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Chapter 4

OPEN INNOVATION OR INNOVATION IN THE OPEN? AN EXPLORATION OF THE STRATEGY-INNOVATION LINK IN FIVE SCALE-INTENSIVE SERVICES

Karl Joachim Breunig
Oslo and Akershus University, College of Applied Sciences
PB 4 St. Olavs Plass, 0130 Oslo, Norway

Tor Helge Aas
Norwegian School of Economics, Center for Service Innovation,
Helleveien 30 5045 Bergen, Norway

Katja Maria Hydle
IRIS — International Research Institute of Stavanger,
Forskningsparken AS Gaustadalléen 21, 0349 Oslo, Norway
This chapter explores the strategy–innovation link in open service innovations. The increased attention to the role of the firm’s external environment on innovation has important implications for strategy. However, our literature review reveals that the strategy–innovation link is ambiguously treated in extant theory, especially with respect to open- and service innovations. Therefore, we inductively explore innovation practices in five large scale-intensive service firms to establish the link between their strategy and open innovation practices. To our surprise, we find that explicit innovation strategies lack in all five firms. The findings also suggest that the logic of innovation and strategy is hard to integrate in practice for these firms. Based on our empirical exploration, we contradict existing research on the role of strategy and open service innovations and detail implications based on our study.

1. Introduction

This chapter explores the strategy–innovation link in open service innovations. It has been argued that innovation has become more open, and this increased attention on the role of the firm’s external environment on innovation has important implications for strategy.

The term open innovation was introduced by Chesbrough\(^1\) who asserted that this approach would reduce the innovation costs as well as lead-time as firms can use external and internal ideas as well as internal and external paths to market, when aiming at advancing their technology and value proposition. Open innovation refers to “the use of purposive inflows and outflows of knowledge to accelerate internal innovation, to expand the markets for external use of innovation”.\(^2\)

A main characteristic of open innovations is: it implies a multiplicity of actors who act in a world of changing objectives and the elimination of the organisational boundary of the in-company and out-company origins of innovation.\(^3,4\) The open innovation perspective explicitly postulates that its aim is to increase sustained competitiveness, and thus touches on core issues addressed by strategic management scholars. Moreover, Chesbrough\(^1\) describes the
fuzzy front end of an open innovation funnel in a way that requires strategy to prioritise innovation activities, utilise and develop resources and facilitate incremental or radical innovations across current market, new market, or other organisations market. Implicit in the open innovation conceptualisation are purposive choices on market selection, market development, resource utilisation and resource development as well as the development of value propositions — all aiming to enhance the organisational competitiveness and thus relating to the realm of strategic management. According to Teece et al. the question of how firms achieve and sustain competitive advantage is the fundamental question raised in the strategic management literature. In strategic management there are many different routes to sustained competitive advantage emphasised by different authors cf. Mintzberg et al.

We seek to bridge insight from strategic management and innovation management to address relevant aspects of an open service innovation strategy. Our literature review reveals that the strategy-innovation link is ambiguously treated in extant theory, and that open innovation entail that the firms address core strategy questions in a purposive manner. Innovations in services are assumed to be intrinsically open due to the high level of client-interaction required. However, the innovation management literature does not explain the strategy requirements an open service innovation approach entail. In fact, there are no readily available empirical studies on the role of strategy in open service innovations and the examples on open service innovation given by Chesbrough are from manufacturing firms exploring the transition to offering services, and not on traditional service firms. Given the limited knowledge on the innovation-strategy link in general — and with relation to the role of strategy in service innovations with assumed high client-interaction in particular — we address the research question: What is the role of strategy in open service innovation activities?

This chapter is structured in four main parts. In Section 2, we assess extant innovation management literature to identify how strategy is related to open service innovation. In Section 3, we outline our research methods and explain our purposive sampling of
five scale-intensive service firms. In Section 4, we present our findings, and finally we discuss these findings as well as detailing implications for practice.

2. Theory

Extant innovation management literature establishes that there is an important link between strategy and innovation. However, despite the identified relationship between strategy and innovation, there have been relatively few attempts in the research literature to integrate the two phenomena (with notable exception e.g. Krinsky and Jenkins.8 Most research has either focused on innovation or strategy, and not the two phenomena simultaneously. A recent literature review9 has assessed all articles in level 2–4 journals according to the ABS Academic Journal Quality Guide from 2007 up till May 2012 and identified 127 articles that address service innovation. We subsequently analysed these service innovation articles and identified that only 17 address strategy or strategy related topics.

