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Published in:
Journal of Business Research

DOI:
[10.1016/j.jbusres.2021.01.059](https://doi.org/10.1016/j.jbusres.2021.01.059)

Publication date:
2021

Document Version
Early version, also known as pre-print

Citation for published version (APA):
Sund, K. J., Bogers, M., & Sahramaa, M. (2021). Managing business model exploration in incumbent firms: A case study of innovation labs in European banks. *Journal of Business Research*, 128, 11-19.
<https://doi.org/10.1016/j.jbusres.2021.01.059>

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**Managing Business Model Exploration in Incumbent Firms:
A Case Study of Innovation Labs in European Banks**

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ABSTRACT

Digital transformation provides opportunities for business model innovation (BMI). Yet, incumbents may face organizational barriers when exploring radically new business models. The management of these barriers therefore becomes of strategic importance to incumbent BMI. In order to identify key barriers and their management, we investigate challenges encountered by innovation labs in the retail banking industry. Based on the case of four major European banks, we find that innovation labs are constrained not only by existing resources and capabilities, but also by the need to satisfy both top management and managers in the core business units. They seek to do this by using integration mechanisms and by balancing incremental and radical innovation. With this study, we expand our understanding of barriers to radical BMI for incumbents, which has general implications for how managers can develop innovation processes to help their organization to engage effectively in BMI.

Keywords: Business model innovation; barriers; incumbent; innovation lab; digitalization; exploration.

INTRODUCTION

Digital transformation has been a major driver in the development of new opportunities for individuals, organizations, and larger systems (Bresciani, Ferraris, & Del Giudice, 2018; Galindo-Martín, Castaño-Martínez, & Méndez-Picazo, 2019; Loebbecke & Picot, 2015). This includes the rise of digitalization-driven business model innovation (BMI) (Bogers, Sund, & Villarroel, 2015; Jensen & Sund, 2017; Saebi, Lien, & Foss, 2017). In this context, larger incumbent firms may benefit from the advantages of new digital opportunities owing to their existing market power (Rachinger, Rauter, Müller, Vorraber, & Schirgi, 2019), but they also face significant barriers, especially when attempting more radical forms of BMI (Snihur & Tarzijan, 2018; Sund, Bogers, Villarroel, & Foss, 2016). Such radical BMI sometimes takes place in internal innovation or R&D labs. Understanding the barriers to BMI experienced by managers in such labs remains a largely under-researched phenomenon that can point to new lines of investigation of successful BMI.

Innovation and its management are important capabilities for any organization facing an operating environment characterized by rapid change. In particular, the combined effects of digitalization, globalization, and associated changes in consumption patterns make it relevant for more firms to develop the capability to comprehend, acknowledge, and drive the business model changes needed to persist and succeed in these environments (Bogers et al., 2015; Ferreira, Fernandes, & Ferreira, 2019; Teece, 2010). As incumbents face unforeseen external changes that force them to adapt and develop in order to survive against disrupting start-ups and other new competitors, the establishment of an innovation lab might be seen as a solution (Bogers et al., 2015; Chesbrough & Rosenbloom, 2002; Egfjord & Sund, 2020). Such an innovation lab can be tasked with identifying, exploring, and launching new business

models. In incumbents, such a lab can exist as a dedicated cross-departmental innovation team, a formal department, or a more independent lab. Either way, the lab is typically responsible not only for generating ideas, but also for promoting innovation and creating integration, by (1) scouting for ideas, (2) scanning the external environment, (3) facilitating innovation activities, (4) publicizing promising innovations, and (5) developing prototypes (Bogers et al., 2015; Cash, Earl, & Morison, 2008; Egfjord & Sund, 2020).

The few studies that have examined digitalization-related BMI in the context of such labs have pointed out that labs face specific challenges when selling ideas internally. For example, Chesbrough (2010) demonstrated how ideas developed at Xerox's five global research labs which were seen by management as too big a departure from the current business model were systematically put aside. Similarly, in a study of the postal sector, Bogers et al. (2015) found that only new ideas that complemented existing businesses had internal success. Finally, Egfjord and Sund (2020, p. 7) – in the context of the insurance industry – found that, for the lab, it was “*difficult to sell more radical ideas to the rest of the organization*”. Such findings indicate clearly that the balancing of more incremental product and process innovation, with more radical BMI, is a difficulty for the incumbent. Many incumbents fail at more radical forms of BMI. Understanding which barriers and enablers allow some incumbents to succeed, and others to fail, has therefore emerged as a promising avenue of research, both for scholars wishing to explore the process of BMI and for practitioners wishing to avoid such barriers (Snihur & Tarzijan, 2018; Sund et al., 2016).

Banks provide an empirical context for the exploration of such barriers during digitalization-related BMI. Recently, the need for innovation and constant development has been emphasized in the banking sector (Doyle, Chung, & Quigley, 2013; Niemand,

Rigtering, Kallmünzer, Kraus, & Maalaoui, 2020). As financial products are almost exclusively based on information, digitalization has had a strong impact on the sector (Puschmann, 2017). The emergence of online banks, e-brokers, digital currencies, and artificial intelligence threatens the profitability of the traditional retail bank (Niemand et al., 2020). Some banks have responded by establishing innovation labs tasked with exploring new business models. The sector has often been researched from a financial performance and regulatory perspective, but the development of innovation labs by incumbents as a response to a more complex and rapidly changing operating environment is a current trend that has been overlooked. We therefore conducted a case study of innovation labs established in four incumbent European banks to explore the barriers to radical BMI. We find that innovation in these labs is constrained by existing resources and capabilities, and by the need to satisfy top management and managers in the core business units at the same time. Lab managers seek to do this by using integration mechanisms and by balancing incremental and radical innovation. We can thus start to understand incremental innovation not as a sign of failure to innovate more radically, but rather as a deliberate strategy that enables the freedom needed for more radical innovation. Below, we first provide some background on what we know about the topic, before describing the method, and then reporting and discussing our findings.

BACKGROUND

There is not necessarily a clear consensus in the literature on what a business model is, although most definitions focus on the question of how organizations create and capture value (Zott, Amit, & Massa, 2011). To capture value in the context of digitalization, firms need to master business model design – for example, to link the latent value of a technology

to customer needs, and to define how this value is delivered (Chesbrough & Rosenbloom, 2002; Teece, 2010). Amit and Zott (2012) present several reasons why BMI is as important as product or process innovation for incumbent firms, such as leveraging a source of value that has not been properly exploited, or the added challenge for competitors of duplicating and copying a whole new activity system instead of just a single product or process. Research linking digitalization and BMI has been growing exponentially in very recent years (Caputo, Pizzi, Pellegrini, & Dabić, 2021), but with limited attention to the specific context of BMI in incumbent firms.

