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Contextual support for innovation in an Australian financial services firm

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Abstract: Organizational learning can facilitate innovation and it is affected by internal and external contexts. Leaders can provide internal contextual support for learning to occur in the organization in order to respond to changes in external contexts. However, there are limited studies about how leaders affect innovation in financial services firms. This paper applies Crossan et al.'s (1999) 4I framework to examine the impact of internal and external factors on an organization's learning process and the extent of its innovation. An on-going case study of a large Australian financial services firm is used to gain insights about contextual support for innovation. Competition in the industry has increased through the introduction of IT-enabled innovation but innovation is limited by bureaucracy, risk-aversion and regulatory-driven reliability. The study shows that leaders in such organisations can support IT-enabled innovation through vision, organizational culture, an agile methodology, activity-based working environments, and technology that supports innovation.

Keywords: organizational learning; innovation; banking; leadership; contexts.

1 Introduction

Innovation is widely accepted as a critical source of competitive advantage (Crossan and Apaydin, 2010). Innovation is the implementation of a new or significantly improved product or method related to either organizations' productive or management systems (Gopalakrishnan and Damanpour, 1997). The importance of organizational learning for facilitating innovation has been confirmed in empirical findings (e.g. Jimenez-Jimenez and Sanz-Valle, 2011, Garcia-Morales et al., 2011). Organizational learning is affected by various internal and external contexts (Argote, 2011). As an example, the internal context could refer to the organizational culture while the external context could be factors like technology changes.

According to Wang and Ellinger (2011), leaders perception of their business environment influences organizational learning. When the external environment is interpreted as uncertain and complex, leaders will proactively foster organizational learning. Leaders can provide internal contextual support for learning to occur in the organization in order to respond to changes in the external contexts (Berson et al., 2006). Leaders should be able to foster both explorative and exploitative learning and are expected to switch between them flexibly as needed (Rosing et al., 2011). Explorative learning is associated with seeking new knowledge whereas exploitative learning is linked to refining existing knowledge (March, 1991). Larger organizations require leadership that favours explorative learning as they tend to engage in exploitative learning due to their complexity in terms of hierarchies and bureaucracies (Vaccaro et al., 2012).

Leadership is needed throughout the process of innovation (Crossan and Apaydin, 2010) to nurture creativity at the initial phase of innovation (Gumusluoglu and Ilsev, 2009), and in creating conducive conditions for the implementation of innovation (Aragon-Correa et al., 2007). Innovation is contingent on various factors including economic sector, country where it happens, and organizational learning trajectory (Pavitt, 2005).

Financial services firms are important in every economy. In Australia, competition in the banking industry has increased with the entry of foreign financial services firms including those from Asian countries (Cejnar, 2009). This requires industry leaders to be responsive to changes in the business environment in order to stay ahead of the competition. However, studies about how leaders affect innovation in financial services firms are limited (Tipu, 2011). To fill this gap, we seek to understand how leaders in a large financial services organization support explorative learning through building contextual support for innovation.

The rest of the paper is structured as follows: first we discuss the theoretical underpinnings of the study in terms of organizational learning, leadership and vision vis-à-vis innovation. This is followed by a discussion of the role that organisational culture plays in fostering innovation. The Australian banking industry is described to set the external context of the case study where much of the innovation is IT-driven. We then examine internal contexts of financial services firms including those related to IT-enabled innovation. Next, the methodology used is described and finally we discuss the findings, conclusions, limitations and future research

2 Theoretical background

Organizational learning, leadership and vision

Gupta et al. (2006) argue that exploitative learning can enhance organizations' core capabilities but it can also hinder explorative learning leading to organizations' outdated competency, whereas explorative learning often leads to more and more exploration creating a 'failure trap'. Leaders therefore should balance the tension between explorative and exploitative learning (O'Reilly III and Tushman, 2011).

Understanding the phases of organizational learning by breaking down the process is useful for identifying bottlenecks that may constrain the flow of learning within an organization. Crossan et al.'s (1999) 4I framework is suitable for understanding the underlying tension between exploitative and explorative learning. The framework contains four related sub-processes: intuiting, interpreting, integrating, and institutionalizing. Intuiting and interpreting refer to the process of how ideas are developed and shared. Ideas may come from individuals or from discussions among organization members. Once a shared understanding within a group is achieved, the process of integration occurs. Finally, ideas that have been learned are institutionalized by embedding the learning in the organizational systems, structures, strategy, routines, and infrastructures. Crossan et al. (1999) call these sequences 'feed forward'. 'Feedback' occurs when what an organization has already learned is disseminated all over the organization. Organizational learning can be characterized as a bottom-up or top-down. Bottom-up learning is associated with explorative learning, whereas top-down learning is related to exploitative learning (Mom et al., 2007).

