within a firm strive to invigorate, innovate, or introduce a new business unit within that particular firm (Kuratko, 2010). Corporate entrepreneurship is a term used interchangeably with terms such as "intrapreneurship" or "corporate ventures" (Bessant & Tidd, 2011). The management of

innovation can be assessed at three levels – Top-down approach by senior management, the role of managers in the middle of the firm, and from the Bottom-up through individual employees. Generally, innovation is managed within firms from a Top-down approach through varying degrees of corporate entrepreneurship.

Kuratko (2010) states that corporate entrepreneurship is especially vital for firms that encounter dynamic advances in their industry and market on a continual basis. Corporate entrepreneurship is seen as the first line of defence for firms, giving them a basis for survival then used to propel the firms to ensure sustained competitive advantage (Venkataraman, MacMillan, & McGrath, 1992; Kuratko, 2010). The Top-down approach legitimises innovation with the firm and to increase the likelihood of success, Kuratko (2010) asserts that a strong corporate entrepreneurship strategy requires commitment, decision, actions, and behaviour that model corporate entrepreneurship from the senior members of the firm. Kuratko (2010) and Johannessen (1994) are quick to balance the view that while Top-down support is vital, inducing corporate entrepreneurship can appear to employ tighter controls and stifle creativity. Instead, a balance needs to be struck between formal, Top-down support to set the tone and climate for innovation to prosper (Sebastiani & Paiola, 2010), and permitting a degree of flexibility to encourage self-directed entrepreneurial behaviours to foster (Kuratko, 2010). Support also needs to come in the form of creating funding sources (McGrath, 2006), and appropriate reward and recognition mechanisms (Kuratko, 2010).

Overall, firms need to grasp that a dynamic operating environment is now the new normal (Brown & Eisenhardt, 1997) and that firms need to be flexible to accommodate “semi-structures” (Brown & Eisenhardt, 1997, p.28) in order to gain some predictability

without sacrificing creativity in the innovation process. This is to ensure that innovation appears to occur without a formal plan or process (Martin Jr. & Horne, 1993).

Research also focuses heavily on the role of managers in managing the innovation process (Johannessen, 1994; Hargadon & Sutton, 1997; McGrath, 2006; Kuratko, 2010). In the body of research, managers are seen as having a pivotal role in terms of understanding the strategic intent of the firm but also being close enough on the front-lines to facilitate feedback.

Managers are expected to play multiple roles in the management of innovation. Successful management characteristics include close monitoring but not micro-management; coaching, guiding, and facilitating team members rather than instructing; creating a climate conducive for collaboration, trust, cooperation, and creativity; seeking and accessing resources; managing organisational politics and conflict between new innovation projects against business-as-usual work (Johannessen, 1994; Hargadon & Sutton, 1997; McGrath, 2006; Kuratko, 2010). It is almost as if managers are required to take a “Goldilocks” approach to managing innovation – keeping everything “just right”. It is as though managers are thrown in the lion’s den dressed in a red tunic, armed with a shield and whip only to face a raging bull head-on when required to manage both innovation pursuits and present day commitments. McGrath (2006) defines this as the need to be able to switch personalities quickly!

With this double act, it can be argued that managers of innovation need to be as creative as the innovators they manage – wearing multiple hats and juggling multiple responsibilities. Johannessen (1994) identified these individuals as “champions” for

innovation as they are on the edge of innovation – gaining technical expertise, continuous learning, and acquiring knowledge of existing innovations while being aware of the latest trends (Hargadon & Sutton, 1997).

Individuals that exhibit traits of positive self-esteem, internal locus of control, and most importantly creativity, have the propensity to engage in innovative pursuits. Creativity is a theme not just for individual employees but also for firms. Firms that can creatively combine their core competencies increase their likelihood of developing a valuable resource for innovation (Kandampully, 2002). However, while creativity is a core competency that should be carefully cultivated and managed (Giannopoulou, Gryzkiewicz, & Barlatier, 2014), Staw (1995) counters that firms espouse but do not encourage creativity. This is because creativity is complex and difficult to manage with traditional management levers. Nevertheless, creativity and continuous innovation is the only strategy to sustain long-term success of the firm (Kandampully, 2002).

Learning is also a theme that garners a high-degree of emphasis in the research on managing innovation (Brown & Eisenhardt, 1997; den Hertog, van der Aa, & de Jong, 2010). Deliberate learning and reflection is vital in regards to how service innovation is managed (den Hertog, van der Aa, & de Jong, 2010). Service firms not only under-invest in innovation research and development, they are also poor at evaluating new offerings with early adopters; do not refine the offering; or are not methodical in data collection and analysis from customers (Dorner, Gassmann, & Gebauer, 2011). This deficiency reflects a lack of strong learning feedback loops for service firms.

One solution to this deficiency can be found through the research of Brown, Haynes, and Saunders (1990) that shows existing innovations for a firm can be revitalised through a three-step structured retrospective approach. This includes understanding the original expectations and goals of the innovation; evaluating and assessing its current performance in line with the firm's strategic direction and customer demands; then refocusing the innovation to meet the new demands (Brown, Haynes, & Saunders, 1990). This is in line with other research that emphasises the learning dimension of innovation. While other research focuses on lessons learnt from innovation failures and interaction with external parties such as customers and suppliers (Kandampully, 2002; Rusanen, Halinen, & Jaakkola, 2014), the approach taken by Brown, Haynes, & Saunders (1990) was specifically directed to evaluating the deployed innovation against original expectations and ensuring that the improvements are made so that the innovation does not languish in its operating environment. It is worth nothing that the research of Brown, Haynes, and Saunders (1990) centred on service delivery via automatic teller machines (ATMs). While it may not be directly applied to pure service innovations, the approach in essence serves as useful insight in enabling a firm to create a feedback loop to create opportunities for incremental innovation, rather than sink energy and resources into discovering the next disruptive innovation.

Hargadon and Sutton (1997) identified that the limitation of a knowledge-intensive firm is the diffusion and distribution of knowledge itself. Key to overcoming this is taking a networked approach - making the linkages from an existing solution in a specific context to solve a problem in another context (Hargadon & Sutton, 1997). This limitation has a greater impact especially for professional service firms with distributed teams where their innovators – consultants, analysts – spend a majority of their working day servicing clients at their client's locale. As such, the imperative to maintain learning linkages is greater for

professional service firms. Otherwise, these firms face the risk of not being able to creatively apply their intellectual property and capacity to generate new insights, service lines, grow existing markets, or stimulate new markets.

Professional Service Firms

Historically, firms were largely focused on manufacturing operations, producing tangible products for their markets. Firms have evolved over time to become product plus service firms (for example, Dell providing after sales service with a purchase of their computers), service plus product firms (service providers using proprietary software or tools to provide the service experience), or pure service firms (for example, professional service firms such as management consultancies, accounting firms, and law practices). Firms are increasingly complex in nature, often providing an assortment of product and/or service offerings and not just a single product or service (Kandampully, 2002).

The professional service sector is the mainstay of many leading Western economies and is typically a high value-adding sector that generates trillions of dollars in revenue at the global level (Ross, 2015). Professional service firms portray three unique characteristics – a professionalised talent base; low capital intensity; and high knowledge intensity (von Nordenflycht, 2010). In Maister’s seminal research, (Maister, 1982; Maister, 1985; Maister, 1997) he depicts the professional service firm through unique characteristics of up-or-out promotion systems, and outplacements.

Up-or-out systems are based upon a hierarchical structure and assume that each professional is motivated to climb through the ranks (Maister, 1985). This means that promotions are expected. As more promotions are handed out, it becomes necessary for the

firm to grow its business to ensure more junior analysts can be recruited to “fund” the manager’s position. This structure is compromised if external or lateral hires are made to address a shortfall in skillset or experience.

