Baumgartner, Stefanie; Peter, Marc K.

**Article**

# Strategic foresight and innovation management : a comparative study across international swiss banks

Athens journal of business & economics

**Provided in Cooperation with:**
Athens Institute for Education and Research (ATINER)

*Reference:* Baumgartner, Stefanie/Peter, Marc K. (2022). Strategic foresight and innovation management : a comparative study across international swiss banks. In: Athens journal of business & economics 8 (4), S. 309 - 328. http://www.athensjournals.gr/business/2022-8-4-1-Baumgartner.pdf. doi:10.30958/ajbe.8-4-1.

This Version is available at:
http://hdl.handle.net/11159/631124

*Athens Journal of Business & Economics –*
*Volume 8, Issue 4, October 2022 –Pages 309-328*

# Strategic Foresight and Innovation Management: A Comparative Study across International Swiss Banks

*By Stefanie Baumgartner[*] & Marc K Peter[±]*

*International Swiss banks are challenged more than ever. The fast-paced global environment forces them to develop new and innovative products, services, and processes to sustain in the long-term. Therefore, strategic foresight is important to understand the organisations' customers, their evolving needs and changing behaviour, and in turn provides banks with the necessary analysis and knowledge about future customer needs, enabling them to take the right decisions to be prepared for future change. This paper investigates how the incorporation of strategic foresight in international Swiss banks is executed to enhance their innovation activity. Through an in-depth analysis of academic papers and three case studies based on twelve qualitative interviews with management representatives from the financial services industry, a new framework was developed. The framework of "enhanced innovation activity through collaborative foresight activities" is designed as an iterative process consisting of internal and external dimensions. Innovation activity can be enhanced while focusing on setting the right parameters throughout the organisation. The strategic foresight process enables practitioners in collecting the right information about future trends and customer needs, which supports innovative thinking and human involvement. Applying the framework reinforces banks in focusing on the decisive dimensions of the strategic foresight process and enhances innovation activity.*

**Keywords:** *strategic foresight, innovation management, enhanced innovation activity framework, foresight research, Swiss banks*

## Introduction

According to a survey of 100 Swiss banks (Ernst & Young 2018), banks are short-sighted and detect trends only when real and imminent. Long-term trends are not recognised, neither as threats nor as opportunities. This indicates a weak strategic foresight process of organisations in the financial services industry. Therefore, further research is required regarding how to best incorporate this management task into the bank's processes and transform its inputs into a competitive advantage. According to the report, as the number of banks will decrease in the coming years, the pressure to be competitive further increases (Peter 2019). The changing environment requires a deep understanding of the driving forces and therefore encourages organisations to more actively consider

[*]MSc IM Graduate, School of Business, University of Applied Sciences and Arts Northwestern Switzerland FHNW, Switzerland.
[±]Professor & Head of Competence Centre Digital Transformation, School of Business, University of Applied Sciences and Arts Northwestern Switzerland FHNW, Switzerland.

https://doi.org/10.30958/ajbe.8-4-1 doi=10.30958/ajbe.8-4-1

both threats and opportunities from the emerging future. In turn, this necessitates foresight activities within the organisation (Joneidi Jafari and NiliPourTabataba'i 2017). Unfortunately, many organisations are unable to transform the generated knowledge and information from foresight activities to produce innovative products and services (Shin 2017). Here, foresight methods can increase the innovation activity of an organisation, serving as a strategist, an initiator, or an opponent. It aims to provide strategic direction, considering various opinions and information about competitors' moves. It facilitates the organisation to detect new customer needs, new technologies, and/or changes in the environment. To date, strategic foresight is still not integrated as a standard process in many firms' strategy development processes and the knowledge of its positive output is not yet accepted widely. According to a survey executed with industrial firms (Battistella 2014), only 2.4% of survey participants responded that they systematically use foresight activities to generate insights into possible future scenarios which are later used for managerial decision-making and actions. This indicates that the benefits of foresight are not understood, and more research must be undertaken and practical contributions generated to motivate and support companies to integrate strategic foresight methods in their strategy development process. Overall, more knowledge is required about how the cooperation of strategic foresight and innovation management can be handled most efficiently.

The research objective of this paper is to investigate the process of strategic foresight and its impact on the innovation activity of international Swiss banks. An additional objective is to identify how to incorporate strategic foresight into an organisation in order to be able to generate the highest possible activity in innovation, creating competitive advantages.

## Literature Review

### *The Financial Services Industry in Switzerland*

The financial services industry in Switzerland has decreased its contribution to the national gross domestic product (GDP) within the last decade (Schweizerische Eidgenossenschaft 2019). In 2018, its contribution was 9.1% (CHF 60 billion, of which CHF 31 billion resulted from the banking industry, the rest from the insurance industry) compared to 11.1% in 2008. A meaningful structural change has been noticed in the number of major banks as their number has doubled (mainly resulting from various mergers), the number of private banks and individual bankers shrunk by 50%, and 30% of foreign-dominated banks vanished from the market (Schweizerische Eidgenossenschaft 2019).

As digitisation progresses, competition has increased. Small start-up financial services providers enter the market and large technology companies are expanding their product and service offerings into the financial services industry (BBVA 2019). Smartphone banks, such as Neon, Revolut, Transferwise or Zak have attractive services for lower cost than traditional banks. They are highly competitive in currency exchange and usually have a customer-friendly user interface, which

many other banks do not yet have (Handelszeitung 2019). According to a study by the Swiss National Bank, banks expect so-called BigTechs – companies such as Amazon, Google or Facebook – to enter the financial industry, where they may have a competitive advantage over incumbent banks as they have vast amounts of customer data and sophisticated technology readily available (Moneycab 2019). Banks know that changes in strategy and product portfolios will be required, but it is not obvious in which direction they must develop strategically as they cannot yet recognise the direct impacts. This underlines the importance of corporate foresight and innovation management.