Organizational learning may be influenced by external factors and itself could change the organization's context, consequently influencing future learning and creating a self-reinforcing mechanism (Argote, 2011). This means that the organization's capability to innovate is influenced by its learning trajectory (Cohen and Levinthal, 1990, Nelson and Winter, 2002). The ways leaders and innovative project team members view their external environment influence their behaviour to pursue learning (Wang and Ellinger, 2011).

Leaders can facilitate explorative learning among organization members by forming contextual factors that encourage members to think in new directions and challenge established procedures (Rosing et al., 2011). Leaders need to articulate a clear vision to drive an organizational culture that is conducive for innovation (Sarros et al., 2008). A clear vision is required to achieve shared understanding and common purpose throughout the process of innovation (Berson et al., 2006).

Berson et al. (2006) state that the role of leaders in explorative learning emphasizes the intuiting and interpreting stages of the 4I at individual, group, and organization levels. At this stage, a leader's vision can motivate followers to think independently and inspire them to innovate (Rosing et al., 2011) by providing adequate resources and support (Sarros et al., 2008). Nevertheless, during the integration phase, visionary leaders can also play a role by providing a shared understanding and common purpose to integrate new and existing learning at the group and organization levels (Berson et al., 2006). Leaders facilitate negotiation of differences through dialogue among organization members to achieve mutual adjustment to the required actions for innovation (Crossan et al., 1999). At the institutionalizing phase, leaders encourage knowledge transfer by facilitating external and internal communication. A shared vision guides the process of embedding new and existing learning into the organization's systems (Berson et al.,

2006). Knowledge is made available for exploitation within the organization including establishing specific functions or sections to deal with managing knowledge (Berson et al., 2006). In order to be effective, leaders should be able to communicate the vision such that organization members' engage with the vision (Sarros et al., 2008). Leaders may therefore influence organizational learning through an intervention of controllable factors within the organization as a response to the changes in the business environment. In this way, leaders harmonize the tension between exploration and exploitation as shown in Figure 1.

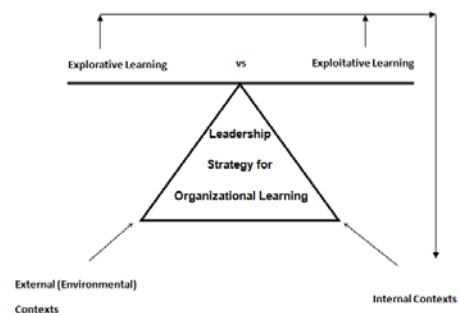


Figure 1 Leadership strategy for balancing explorative and exploitative learning

Organizational culture

Based on Wallach (1983), this study categorizes organizational culture into bureaucratic, innovative, and supportive cultures. A bureaucratic culture is characterized by hierarchical and departmentalized structures where clear lines of authority with standardized and systematic work can be found. An innovative culture provides a creative place to work that tolerates risk-taking behaviour to tackle business challenges. A supportive culture offers a trusting, encouraging, relationship-oriented, and collaborative environment to work in. Banks commonly have functionally departmentalized structures that potentially hamper innovation (Vermeulen, 2004). In order to be more innovative, organizations need to nurture innovative or supportive cultures (Liao et al., 2012). An organizational culture that encourages participative decision-making and openness can enhance organizational learning especially during the interpreting and integrating processes. Participative decision making and openness stimulate a divergence of ideas and facilitate the integration of differences among organization members.

The Australian banking industry

Business environments can be dynamic (unpredictable) or competitive. Dynamic environments are associated with technology change, variations in customer preferences, and fluctuations in product demand or supply materials. On the other hand, competitive environments are characterized by intense competition reflected in the number of competitors and intensive pressures for higher efficiency and lower prices. Both market dynamism and competitiveness can influence organizations' decisions to engage in either explorative or exploitative learning (Jansen et al., 2006). Danneels and Sethi (2011) argue that rapid development of technology influences organizations' tendency to adopt explorative learning. The leaders' perceptions of the environment affect the way they

direct the use of resources and contexts within an organization for learning new knowledge (Burgelman and Grove, 2007).