What is interesting is the concept of outplacement where the firm actively seeks to place the un-promoted employee into a high-ranking position in a client’s firm (Maister, 1985). This serves as a strategic move to ensure continuity and preferred business. Maister’s (1985) depiction of the professional service firm is solely based around the traditional law and accounting firms of the day. Ross (2015) states that the partnership model in such classical firms hinders innovation as senior partners are unlikely to favour changing the system they had to go through. Furthermore, the classical professional service firm as depicted by Maister (1982; 1985) is less relevant in the complex and dynamic business environment of the 21st century. Firms take on structures that are contingent on the service provided, the market it serves, the number of employees, and the nature of work delivered. Furthermore, the concept of the corporate ladder is eroding. As individuals seek more fulfilment at work, opportunities to refine their craft or trade are made available to them and are well rewarded. For example, a software developer does not need to progress into a management role after a set number of years and can achieve career progression in the same role where the experience gained allows them to become a technical expert.

Service Innovations in Service Firms

Services are expected to account for 75% of global growth in the coming decade (D’Emidio, Dorton, & Duncan, 2015). In this fast-paced technology-centric world, it is easy to understand the concept of innovation through products that enter the market and disrupt the norm. Some popular examples include the iPod and the iPad. Radical, step-change

innovations are headline grabbers in the media but a vast majority of successful innovations are incremental (Ross, 2015). Kandampully (2002) states that innovation, regardless of how small, creates a snowball effect resulting in innovations that create new markets or disrupt the old.

The intense competition resulting from the exponential growth of services presents both a challenge and opportunity for firms with respect to managing services (Kandampully, 2002). The service sector presents more opportunities for innovation from new entrants and radical change due to lower capital costs (Bessant & Tidd, 2011). Firms do not require sinking large initial investments to procure raw materials, set up plants, and install machinery. The new resource for the new millennium, according to Kandampully (2002) is knowledge. A firm acquires knowledge by attracting, recruiting, and selecting from the market. The challenge is then extracting, codifying, and institutionalising the knowledge and experience gained by individuals through each client interaction (Rusanen, Halinen, & Jaakkola, 2014).

Despite the service innovation imperative, larger firms prefer to invest in sustained efforts in transforming products as compared to services (D'Emidio, Dorton, & Duncan, 2015). In New Zealand, this could be attributed to the fact that there are tax incentives when engaging in research and development activities to innovate goods rather than service processes (Wakeman & Le, 2015).

Categories of Innovation

Prior research on innovation within firms has centred on the goods-dominant (G-D) logic. While relevant in the past, G-D logic is linear and is best applied to researching firms

that are pure manufacturing or goods-only output firms. G-D logic asserts that the source of innovation for a firm is within the firm, in which the firm is the prime innovator and recipient of returns (Mele, Colurcio, & Russo-Spena, 2014). Any interactions with parties external to the firm are rare or negotiated in watertight contracts (Mele, Colurcio, & Russo-Spena, 2014). In the service industry, an example of the G-D category is a firm providing analysts and/or consultants to deliver a project based upon pre-determined contractual agreements. Services may be delivered alongside a pre-determined tool or methodology, and variability for innovative activities taking place are minimised. For professional service firms, this may be a service offering developed in-house and pulled by the market. An example of this is Gartner, an information technology research and advisory company.

The Resource-Based View (RBV) of innovation takes into account the firm's resources that are valuable, rare, inimitable, and the firm's ability to exploit the resources to generate and sustain its competitive advantage (Barney, 1991). However this view is limited as it is inward looking and does not take into consideration the context in which the firm exists. Mele, Colurcio, and Russo-Spena (2014) assert that this approach to innovation focuses on the firm's core capabilities and any external interaction is mainly centred on the value chain. The locus of innovation is a combination of internal and external sources but the core innovation work undertaken remains internal (Mele, Colurcio, & Russo-Spena, 2014). For the professional service firm, innovation activities in the RBV category could include internal innovation activities to uplift the firm's capability to meet anticipated short-term and long-term market demands.

The service-dominant (S-D) logic was proposed as a move away from the prevalent manufacturing logic. S-D logic in relation to innovation emphasises an open, network model

where innovation is not the final product but an input where both innovator and customer interact to collaborate and add value (Mele, Colurcio, & Russo-Spena, 2014). In this frameset, the source of innovation can be anywhere in the innovation network (Mele, Colurcio, & Russo-Spena, 2014). The S-D logic perspective accepts the multidimensional nature of service innovation and the networked approach allows research to capture the “soft” side of innovation that surfaces organically. For a professional service firm, S-D activities could take place alongside the customer where the relationship between the firm and customer is established as relational more than transactional.

Innovation Pathways

Sebastiani and Paiola (2010) present four pathways in rethinking service innovation. The first pathway is the dematerialisation of offering systems. In this pathway, firms move away from being solely goods-centric to incorporating intangible aspects such as reputation, brand, network relationships, and organisational culture to differentiate itself (Sebastiani & Paiola, 2010). It must be noted that products are not completely abandoned but the business focuses more on service delivery and experience with the product as an enhancer.

The second pathway is the virtualisation of value system. Here, technology is the enabler - capturing intangible aspects of innovation, primarily linking relationships and capturing knowledge (Sebastiani & Paiola, 2010). Similar to RBV innovations, Pathway 2 is characterised by the firm capturing knowledge and leveraging off the knowledge, skills, capabilities, and creativity of the firm. The third pathway is the replication of organisational models. This involves the firm capturing tacit knowledge to formalise processes and approaches to an extent but still maintaining a degree of flexibility to respond to actual environments which may be more complex than anticipated (Sebastiani & Paiola, 2010). The

fourth pathway is the multiplication of market niches. This occurs when knowledge exploitation is diminished and the firm plays on its strengths to apply it to completely new fields, diversifying its client portfolio (Sebastiani & Paiola, 2010).

Application of Service Innovation Frameworks

The three distinct views of G-D logic, RBV, and S-D logic presented by Mele, Colurcio, & Russo-Spena (2014) can be used to categorise the types of innovation that occur during the firm's lifecycle or growth curve. From this concept, it is envisaged that professional service firms at the start-up or introduction phase will have more G-D innovations. More specifically, service innovations or offerings linked to products or tools. As the firm grows, it is anticipated that more RBV innovations could potentially surface to build capability and to meet current or potential demands. Once the firm and its services mature, S-D type innovations may take place as the client and firm relationship has been established. Similarly, the four pathways presented by Sebastiani and Paiola (2010) can also be placed along a continuum with Pathway 1 reflecting the 'start-up' or 'introduction' phase of the firm; Pathway 2 as the 'growth' phase; and Pathway 3 representing 'maturity' of the firm. The next phase is the 'decline' phase. However, as Pathway 4 of innovation is related to the multiplication of market niches and exploiting the competitive advantages of the firm, this pathway may represent a new growth curve for the firm. Competitive firms will aim to innovate to seek competitive advantage before it reaches the peak of maturity or be positioned to leverage the maturity of the firm to new growth instead of facing a natural decline.