Digitalisation has driven a first wave of structural transformation in the financial services industry. On one hand, banks expect less drastic structural change than in previous years (Ernst & Young 2018); but on the other hand, the importance of the notion that digitalisation will revolutionise processes and business model has increased. According to their survey, banks have recognised the importance of digitalisation and have started to create think tanks, which enable the examination of trends and innovation opportunities. Artificial intelligence (AI) is already a particularly important tool in the financial services industry. It can be leveraged to provide investment advice, product comparisons, or to more efficiently interact with clients (Newman 2019). Additionally, the usage of big data has become indispensable (Ravi and Kamaruddin 2017). As technology, robotic automation and AI are some of many trends influencing the global financial services industry (Mehrotra 2019). Additionally, because of ongoing new innovations in this space, they make it difficult for organisations to plan for the medium to long-term.

*Strategy, Strategic Foresight and Innovation*

According to Barad (2018) and Hambrick and Fredrickson (2005), strategy consists of a set of choices which guide the business on how to achieve objectives. The mission and vision are crucial supportive elements to a business strategy; however, they are not part of the strategy itself (Watkins 2007). Similarly, the external environment of an organisation is not part of the strategy but provides the organisation with important information on how to position itself in the competitive market environment. In addition, internal processes and structures are also not part of the strategy. However, they identify the core elements of strategic analysis as industry analysis, customer or marketplace trends, environmental forecasts, competitor analysis, assessment of internal strengths, weaknesses, and resources. Strategy therefore is defined as "the central integrated, externally orientated concept of how we will achieve our objectives" (Hambrick and Fredrickson 2005, p. 52).

According to Nelson (2015), less than 1% of organisations developed capabilities for strategic foresight. In a study where 300 global executives were asked about strategic foresight, 97% of the respondents commented that their organisation lacked an early warning system for discontinuities and that they, therefore, had been surprised by competitors' moves in the past (Schoemaker et al. 2012). The basic assumption that an organisation can rely on a stable environment

and a foreseeable future has changed. Strategic foresight has thus emerged from the need for an answer to the instability in the context of organisations (Nelson 2015) and defeating competitors while achieving a competitive advantage (Gholipoor and Mehdi Mozaffari 2020). With strategic foresight, organisations can mitigate risk and capture possible business opportunities (Pulsiri and Vatananan-Thesenvitz 2021). Originally, strategic foresight started with a strong focus on technological issues (Do Couto e Silva et al. 2016), followed by discussions on new business models, new markets, and new competitors (Shah et al. 2013). Schoemaker et al. (2012), Calof et al. (2018), and Georghiou (2001) have recognised that the social component has been missing from early research in corporate foresight, but plays a vital role in the process.

Iden et al. (2017) define strategic foresight as a concept, while other authors describe strategic foresight as a process (Gaspar 2015, Keller et al. 2014; Vishnevskiy et al. 2014). Strategic foresight uses data indicating a potential future outcome to enable "understanding and acting upon information more quickly and creatively than competitors" (Hines 2006, p. 18). Through the analysis of environmental discontinuities and changes on an ongoing basis, organisations try to establish effective responses (Rohrbeck 2011, Rohrbeck and Schwarz 2013). According to Emelo (2011) and Nelson (2015), foresight activities aim to define these responses in the present while directing the unforeseeable future. Therefore, the context of an organisation's environment is critical in defining the current undertakings. Its emerging character needs close surveillance (Nelson 2015). Slaughter (1999) defined strategic foresight as the coherent maintenance of the future-orientated vision of high quality, using indications for future changes. Through understanding possible future scenarios, strategic foresight also helps in efficiently allocating organisational resources for planned strategic actions (Pulsiri and Vatananan-Thesenvitz 2021). Both Gracht and Stillings (2013) and Rohrbeck and Schwarz (2013) have additionally identified the importance of recognising customers' needs. According to these authors, strategic foresight should deliver solutions to future customer needs. As a competitive advantage can disappear rapidly, it is essential for organisations to focus on innovation management to be able to anticipate future customer needs and retain the competitive advantage (Duin and Graaf 2010).

As such, strategic foresight is part of the strategic planning process, as the organisation's strategy depends inevitably on the vision which is defined based on the knowledge gained from strategic foresight (Coelho et al. 2012). While setting the vision of an organisation, it is important to consider the organisation's mission, performance, and effectiveness (Hines 2006). The focus lies on the interconnection between the future and the organisation. Creating a common vision for the company is a key element of the strategic foresight process (Bezold 2001, Daheim and Urz 2008, Duin and Graaf 2010, Vishnevskiy et al. 2014).

Rohrbeck et al. (2007) define technology intelligence, political environment foresight, competitive intelligence, and consumer foresight as the main elements of strategic foresight. People, organisation, networks, culture, and information usage are further dimensions defined by various other authors (Hansen et al. 2015, Joneidi Jafari and NiliPourTabataba'i 2017, Ryu and Lee 2016). According to

Hammoud and Nash (2014), there are thirty-three well-known foresight methods which help to identify discontinuities of these influential factors. Durst et al. (2014) mention thirty-nine methods applicable for the foresight process. However, the most common ones are scenario planning, trend analysis, environmental scanning, workshops, and weak signal analysis (Hammoud and Nash 2014). Weak signals are being identified, collected, and measured with the help of the strategic foresight process (Rohrbeck et al. 2007). Many authors underline the importance of the general involvement of management in any foresight process: their commitment and responsibility to investment in strategic foresight on the one hand, and on the other hand their participation in accordance with their capacity (Jarratt and Stiles 2010, Peter and Jarratt 2015, Rohrbeck 2011, Westley 1990). Highlighting the importance of involving stakeholders, such as employees, partners, customers, or any other actors in the close environment of the organisation, has been recognised by various authors (Berkhout and Hertin 2002, Duin and Graaf 2010, Hansen et al. 2015). Finally, for analysing, evaluating and assessing the importance of future trends, expert interviews help to identify the core driving forces (Abadie et al. 2010, Hansen et al. 2015, Holopainen and Toivonen 2011, Sarpong and Meissner 2018).