According to the Senate Economics References Committee (2011), the Australian banking industry is dominated by the big four banks, which account for three quarters of the market. The big four banks are the Commonwealth Bank of Australia (CBA), Westpac Banking Corporation (Westpac), the National Australia Bank (NAB), and the Australia and New Zealand Banking Group Limited (ANZ Bank). They can take advantage of economies of scale, especially in the cost of funding, to create significant barriers for smaller financial institutions. These banks use multi-brand banking in which their key retail brands (under different bank names) have different marketing approaches to attract different customer types.

Banking deregulation began in the early 1980s stimulated by the introduction of financial product innovations and globalization of the Australian market (Roberts and Amit, 2003, Cejnar, 2009, Kirkwood and Nahm, 2006). Technological developments with greater internet access contributed to these financial product and process innovations (Roberts and Amit, 2003, Cejnar, 2009) and have changed the business processes and the required employees' skills (Kirsch and Wailes, 2012). The technological changes have driven improvements in both banking services and profit efficiencies, especially for the big four banks (Kirkwood and Nahm, 2006). Nevertheless, according to Crooks (2013), the Australian financial services sector struggles to balance risk-aversion and regulatory-driven reliability with the need to innovate to stay competitive.

Organizational contexts in financial services enterprises

According to Vermeulen (2004), there are four organizational contexts commonly found in financial services enterprises that impede innovation. Firstly, most staff are highly occupied with their daily activities and are not fully committed to innovation activities. Secondly, existing project-based work suffers from low communication among team members and is not conducive to innovation. Thirdly, many managers show risk-averse behaviour and block innovation initiatives and some resist change as they do not want to lose control of business processes of which they are in charge. Lastly, the organization's IT capabilities may put limitations on the range of new financial products that can be supported. The integration of existing and new technology platforms may be problematic. According to Berson et al. (2006), leaders need to form contextual support in order to minimize these barriers and facilitate the learning required for innovation. Given that many new financial products are IT-enabled (Vermeulen, 2004), we now examine IT-related organizational factors that enable or inhibit organizational learning and ultimately innovation.

Product and process development approaches that can respond quickly to changing environments

The traditional monolithic approach to IT systems development has been criticized for being overly focused on process, tools and documentation at the expense of customer collaboration and responding to change. This approach could curtail innovation as it is predictive and requires detailed project planning for the future. Newer generation systems development methodologies that are adaptive are more appropriate for development of systems with volatile business requirements. One of these is the Agile methodology which prioritizes customer (user) satisfaction by delivering working software earlier and

frequently (Williams, 2012). Agile teams, consisting of both developers and customers, need to communicate and collaborate intensively throughout the project since they learn about the system requirements as software development progresses (Chan and Thong, 2009). In situations where business requirements are volatile, leaders must therefore provide the opportunities for agile teams to work together so as to maximize communication (Lindstrom and Jeffries, 2004). In order to improve the acceptance and use of agile methods, leaders need to drive an organizational culture that values equity, empowerment, commitment, participation, learning and continuous improvement, respect, trust, openness, and communication (Iivari and Iivari, 2011). Leaders should also implement relevant skills development programs and specific recruitment policies to ensure that specific skills are available to undertake these agile development approaches (Conboy et al., 2011).

Work environment for innovation

There is an abundance of research in various disciplines about the impact of work environment on creativity and innovation; design of work environments has become an integral part of organizational innovation strategies. However, there still remains uncertainty about the direct link between physical workspace and creativity and innovation and studies on the topic remain fragmented. In determining how physical space can support innovation, Oksanen and Stahle (2013) found that ‘innovative space’ comprises five characteristics i.e. collaboration enabling, modifiability, smartness, value reflecting, and attractiveness but that contextually, some characteristics become more important than others. In research done by Davenport and Bruce (2002), one aspect of an organization’s workspace design strategy for creativity included shared work settings like hot-desks, hot offices, carrels, touchdown areas and informal areas balanced with appropriate levels of private spaces for confidentiality.