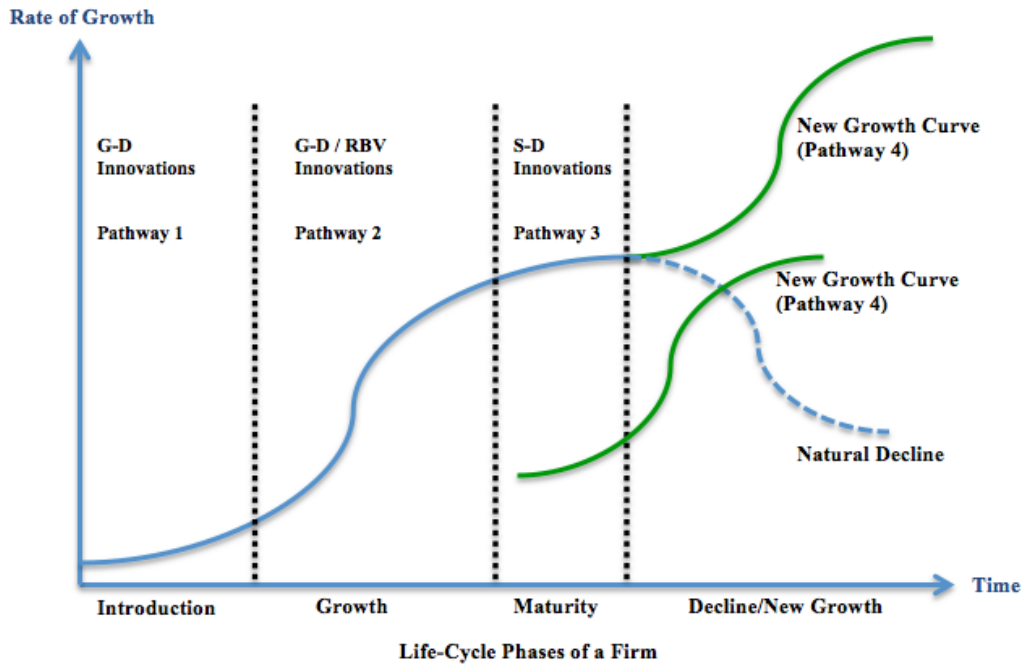


Figure 1. Innovation categories and pathways against the growth life-cycle of the firm.

Figure 1 displays a visualisation of how the innovation categories of Mele, Colurcio, & Russo-Spena (2014), and innovation pathways of Sebastiani and Paiola (2010) are related to each phase of a firm’s growth life-cycle based on Hambrick and Crozier’s (1985) model of a firm’s accelerated growth. Hambrick and Crozier (1985) state that in the firm’s inception and growth stage, the relationship strength is stronger among employees as compared to when the firm matures into a “big company”. As a result, the rate and frequency of innovation activities is higher when the firm is at the start-up phase as compared to the peak of growth and maturity phases.

Research Design

Exploratory: Theory-Building Case Study

“In business and management, if the story or the case is useful and contributes to an understanding of the world and/or explains interesting phenomena, then the case study or story’s value will be acknowledged and it will become an integral part of society’s knowledge base” (Remenyi, Money, Price, & Bannister, 2002, p.15).

Business phenomena occur in a dynamic environment and any attempt to isolate and replicate the plethora of inter-related and interdependent variables in a laboratory setting would detract from the richness of information and learning that an on-going, “live” event can provide. To this extent, researchers in the field of management utilise case studies as a way to explore and cognise how various business events and contexts develop over time and at multiple levels of the firm (Remenyi et al., 2002; Ridder, Hoon, & McCandless, 2009). Case study approaches are used because research conditions in business are seldom subjected to the same controls and manipulated variables as those in the natural sciences (Eisenhardt & Graebner, 2007).

The case study approach has been criticised due to lack of generalisability to the general population, thereby lacking in scientific contribution (Ridder, Hoon, & McCandless, 2009) and implies there is less precision and contribution to theory building when contrasted with rigorous, large-scale theory-testing (Eisenhardt & Graebner, 2007). However this is countered by the assertion that large sample-survey research is limited in its ability to ratify conversations, behaviours, and events; and that information required for in-depth understanding of the object(s) of research cannot be collected or collated (Woodside & Wilson, 2003). This approach is suited in research questions where the focus is on context

(Remenyi et al., 2002) and multiple perspectives (Ridder, Hoon, & McCandless, 2009). To disregard the setting under which the phenomena occurs would only serve to de-value and distill the insights made possible by taking into account the multi-faceted nature of the case. As Remenyi et al. (2002) succinctly state, a high quality case study should “*describe a complex business or management phenomenon in a holistic manner (p.5)*”.

This research is concerned with the sources of innovation and the tensions between innovation for the future versus delivery of routine services for the present day of a young, fast-growing information technology professional service consultancy firm. In order to capture key events, decisions, milestones, and the challenges faced by the firm, a case study approach presents the most pragmatic and purposeful method for this research. This is because case studies also capture and emphasise the context in which these phenomena occur (Eisenhardt & Graebner, 2007).

The case study approach is suited to this particular research as it seeks to answer the “where”, “why”, “how”, and “when” questions of innovation of a specific firm. Gill (1995) and Rowley (2002) state that case studies are well suited for research that seeks to explore, explain, and evaluate business phenomena. Furthermore, the goal of this particular research is to engage in theory-building that will contribute to the understanding of:

- i) Where innovation occurs in a firm operating in a dynamic and competitive business environment and,
- ii) How the competing tensions between innovation and routine service delivery are managed.

Therefore, in view of theory-building it is envisaged that a case study approach will offer the opportunity to discover details that further elaborates or expands existing theory; or perhaps plays a contributory role in developing new theory (Eisenhardt, 1989; Eisenhardt & Graebner, 2007; Ridder, Hoon, & McCandless, 2009). In research involving a review of high-quality case studies, Ridder, Hoon, and McCandless (2009) found that case studies can be a valuable instrument in the extension and refinement of theories in the field of strategy and management, specifically for firms and dynamic capabilities.

A persistent contention exists between the generalisability of theory-testing approaches (e.g. surveys) and the specificity of context. Case studies are sometimes viewed as the polar opposite of en-masse, randomly sampled research approaches. While surveys emphasise generalisability and statistical significance, case studies emphasise particularisation and realisation (Lee, Collier, & Cullen, 2007). However, Eisenhardt & Graebner (2007) assert that case studies are a conduit that links rich qualitative insights to typical inferential research. This is because of the likelihood of generating novel theory when theory-building from cases (Eisenhardt, 1989).

Eisenhardt (1989) presents a justification for the theory-building from cases approach but also cautions with an emphasis on balance – highlighting both the strengths (novel theory) and weaknesses (over-complicated and complex theory) of the approach. A primary feature of case studies is that the numbers of participants studied are fewer than in a survey but the depth of detail available for each case should be greater (Rowley, 2002). This present research is an in-depth single case study of one specific firm with multiple units of analysis within the firm, which are each of the innovations that occurred in the firm. The depth of

insights and themes related to the sources and management of innovation will lead to a richer understanding in this field of study.

The case study approach must be accompanied by equally sound data collection techniques. By engaging a case study approach, qualitative data techniques have the ability to uncover and extract complex social events that are unlikely to be revealed by quantitative data (Eisenhardt & Graebner, 2007). The data collection technique for this research is presented in the following section.

Data Collection Technique

While case studies are diverse in terms of their sources of data, combining both quantitative and qualitative data (Hargadon & Sutton, 1997; Remenyi et al., 2002; Eisenhardt & Graebner, 2007), in-depth case studies are qualitative in nature most of the time (Remenyi et al., 2002). Interviews are the most common approach to gather facts, obtain insights, or understand complex social phenomena where the primary aim is to encourage participants to reflect and communicate their understanding, experiences, and opinions (Rowley, 2012).

This present research used semi-structured interviews to collect data. Semi-structured interviews offer a flexible process in terms of the degree of freedom the interviewee has in answering questions, allowing the interview session to head in a tangential direction if it is anticipated to lead to diverse insights related to the research topic (Bryman & Bell, 2011). More specifically, it allows the interviewer to adapt questions or probes in response to the interviewee (Rowley, 2012).