Digitalization is a wide sociotechnical process by which multiple digital technologies are integrated and become pervasive in society (Caputo et al., 2021). This digitalization has led to new business models being developed in numerous sectors, including digital servitization models, new platform models, and freemium models (Sklyar, Kowalkowski, Tronvoll, & Sörhammar, 2019). Digitalization is thought to have favoured the development of new digital start-ups over incumbents (Ritter & Lettl, 2018), as well as business models less reliant on physical elements and more on digital infrastructures (Erevelles, Fukawa, & Swayne, 2016; Warner & Wäger, 2019). It has also been pointed out that digitalization trends have reduced the resource gaps between large firms and small-/medium-sized firms, providing increased opportunities for the latter (Scuotto, Santoro, Bresciani, & Del Giudice, 2017). This suggests that small start-ups are at an advantage and do not face the same rigidities as established incumbents (Doz & Kosonen, 2010).

Although new digitalization-driven business models may be launched by start-ups, or *fintechs* as they are often referred to in the financial sector (Puschmann, 2017), incumbent firms too have been seen to attempt their launch. For these incumbents, such attempts can

often be categorized as radical BMI, since the aim is to find entirely new ways to create and appropriate value, rather than to make smaller incremental changes. In this context, organizational design issues and barriers to innovation become salient, and deserve further research. Thus, while managing innovation has typically been regarded from a product and technology-focused viewpoint (Cumming, 1998), cognitive and organizational dimensions have come to the forefront of the study of organizations' BMI processes (Becker & Huselid, 2006; Bogers, Foss, & Lyngsie, 2018; Foss & Saebi, 2017; Massa, Tucci, & Afuah, 2017; Sund, Galavan, & Bogers, 2021; Sund, Galavan, & Brusoni, 2018).

Incumbent barriers to business model innovation

As previously noted, there has been an increasing attention to the role of organizational aspects of BMI (Foss & Saebi, 2015), and while much literature on business models is focused on entrepreneurial firms and the creation of new business models through start-ups, a much smaller part of the research literature centres around incumbent firms that already have established business models with large market shares, and their decisions to add new business models that can be disruptive (Kim & Min, 2015). Balancing the exploration of new business models and the exploitation of existing business models leads to a need to carefully design the organization. Such design can be thought of in terms of the optimal degree of differentiation of activities (for example, giving both cognitive, resource, and capability freedom to innovation labs and innovative employees), and integration mechanisms (both vertical and horizontal). Managers exploring new business models may not fully recognize that tensions will almost inevitably emerge regarding, for example, resource allocation and top management control, and thus may be ill prepared to manage these (Bogers et al., 2015; Egfjord & Sund, 2020).

Besides the opportunities surrounding BMI, there may be organizational barriers, such as conflicts with existing assets and business models, but also cognitive limitations in understanding these barriers (Chesbrough, 2010; Sund et al., 2021). BMI implies a necessity to engage in an explorative approach to identify new sources of value creation and ways to capture part of that value (Snihur & Wiklund, 2019; Sosna, Treviño-Rodríguez, & Velamuri, 2010). Such exploration is sometimes organized in a more centralized way, involving an R&D department close to – and controlled by – top management, or sometimes in a more decentralized way, with business units making their own decisions regarding business modelling. In addition to deciding on the organizational approach to adopt, firms need to determine which integration devices to use, in order to ensure an alignment between innovators and the core business (Egolford & Sund, 2020).

Existing business model research has highlighted the importance of paying attention to the process of BMI in incumbent firms (Klang, Wallnöfer, & Hacklin, 2014; Markides, 2013). Such a process typically starts with a realization that the existing business model is under strain, and that a process of BMI must be initiated. Teece (2018) calls this the sensing stage, while Jensen and Sund (2017) refer to this stage as the awareness stage. During this early stage of BMI, the actual organization of innovation activities has yet to be defined. It is during the subsequent exploration stage that top management formally recognize the need for BMI and organize activities to search for adaptations to existing business models, or entirely new ones (Bogers et al., 2015; Fjeldstad & Snow, 2018; Jensen & Sund, 2017; Kim & Min, 2015; Sosna et al., 2010). The final stage in the BMI process is the exploitation stage, when the new business model is launched and refined (Bogers et al., 2015; Jensen & Sund, 2017; Sosna et al., 2010). At this stage, the organization must align its structure and capabilities to deliver the new business model (Teece, 2018).

During the exploration stage, organization typically involves appointing a specific department or group of people to the task of innovating or coordinating such innovation. Regardless of whether the task of coordinating innovation activities is assigned to a central R&D unit or a decentralized taskforce, this group will at least initially be a cost, rather than a profit, centre within the organization. Literature points to the fact that organizational designs – and the associated organizational tensions that emerge during the stage of business model exploration – are not well addressed by existing theoretical frameworks (Egffjord & Sund, 2020; Sund et al., 2016). The few studies that exist hint at significant barriers facing the incumbent during business model exploration. For example, in the process of exploring new business models, firms may face barriers in terms of top management support, decision-making autonomy, and resource constraints (Chesbrough, 2010; Sosna et al., 2010; Sund et al., 2016). Other possible impediments that have been mentioned in the literature are, for example, differences in perceptions (Bogers et al., 2015; Egffjord & Sund, 2020), culture (Laukkanen & Patala, 2014), governance (Bogers, Chesbrough, & Strand, 2020), and individual attitudes (Sivertsson & Tell, 2015). How these scattered findings are conceptually and empirically linked is currently unknown.

METHOD

To explore this gap in the literature, we based a study on four European retail banks and their innovation labs. The multiple case study as a research method was chosen as it is useful for exploratory research and as the findings of this type of research are often robust and reliable (Baxter & Jack, 2008; Eisenhardt, 1989; Stake, 2006). Our intention was not to

estimate any population parameters, but to explore the innovation lab context. The cases were therefore simply chosen with Stake's (2006) selection criteria in mind: of relevance, diversity, and opportunity. Two common types of European retail banks are the cooperative bank and the stock bank. Although the banking market in Europe is liberalized, we targeted a pan-European sample of both bank types to achieve some degree of diversity of relevant cases. Some of the main challenges in case study research involve identifying such relevant cases, choosing the right informants, and gaining access to relevant interviews and other data (Halinen & Törnroos, 2005). To resolve this, the case firms were identified through the snowball technique. One of the authors has worked at one of the banks and thus was able to gain privileged access. Further banks were then identified and contacted with the help of the innovation manager in this first bank.