As strategic foresight is an ongoing process, environmental analysis, scanning, and monitoring tasks must be executed periodically. Andersen et al. (2014) also mention that learning and monitoring are often neglected, although it is important to be able to learn from the advantages and knowledge of strategic foresight. Moreover, within the strategic foresight process, one can identify the need for the supporting characteristic of the organisational structure as well as the importance of the external environment, which delivers indicators of discontinuities. As strategic foresight is mainly considered part of strategy development, the management team of the organisation must be included in the process. It is the top management's role to make strategic decisions, but every employee should be able to deliver input from the perspective of the operational daily business.

*Innovation*

Georghiou and Harper (2011) elaborate that innovation cannot only be directed by the company itself, but rather it is an interaction between the company, universities, technological institutes, consulting companies, suppliers, and competitors. In addition to technological and scientific components, innovation also includes the ability to integrate other supportive departments of the company. According to Andersen and Andersen (2014), innovation system foresight is defined as "systemic, systematic, participatory, future-intelligence-gathering and medium-to-long-term vision-building process aimed at present-day decisions and mobilising joint actions to improve innovation system performance with the ultimate goal of improving desirable socio-economic performance" (p. 281). Innovation system foresight includes the innovation in technology, science, and socio-cultural aspects, and aims to look at innovation and foresight to include contextual information.

In order to enhance innovation activity and increase innovative output, it is paramount to closely monitor the environment of an organisation. It is easy to

identify major trends, but following the obvious direction of the primary trends is insufficient for innovation. Therefore, innovation is closely linked to strategic foresight, which has the capabilities to deliver the input factors due to its environmental scanning and monitoring and through the identification of weak signals. Another component of innovation management is the close involvement of stakeholders of the involved organisations. Therefore, innovation activity can be executed best if it leverages input from the foresight process.

## Research Methodology

### *Research Approach*

The research for this paper follows a predominantly deductive approach. A deductive research approach is executed in a logical sequence starting with a research focus, followed by a literature review, the definition of the research design, empirical data collection, data analysis and concluding with the findings and the evaluation thereof (Yin 2014). Literature on the topics of strategic foresight, strategic management and innovation are readily available. This body of literature forms a foundation to establish a framework which explains the most important dimensions of the strategic foresight process, enabling increased innovation activity. It serves as the basis for empirical data collection. The framework finally has been adjusted and validated according to the knowledge gained from the empirical data collection in order to be valid and beneficial in a business context.

### *Research Design*

For the research, a multiple case study design has been chosen. According to Yin (2014), case study design enables understanding of phenomena in complex, real-world environments. Greene and David (2002) and Yin (2014) all argue that multiple case studies provide greater confidence in the outcome. The selected cases follow a literal replication logic, meaning that a similar outcome is expected for the different cases. The research design for this paper is led by a qualitative approach. The qualitative research methods are applied to answer the research question of *How does the incorporation of strategic foresight influence the innovation activity of international Swiss banks?*

For this paper, a multi-case study with the same context is therefore most suitable. Context is provided through the research question and investigates the incorporation of strategic foresight and its influence on innovation activity. The three selected cases represent different international Swiss banks. A total of twelve interviews with experts have been conducted (four with each bank). A single type of embedded units of analysis is used, where the subunits of analysis and the embedded units of analysis are extracted from the framework evolved from the literature review and represent the dimensions of the said framework. They indicate an embedded multiple case study design (Yin 2014).

*Data Collection*

Data collection follows a deductive research approach. Therefore, a literature review was conducted following the definition of the research objectives (Yin 2014). For the research, secondary data was collected following the literature review. Analysis of the literature was necessary to identify certain tendencies. To identify the tendencies of the individual dimensions of the strategic foresight process, data was collected in a systematic and evolving manner. Data was mainly extracted from researchers on the topics of strategic foresight, strategic management, and innovation. Keywords such as strategic management, strategy, strategic foresight, foresight, and innovation were previously defined. Further data was collected evolving from the bibliography of the authors and the documents of the systematic research (a total of fifty papers were reviewed). For the data collection for the literature analysis and the establishment of a draft framework, only peer-reviewed papers were selected. For other parts of the research, such as the introduction and the overview of the financial services industry, other data was also used. Data collection was mainly executed on online platforms such as EBSCOhost, Springerlink, ProQuest, EconLIT and Emerald. All relevant papers were added to a new project in Atlas Ti8 for coding and to keep track of the individual papers and notes.

Primary data for this paper was collected through twelve semi-structured interviews in three case organisations (Table 1). Semi-structured interviews are most suitable for this type of research, as they allow flexibility and provide the interviewer with the possibility to react to specific answers and request further explanations. Additionally, it allows for a more personal approach. Interview participants were given an illustration of the framework developed from the literature review and were invited to explain how each dimension is dealt with in their specific organisation and department, and to rate the importance of each individual dimension.

For this research, the corporate headquarters of the selected international banks had to be in Switzerland and their operations to be internationally focused. Case selection was designed to achieve a broad base of bank types. They include a dominant Swiss bank (a large global player, Case A), a smaller and younger Swiss international bank (Case B), and a medium sized, long established and traditional Swiss international bank (Case C). As the organisation's monitoring of the environment often takes place within the strategic management department or the innovation management team (Daheim and Urz 2008), interviewees were chosen mainly from the foresight, innovation, or strategy departments.

**Table 1.** *Case Organisations, Interview Participant Roles and Interview Dates*

| Case Organisation | Interview Participant Role | Interview Date |
|---|---|---|
| A: Dominant Swiss bank (a large global player) | Digital Strategist | 27.02.2020 |
| | Head of Innovation | 27.01.2020 |
| | Future Archaeologist | 21.02.2020 |
| | Future Archaeologist | 21.02.2020 |
| B: Smaller and younger Swiss international bank | Head Artificial Intelligence & Data | 28.02.2020 |
| | COO Wealth Management | 06.03.2020 |
| | Head of Core Platforms | 11.03.2020 |
| | Business Engineer | 28.02.2020 |
| C: Medium sized, traditional Swiss bank | Head of Platforms & Strategic Projects for Investment Management Solutions | 17.03.2020 |
| | Head Channels & Innovation | 02.03.2020 |
| | Programme Manager Digital Advisory | 17.02.2020 |
| | Coordinator of Networks (FinTech Start-ups) | 03.03.2020 |

*Data Analysis*

The individual cases were analysed based on the within-case analytical technique known as pattern matching. According to Yin (2014), pattern matching aims to compare the patterns based on the literature review with the outcome of empirical patterns. Following the within-case analysis, all three cases were further analysed and compared. Based on working propositions, the individual patterns of the cases generated cross-case patterns. Since replication logic indicates similar outcomes from different cases, this was further discussed in data analysis. Yin (2014) outlines the importance of four quality criteria to ensure quality of research, including construct validity, internal validity, external validity, and reliability, all of which were considered and fulfilled as part of this research project.