Bryman and Bell (2011) state that some of the key advantages of conducting interviews include a decreased hesitation to participate; allows for participants to recall and reconstruct events; is less intrusive; and affords a greater scope of coverage in terms of range of participants. With reference to the present research, interviews were conducted with current employees of the firm. The semi-structured interview was suited to this research as it involved a degree of retrospective interviewing, particularly for innovations that occurred at the inception of the firm.

Conducting face-to-face, one-on-one interviews removed the bias of groupthink compared to conducting focus groups or group interviews. Interviewing is a method that enabled the utilisation of a source of numerous, highly knowledgeable interviewees who view the object of research from different perspectives (Eisenhardt & Graebner, 2007).

This research utilised purposive sampling methods. Participants who were integral to the firm's growth or participants who were and are actively involved in innovations at the firm were interviewed. Random sampling of participants was not deemed suitable as the likelihood of not interviewing key individuals in the small professional service firm was high.

23 participants were interviewed for this research. These participants were current employees of the firm. The tenure of employment service ranged from less than one year to ten years. Participants who were involved in specific innovation activities were sourced from all levels of the firm. These ranged from analysts, consultants, senior consultants, managers, senior managers, and the firm's Chief Executive Officer. By interviewing participants who comprised different organisational levels, expertise, functional areas, innovations, and locations, it reduced the likelihood of collusion or engaging in convergent perspectives

(Eisenhardt & Graebner, 2007). A noteworthy observation was that employees actively involved in innovation activities held multiple roles and positions within the company. These included their main consulting role, internal team leadership roles, and they were often active members of the professional community.

Participants were provided with an information sheet and consent form to sign. Consent was sought from each participant for the interview to be recorded using an audio recorder. Participants had the option to refuse response to any questions posed to them and/or withdraw from the interview at any time.

At the beginning of each interview, participants described their roles and positions at the firm as well as their length of employment in the firm. Participants were encouraged to describe their views on the firm, as well as describe their opinion of the most successful and least successful innovations they had come across in the firm. Participants were then asked to describe their involvement in any innovation activity in the firm and were asked probing questions to describe the milestones and key challenges of their innovation journey. Participants were also questioned on their opinions on how innovation is managed at the firm. In addition, participants were asked for an assessment on the firm's appetite for innovation risk as well as how the balance is managed in terms of the tension to focus on present day operations or to invest and/or innovate for the future with some degree of short-term sacrifice.

Written notes were recorded throughout each interview. Key commentary from each interview was transcribed by the researcher and stored in a secure location. Audio recordings,

interview notes and transcripts were stored in a secure area only accessible to the researcher and the research supervisor.

The interview concluded when questions or probes in the interview no longer delivered any new insights and/or reached saturation point. Data collection ceased once interviews reached saturation point and did not lead to the discovery of further insights related to the research topic. A summary of the research findings was provided to the participants where requested.

Data Analysis

This research used a single-case study with multiple units of analysis. While a single-case study has limitations due to robustness in terms of theory-building for replication purposes in the future, the single-case approach with multiple units of analysis has the potential to yield impactful insights (Eisenhardt, 1989). Data was collected via semi-structured interviews (see Appendix A for Interview Guide and Questions). Analysis of the interviews was conducted through an initial analysis of concepts followed by themes; then where applicable, aggregate dimensions as per Gioia's Methodology (Gioia, Corley, & Hamilton, 2013).

The Gioia methodology presents an approach in designing, analysing, interpreting, and presenting quality research in a rigorous manner. Gioia et al. (2013) highlights key features of the methodology and key aspects to consider for any researcher intending to use the methodology. Gioia et al. (2013), state with caution that the Gioia Methodology is not intended to be carbon copy replicated on any qualitative research but rather an adaptable framework that can be innovated upon to guide future research. This adaptable and open

approach is a nod to the complexities and dynamic nature of cases, where a one-size-fits-all approach rarely derives any impactful insights.

From the interviews, a timeline of when each innovation occurred was plotted. Each innovation was then analysed from the transcripts of interviews to determine what the innovations were; the source of the innovation (who); the purpose of the innovation (why); and the journey of the innovation (how). From this initial analysis, each innovation was then placed into an innovation category based on Mele, Colurcio, and Russo-Spena's (2014) description of G-D, RBV, and S-D perspectives of innovation. Each innovation was also mapped to one of the four pathways of innovation (Sebastiani & Paiola, 2010) based on the characteristics of each innovation against the attributes of the pathways.

This was followed by a second-level of cross-innovation analysis to determine if common patterns existed across the development of each innovation. More specifically, the purpose was to discover the degree of formality of innovation activities if resources were allocated to develop or sustain the innovation, and the impact of the innovation on the firm either internally or externally.

Results & Discussion

Context of the Firm Under Research

The professional service firm under research is a New Zealand ICT service consultancy. The firm has been in operation for ten years and is a limited liability company. It is not a publicly listed company. Unlike the traditional legal or accountancy firm, the firm does not have a partnership pathway. In the early years, the firm started with the vision to improve the quality of software delivery, and the predominant service offering in these years was the provision of independent software testing. The firm has experienced accelerated growth throughout its ten years of operation.

As a professional service consultancy firm, the key driver and one of the key performance indicators for the firm is utilisation rates. Utilisation rate is defined as a measure to ensure the billing efficiency of an individual charging out to clients in exchange for practical expertise so that the contributions to revenue can be measured (Maister, 1985; Maister 1997). The firm has a target utilisation rate of 80% to 90% per employee. The firm plans its budget, forecast, and targets for each financial year based on this target utilisation rate.

Locus of Innovation and Growth of the Firm

Table 1 displays the list of innovations that occurred within the firm from its inception to the present day (10-year timeline). The source of innovation, purpose, innovation category, and innovation pathway are displayed against each innovation undertaken by the firm. Within the context of the firm, Top-down innovations are defined as innovation activities that are part of the firm's strategy or annual business plan where resources of the firm are allocated

toward developing the innovation. Innovation activities that are Top-down driven also remain high on the agenda or consciousness of members of the firm's senior leadership team.

In contrast, Bottom-up innovations, within the context of the firm, are defined as innovations championed and driven by an individual or groups of employees (Bessant & Tidd, 2011). Bottom-up innovations occur in a somewhat spontaneous, unplanned fashion often as a result of employee interaction across roles or specialisations, as well as from the employee's interaction and experience with customers (Bessant & Tidd, 2011).

From the description of the innovations provided by the participants, the purpose of each innovation was categorised as either internal or external. Internal innovations serve a purpose of uplifting organisational skills and capability, establishing feedback loops for learning, and creating knowledge-sharing opportunities between employees. This is notable especially for a professional service firm where employees who are consultants, analysts, or specialist practitioners are distributed across client sites. These internal innovations could potentially lead to new service offerings by the firm in the future. At the very least, they offer new perspectives or techniques for employees to improve and add value to their everyday work.

External innovations at the firm have a focus on developing a service line or service offering for the market. The aim for external innovations are two-fold – to help develop a solution for a customer's problem; and to monetise these innovations to generate revenue for the firm.