According to Hirst, (2011), activity-based working like hot-desking in IT development environments offers advantages in terms of cost-savings, spatial flexibility, promoting socializing through more interactions with other organization members and mobile networking. However, it could create additional work and a sense of marginalization as staff have an obligation to clear the desks every time they finish and some hot-deskers experience a sense of isolation due to the loss of relationships that can only be developed over time through regular proximity with the same people. Millward, Haslam, and Postmes (2007) argue that this sense of alienation can be minimized through the use of electronic communication. In addition, an activity-based working environment that enables access to different types of work can potentially improve communication and collaboration among organization members by facilitating co-location with the person that they want to work with (Pitt and Bennet, 2008). Co-location and open workspaces offer a suitable working environment especially for agile teams which comprise both developers and ‘customers’.

Technology

In terms of IT support, cloud computing and virtualization offer alternatives to support innovation through an agile development environment. Cloud computing with its large pool of computing resources including services, applications, infrastructures, and platforms that are accessible via the internet (Lin and Chen, 2012) can be beneficial in developing mobile technologies for better services, especially for smart phone users.

However, companies are still cautious about security and privacy issues of external cloud computing. In addition, application program interfaces and platform technologies of cloud computing lack standardization, reducing the interoperability among platforms offered by different cloud providers. Virtualization has gained enormous attention among IT professionals with the rapid development of cloud computing technology by providing multiple operating systems in a single server. It offers higher efficiencies in terms of the quantity of purchased servers, management and maintenance costs, and the consumption of electricity and cooling power (Li et al., 2012).

3 Research methodology

Case study methodology has been adopted in this research because the research questions relate to 'how' leaders facilitate organizational learning for innovation and the researchers have no control over behavioural events being observed (Yin, 2009). Multiple case studies are being undertaken in an exploratory analysis of the complex phenomenon in order to account for contextual differences. This paper reports on one of the on-going case studies. The organization under investigation is a West Australian financial organization which has grown tremendously in the last few years. It was selected because it has demonstrated strong financial performance and has won many industry awards for outstanding work in delivering quality services for its customers. The organization views innovation seriously and has been continuously fostering innovation. Data has been collected from a number of sources. Given the role of IT in innovation in the Australian financial services industry, semi-structured interviews have been conducted initially with four organization members from IT-related departments at different levels of management. Two participants (P1 and P2) were from senior management level, one participant (P3) was from middle management, and the last one (P4) was from operational management. Participants were asked about the innovations in their organization in the last three years and the enabling factors. In this research, innovation does not have to be new services or practices in the industry but new to the organization being studied. Interview questions were developed based on the 4I framework outlined above (Crossan and Berdrow, 2003). These interviews were complemented by the use of documentary sources (i.e. organization official website, press releases) and observations of a two-day innovation program conducted in the organization. A qualitative software tool (N*Vivo) was used to store and code all data sets. Interview data was classified thematically based on the predetermined framework and compared to the corresponding documentary sources and observations in the field to build interpretations for the case report.

4 Findings

We found that the external context of IT-driven innovation that characterises the Australian financial industry drives much of the innovation in this case. Leaders play a significant role in facilitating the organizational learning required for innovation, especially in terms of facilitating explorative learning processes by building organizational contexts that are conducive for innovation. The leaders' contextual support in the organization being investigated has been structured based on the 4I framework in the sections to follow.

Intuiting and interpreting stage

Senior management views innovation as a necessity to be competitive and the organization has a specific division to deal with innovation. The advancement of IT has gradually shifted the way banks operate in delivering services to their customers. This requires the organization to adopt new technology in innovative ways to meet customers' demands. However, the highly regulated and bureaucratic nature of the banking industry limits how financial services enterprises innovate.

"I do not believe we will ever be as agile or as innovative as non-financial-sector institutions, simply because of the regulation and bureaucracy that comes with working in that sort of sector" [P3].

A vision from the Chief Executive Officer (CEO) guides the course of actions in innovation, and is a source of developing a shared understanding during the phase of intuiting and interpreting in the learning processes. The vision focuses on delivering better services for customers by applying productivity and innovation. This vision is successfully communicated throughout the organization, especially in the IT-related departments. The CEO encourages organization members to think outside the box by not only constantly promoting the value of innovation, but also by allocating the required resources and support.

"That comes from the top, so I think that comes from the CEO who does drive an innovative culture. And again it's not saying, "You've got permission to be innovative". It's like, "We want everybody and we'll remove the roadblocks where it's appropriate for you to be innovative"" [P1].