## Results

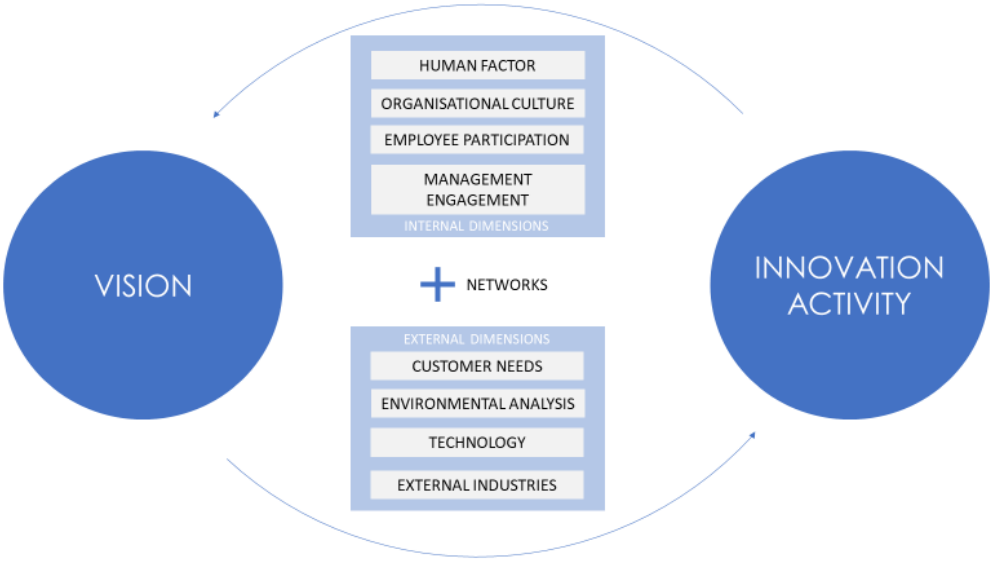
The findings from interviews provided empirical insights to adjust and enrich the framework of "enhanced innovation activity through collaborative foresight" (Figure 1) which originally derived from the literature review. The field study helped in identifying the main dimensions of foresight in the financial services industry, especially for international Swiss banks.

According to the research participants, vision is by far the most important dimension. The vision should be the starting point of both the framework and the strategic foresight process. The vision provides input regarding what aspects of the environment shall be considered (being aware of potential existing paradigms which cloud the scope), how to organise the internal foresight structure and about the focus within an organisation. Ultimately, the vision is adapted and adjusted through inputs resulting from innovation activity. Therefore, it is an iterative

process, where the vision is the starting point but is also shaped through the innovation activity and the other dimensions themselves in the strategic foresight process. Therefore, the vision must be open for revalidation and adjustments and should not be a rigid component in the framework.

Another particularly important dimension mentioned by the research participants is the focus on the customer itself. In the framework based on the literature, the customer was a sub-component of environmental analysis. However, as the research participants set a particularly strong focus on the customer (and his/her changing needs and behaviours), it is necessary to take them as a separate dimension in the framework. Current and future customer needs are decisive in identifying how to keep the business running and how to steer the operational activities and strategic decisions. The framework should also include external industries, a component which has not been identified in the literature review, but which can provide different and interesting approaches on how to tackle customer needs and evolve the business. Additionally, these industries can provide input and ideas on how to combine different needs from customers and offer the best possible customer experience.

**Figure 1.** *Validated Framework on Enhanced Innovation Activity through Collaborative Foresight*




*Source:* own illustration.

*Enhanced Innovation Activity through Collaborative Foresight*

As outlined above, the vision in the validated framework has been adjusted and now depicts the starting point of an iterative strategic foresight process. Additionally, two additional components were added to the external dimensions, namely 1) customer needs and 2) external industries. The order of the two dimensions was adapted as well: internal dimensions are placed at the top because they were rated as most important. Additionally, the sequence of the dimensions within the two groups was changed according to their importance rated by

research participants. Additionally, management engagement or capability was shortened to management engagement, as the research identified that engagement is more important than capability.

Vision

The vision of an organisation is a key success factor for a clear direction towards the future. A vision must be set at the start of every foresight process, but it must remain adaptive and responsive. The findings from the environment and the internal set-up of an organisation should provide input for the vision. Strategic foresight helps to identify these inputs, which are decisive for the vision. Therefore, the strategic foresight process is perpetual and thus might modify a vision according to strategic decisions taken as a result of the process.

Human Factor (Internal Dimension)

Inputs from employees, customers and other stakeholders are particularly important in creating an innovative environment. They should be integrated into the process at the beginning of the foresight activities. Through the cooperation of people and the thereby increased knowledge base, innovation activity can be enhanced. Additionally, mobilisation and development of the human factor should be increased, but this must be in a structured and organised way. Otherwise, people are tempted to provide input without direct relevance to future improvements of business models, products, services, or processes.

Organisational Culture (Internal Dimension)

The organisational culture sets a value framework for communication, and it is critical for a supportive atmosphere. Organisational culture enables innovation activities but can also hinder them. In the traditional setting in the Swiss financial services industry, a culture which accepts failure from taking risks is not yet in place. For a smoother process in strategic foresight and to increase innovation activity, the organisational culture of the banks must be more flexible and open. It is important to equip employees with responsibilities and ownership. Additionally, employees should feel encouraged and supported to develop new ideas or proposals for improvements.