Year	Innovation	Source of Innovation	Purpose	Innovation Category	Innovation Pathway
2005	Agile, Continuous Delivery Consulting	Top-Down	External	G-D	Dematerialisation
2006	Partnership with Software Tools Provider Graduate Software Testing Training Programme	Top-Down Top-Down	External Internal	G-D RBV	Dematerialisation Virtualisation
2007/8	Managed Testing Services	Top-Down	External	G-D	Dematerialisation
2010	Learning Group	Bottom-Up	Internal	RBV	Virtualisation
2011	Automation Testing Training Initiative	Bottom-Up	Internal	RBV	Virtualisation
2012	Visual Management (Hibiki) Specification By Example (Hibiki) Lean/Kanban Techniques (Hibiki) Circles (Hibiki)	Top-Down Top-Down Top-Down Top-Down	Internal Internal Internal Internal	RBV RBV RBV RBV	Virtualisation Virtualisation Virtualisation Virtualisation
2013	Software Testing Service (South Island) Education Service Business Analysis Service Context Driven / Rapid Software Testing	Top-Down Top-Down Top-Down Bottom-Up	External External External Internal	G-D G-D G-D RBV	Multiplication Multiplication Dematerialisation Replication
2014	Usability & Accessibility Testing Client-Centric Software Testing Solution Lean Testing Agile NZ Conference Transformation Consulting	Bottom-Up Bottom-Up Bottom-Up Top-Down Top-Down	External External External External External	S-D S-D RBV S-D S-D/RBV	Replication Replication Multiplication Multiplication Multiplication
2015	Lean Business Analysis Service Retrospectives Training Course Start-Up Weekend Dev/Ops Service Performance Testing “Apprenticeship” Fresh Start Programme Technical Testing Solutions	Bottom-Up Bottom-Up Bottom-Up Bottom-Up Bottom-Up Bottom-Up Bottom-Up	External External Internal External Internal Internal External	G-D G-D RBV S-D S-D RBV G-D	Multiplication Multiplication Virtualisation Multiplication Replication Virtualisation Multiplication

Table 1. Timeline, innovations, sources, purpose, innovation categories and innovation pathways of each innovation for the professional service firm under research. Colour coding of text depicts a specific service line of the firm and corresponds to visual diagram of innovations for the firm in Figure 2.

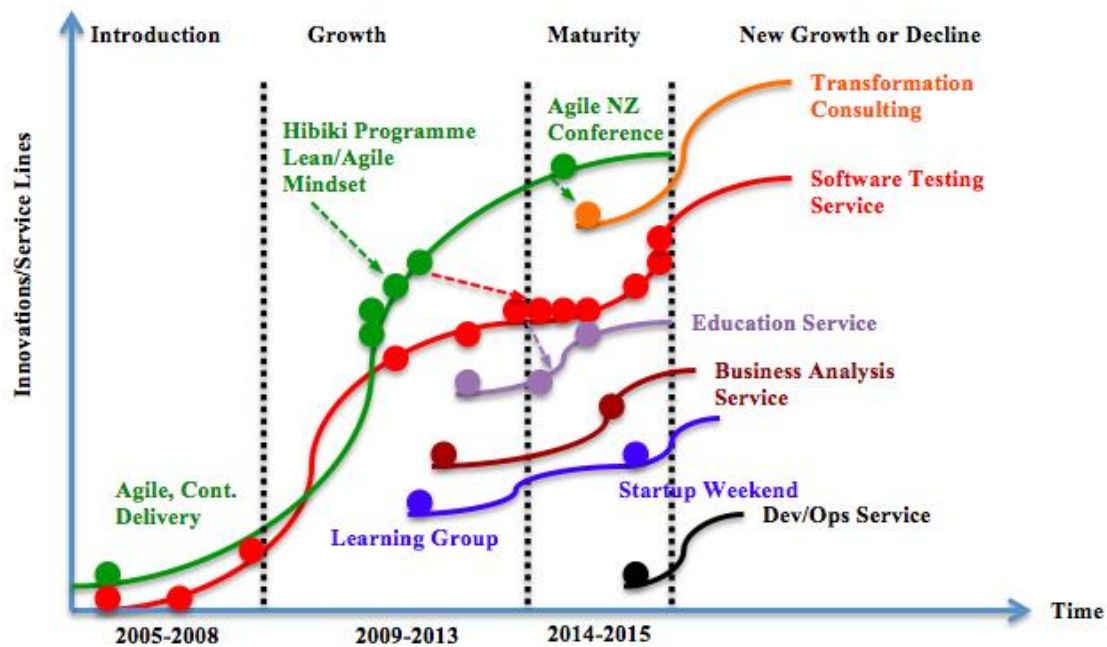


Figure 2. Innovation of the firm across its 10 years of operations. Colour coding of dots corresponds to list of innovations from Table 1

Of the 26 innovations that took place within the firm in the 10-year period from 2005 to 2015, 12 innovations were driven from a Top-down approach and 14 were Bottom-up. 15 of the 26 innovations were for external purposes whereas 11 innovations were primarily internally focused.

From the results in Table 1, innovations were plotted along the growth life-cycle phases of the firm in Figure 2. In the early “introductory” years, innovations were predominantly Top-down driven with an external purpose. There was a latent period of innovation activity specifically between 2008-2010. This latent period is inferred as a period of stabilisation for the firm, delivering its value proposition through its core competence - software testing. From 2009, there were internal innovation activities where employees sought to create internal learning and knowledge-sharing opportunities to build and uplift capability. These activities were predominantly driven via a Bottom-up approach. They were early signs of a network model of innovation forming at the firm, where employees would create learning feedback loops to share lessons learnt across different clients, projects, and

specialisations. This pattern is similar to Hargadon & Sutton's (1997) findings on network models of innovation for the firm as it instilled an organisational cultural norm for learning, sharing, and creativity.

A pivotal moment for the firm was in 2012 when there was a flurry of RBV-type innovations driven by the firm's senior leadership through its internal 'Hibiki'¹ programme. These innovations revolved around creating an organisation-wide shift in mind-set towards Lean and Agile thinking with a clarion call to "challenge the status quo". This was presented at the annual company conference and followed-up by a series of company-wide training for consultants in visual management, specification by example, and Kanban techniques. This resulted in the firm's consultants being equipped with knowledge and techniques which enabled and empowered them to influence incremental changes for their customer's projects.

At this point, the firm experienced a second wave of innovations. These can be attributed to the acquisition of a company which gave the firm a presence in a new market in the South Island of New Zealand. As a result, the firm was presented with the opportunity to extend their existing software testing expertise to the new branch. Conversely, the acquired firm also presented the parent firm with opportunities to add new service offerings to its portfolio, specifically Education and Business Analysis services.

A major impact of these pivotal events in 2012 was the increase in Bottom-up innovations driven by key individuals or groups of employees. From Table 1, the mix of innovations in the year 2015 include a mix of RBV, G-D, and S-D type innovations and range between Pathway 2, 3 and 4 type innovations. This mix is attributed to the firm innovating on

¹ *Hibiki in Japanese translates to "Resonance".*

two fronts. The first was extending the growth curve of an existing service after the maturity phase (see: Software Testing Services in Figure 2). The second was creating new growth curves through new innovations (see: Transformation Consulting and Dev/Ops in Figure 2).

One interesting phenomenon observed is the innovation snowball effect. As a result of the 2012 Hibiki programme and the Rapid Software Testing training, the firm developed a Lean Testing service. The on-going development of this led to the development of a software testing training course as part of the Education service line. A similar pattern occurred when the firm sponsored and organised the AgileNZ conference in 2014, which led to the recruitment of a Transformation consultant to lead that service line. This phenomenon aligns with Kandampully's (2002) assertion that small, incremental innovations can amount to new innovations for new services or new markets.

The interviews yielded insights into the key factors that can be attributed to the increase of innovation in the past three years of the firm's operations. The most observable attribute was the acquisition of a new firm which led to new skills and capabilities being acquired. In addition, the accelerated growth of the company saw an increase in new hires which meant that the firm was injected with not only more employees, but more diversity in thinking, knowledge, experiences, and skill-sets. There was also a recurring theme of management encouragement of innovation, a pro-innovation attitude from senior managers, and a willingness to listen to ideas.