The primary research data was collected through six detailed semi-structured interviews. Interviews were subsequently transcribed, leading to just over 31,000 words of data. Secondary background data was collected from the organizations' websites, including annual reports, press releases, and innovation lab descriptions. The semi-structured interview was chosen as an adequate way of exploring the perceptions of innovation lab managers, enabling detailed questioning about perceptions and management of the innovation process (Sund et al., 2018). The general structure of the interview guide was guided by existing literature and focused on examples of innovation; the innovation process; methods and tools; actors involved in innovation; the focus of innovation efforts; organizational design; the role of top management; resources; and challenges experienced. We chose the head of the respective lab as interviewee, as this person would possess the relevant information and experience on the studied phenomena. For two case firms we also spoke to more junior members of the innovation team. Our aim was not to contrast the case firms, but to gather

enough data to canvas the various barriers and enablers experienced by leading members of such teams and how they manage these. Thus, although the number of case firms and the sample of interview material can be regarded as limited, the amount of data does not directly affect the success of the research, and the saturation of material has been considered. Put differently, as we were looking for the perceptions of innovation lab managers, and we interviewed the manager of each lab, the interviews were judged sufficient for our purpose. Some degree of triangulation was achieved by contrasting the interviews with the secondary data collected, as well as with the interviews of more junior members of the innovation lab in two of the case firms (Yin, 2018). The same approach, with a similar amount and type of data, has been used in previous comparable research (e.g. Bogers et al., 2015; Leone, Schiavone, Appio, & Chiao, 2020).

The material was analysed through a standard thematic content analysis (see, for example, Braun & Clarke, 2006). In the first step, the recorded interviews were transcribed word for word and notes made. They were then coded, accentuating the key words from the text that seemed to encapsulate essential thoughts or concepts. These were arranged into 33 categories (first-order codes). Further, second-order codes (sub-categories) were captured, and any links between codes were established. For all codes, respective textual extracts were labelled for reference purposes. Two of the authors performed this coding independently, and codes were subsequently merged and discussed. We then searched for emerging themes, connecting these in a thematic map based on the coding. The map is available on request from the corresponding author. We named the themes by connecting them to relevant theoretical management concepts inductively (for example, the theme of “capabilities”). Even though we looked for commonality in the data, some differences were also identified and will be discussed where necessary.

Case firms

Case firm A is one of the largest financial services group in the Nordic region with a presence in 20 countries. The bank has over 10 million private customers, over 500,000 corporate customers, as well as around 30,000 employees. The bank's innovation lab is a group-wide initiative that includes an internal innovation "intrapreneur" programme, as well as a programme for external partners – collaborating with start-ups – which has received hundreds of applications worldwide. The first internal innovation programme was established in 2012–13. The innovation programmes are led by two managers; one of them has been interviewed for this research and is referred to as Manager 1.

Case firm B is a cooperative bank consisting of almost 200 independent cooperative banks and the central headquarters. The bank has over 12,000 employees in European countries and over 4 million customers. The bank has an innovation lab, with the purpose of seeking new business and growth through improving life with technology. The lab collaborates with start-ups and participates in internal innovation processes. About 150 people are involved in the innovation lab's activities. The lab has been run by the same manager since 2015, and who was interviewed for this study, as well as a digital innovations director who runs the lab's discovery team. These managers are referred to, respectively, as Manager 2 and Manager 3.

Case firm C is a bank that operates in central and eastern Europe. Their 16 million customers are serviced through 2200 business outlets in the corporate and private customer segments as well as through investment banking. The bank has an innovation lab which started with a type of innovation board in 2014, but the lab itself was established in 2015. The

lab currently has seven employees from very different types of backgrounds, and they regard themselves as the drivers of innovation and new business models. The head of the innovation lab was the only interviewee and is referred to as Manager 4.

Case firm D operates mainly in Germany, forming a part of a cooperative financial network comprising more than 900 local cooperative banks, and is one of Germany's largest private-sector financial services organizations. This network also has a central institution that supports the work of the local banks. Cooperative banks represent the largest group of cooperative firms, with 16 million members and 190,000 employees. The bank's innovation lab consists of six employees, who act as a central platform for enabling innovation and connecting different departments as well as for collaborating with start-ups. Two key consultants from this lab have been interviewed, referred to as Manager 5 and Manager 6.

FINDINGS

In this section we first discuss a few general findings regarding the organization of the innovation lab, and how this organizing has been experimented with. We also discuss briefly how respondents view digitalization. We then present the results of the thematic analysis, with a focus on understanding the barriers encountered by labs during business model exploration.

Digitalization and the organization of BMI

Our interviewees revealed that current business models are challenged. In the words of Manager 4, *"we don't know exactly how long the current financial business models we banks work in are able to work"*. They also revealed that digitalization is the main focus of

innovation efforts currently undertaken, and as we knew from our sampling, all have established some form of innovation lab in order to lead corporate efforts at business model exploration. The governance of the innovation lab within the organization has been the subject of some degree of experimentation. Manager 2 told us that the innovation team in this bank had experimented with approaches, and “*changes of how we are governed and measured*”. Manager 1 told us they had experimented with the idea of holacracy (Bernstein, Bunch, Canner, & Lee, 2016), but it “*seemed too complicated*” and was abandoned. The position of the lab inside the organization also appeared to have changed through time and was not the same for all banks in our sample. Bank D had a decentralized approach to innovation, with semi-independent innovation teams positioned in each business unit and a central team providing support, which they indicated lead to some difficulties in coordination. The other banks had a more centralized approach, with a central lab taking more of a lead on innovation efforts. All recognized the need to encourage innovation across departmental boundaries, one respondent telling us that “*innovation labs can serve and act as a catalyst for thinking more broadly, but it shouldn’t be the sole place where innovation happens*”.

Digitalization efforts can, according to Manager 5, be divided into three types of initiatives, which we found useful for our analysis: (1) digitalization of existing processes (process innovation), (2) digitalization of existing products and services (product innovation), and (3) digital innovation, leading to the creation of new business models. Manager 5 told us that most of their projects fall into the second category – “*basically transforming existing products into a digital age*” – something that other respondents indicated as well, with other words. Our findings thus reveal a recurring theme: while efforts are attempted by these banks at more radical digital BMI, in the end, most efforts end up focusing on process and product innovation, based on existing “analogue” processes and products. As Manager 3 reflected,

“the whole digitalization approach plays an important role [...] is this innovative or not, that can be discussed”. Discovering why these banks find it difficult to engage with radical BMI was a key objective of our research.