Employee Participation (Internal Dimension)

In the process of strategic foresight, to ultimately increase innovation output, it is important for individuals to be engaged. Employees must be committed to ideas and improvements through close collaboration and interaction, independent of the hierarchical level. Skilled employees have an effective performance and a higher efficiency. It is more important for the short-term planning horizon to include employees' skills and inputs rather than for the long-term. Most important are the inputs from customer-facing employees when it comes to ideas and improvements. According to the interviewees, it is important that employees mainly focus on their field of responsibility and provide inputs in this area.

Management Engagement (Internal Dimension)

For ideas and projects to result in actual changes and performance improvements, management must be involved. This is mainly regarding the decision-making process, where management must actively steer the direction of the organisation. With a supportive and determined process, clear communication, and a flexible approach to fund new projects, management actively participates in the foresight and innovation process. Management fosters and supports the employees in engaging and in further developing the bank as a competitive player in the market environment. Organisations with a strongly engaged management team have a higher success rate in innovation management.

Customer Needs (External Dimension)

Future customer needs and behaviours are one of the most important factors in the strategic foresight process. They are part of the environmental analysis, but as they are a key success factor in defining the future strategic direction of a company and its investment in innovation activity, there should be a clear focus on the customer. An organisation must understand both current customer needs and they must be able to anticipate what they might look like in the future; and must be aware of changing customer behaviour. Only with this knowledge can the organisation provide the most suitable business models, products, services, and customer experiences.

Environmental Analysis (External Dimension)

The environment of an organisation must be closely observed to detect changes in trends; and competitors within the industry must be closely monitored. Additionally, the exchange with suppliers and manufacturers is crucial to understand where the market is heading towards from a strategic viewpoint. They might provide the organisation with additional trends and market deviations, which could be important to develop new business models, processes, services, or products. Organisations must be aware of trends occurring within and outside the industry.

Technology (External Dimension)

Technology is either used as an application in the foresight process or as an important driver for innovation. It can support data collection and analysis, but usually it is not used in this regard. Technology in this context is especially important as a driver for innovation as there are many changes and developments in the technological field. Thus, technology is seen as a major innovation driver and enabler.

External Industries (External Dimension)

To be able to best tackle customer needs and changes in customer behaviour, it is of high value to understand how organisations in external industries are coping with the same or similar topics/notions. Many organisations are trying to establish a system which provides customers with an end-to-end value chain to create loyalty by binding them to the organisation and providing them with the best

customer experience. Organisations should not only focus on their core business and existing industry standards, but also on how to provide customers with the smoothest and best experience by benchmarking their strategies to external industries best practice.

Networks (External Dimension)

Networks provide a solid source for new information and to broaden the knowledge base of an organisation. Networks increase the diversity of inputs. However, organisations perceive it as difficult to obtain information that was not previously known. Additionally, collaboration with the network should focus on the enrichment of foresight inputs and involving an outside perspective, which helps in broadening the scope of information. Organisations and networks overall should be more open and transparent in sharing information and knowledge about trends or weak signals. Collaboration with universities, strategy partners, research organisations, scientists, and others should be increased. However, such collaboration is seen as complementary to the other dimensions of the foresight process.

Innovation Activity

Innovation activity is mainly increased by strategic foresight through three pillars: 1) the creation of new business fields, 2) the augmentation of the number of innovative and newly developed concepts, and 3) the assurance of the quality of the innovation. Government regulations influence innovation activity within a country and within the different industries to a significant degree. In addition, cultural values can enable or hinder the innovation activity of an organisation. Swiss values such as trust, safety, and security are rather seen as barriers. The innovation activity is strongly influenced by the strategic foresight process of an organisation. A main enhancer of innovation is to consider the bottom-up approach, where the input is provided by individual employees, customers, or stakeholders, each directly affected by the business model, process, product, or service.

## Discussion

This chapter focuses on the research question of *How does the incorporation of strategic foresight influence the innovation activity of international Swiss banks?*

While Nelson (2015) states that by 2010, less than 1% of organisations developed the capability and structured approaches for implementing strategic foresight, field research confirmed that some organisations and many employees still lack familiarity with the topic. Field research also confirmed that from the three examined international Swiss banks, only two have a structured process for strategic foresight. One of them has completely outsourced the process and decoupled it from the internal structure, while the other bank has integrated foresight in a broader transformation and innovation division. However, strategic foresight was not specifically part of the strategy development or adjustment circle in any of the examined organisations. According to Nelson (2015) and Amniattalab

and Ansari (2016), strategic foresight is mainly used for combating the instability in the context of an organisation, to be able to secure a competitive advantage in the changing and dynamic market, and to be able to survive in the long-term. Dominiece-Diasa and Volkova (2019) argue that strategic foresight is an instrument for managing innovation within an organisation and its environment. As the planning horizon of strategic foresight is generally long-term, a huge difference between the academic suggestions and within the business context was identified. Ernst & Young (2018) mentioned in their report that for banks, it is not possible to plan far in advance given their environment. Changes in digitalisation and customer needs are fast paced and force the banking sector to take short-term and even immediate actions. Research participants confirmed that it is very difficult in such an environment to look beyond five years in strategic planning. Banks, it seems, are required to plan, and think medium-term with a two-to-five-year strategy horizon. For some events or shifts in the close market environment, it is necessary to act within an even shorter period.

Do Couto e Silva et al. (2016) mention that in strategic foresight, a strong focus lies on technological issues. It is important to differentiate here between technology as a tool to detect and track changes in trends and technology and as a change factor itself. Field research confirmed that technology in foresight is only important if it drives disruption and changes in the market. The role as a disruptor is confirmed in the literature (Farrington et al. 2012, Ruff 2014, Sarpong and Meissner 2018). A case study by Costanzo (2004) confirmed that technology can be a major factor in strategic foresight in the banking industry, mainly if the organisation aims to compete within the stage of early adopters. Research participants mention that technology tools are not useful for the foresight process itself; they use unsophisticated and easily handled tools to track information and changes gathered from the analyses (such as spreadsheet tools). Technology enables many innovations, and as it is fast paced and allows new ways of optimising long-standing processes and services in a more efficient way, it is one of the key factors in innovation management.