Another factor attributed to this phenomenon was that the structure of the firm had been redesigned to cater for decentralised smaller teams as it grew (e.g. innovation of Circles in 2012). Hambrick and Crozier (1985) noted this as one of the success patterns for firms that

are experiencing rapid growth and managing internal turmoil or frenzy. While these teams are cross-functional at present, they are not product teams. Teams serve as a home-base for employees. This facilitates rapid assimilation of new employees to the firm and assists in maintaining the firm's strong organisational culture and values in line with the success pattern observed for high-growth firms by Hambrick and Crozier (1985). Interestingly, three participants mentioned that one of the success factors for the firm was that it still managed to recruit and hire people who were successful, driven, and motivated, but more importantly aligned with the company's values. They had the courage to be creative, innovative, and try new things. This finding also aligns with Hambrick and Crozier's (1985) observation of high-growth firms focusing on recruitment policies and developing leaders within the firm.

Overall, the rate and frequency of innovation was higher when the firm was at the maturity stage in the timeframe of the research as compared to its early, introductory years. This is in contrast to the findings of Hambrick and Crozier (1985) where collaborative activities were found to be higher at the firm's inception due to less 'big company' organisational structures and lower communication barriers.

Cross-Innovation Analysis

Innovations at the firm were analysed and compared to determine if there were common patterns to each innovation's journey in the firm. From the analysis of interviews and transcripts, the three elements that make up the pattern are Recognition, Mobilisation, and Scaling of the particular innovation.

Recognition of the innovation is defined as an organisational awareness that an innovation activity has kicked-off. This awareness is not widespread throughout the

organisation, but involves the individual or group innovators highlighting the idea to one or more members of management and kick-starting the innovation.

The next pattern is the Mobilisation of innovation. Mobilisation in this context is defined as the firm moving resources to facilitate progress or development of the innovation. Resources could range from people, time allocated, and/or financial backing for the innovation. Mobilisation also involves the firm's branch management and/or senior leadership team formally recognising and legitimising the innovation as an activity as well as its envisioned potential and value (Kuratko, 2010). For the firm under research, Mobilisation of innovation requires a degree of formal activities to supplement the innovation and may include a member of the management team becoming the innovation sponsor, or a facilitator. The innovation activity may then become less spontaneous and slightly more formal to meet expectations of the firm's management.

Scaling is the final pattern of innovation that emerged from the data. Scaling of innovation in this research is defined as the specific innovation being developed into a formal service offering, a new component as part of an existing service offering, or adopted throughout the firm at an enterprise-wide scale. Table 2 displays the list of innovations of the firm along with the results of whether each innovation fulfilled the definition of the common patterns of innovation Recognition, Mobilisation, and Scaling.

Year	Innovation	Source of Innovation	Innovation Pattern Elements		
			Recognition	→ Mobilisation	→ Scaling
2005	Agile, Continuous Delivery Consulting	Top-Down	✓	✓	✓
2006	Partnership with Software Tools Provider	Top-Down	✓	✓	✓
	Graduate Training Programme	Top-Down	✓	✓	✓
2007/8	Managed Testing Services	Top-Down	✓	✓	✓
2010	Learning Group	Bottom-Up	✓	✓	✗
2011	Automation Training Programme	Bottom-Up	✓	✗	✗
2012	Visual Management	Top-Down	✓	✓	✓
	Specification by Example	Top-Down	✓	✓	✓
	Lean/Kanban Techniques	Top-Down	✓	✓	✓
	Circles	Top-Down	✓	✓	✓
2013	Software Testing Services (South Island)	Top-Down	✓	✓	✓
	Education Service	Top-Down	✓	✓	✓
	Business Analysis Service	Top-Down	✓	✓	✓
	Context Driven / Rapid Software Testing	Bottom-Up	✓	✓	✗
2014	Usability & Accessibility Testing	Bottom-Up	✓	✗	✗
	Client-Centric Software Testing Solution	Bottom-Up	✓	✓	✓
	Lean Testing	Bottom-Up	✓	✓	✗
	Agile NZ Conference	Top-Down	✓	✓	✓
	Transformation Consulting	Top-Down	✓	✓	✓
2015	Lean Business Analysis Service	Bottom-Up	✓	✓	✓
	Retrospectives Training Course	Bottom-Up	✓	✓	✓
	Start-Up Weekend	Bottom-Up	✓	✓	✗
	Dev/Ops Service	Bottom-Up	✓	✓	✓
	Performance Testing “Apprenticeship”	Bottom-Up	✓	✓	✓
	Fresh Start Programme	Bottom-Up	✓	✓	✗
	Technical Testing Solutions	Bottom-Up	✓	?	?

Table 1. Elements of Recognition, Mobilisation, and Scaling of the firm’s innovation from 2005 until 2015. Ticks (✓) indicate the innovation meets the criteria of the element and a cross (✗) indicates that it does not. Innovations that Scale are in green font whereas innovations that do not Mobilise or Scale are in red font. Question marks (?) indicate that a thorough assessment cannot be concluded as the innovation was still at Recognition stage at the conclusion of data gathering for this study.

From the 26 innovations that took place in the firm from 2005 until 2015, 13 Top-down innovations managed to achieve the Scaling stage of innovation. In contrast, 5 Bottom-up innovations managed to achieve the Scaling stage. 7 Bottom-up innovations did not reach the Scaling stage while an assessment for the remaining 1 Bottom-up innovation could not be made as the innovation was still at Recognition stage and was on-going at the conclusion of data gathering for this research.

Bottom-up innovations that have not scaled are not completely dead in the water. Some innovations, although initiated, may have a latent period before being Mobilised and/or Scaled. As participants mentioned, several factors affecting this are economic climate, customer appetite, and market readiness. One example of this was the Agile Consulting service. While initial activity was kick-started in terms of research during the firm's early years, the uptake from the market was low. Another factor as to why some of the firm's Bottom-up innovations have been Mobilised but not Scaled is that the innovations have been able to be monetised without becoming a formal service offering. For example, when an international expert was sponsored to provide training to the firm's employees, the firm mobilised resources to bring the expert in as it could create a one-off training event for customers, thereby recouping the cost of sponsorship, generating short-term revenue, and raising the firm's profile.

Overall, from the data, Top-down innovations have a higher likelihood of achieving Scale as compared to Bottom-up innovations. However, a small number of Bottom-up innovations do Scale. The factors for these phenomena will now be explored in the following section.

From the interviews, it was determined that there are no formal structures in place for innovation at the firm. There are no formal policies, frameworks, or procedures that exist in the firm. A specific budget line item for innovation or innovation activities does not exist and neither does formal financial evaluation of innovation activities take place. The firm does not use financial indicators such as return on investments (ROI) to evaluate success or failure of innovation activities. Instead, more qualitative measures are employed if required. Some examples of these include employee engagement scores as well as customer feedback and ratings of the firm.

There are two formal-esque processes in place related to the domain of innovation management for the firm. The first being an internal “Use Your Initiative” process to guide an employee on how to develop an idea and who to talk to at the firm with regards to that idea. This process is used to varying degrees of effectiveness, causing more confusion as to whether innovators need to strictly follow it or use it only if uncertain. The second mechanism related to management of innovation is during the firm’s annual business planning event. Forecasts are made based on guaranteed revenue from long-term clients. From there, once estimated overheads and anticipated additional revenue are accounted for, a tolerance for spending on other activities such as innovation can be made. Middle management of the firm have oversight and discretion for this spend. Depending on the type and purpose of innovation, investment and resource allocation for innovation can either be made at the branch level or at the national level.