The innovation management literature i.e. 10,11 and the Product Development and Management Association (PDMA) certification work12 explicitly state that strategy is one important dimension of service innovation management, and that an explicit innovation strategy is a prerequisite for high innovation performance. Innovation strategy refers to an articulation of the role of innovation in achieving the organisational goals13 by aligning the overall business strategy with innovation decisions.14 A service innovation strategy should ensure that the appropriate resources and practices necessary to develop services are present, and that the new services’ characteristics, and their delivery, match customer expectations and demands.14 Several authors15,16 stress that it is important to set clear goals for the service innovation program as a whole, and empirical studies suggest that leading firms are likely to have an explicit service innovation strategy.17 The PDMA innovation framework describes the product-centric development process as structured, predictable, and formal.10
However, open innovation and service innovation with intense client-coproduction is often described as more chaotic, unpredictable, and unstructured. According to Koelling et al., the design of service innovation strategy depends on the connection between service interactions, service competition and complexity of service offerings. According to Menor and Roth, new service development strategy positions the role of development within the overall business strategy and enables management to plan for and to make available adequate resources for specific new service development efforts. A new service development strategy also ensures that the appropriate resources and practices necessary to develop services are in-line with the overall business strategy, and that the new service offering’s characteristics, and its delivery, match the customer expectations and demands.

None of the articles addressed open innovation specific topics such as purposive selection of markets or fuzzy front-end innovation processes. However, some articles addressed client-interaction, differentiation and resource deployment, development and change, and emphasised the difference between innovation in products and innovation in services. Moreover, Mattsson focuses on customer co-creation and claims that focusing on all customers and the customer interface is better than focusing on a special type of customers (e.g. lead users). Customers are either providing the strategy or being the basis for the strategies or ideas. The more emergent the service concept, the more complex the interface between the client and provider. Droege et al. and Ettlie and Rosenthal elaborate on the differences between product and service innovation. Manufacturing is more likely to report the need for new strategies and structures when products are novel. Even though manufacturing and services both tend to exploit customer (externally sourced) ideas for new offerings, services are more likely to engage in shorter formal testing and to exploit general manager (internally sourced) ideas for new offering. Innovation in services thus needs another approach to strategy than innovation in manufacturing.

The reviewed literature exposed a shortage of knowledge on the role of strategy in service innovations in general and in relation to
open service innovation in particular. Nevertheless, there are issues addressed that involve strategy in the innovation process, such as the role of clients in the innovation process. However, these insights are not integrated and made explicit in relation to the strategy–innovation link. Based on the review of literature, there are in particular three areas of open service innovation strategy that needed further empirical exploration, they are as follows:

1. **Open service innovation strategy development.** Empirical data is needed to address issues concerned with the purposive choices of market selection and development and idea generation in collaboration with external resources empirical descriptions of where strategies originate, if they are developed in interaction with external relations (in- and out-flows of ideas), and if it involves decisions on current markets, new markets, and other organisations’ markets. In so doing, it is also needed to identify whether the strategies observed were predefined or if they emerge during the innovation process. Moreover, identify if types of strategies (such as innovation strategies or general business strategies) varied with respect to involvement with the external environment.

2. **Open service innovation strategy implementation.** To enlighten the process of purposive external resource utilisation; we need empirical descriptions of how open service innovation strategy affect the service innovation practices, i.e. with respect to how ideas are prioritised, how projects are sourced with internal or external roles innovation process, how innovation resources are built to realise the strategy.

3. **Open service innovation strategy evaluation.** To address issues of changed or improved value propositions stemming from the interaction with external resources, we need empirical descriptions of the feedback and learning processes between the firm and the external environment, identifying how the evaluation of strategy achievement occur and whether measures or control procedures give feedback to the innovation process and strategy.
3. Method

We deploy an explorative inductive research design justified by the lack of unambiguous theory on the strategy–innovation link for open service innovations. Qualitative data are useful for generating theory when the existing theory contains inherent contradictions or is poorly investigated.27 The study is based on empirical case materials derived from interviews in five large international scale-intensive service firms28 to establish the link between their strategy and open innovation practices.

The five participating firms were theoretically sampled29–31 to enlighten issues related to strategy and open innovation. Scale-intensive services are standardised services that are produced at a large scale, mainly by large firms. Examples include bank, insurance, telecommunication, and logistics services.28,32 This type of firms are deemed particularly relevant for this study as these firms standardise and harvest from scale advantages increasing the likelihood of observing explicit innovation strategies, and simultaneously, these firms are service firms with an assumed higher degree of client-centricity and open innovation processes.

The selected firms operate in both business to consumers and business to business markets, they all provided services both to other firms and consumers. All firms were successful in the market, as they had expanded beyond the national border to more than three countries. Thus, the firms were carefully selected to be comparable with respect to their assumed innovation performance. However, to guarantee that important variations between scale-intensive service firms were detected the five firms selected provided different types of services: Insurco and Safeco are in the insurance industry, Teleco is in the Telecommunications industry, Banco is in the financial services industry, and Mailco is a state-owned limited company within the logistics and mail services industry.

Data was collected in 25 semi-structured interviews lasting between 1 and 2 hours. Between 4 and 8 employees in each firm were interviewed. The units of analysis are service innovation projects. To
reflect both the strategy and innovation practices of the firms, informants with different roles, and from different firm levels, were chosen: Managers, business development and IT specialists (see Table 1 for details). In preparation for the interviews a questioner guide was developed based on the PDMA glossary.\textsuperscript{33} The aim was to broadly identify innovation practices to enable the examination of the strategy–innovation link and address issues relevant to an open innovation strategy. For conducting the interviews, we followed a semi-structured interview guide, where the informants were asked open questions about how they handle innovation activities.