Our data could be condensed into five key themes, around which we have structured the rest of this findings section. The first is the problem of balancing incremental and radical innovation. The second is how to use integration mechanisms between the innovation lab and the core business. The third is the issue of the role of top management and their support for innovation. The fourth is the role of resources and capabilities. The fifth is the innovation process itself. These themes are linked, as indicated in Figure 1. The outcome of the innovation process managed by the innovation lab is either incremental or radical innovation. Top management support is critical to the success of this process, but also guides this process to some extent. Resources devoted to innovation, as well as the sourcing of necessary capabilities, are important to the process. Finally, integration mechanisms are critical both to enable innovation and to secure management support. Themes are connected through subthemes, which are therefore referred to multiple times throughout the discussion in the different sections. Figure 1 provides an overview, while subsequent figures illustrate how subthemes connect these.

Figure 1 around here

Balancing incremental and radical innovation

The labs engage in both incremental and radical innovation, and balancing these two forms of innovation emerged as a key concern for all case firms. The passion of respondents seems to lie in radical innovation, which is demonstrated by their organizing numerous activities for business model exploration and experimentation. The innovation labs seem to have a dual role in driving innovation and radical ideas but also supporting the core business units in developing innovation activities, as, in the end, it is these business units that must implement new products, services, or business models.

Digitalization is perceived to be mainly linked to incremental innovation in these banks. One innovation lab organized pitching days and Dragons' Den-style events, during which employees from across the bank could pitch good ideas. This was widely supported and resulted in over 130 ideas. However, "*we saw that in the 130 ideas [...] many of them were actually [...] incremental improvements*" (Manager 1). The same manager also recognized that "*on the other hand, the company has a lot to do to optimize the current business*". This suggests the importance of ambidexterity. Manager 6 similarly mentioned that the main focus had been on process innovation. In other words, the innovation lab managers we talked to found it easier to identify opportunities for, and convince the core business units to pursue, more incremental process and product innovations. The balance between process, product, and business model innovation appears to be linked to several factors, described below.

Top management focus. Top management is perceived to be mainly involved with managing existing business units and core banking products. It also seems that seeking alignment with the existing strategy, and having a strong customer focus, naturally leads to more incremental innovation.

Centralization and control. All managers indicated that ultimately, top management decided which radical innovation projects would be given a green light. This suggests a centralized decision-making process, and strong controls around innovation, in which more incremental forms of innovation are seen as a safer “quick win” bet.

Goal incompatibility. The radical BMI innovation goals of the innovation lab are not seen by lab managers as compatible with the goals of the core business. As Manager 1 noted, “*the daily work is still so consuming for most people that [...] it’s really hard to see beyond your current product line*”.

Resistance from core business. As more radical innovation efforts often require the involvement of core business employees, this steals valuable resources away from incremental optimization and daily activities. One manager noted that he had been accused by the core business of giving too much freedom to, and planting “*crazy ideas*” in, core business employees. Integration mechanisms are used to overcome this resistance.

Resources and capabilities. A lack of adequate resources and capabilities may lead to cheaper and more short-term incremental innovations, rather than long shots. Manager 5 stated that it is “*very difficult to create this kind of mindset and understanding that a very new business model needs time and can’t have a break even after one or two years*”.

Two managers mentioned the need for a greater customer focus during development projects, and one of these made a specific reference to co-creation as a vehicle for innovation. We interpreted such a focus to be linked to more incremental forms of innovation. Figure 2

illustrates subthemes relating the balance of incremental and radical innovation, as well as resources and capabilities, to integration.

Figure 2 around here

Integration mechanisms

Integration mechanisms are used to counter the resistance encountered from the core business and top management. Mechanisms highlighted by lab managers include involving core business employees and managers in choosing ideas to pursue; providing opportunities for core business employees to test their ideas; creating opportunities for knowledge transfer from the lab to the core business; facilitating the scanning of the external environment to identify macro trends and alleviate uncertainty; building cross-divisional teams; communicating and sense-giving; and organizing events.

There is a perception that involving the core business is necessary for implementation, but “*with too much involvement the chances of actually innovating are much smaller*” (Manager 5). Involving core business employees and managers reduces goal incompatibility, since innovation goals can more easily be aligned to the business goals of the core business. However, this integration may come at the expense of more radical BMI, since the core business will more naturally focus on incremental improvements to the existing business model. Too much integration is therefore seen by lab managers as a threat to their own freedom to innovate. There is thus a perceived need to balance collaboration with freedom.

These managers therefore accept that there will be some degree of tension or even conflict between the lab and the rest of the organization. One manager told us that when introducing a new idea, *“by definition there will be friction. Without the friction, nothing happens, and if you get rid of the friction, then nothing happens”* (Manager 5).

One important integration mechanism is simply communication, with multiple aims. One aim is to provide opportunities for the core business to provide input and feedback on development projects. A second aim is to keep the core business informed about the work of the innovation lab. A third is for the lab to become aware of ideas and projects originating from the core business. A fourth and final aim mentioned is that of sensegiving, whereby we mean not just informing members of the core business but also helping these members make sense of business model changes and other innovation. One lab employs an external “trend sketcher”, who helps the lab by painting sketches of innovative ideas and projects that can be used by the lab when communicating to the rest of the organization. Figures 3a and 3b illustrate subthemes relating top management support to the balancing of incremental and radical innovation.

Figure 3a around here

Figure 3b around here

Top management support

A complexity perceived in the leadership's role is that top management can be preoccupied with other issues. Some interviewees explain that top management's focus has been on compliance and regulatory issues instead of innovation and its surrounding activities, or that there simply could be more engagement from the top. Top management is also in a bind between the innovation lab's demands and managers from other business units being unwilling to grant so much of their employees' time to innovative activities. Even the board was seen by one manager as a potential barrier, as board members were perceived as not having the necessary capabilities or demonstrating a certain resistance to change. At the same time, all interviewees agreed that "*without support it is really hard*" (Manager 1).