One of the key factors why Top-down innovations are able to Scale at the firm is the legitimacy of the innovation gained from senior management. By formalising the appointment of the innovation champion and allocating precious resources such as time to

focus on developing the innovation or providing an internal billing code, the firm deploys these mechanisms to allow the innovation to flourish and develop. Other Top-down support includes sales and marketing support. National-level investments generally occur when the likelihood for an innovation to generate revenue or a new service line in each geographic region is high.

Bottom-up innovations that succeed to Scale are attributed to the guiding principles of the founders. While the founders may analyse and spot market opportunities and direct resources and attention to initiate Top-down innovations, the founders are also willing to invest in individuals with ideas that could lead to potential revenue generators for the firm. Themes from these guiding principles include “backing passionate individuals” because of the belief that passion will enable the innovator(s) to drive and carry the innovation through. This is in line with a participant’s comment that the firm will support an individual – the guiding principle here being for the individual or group to “prove it”.

A further guiding principle is investing in innovation based on “intuition”. The firm does not have pre-determined criteria to determine the worth of an idea but are willing to listen and treat each idea on a case-by-case basis. Employee participants also reported that aside from discussions with management, other activities involved pitching or presenting their idea to management or senior leadership; submitting a business case for the innovation; and showing some level of personal commitment to the innovation. The ‘pitch’ and ‘business case’ approaches are levers used by the firm’s management to challenge, and gauge the innovator’s thinking and idea in terms of a corporate venture. While these levers appear formal, the firm utilises them as a qualitative tool to evaluate an innovation’s potential market impact, alignment with the firm’s vision and values, and to screen for the innovator’s passion

and commitment: “Ideas are exciting, but often it’s passion that sustains the innovation”. This aligns with the concepts of “semi-structures” by Brown and Eisenhardt (1997) where the firm places some structures to establish predictability whilst not quashing individual creativity. This leads to an approach to innovation that has a degree of flexibility and informality (Martin Jr. & Horne, 1993) and that the process supplements innovation rather than suppresses it (Hambrick & Crozier, 1985).

While “semi-structures” appear to impact the ability for Bottom-up innovations to Scale, the interviews revealed a pattern of dogged determination from innovators to develop, test, and market their ideas internally. Notwithstanding their creative ability to innovate, many of the key innovators perform multiple roles and responsibilities for the firm. These individuals are the firm’s innovation “champions” as they operate on the edge of innovation – gaining technical experience from their daily work while learning of existing innovations and being aware of the latest trends (Johannessen, 1994; Hargadon & Sutton, 1997).

The theme of “tension” arose from the interviews. Two forms of tension exist in relation to innovation in the firm. There is an element of tension within employee participants that is attributed to the innovation dissonance. The firm espouses and encourages employees to innovate yet does not provide resources, especially time, to enable the employee to focus on and develop the innovation. This theme is consistent around the Bottom-up innovations that failed to Scale. Key success factors for Bottom-up innovations Scaling at the firm have been either through individual or group innovators pursuing the innovation outside of work hours in their own time, or through having a service-line manager available with formal time allocation to help manage and facilitate the innovation. In addition, there is a concern that while management are encouraging and willing to listen, the response and the level of

facilitation or support is inconsistent and is dependent on which individual is engaged in that initial innovation idea conversation.

Dissonance aside, there is a growing desire from the firm's innovators to understand from senior leadership what it takes to request the desired resources to enable them to Scale their innovations, specifically from a corporate venturing mind-set and to get an understanding of the commercial elements of innovation.

An interesting tension also exists for the firm in terms of balancing between the focus on present day operations or making short-term sacrifice in order to achieve potential long-term success. The broad consensus from employee participants is that the firm focuses on present day business and there is little room to allocate time or internal billable time to develop an innovation. Innovation only occurs if an individual completes a client engagement and there is slack time between the previous and upcoming client engagement.

For comparison, interviews with members of the firm's management provided several insights. The tension between focusing on the future via innovation and prioritising the present will always exist as these are commercial realities in terms of sustaining a consultancy business. There is a natural tension at the leadership-level of the firm to ensure robust discussion and alternative perspectives in terms of focusing on present day or future opportunities for the firm. Furthermore, the firm's business model, being a privately-owned company, does not avail itself to external sources of funding from the likes of public shareholders or venture capitalists. As such, innovation luxuries like those experienced in high-growth, product-focused ICT firms (for example, fortnightly all-company innovation days) have to be evaluated in a more considered manner. This is so that it does not

compromise the firm’s ability to meet its client and employee expectations, and be able to maintain its reputation. While this calculated consideration appears “slow, unwilling, and risk averse” to the firm’s innovators, the firm’s management and longer-serving employees are of the opinion that the firm is able to take more calculated risks than before, as it is now in a stronger financial position.

Overall, the appetite for innovation risk is fairly conservative as the founders will not want to “bet the business” against any risky venture. The tensions that exist in between innovators and management relate to the tensions between delivering for the ‘now’ and making sacrifices to innovate for potential long-term pay-offs. These tensions are not unique to the firm. In fact, these tensions have been documented through the works of Kanter (1985; 1989; 2006) and Maister (1982; 1985; 1987).

Lessons Learnt & Recommendations

Table 3 displays a list of seven broad lessons learnt from the interviews and emergent themes of the present research. Each lesson learnt is accompanied by recommendations for the firm. A total of 18 recommendations are presented.

Lesson	Description	Recommendations
Business Model	The firm’s business model as a privately-owned company means that innovation ‘luxuries’ have to be considered in terms of impact to present day business and the potential value of the innovation in line with the firm’s vision and guiding principles in backing innovation.	<ol style="list-style-type: none"> 1. Articulate the constraints of the business model. 2. Articulate senior leadership’s guiding principles in legitimising and mobilising resources for innovation activities.
Financial Performance	As a professional service firm, the rate and frequency of innovation was low at the beginning due to the firm’s focus on building a positive reputation and its credibility in the market. The more financially solid the firm is, the stronger its position in terms of ability to take more calculated risks on innovation projects.	<ol style="list-style-type: none"> 3. Communicate financial decision-making constraints to innovators. 4. Provide context and progress updates around risk appetite for innovations and articulate what the competing business priorities are or potential macro-level factors in the market that may impact the firm’s performance.

Lesson	Description	Recommendations
Locus of Innovation	Top-down innovation was more evident at the inception of the firm whereas Bottom-up innovation is now more prevalent despite the firm experiencing accelerated growth.	<ol style="list-style-type: none"> 5. Anticipate more Bottom-up innovations to occur. 6. Be cognisant that while the Top-down approach has been successful to date in Scaling innovations, the observed trend in the firm is that Bottom-up innovations extend existing or create new innovation growth curves.
Innovation Snowball Effects	An innovation that is developed in the firm for one service line can lead to a new innovation for a separate service line.	<ol style="list-style-type: none"> 7. Do not restrict an innovation to be specific to a service line. 8. Encourage innovators to think about how their idea could lead to other innovations in other service lines. This will strengthen the innovation network model for the firm.
Innovation Management	The senior leadership of the firm plays a key role in incorporating and encouraging an innovation mind-set and attitude in the firm, along with legitimising Bottom-up innovations that are of potential value to enable the innovation to Scale.	<ol style="list-style-type: none"> 9. Adopt a model to ensure consistency in management support for innovation. Example: Business coaching approach by managers for innovators. 10. Remove “Use Your Initiative” process. Do not over-engineer or over-complicate process to Mobilise and/or Scale innovations. 11. Communicate why “semi-structures” exist, when they are used, and how they guide senior leadership decision-making on innovation. 12. Establish an innovation portfolio to track ideas and innovations. This will help prioritise innovations and develop a wider source of ideas. 13. Establish an innovator and supporter skills-matrix to determine who the innovators (thinkers, creative, ‘do-ers’) are and those who can help support the innovation (coaches, mentors, advisors, facilitators) at the firm. Ensure that the firm is not overly reliant on key individuals with multiple responsibilities to develop and sustain innovations.
Innovation Tension	The duality of focus on present day business against making sacrifices to innovate for the future is a current and on-going tension that exists in the firm. The challenge for the firm is to maintain that balance and to evaluate each idea or innovation on its own merits against the firm’s vision, values, and guiding principles.	<ol style="list-style-type: none"> 14. Articulate senior leadership’s guiding principles in legitimising and mobilising resources for innovation activities. 15. Articulate business constraints, market challenges, and opportunities to staff regularly. 16. Communicate business planning approach to innovators to develop understanding of how financial targets are set, met, and makes an innovation a “safe-bet”.