Competitors and potential new markets are identified as especially important in foresight planning by Calof et al. (2018), Schoemaker et al. (2012), and Shah et al. (2013). Survey participants also claim the importance to include external industries. To obtain a fresh perspective, it can be beneficial and insightful to analyse how external industries tackle emerging customer needs. Some participants mentioned that collaborating with competitors as a part of the extended network, exchanging current trends or topics in the market might be beneficial to finding new solutions to market challenges.

The human factor, as well as employee participation, are confirmed to be very important in enabling an innovative environment. Georghiou (2001) mentions that social components are a key success factor in an effective foresight process. Also, Dominiece-Diasa and Volkova (2019) confirm that strategic foresight is evolved and retained by managers and employees. Research participants confirmed that customer needs must be included as a separate dimension in the framework. According to the field research, it is paramount to identify current and future customer needs in order to be able to anticipate future strategic directions. The

clear focus on customer needs is also identified by Gracht and Stillings (2013) as well as Rohrbeck and Schwarz (2013). They regard the main purpose of strategic foresight to be recognising these needs and delivering a solid customer experience.

Literature does not often define the vision as the starting point of the strategic foresight process, but rather as one of the final steps before formulating strategy (Iden et al. 2017, Schoemaker et al. 2012, Vishnevskiy et al. 2014). This, however, was not confirmed by the research participants. Instead, they consider the vision as the starting point of the foresight process and therefore, the core factor which provides the direction in which to steer the external analysis. Every other dimension and analysis thereof will be adjusted to fit this vision. A vision should have a very clear direction, which allows adaptations of the organisation in the environment. Also, interview partners state that it is not possible to develop innovative products and services if the vision has been built based on the current environment and based on the internal structure and internal constraints. Furthermore, it is usually the management team which is responsible for formulating the vision, before analysing the environment. The vision does not enhance the innovation activity directly, but rather shapes the activities that the organisation undertakes to increase innovation management. The research participants mentioned that at present, the vision of international Swiss banks is mainly focused on the "now" rather than towards the future. This is also a reason why the research participants stated that the vision should be adaptive and part of the dynamic strategic foresight process. Additionally, the vision provides input on how to set up the organisational structure to be most efficient in attaining the goals. Both the literature and the field study revealed the vision to be highly important, but at different points in the process. It was identified as a key element in the strategic foresight process by e.g., Bezold (2001), Daheim and Urz (2008), Duin and Graaf (2010), and Vishnevskiy et al. (2014).

Georghiou and Harper (2011) consider interaction and collaboration with external networks to be important. This view is supported by the research participants. They mention the importance of collaboration with networks such as universities, technological institutes, suppliers, and competitors to increase the inputs for an overall enhanced innovation activity.

Field research showed that strategic foresight is not yet executed in a structured process in many companies, which was also identified in the literature research. The field study also identified that there is no need for a rigid structure in the foresight process. Moreover, when there is no established strategic foresight process, it does not mean that the organisation is not actively working on innovation or market trends. However, research showed that it is important to include the dimensions covered in the framework. The vision, followed by the internal (human factor, organisational culture, employee participation and management engagement) and external dimensions (customer needs, environmental analysis, technology, external industries, and networks), lead to enhanced innovation activity. These dimensions must be taken into consideration in a holistic foresight process that provides input to innovation management. Research indicates the importance of the bottom-up approach regarding detecting environmental trends or customer needs through human factor and employee

participation. This also suggests that the strategic foresight process is iterative and can start from any of the dimensions in the framework. The vision influences the other dimensions and as the framework depicts a dynamic workflow, the vision provides the direction but is also adaptive and responsive.

Research participants confirm that the dimensions of the framework of "enhanced innovation activity through collaborative foresight" are especially important in enabling an innovative atmosphere and enhancing innovation activity within an organisation. However, they do not confirm the importance of a clear and rigid structure that shall be followed. The differences between the processes of the different banks also support this notion. As identified in the literature review, the increasing competition in the Swiss financial services industry forces banks to undertake actions and to think ahead. Most of the concerns of banks have shifted from compliance and regulation-based issues resulting from the financial crisis to those surrounding digitalisation and its impact (PricewaterhouseCoopers 2016). The competitive environment increases the need for a better understanding of which dimensions and components could help identify the inputs for an organisation's strategy and for innovation management. The literature review demonstrates that strategic foresight should be integrated into strategic management. However, field research demonstrates that strategic foresight is not integrated in strategic management at all. The research participants explained that there is some degree of collaboration and linking; but not to the degree as suggested by the literature. One reason is that the analysed organisations do not have fully dedicated strategic foresight teams or processes in place. Instead, strategic foresight is delegated to divisions such as innovation management or transformation. According to Dominiece-Diasa and Volkova (2019) and Rohrbeck and Gemünden (2008), there is a lack of understanding of the effectiveness of strategic foresight on innovation management. This is also supported by the field research, as many of the participants could not clearly define where and whether strategic foresight or any parts of it are truly embedded in the organisation.

Field research also identified some differences between countries. The examined banks are all Swiss but with a focus on international markets. They all have branches all over the globe. In the strategic foresight process, they try to consider foreign markets in general. As the focus in a business context is short-term orientated, the banks consider local trends and customer needs first. A reason for this is that customer needs differ greatly across the globe due to numerous factors which influence customer behaviour. Political stability, regulations, and for instance investment of governments into start-ups, and general technological advances all influence customer needs. Therefore, it is important in a medium-term planning horizon of up to five years to observe local trends and market deviations in the close environment where organisations face similar customer behaviour and needs. However, as the field research shows, two out of three banks also consider global trends and movements in the market. As their client base is international, banks observe global changes and shifts. Additionally, research participants mentioned that they learn from other markets, countries, and cultures, and in the long-term. This can therefore foster their innovation activity in business models, products, and services.