The innovations labs thus acknowledge the need for management support and appreciate their engagement in the labs' operations: "*It's crucial that top management buy into innovation; it starts from the top*" (Manager 2). Top management participate in the labs' activities in various ways, such as listening to pitches from employees or selecting the best ideas for further development. This support needs to come not just from top management, as all innovation lab managers mentioned that they need the expertise of other business units in order to succeed. In fact, one manager explicitly recognized the difficulty for top management of supporting the innovation lab, whilst also respecting the autonomy and needs of line management in the core business.

All interviewees stress the importance of freedom, which they regard as crucial for the innovation labs' activities. This includes freedom in terms of experimenting with new ideas, testing them, running into barriers, making mistakes, and failing where needed. Concerning business model exploration in particular, defining new value propositions is perceived to take

more time to develop, so there shouldn't be a rush but an understanding to add these to the roadmap for the future: *"Yes, we have goals and yes, we have freedom. The funny thing I've learned about the innovation lab in the two and a half years is that, you know, some ideas or some innovations take years or a while to come together and become or emerge to a point where they actually make sense"* (Manager 2). The innovation labs' freedom and autonomy extend to goal setting. Targets are typically not imposed from top management, but rather shaped by the innovation lab's own personnel, such as *"number of innovation batches done in a year"*.

Yet, the lab managers we talked to also recognized that their labs serve an additional role – that of a symbol of innovation. As such, they expressed a concern for being role models for the rest of the business in terms of creativity and innovation work. They also emphasized that they are in a unique position to influence innovation agendas in the organization, partly owing to the attention from top management. This influence is linked to the ability to create results, in the form of quick wins. Some respondents mentioned speed to market as a key performance indicator. Given that respondents at the same time acknowledged that more radical BMI takes time, we see a link to the balancing of incremental versus radical innovation.

Resources and capabilities

Resources are mentioned by all banks as a constraint, in terms of time, money, and human resources. One manager mentioned that the winner of a yearly innovation challenge had subsequently not had the time to work on the idea that won, owing to commitments to their day job in the core business. Another noted that the bank put a lot of emphasis on time to market, leading to a focus on quickly pushing incremental product innovations into

prototyping and launch. Interestingly, Manager 5 noted that there are decreasing returns to investments in innovation: *“If you have too many resources you probably come to a point of inefficiency”*.

Cost cutting was mentioned by all respondents as a focus for the banks. One manager noted that the innovation lab is integrated into the general cost-cutting programme of the bank, so that even the lab must cut its innovation funds every year, despite this being a strategic investment. Another noted that they similarly had to cut costs and keep costs low for innovation. Manager 2 saw this cost cutting as a reason for core business resistance to innovation, stating that *“middle management is so squeezed they basically run tight budgets and tight resources. They would want more money and more resources but are not getting it”*.

Manager 2 also noted that resources and capabilities are needed for exploration and market testing, saying that *“if it is not in the scale that it needs to be, then you might as well not do it at all”*. Beyond limited financial resources, existing hardware and software solutions act to create rigidities:

“We have lots of legacy [software and services] and it is always hard to stop using something you have built or you have signed in or bought [...] The challenge that I more see is giving up and unlearning; meaning that there may be some practices we’ve been using for 50 or 60 years, and suddenly when somebody says that there may be another way of doing, artificial intelligence or what have you, then we may struggle to give up on the previous patterns, so more than the cost savings I see unlearning as a challenge.” Manager 3

Finally, capabilities linked to innovation are perceived to be missing, and such capabilities are to a large extent sourced externally, from consultants, start-ups, and other partners. All lab managers reported experimenting with a range of innovation tools, including the business model canvas, lean start-up, design thinking, and product sprints. The picture is one of active experimentation with methods, and of a constant search for external inspiration, including through collaborations with accelerators and others, in what could be called an open innovation approach. Two lab managers specifically mentioned preferring agile approaches over the more traditional waterfall approach when developing new software solutions. Overall, the focus on cost cutting combined with a preference for agile approaches might again be linked to the balancing of incremental versus radical innovation, where such a focus might lead to more incremental process-type innovations. Figure 4 relates resources and capabilities to the innovation process.

Figure 4 around here

Innovation process

As previously discussed, all innovation labs in our sample have adopted external innovation methodologies or “templates” such as lean or agile, as well as tools for innovating. All use a stage-gate process of some sort to get from idea to finished product. This eagerness to use and implement methodologies could indicate a perceived need to control the process of innovation, and the types of ideas generated. The stage-gate approach, combined with highly organized events such as hackathons, pitches, and intrapreneurship programmes, means that ideas are developed within an environment controlled by the innovation lab. This need for

control may be linked to the perception that top management increase their trust in the lab when they see results. To ensure such results, the process must be controlled.

Establishing clear processes and organizational structures for innovative activities throughout the organization is seen to enable innovation across business units, and to create synergy. *“We have a lot of skilled people across the business units who are kind of struggling, because they cannot take their innovation across the organization or different business silos or even upwards in the organization, so now I think we are able to communicate that message to upwards.”* (Manager 1)

CONCLUDING DISCUSSION

The last two decades have witnessed a digital transformation – not least thanks to more universal internet access and new internet applications – that has created new entrepreneurial opportunities (Bresciani et al., 2018; Galindo-Martín et al., 2019; Scuotto et al., 2017). Sensing this, many incumbent firms have been keen to explore these opportunities, and doing so requires adapting established business models, or even designing new ones. The responsibility for this exploration and design is, in many such incumbents, assigned to a dedicated innovation team, department, or lab. As indicated in our introduction, these labs are typically responsible not for coming up with the best ideas but for promoting innovation and creating integration, by (1) scouting for ideas, (2) scanning the external environment, (3) facilitating innovation activities, (4) publicizing promising innovations, and (5) developing prototypes (Bogers et al., 2015; Cash et al., 2008; Egfjord & Sund, 2020). These are exactly the roles taken on by the innovation labs in our study.

The banks in our study tell us that innovation efforts are aimed at the digitalization of existing processes, the digitalization of existing products and services, and radical digital business model innovation. In practice, however, they find it easiest to succeed with the incremental digitalization of existing products and services, and much more difficult to achieve radical BMI. This mirrors the findings of previous studies of incumbent BMI (e.g. Bogers et al., 2015; Chesbrough & Rosenbloom, 2002; Egfjord & Sund, 2020). Our findings suggest some new explanations for why this is the case (i.e. what barriers to radical BMI might exist).