The vision of innovation has been translated into IT strategies by the Chief Information Officer (CIO), including the adoption of agile methods and an innovative culture for delivering better customer services. The CIO mentioned three major benefits for the organization in adopting agile methods. Firstly, improvement in quality scope management because only the IT solutions needed are created saving significant development costs. Secondly, agile methods enable the identification of problems in development at much earlier stages. Lastly, agile methods improve engagement between developers and internal customers through highly collaborative approaches.

The agile methodology requires intense communication and good relationships between developers and users. As the agile teams need to be co-located, activity-based working has been adopted to offer more flexibility and mobility for the teams. Members do not have fixed desks but can work anywhere that happens to be vacant. In this IT-enabled working environment, every organization member is assigned a dedicated lap top that could be operated anywhere in the building with a staff-tracker application that can locate a colleague who is currently connecting his/her lap top to a particular docking station. When organization members need to brainstorm and meet in a more private setting, they can use a meeting room that can be booked beforehand. The activity-based working environment facilitates interaction, idea exchange and collaboration. According to the CEO an internal survey revealed that the majority of staff was satisfied with the activity-based working environment and this is supported by our findings.

"The building itself has to be an absolute tick in the box for that, activity-based working. When we start to talk about more agile methodologies and agile ways of working, we effectively get people together who are looking to deliver something" [P1].

Observations of this activity-based working environment revealed informal dialogue and conversation among organization members that enabled the process of insight exchange and reciprocal understanding. Organization members often used task or role-related jargon or common language understood only within the community. Interestingly, one senior level management participant often used analogies in communicating complex and unfamiliar concepts so that others could understand them more easily. In addition, differences of opinion were respected so that organization members did not hesitate to express their ideas or challenge existing procedures.

Communication and collaboration among organization members are enhanced with the use of the organization's internal corporate social networking application 'Yammer'. Yammer facilitates collaborative learning and problem solving. Individuals who have an innovative idea can post it on Yammer and convince other organization members to work together on the idea. Yammer is also used as a channel for innovation by shortening bureaucracy.

As part of driving an innovative culture within the organization, members of organization (particularly in IT) are given 20 per cent of their working time (like Google) to do their own learning and projects that might not be necessarily related to their main tasks but might benefit the organization. This is called 'Innovation Time Out'. In addition, a two-day event specifically dedicated to innovation ('Innovation Day') organized by the Division of Innovation is conducted quarterly as a way to collect ideas and solutions from organization members. This event facilitates people from different parts of the organization with different skills and specializations to collaborate in problem solving and in delivering business solutions. Through these programs, leaders specifically allocate more time for people to participate in innovation activities as indicated by one of senior managers.

"The things that sort of work against collaboration is sort of sometimes pressures of work. You know, "I haven't got time to talk to you because I am so busy doing what I am actually doing", and so it's a constant challenge that sort of how can we free up more time for people to think and collaborate" [P2].

Additionally, having special programs dedicated to innovation with less bureaucracy, such as 'Innovation Day' could encourage organization members to freely give their ideas and engage in innovation activities. The Division of Innovation has a framework called IDEA for managing innovation which includes the following phases: 'Imagination' or idea generation, 'Design' or product specifications, 'Evaluation' or feasibility studies, and "Action" or implementation.

"We try to keep the process [of innovation] as informal as possible. In a previous life in the UK in a similar sort of role, we had a very formal process. You will submit your idea, a panel of 5 people will meet to review your idea, and the outcome will be a, b, or c but it was quite bureaucratic, and it sort of inhibited people to put an idea forward" [P2].

Innovative ideas could originate from any organization members at different levels of management but there are some key individuals who actively promote innovation within the organization. Organization members at lower levels are closer to the actual problems in daily operations and have direct contact with customers and strategic partners so that bottom-up initiatives help the organization to identify opportunities and threats on the shop floor immediately. Leaders also encourage organization members to think in new directions by facilitating new experiments and tolerating mistakes during the intuiting

process. Leaders provide a safe environment where development teams can try new experiments without making changes to the actual systems.

Integrating

A strong vision of customer-centricity and productivity guides the integration process of new learning and existing learning across the organization. All innovation activities in the organization focus on delivering better services for customers with the end goal of financial benefits for the organization.

“The main things that would actually inspire the organization to innovate more would be financial drivers, in a company like this. So we would need to be looking at cost savings through higher productivity or we would need to be looking at added value in terms of the return on investment of different items”[P3].