Lesson	Description	Recommendations
Innovation Dissonance	As the firm grows, a tension can emerge in terms of perspective versus realities of innovation, especially where the experience of innovation in terms of support and empowerment are inconsistent across innovation activities – specifically in the phase between Recognition and Mobilisation as well as Mobilisation and Scaling.	<p>17. Utilise approach from the Start-Up Weekend event as a new “semi-structure” framework to develop and evaluate innovation ideas at the firm. This creates an even playing field and level of consistency.</p> <p>18. Set expectation that not all innovations have to reach the Scaling stage in a rapid and/or fixed time frame.</p>

Table 3. List of lessons learnt and related detailed descriptions, each accompanied by its own set of recommendations.

Conclusion

This single-case study of one ICT professional service firm in New Zealand with innovation as multiple units of analysis investigated the locus of innovation of the firm in relation to its growth. The tension in managing future-focused innovation against present-day priorities was also investigated.

One key limitation of the present research is that only current employees of the firm were interviewed. Interviews revealed that there were former employees who played significant roles in specific innovation activities. These employees had resigned from the firm prior to when this research was conducted. Interviews with these former employees may have yielded deeper insights which could have validated the current themes or uncovered other patterns and themes of innovation for the firm. Future research could extend the scope of purposive sampling of participants to include former employees who played key roles in innovation activities for the firm.

A further limitation was that despite the purposive sampling method, time constraints placed on the researcher and intended participants meant that up to two interviews could not

take place within the data collection timeframe. While the impact to the present research was minimal as other participants provided information on the same innovations, it would have been beneficial to get first-hand responses from the original participants.

Despite the limitations, this single-case research with multiple units of analysis revealed the locus of each innovation of the firm shifting through time and revealed deep insights into innovation patterns, contributing factors, and approaches to managing the “innovation tension”.

Innovation activities were primarily Top-down driven at the inception of the firm. As the firm grew into a more mature business, Bottom-up innovations became more prevalent. This is related to the firm being in a more solid financial position to take calculated risks in relation to innovation activities. This trend is in contrast to technology firms where the rate of innovation is higher at the beginning and then plateaus or tapers off as the firm’s product and/or service matures.

Three common themes emerged as patterns for innovation at the firm – Recognition, Mobilisation, and Scaling. Top-down innovations at the firm have a higher likelihood of Scaling as compared to Bottom-up innovations. This is attributed to formal support mechanisms put in place by the firm. Bottom-up innovations are able to Scale when the likelihood to generate revenue or create a new service line is apparent and if the firm employs “semi-structures” for support. The other contributing factor to Bottom-up innovation Scaling is the passion and persistence of individual or group innovators who perform multiple roles at the firm.

The firm employs “semi-structures” to manage Bottom-up innovations and the tension between innovating for the future and prioritising for the present. A degree of business financial planning and evaluation methods are used to evaluate the firm’s appetite for innovation risk. Innovation ideas are evaluated on a set of qualitative criteria such as vision, values, and guiding principles.

Another theme emerging from the innovation tension is that of innovation dissonance – the misalignment of the firm’s innovation desire and the perception of innovation support received by the employees, specifically around time allocation. It appears that while “semi-structures” can supplement innovation and provide the firm with a degree of formality and flexibility to evaluate and manage innovation, these “semi-structures” can also contribute to confusion and frustration from an innovator’s perspective.

Future research could extend this case-study by analysing if the same patterns of innovation and themes for managing innovation emerge for similar professional service firms within the same or different industry.

The emergent themes, patterns and, tensions of innovation at the firm align with the works of Kandampully (2002) around the effect of incremental innovations, and the network and learning models of innovation (Hargadon & Sutton). The themes around innovation tensions that exist for the firm relate to the findings made by Kanter (1985; 1989; 2006) and Maister (1982; 1985; 1987) for relatively large, fast-growing, professional service firms.

In conclusion, this research provides an insight into patterns of innovation of a fast-growing, relatively young, ICT professional service consultancy firm that is a privately-

owned company. The insights and learnings presented mean that a different set of patterns and innovation management apply for the ICT professional service consultancy firm as compared to the typical ICT product-centric firm or start-up. As the firm has grown, 'big company' structures have been put in place to manage and cope with scale. Interestingly, despite the structures, the firm still manages to be more innovative than it was due to a unique combination of formal and informal approaches to innovation.

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Appendices

Appendix A – Interview Guide & Questions



MBA RESEARCH PROJECT

INTERVIEW GUIDE & INTERVIEW QUESTIONS

A. GENERIC QUESTIONS

- a. What is your role at the firm?
 - i. Probe: Please elaborate further on your role.
- b. When did you join the firm?
- c. Please use 3 words to describe the firm and why?

B. INNOVATION AT THE FIRM QUESTIONS

- a. What were/are the most successful innovations for the firm thus far?
 - i. Why were they successful?
- b. What were/are the least successful innovations for the company?
 - i. Why were they not successful?

C. INVOLVEMENT IN SPECIFIC INNOVATIONS AT THE FIRM

- a. Have you been involved in any particular innovation activity or project for the company?
- b. Please elaborate on your involvement?

- c. What/who was the source of this innovation?
 - i. Was there a particular innovation champion or a group of people?
- d. When did this occur?
- e. What was the level of support gained for this activity?
- f. Could you describe the key challenges for this innovation?
- g. Could you describe the key decisions/milestones of this innovation?
- h. Describe the current state this innovation is in?

D. MANAGEMENT OF INNOVATION AT THE FIRM

- a. How do new ideas vie for support at the firm? How does this work?
- b. What are the processes for decision-making in mobilising the firm to bring new innovations to market?
- c. How do you measure and track the return on investment on innovations and the ability to meet changing expectations of customers?
- d. What is the role of senior leadership and managers in innovation?
 - i. Do managers think of themselves as innovators?
- e. If you think of innovation risk along a continuum with a sure-bet on one end and a risky venture on the other, where do you think the degree of the appetite of risk is for the firm? Why is that?
- f. If failure is recognised as a component of risk, how does the firm deal with failure?
- g. How are employees encouraged or incentivised to be creative and innovative?
- h. How does the firm balance the sacrifice of short-term profitability in order to achieve long-term success?
 - i. What are the decision-making frameworks or processes involved?

- i. In your view, what is the most valuable source of innovation at the firm?
- j. Who makes the decisions on funding or backing of innovation activities at the firm?
- k. What areas work well in supporting innovation at the firm?
- l. What areas could improve in supporting innovation at the firm?
- m. As the company was growing, how do you think the balance was managed between growing the present business and investing for the future?