The information environment available for innovation managers' sensemaking plays a crucial role in guiding the direction of BMI (Egfjord & Sund, 2020; Sund et al., 2021). According to Snihur and Wiklund (2019), information search is therefore linked to the type of innovation. They find that broad external search, as opposed to internal search, is associated with BMI. The labs in our study reveal a pressure to focus their attention internally when developing and testing innovations. Our findings suggest several reasons for this.

Firstly, the support of the core business (and hence the avoidance of resistance) can only be secured if top management, core business managers, and core business employees are involved in the innovation efforts. This is achieved through internal integration mechanisms such as hackathons, pitches, and other mechanisms, as discussed in our findings section. Such mechanisms are not just tools with which to identify ideas, but mechanisms that enable the role of the lab. This is also achieved through constant communication with the core. In this process, the innovation lab experiments with a wide range of externally inspired tools and methods. Where capabilities are missing, these are sourced externally.

Secondly, involving the core helps reduce goal incompatibilities between the innovation lab and the core. This requires the innovation lab and the core to jointly define the goals of innovation. Naturally, the core will tend to focus their attention on challenges linked to existing products, services, and customers (Egffjord & Sund, 2020), which in turn leads to the co-creation of incremental product and process innovations rather than to new business models. Finally, resource constraints, and a constant focus on cost cutting in these banks, create an environment in which quick wins and innovations leading to short-term gains are naturally favoured over long-term BMI.

The necessity of top management support for BMI has been widely acknowledged. For example, it has been suggested that top management may be operating under the influence of a dominant business logic that constrains their ability to recognize the opportunities presented by new business models (Bogers et al., 2015; Chesbrough, 2010; Chesbrough & Rosenbloom, 2002). Our findings seem to support this view, but also point in some new directions. One direction is that of missing digitalization and innovation capabilities at the board level. Two of our lab managers mentioned this as a potential obstacle. Another direction is that top management involvement appears to be linked to a centralization of decision-making. When the innovation lab seeks top management support, such support may come at the expense of decision-making authority, which moves into the top management. Top management may in turn favour more incremental quick win ideas, rather than more uncertain radical BMI. Furthermore, given that top management will have a limit to the time and cognitive resources they can devote to this decision-making (Snihur & Tarzijan, 2018; Snihur & Wiklund, 2019; Sund et al., 2021), decisions are made rapidly, which may result in

sub-optimal decisions. One manager told us that such decisions – to invest or not in innovative ideas – were based on seven-minute pitches.

Our findings paint a general picture of the need to balance incremental and radical forms of innovation. This balance is linked to the degree to which top management is supportive of radical innovation, and the resources that are provided. However, it is also linked to the organizational tensions that emerge between the innovation lab and the core business. Integration mechanisms influence the degree of core resistance and the level of top management support, which in turn influence the innovation process and are thus critical factors in enabling innovation at all. Our interpretation of the balancing of incremental and radical innovation is that these are not necessarily perceived by lab managers as substitutes, but may in fact be complementary, as allowing incremental innovations makes it easier for labs to gain the acceptance from top management and the core business of more radical innovation as well.

There is one prominent barrier to radical BMI mentioned in the existing literature that has not emerged in our study but that deserves mentioning, which is the complexity of managing multiple business models (Chesbrough, 2010; Snihur & Tarzijan, 2018; Sund et al., 2016). This complexity was not highlighted by our respondents. We see three possibilities for why this is not the case. The first is that this is a problem simply not perceived by innovation lab managers. The second is that owing to the BMI process stage these labs are in – that is, the business model exploration stage – the problem has not yet been encountered and may arise once new business models have been successfully launched. A final possibility is that business model innovations implemented so far by these case firms have been of a

complementary nature to the core business model and have thus not resulted in any tensions (Bogers et al., 2015).

Further research is needed to understand how the process of BMI might be linked to specific types of tensions and barriers to innovation. We have focused on the exploration stage. However, what barriers would have been encountered prior to this stage – that is, during the sensing or awareness stage of BMI (Jensen & Sund, 2017; Teece, 2018)? And when these early barriers are not identified and dealt with by management, do they endure into the exploration stage, thereby making such exploration more difficult? If this is the case, then the early identification and elimination of barriers to BMI could be critical to the subsequent success of the innovation process. In terms of integration mechanisms, further research could focus on what mechanisms are best, and under what conditions. For example, an emerging line of investigation on tools of business model visualization suggests that different tools may have cognitive advantages at different stages (Massa & Hacklin, 2020; Täuscher & Abdelkafi, 2017). Visualization tools are just one type of integration mechanism. Investigating the slightly broader question of how different tools and mechanisms can be used in a targeted way to overcome specific barriers linked to different stages of the radical BMI process could lead to a more refined framework for managers wishing to support their organization in adapting to a changing environment through BMI.

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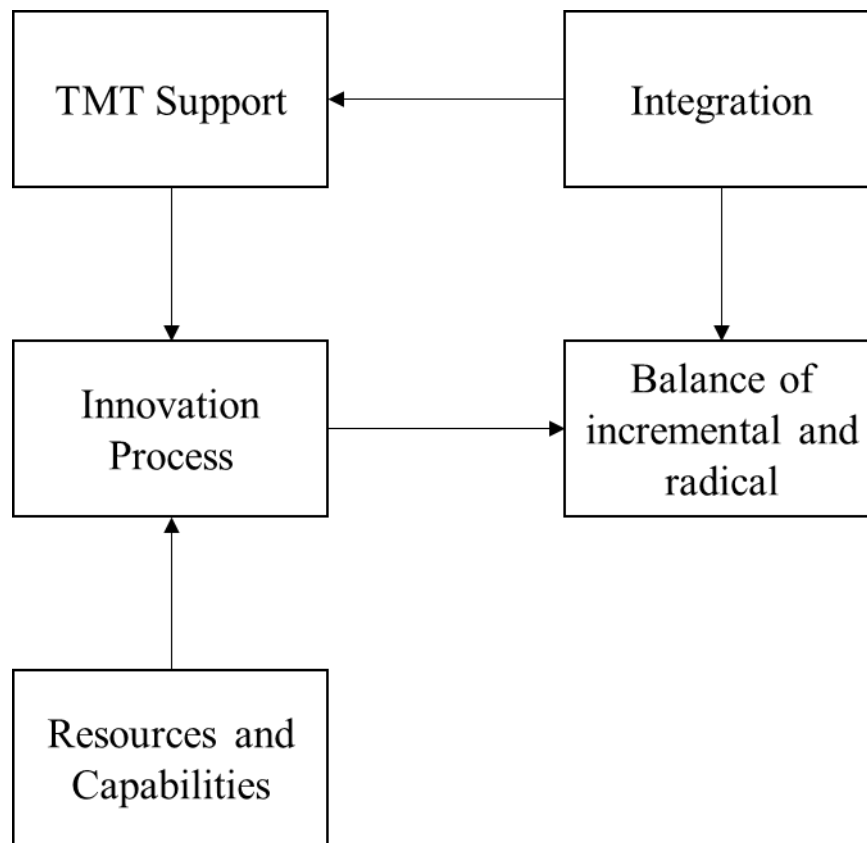