## Conclusion

This paper aimed to close the research gap regarding the interconnectedness of strategic foresight and innovation management, specifically in international Swiss banks. The aim was to develop a validated framework which guides practitioners in creating a successful strategic foresight process that results in enhanced innovation activity. The framework was established based on the analysis of fifty academic papers and was then validated through empirical field research with three international Swiss banks.

The framework was adapted after the field research and adjusted to the specific needs and prerequisites of banks. The framework of "enhanced innovation activity through collaborative foresight" presents an iterative process. The process ideally starts with the vision as the leading component according to the overarching organisation's goals. The framework includes internal dimensions such as the human factor, organisational culture, employee participation and management engagement, which form the internal setting of an organisation focusing on the strategic foresight process to increase its innovation output. The framework also includes external dimensions such as customer needs, the environmental analysis, technology, and external industries. Additionally, networks are included as an external collaboration input. All dimensions must be closely monitored and actively considered in order to be able to take strategic decisions based on the anticipation of future developments of market components.

The findings from the field research confirm the literal replication logic as similar results are found across the three different banks. However, the set-up of the strategic foresight process differs in each bank, as one has it completely decoupled from the internal structure, another does not have any specific department or division that manages the foresight process, and the third delegates the topic to its transformation and innovation division.

Empirical research showed that the topic of strategic foresight is not yet per default embraced and the process is not executed in a structured manner across the financial services industry. This was confirmed by the interviewees as they did not have the same information level on the implementation of the strategic foresight process or its individual dimensions.

As competition increases from international, less rigid, and technology orientated and advanced organisations, banks are forced to address the changing customer needs and behaviours to stay competitive and to survive in the long-term. The planning horizon of the strategic foresight process must be adapted to the more practical and business-orientated application of a medium-term focussed strategy planning cycle of up to 5 years. This provides inputs regarding new business models, products, services, and processes in order to foster innovation.

## References

Abadie F, Friedewald M, Weber MK (2010) Adaptive foresight in the creative content industries: anticipating value chain transformations and need for policy action. *Science and Public Policy* 37(1): 19-39.

Amniattalab A, Ansari R (2016) The effect of strategic foresight on competitive advantage with the mediating role of organisational ambidexterity. *International Journal of Innovation Management* 20(3): 1-18.

Andersen AD, Andersen PD (2014) Innovation system foresight. *Technological Forecasting and Social Change* 88(C): 276-286.

Andersen PD, Andersen AD, Jensen PA, Rasmussen B (2014) Sectoral innovation system foresight in practice: Nordic facilities management foresight. *Futures* 61(Sep): 33-44.

Barad M (2018) Definitions of strategies. In *Strategies and Techniques for Quality and Flexibility*. Springer Briefs in Applied Sciences and Technology. Springer, Cham.

Battistella C (2014) The organisation of corporate foresight: a multiple case study in the telecommunciation industry. *Technological Forecasting and Social Change* 87(Sep): 60-79.

BBVA (2019) *The financial sector's new competitive scenario.* Retrieved from: https:// www.bbva.com/en/the-financial-sectors-new-competitive-scenario/. [Accessed 14 September 2021]

Berkhout F, Hertin J (2002) Foresight future scenarios - Developing and applying a participative strategic planning tool. *Greener Management International* 37(Spring): 38-52.

Bezold C (2001) Foresight in state government: why and how. *Spectrum: The Journal of State Government* 11(3): 19-20.

Calof J, Meissner D, Razheva A (2018) Overcoming open innovation challenges: a contribution from foresight and foresight networks. *Technology Analysis & Strategic Management* 30(6): 718-733.

Coelho GM, Filgueira Galvão AC, Guedes AC, Carneiro IA, Chauke CN, Fellows Filho L (2012) Strategic foresight applied to the management plan of an innovation development agency. *Technology Analysis & Strategic Management* 24 (3): 267-283.

Costanzo LA (2004) Strategic foresight in a high-speed environment. *Futures* 36(2): 219-235.

Daheim C, Urz G (2008) Corporate foresight in Europe: from trend-based logics to open foresight. *Technology Analysis & Strategic Management* 20(3): 321-336.

Do Couto e Silva E, Silberglitt R, Chieregatti Machado L, Fortunato Maia JM, Cagnin CH (2016) A portfolio analysis methodology to inform innovation policy and foresight. *Technological Forecasting & Social Change* 115(Feb): 338-347.

Dominiece-Diasa B, Volkova T (2019) Strategic foresight capability as an enabler of management innovation. *Journal of Business Management* 17: 6-21.

Duin Pvd, Graaf Rd (2010) Innovating for the future? An external assessment of the future-oriented governance of the Dutch innovation system. *Foresight* 12(5): 27-40.

Durst C, Durst M, Kolonko T, Neef A, Greif F (2014) A holistic approach to strategic foresight: a foresight support system for the German federal armed forces. *Technological Forecasting & Social Change* 97(Aug): 91-104.

Emelo R (2011) Strategic foresight: see and seize emerging opportunities. *Leadership Excellence* 28(3): 8.

Ernst & Young (2018) *EY Bankenbarometer 2018.* Retrieved from: https://www.eycom. ch/de/Publications/20180111-EY-Bankenbarometer-2018/download. [Accessed 14 September 2021]

Farrington T, Henson K, Crews C (2012) The use of strategic foresight methods for ideation and portfolio management. *Research-Technology Management* 55(2): 26-33.

Gaspar T (2015) Strategia Sapiens – strategic foresight in a new perspective. *Foresight*, 17(5): 405-426.

Georghiou L (2001) *Third generation foresight-Integrating the socio-economic dimension.* Japan: NISTEP.

Georghiou L, Harper JC (2011) From priority-setting to articulation of demand: foresight for research and innovation policy and strategy. *Futures* 43(3): 243-251.

Gholipoor P, Mehdi Mozaffari M (2020) Designing a strategic foresight model in small and medium-sized enterprises. *International Journal of Foresight and Innovation Policy* 14(2-4): 292-313.

Gracht HAvd, Stillings C (2013) An innovation-focused scenario process — A case from the materials producing industry. *Technological Forecasting & Social Change* 80(4): 599-610.