The most common conflict in the innovation process in this organization is resistance to change as some people are afraid of losing their influence or control over certain processes in their area of responsibilities. When organization members want to make an organizational level innovation, they need to convince their immediate managers and find the appropriate people (innovation champions) to commercialize the ideas. However, middle managers might act as the gatekeepers in channelling up the innovative ideas.

“Middle management is probably where the biggest question mark lies. If you get a manager who is very open to innovation and trying new things, then that will be reflected in the efforts that their team have. If you get a manager who is not quite so open to change and is a bit concerned about what some of this innovation stuff might mean, then you’ll obviously see less effort by their particular area and subordinates” [P3].

Another challenge of integrating existing and new knowledge within IT-related departments in this organization is the tension between continuity and change. When software developers want to make changes, they need to consider the security and stability of the systems. This reflects the external context in the industry of having to balance risk-aversion and regulatory-driven reliability with being innovatively competitive.

“So I think the tensions are possibly between security and development ...also from the developers to the infra-structure guys. Infra-structure has to ensure that the systems are up theoretically a hundred percent of the time as much as they can. And then developers are actually up to try and make changes and changes almost by definition is going to change that, change possibly how stable the system is because you’re adding more code” [P4].

In order to minimize conflict within the IT-related departments, leaders facilitate meetings between the groups to encourage conversation among members across different units so that they can share the learning and achieve shared understanding. Leaders also empower organization members to solve their conflicts within the domain level through rational discussions, to prioritize such that the most reasonable and feasible options are taken. In this way, conflicts related to resource competition among innovative projects can be settled. When a conflict cannot be resolved at the domain level, the decisions could then be made at the organizational level.

Technology investments are made based on collaborative decisions to reflect the need of different functions or sections because the investment in particular technology platforms could possibly impede innovation. The chosen technology platforms influence the sort of working software that could be developed to support innovation. Cloud computing and virtualization are adopted in the organization to support innovation by providing the environment needed for agile development. This corroborates the literature on the type of IT that organizations adopt to support innovation.

Institutionalizing

The organization's Division of Innovation is responsible for developing and encouraging an innovative culture within the organization and for developing innovative partnerships with other organizations including universities.

"If it's coming from the top down, then generally it's something that's cascaded through management, either through performance objectives or through the creation of a new job function or section within the organization, specifically dedicated to innovation" [P3].

Once innovative solutions are specified and have approval and funding, the solutions are implemented. Leaders communicate the reason for changes, how the innovation would affect business processes, and the potential benefits of innovation to all organization members, especially those who are directly affected by the changes. In this way, leaders minimize the resistance to change from other organization members.

5 Conclusions and future research directions

The case findings support the proposition that external contexts affect learning processes within an organization. The way leaders in the case organization view their external environment influences their behaviour to pursue learning and in turn influences innovation. External factors like increased competition through the introduction of new IT-enabled innovation in products and processes require the leaders to be adaptive to the changing business environment and to foster explorative learning in order to stay competitive. However, the need to maintain regulatory-driven reliability and the bureaucracy in the banking industry has put limitations on product and service innovation compared to other sectors such that the innovation is very much IT-driven. This is in line with a previous study suggesting that banks tend to benefit from innovative activity when the innovative practice is not too different from the corresponding industry norm (Roberts & Amit, 2003).

Our study also demonstrates how leaders encourage organization members to innovate by providing internal contextual support. Leaders set a clear vision to guide the innovation processes. The adoption of agile methodology, complemented by activity-based working and dedicated innovation programs, enables the organization to deliver IT-enabled innovations. The organizational contexts comprising a safe environment, less bureaucracy, open communication, respect, and communication technology provide a supporting environment for interaction among organization members which in turn leads to generating ideas for innovation.

This exploratory study also provides additional insights about the learning processes in facilitating innovation. Leaders in other financial organizations can use the findings to establish necessary conditions for organizational learning and innovation to occur.

In arriving at these conclusions, it is recognized that this paper has several limitations that need to be addressed in the future. First, this paper represents an on-going case study of IT-driven innovation and will in future need to include data from other non IT areas in the organisation. More research is also necessary involving various organizations from within and across sectors/industries to test the generalizability of our findings vis-à-vis external and internal contexts for innovation and their effect on the 4I's of organizational learning. In addition, further research needs to be done to determine whether external or internal factors have greater influence on each stage of learning. These are research directions that we will be pursuing.

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