Figure 1: Main themes

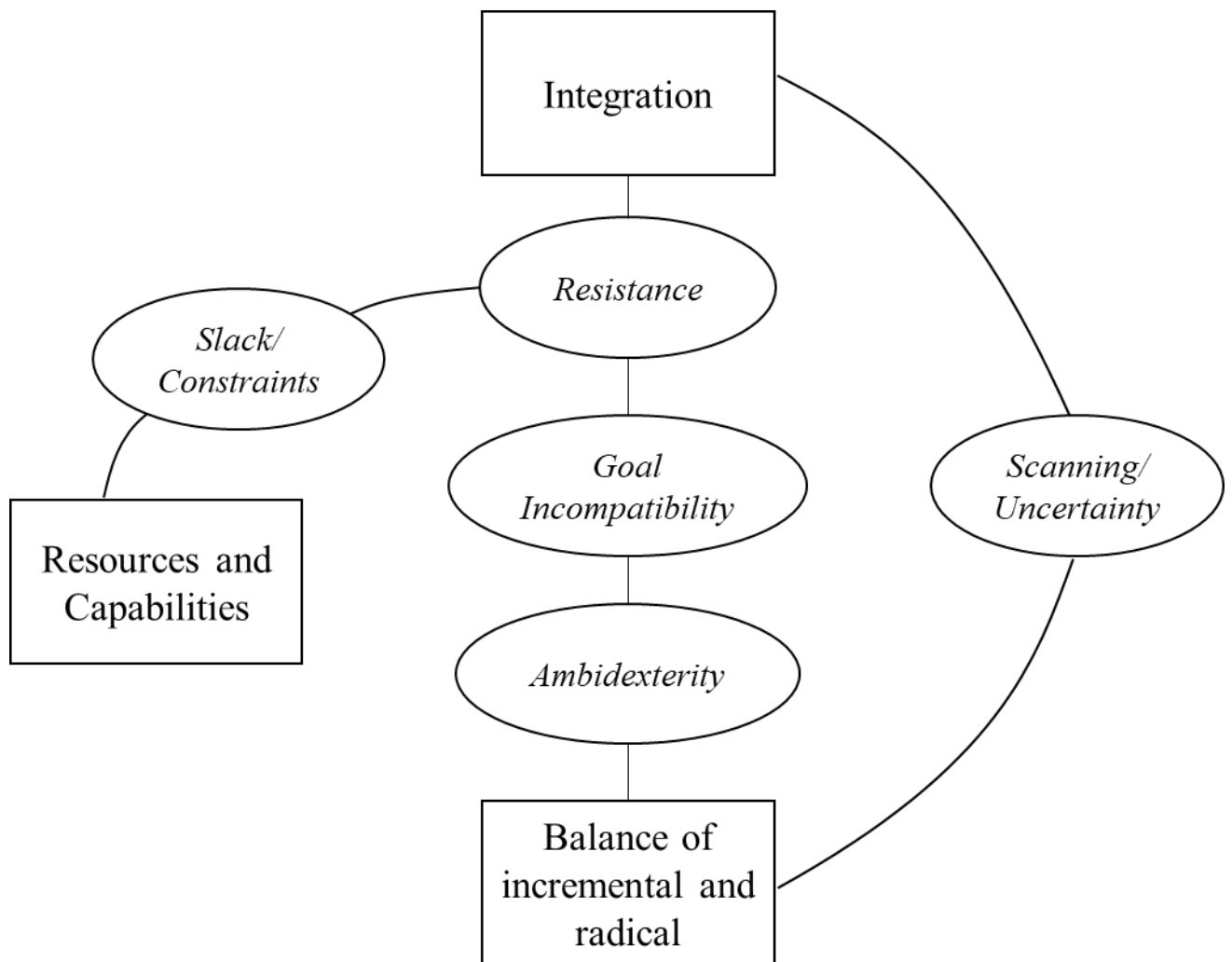


Figure 2: Integration

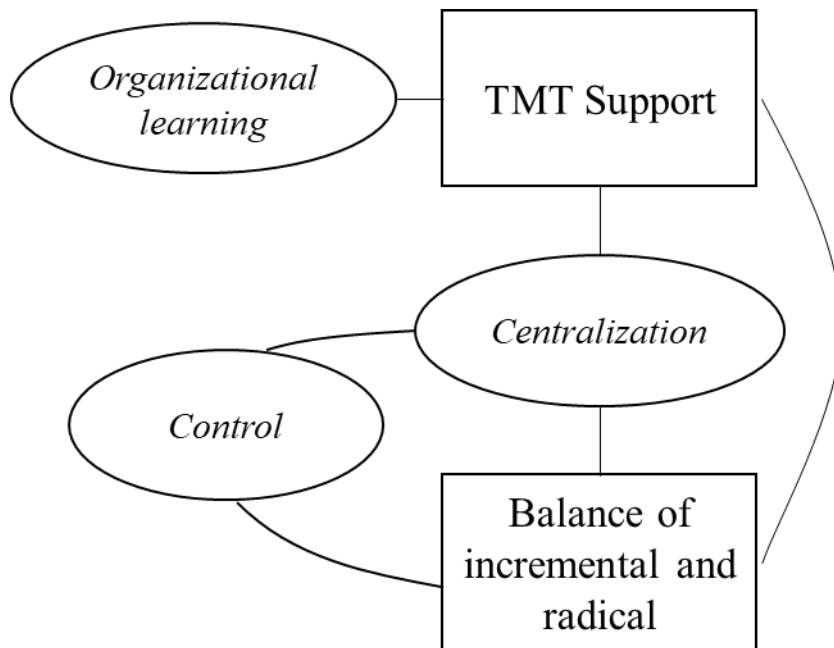


Figure 3a: Top management support