Greene D, David JL (2002) A research design for generalizing from multiple case studies. *Evaluation and Program Planning* 7(1): 73-85.

Hambrick DC, Fredrickson JW (2005) Are you sure you have a strategy? *Academy of Management Executives* 19(4): 51-62.

Hammoud MS, Nash DP (2014) What corporations do with foresight. *European Journal of Future Research* 2(42).

Handelszeitung (2019) *Revolut, Zak und Co sind teilweise günstiger*. (Revolut, Zak and Co are sometimes cheaper). Retrieved from: https://www.handelszeitung.ch/unternehmen/revolut-zak-und-co-sind-teilweise-gunstiger. [Accessed 14 September 2021]

Hansen MS, Rasmussen LB, Jacobsen P (2015) Interactive foresight simulation. *Technological Forecasting & Social Change* 103: 214-227.

Hines A (2006) Strategic foresight. *The Futurist* 40(5): 18-21.

Holopainen M, Toivonen M (2011) Weak signals: Ansoff today. *Futures* 44(3): 198-205.

Iden J, Methlie LB, Christensen GE (2017) The nature of strategic foresight research: a systematic literature review. *Technological Forecasting and Social Change* 116(Mar): 87-97.

Jarratt D, Stiles D (2010) How are methodologies and tools framing managers' strategizing practice in competitive strategy development? *British Journal of Management* 21(1): 28-43.

Joneidi Jafari M, NiliPourTabataba'i SA (2017) Corporate foresight and its effect on innovation, strategic decision making and organisational performance (case study: Iranian banking industry). *Isfahan, Iran: Emerald Publishing Limited* 19(6): 559-579.

Keller J, Markmann C, Gracht HAvd (2014) Foresight support systems to facilitate regional innovations: a conceptualization case for a German logistics cluster. *Technological Forecasting & Social Change* 97(Aug): 15-28.

Mehrotra A (2019) Artificial intelligence in financial services – Need to blend automation with human touch. In *2019 International Conference on Automation, Computational and Technology Management (ICACTM)*, 342-347. London: IEEE.

Moneycab (2019) *Banken rechnen mit härterem Wettbewerb und neuen Konkurrenten.* (Banks expect tougher competition and new competitors). Retrieved from: https://www.moneycab.com/finanz/banken-rechnen-mit-haerterem-wettbewerb-und-neuen-konkurrenten/. [Accessed 14 September 2021]

Nelson R (2015) *Strategic foresight: a new obligation for boards of directors*. Canada: Board Leadership.

Newman D (2019) *Top 7 Digital transformation trends in financial services for 2019.* Forbes.

Peter MK (2019) The evolving approach to strategic corporate foresight at Swiss Bank post finance in the age of digital transformation. In DA Schreiber, ZL Berge (eds.), *Futures Thinking and Organizational Policy. Case Studies for Managing Rapid Change in Technology, Globalization and Workforce Diversity*, 113-132. New York: Palgrave Macmillan.

Peter MK, Jarratt D (2015) The practice of foresight in long-term planning. *Technological Forecasting & Social Change* 101(Dec): 49-61.

PricewaterhouseCoopers (2016) *Financial services technology 2020 and beyond: embracing disruption*. PWC.

Pulsiri N, Vatananan-Thesenvitz R (2021) Triangle relationship: a review of dynamic capabilities, strategic foresight and organizational learning. *International Journal of Business Management and Technology* 5(3): 125-134.

Ravi V, Kamaruddin Sk (2017) Big data analytics enabled smart financial services: opportunities and challenges. In *Big Data Analytics*, 15-39. Hyderabad: Springer.

Rohrbeck R (2011) *Corporate foresight.* Berlin Heidelberg: Springer.

Rohrbeck R, Arnold HM, Heuer J (2007) *Strategic foresight in multinational enterprises.* München: Munich Personal RePEc Archive.

Rohrbeck R, Gemünden HG (2008) *Die Rolle der Strategischen Frühaufklärung im Innovationsmanagement.* (The role of strategic early education in innovation management). Berlin: Gabler.

Rohrbeck R, Schwarz JO (2013) The value contribution of strategic foresight: Insights from an empirical study of large European companies. *Technological Forecasting & Social Change* 80(8): 1593-1606.

Ruff F (2014) The advanced role of corporate foresight in innovation and strategic management — Reflections on practical experiences from the automotive industry. *Technological Forecasting & Social Change* 101(Dec): 37-48.

Ryu H-S, Lee J-N (2016) Innovation patterns and their effect on firm performance. *The Service Industries Journal* 36(3-4): 81-101.

Sarpong D, Meissner D (2018) Special issue on 'corporate foresight and innovation management'. *Technology Analysis & Strategic Management* 30(6): 625-630.

Schoemaker PJ, Day GS, Snyder SA (2012) Integrating organisational networks, weak signals, strategic radars and scenario planning. *Technological Forecasting & Social Change* 80(04): 815-824.

Schweizerische Eidgenossenschaft (2019) *Finanzstandort Schweiz – Kennzahlen.* (Switzerland as a financial center - key figures). Staatssekretariat für internationale Finanzfragen SIF.

Shah AN, Palacios M, Ruiz F (2013) Strategic rigidity and foresight for technology adoption among electric utilities. *Energy Policy.* 63(Dec): 1233-1239.

Shin J (2017) *Strategic foresight to generate innovative product concepts.* Gyeonggi-do, Republic of Korea: The XXVIII ISPIM Innovation Conference.

Slaughter RA (1999) *Futures for the third millennium: enabling the forward view*. Prospect Media.

Vishnevskiy K, Karasev O, Meissner D (2014) Integrated roadmaps and corporate foresight as tools of innovation management: the case of Russian companies. *Technological Forecasting & Social Change* 90(Jan): 433-443.

Watkins MD (2007) Demystifying strategy: the what, who, how, and why. *Harvard Business Review*.

Westley FR (1990) Middle managers and strategy: the micro-dynamics of inclusion. *Strategic Management Journal* 11(5): 337-352.

Yin RK (2014) *Case study research: design and methods.* Thousand Oaks, CA: SAGE Publications.