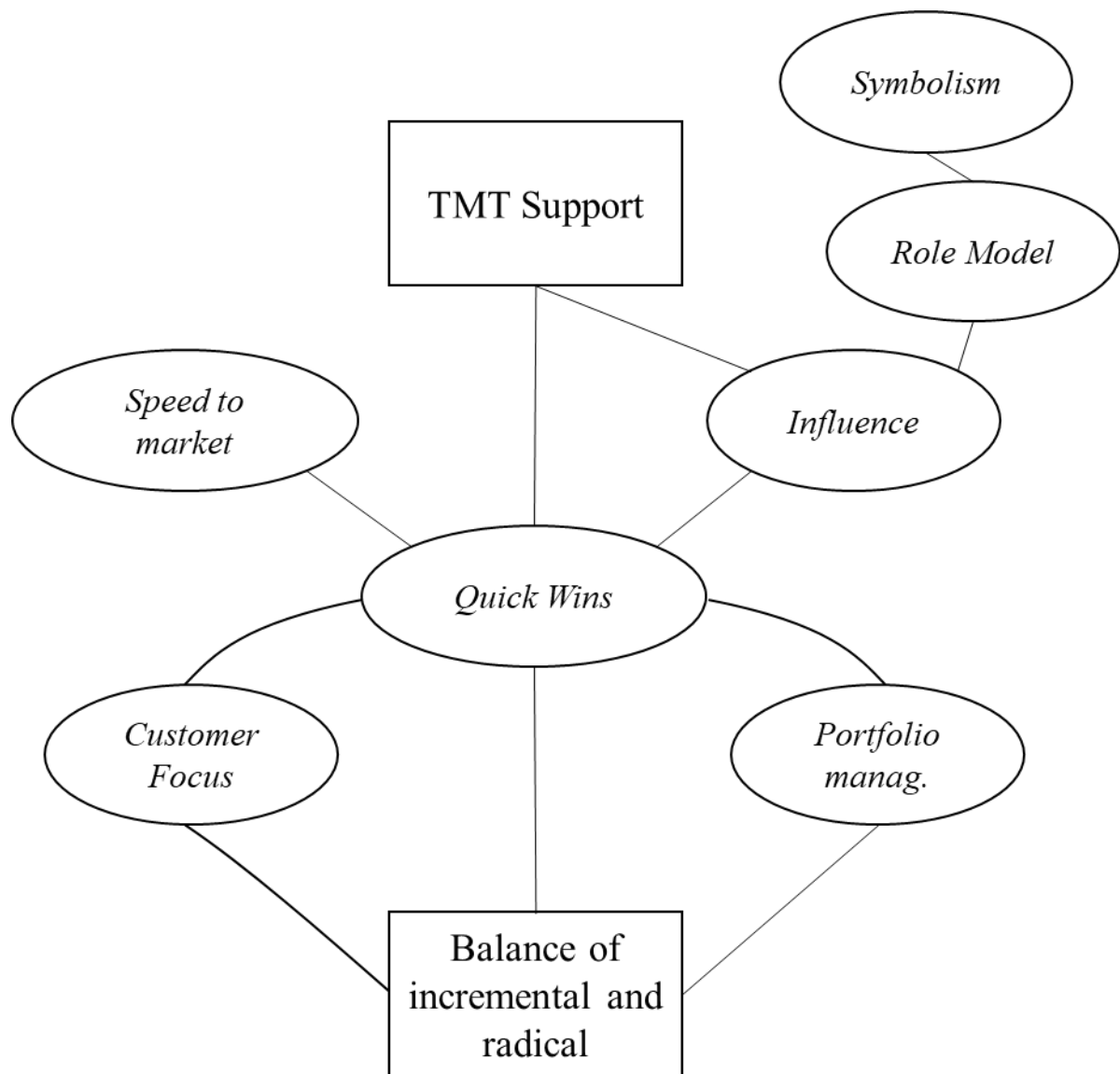


Figure 3b: Top management support

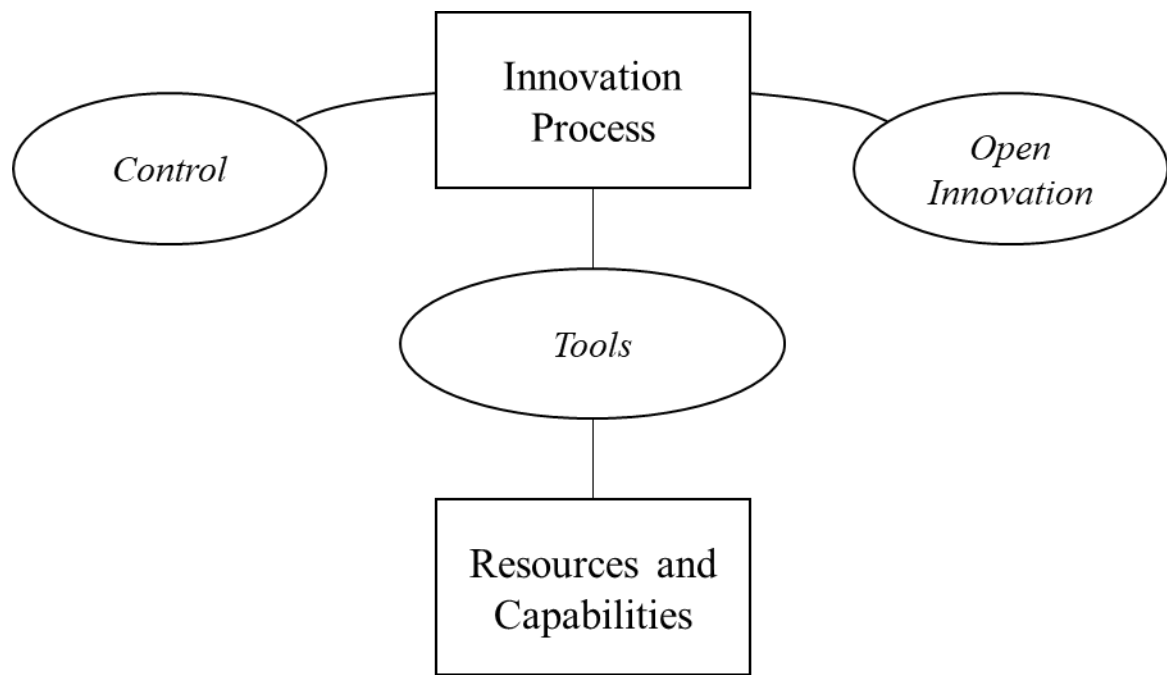


Figure 4: Innovation process