In order to make sense of the data, the analysis progressed in several stages and involved a blend of inductive and deductive processes.\textsuperscript{27} First, initial coding was conducted by one of the three researchers who all took part in the interviews, and the coding was verified by one of the other members of the research team. This was repeated for each of the five firms. Then the initial codings were thoroughly discussed between the researchers as categories and findings were compared across the firms and summed up in PowerPoint format. The aim was to get a broad understanding of the innovation practices of the five firms and present initial findings to selected employees and managers in a workshop to validate the data’s veracity and enhance the trustworthiness of the analysis.\textsuperscript{34} Second, the data was coded in light of the research question, specifically examining the strategy–innovation link in each of the five firms. The, coding
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process was partly deductive as initial categories were informed by the core dimensions identified in the literature review, partly inductive being receptive to the empirical material. Third, the findings were compared and contrasted between the firms as well as with extant theory examined in the literature review in order to extend knowledge on the role of strategy in open service innovations.

4. Findings

In this section, we present coded data to enlighten the three areas of open innovation — strategy development, implementation, and evaluation.

4.1. Open innovation strategy development

In all the studied firms, the strategic significance of innovation, such as time to market with new service offerings, to achieve competitive advantage is well acknowledged:

*In our culture, we must have quick time to market, but do not have measurements or clear structure.* (Manager, Insurco)

However, innovation was primarily perceived as a tool to close the gap between the firms’ current situation and their strategic ambitions.

*The overall strategy of this bank is that they will engage with this specific customer segment. So that is the part of the strategy. But the strategy says nothing about how, or what to use...that is only something we do*... (Business developer, Banco)

To a large extent strategies appeared to be predefined. The findings show that the service innovations have impact on the firm, being linked to the future of the firm, and related to strategy development. However, there is little involvement of external resources in this strategy development.
So it is not about a top-down strategy really. We work with those who have worked more bottom-up and tried to suggest things. We get them with us, and based on that we decide on which direction we are going. (Business developer, Insurco)

Thus, concept and idea generation are to a large extent generated internally, and the perception of the client as a resource in the innovation process is quite low. The external environment is to a limited degree utilised for new ideas. There are several informants who address that actually there are abundance of innovation ideas and initiatives and that a structured approach to prioritise between them is much more critical:

We actually have a surplus of ideas, but the ability to realize it, prioritize what is absolutely decisive is the key (Manager, Mailco)

However, all firms where very conscious about client interaction in general, and prioritised innovation activities was legitimised by current customer demand.

Customers expect to interact over new digital platforms — must meet the expectations of new young customers. We want to earn money and cut costs. […] Service design is broader in relation to strategic issues and organization. New service channels, support channels will support three key result areas: Improved customer experience, increased sales, and reduced costs. (IT professional, Teleco)

Initially, we explored the sources of strategy to assess the role of the external environment and possible in- and outflow of ideas at the fuzzy front-end in the development of open innovation strategy. Of the five firms only Telco explicitly addressees the issue of open innovation:

Teleco wants to move in a more open direction to the ecosystem it sits in […] What clearly emerged was that there was no structured process in the idea collection. So we have no process to manage
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ideas [...] how to drive innovation together with other players in the early stages, is something we do not have experience with. So one of my areas of focus has been how to create a structured fuzzy front end process, and to find incentives to share innovation-related knowledge. (IT professional, Teleco)

The findings also revealed that there are examples related to selection of markets with respect to current (both incremental and new to the market) and, however there are few examples of new markets explored and none of customers’ markets. We found differences between incremental service innovation, such as automation and digitalisation, and radical new to market service innovation. Digital Postal Services (DPS), for example, is new to market service innovation. DPS is a new national digital postal system to safely send digital documents, such as insurance papers, information from the local authorities, prescriptions from MDs:

We started with the physical value chain of postal services, what the Postal services offer as physical post distribution. And there are a lot of similarities, distribution of documents from A to B, things to be added, but the core is similar. Core in customer segment is similar too; those that Postal Services traditionally have had, such as Energy, Telecom, public sector have a lot of documents to be distributed. So in relation to Osterwalder’s business model canvas, we differentiate ourselves in relation to how we serve these customers.

(Business developer, Mailco)

4.2. Open innovation strategy implementation

The aim of the chosen service innovation activities might be automation, customer self-service, internal organisational consequences as customers were now doing the job that internal employees would normally do. These changes however produce changes to the services delivered, to the internal organisation and knowledge sharing within the firms as well as changes to the way the firm interacts with its clients. Overall we find that service innovation is believed to take a
more holistic approach to innovation than product innovations and that service innovation are more incremental:

Innovation is often associated with completely new products. 
Service Innovation implies that we look at everything that is around — business process automation and offshoring is then included — not to mention customer involvement and satisfaction. (Manager, Insurco).

The findings show that the overall business strategy focus influence innovation activities:

It is clear that strategy is very important to create a plan of action. An action plan is based on the strategy. (Business developer, Banco)

The findings indicate that the five service firms lack explicit innovation strategies but that general business strategies give direction and goals for innovation activities in general:

Insurco’s innovation Strategy is missing,[…] Do not aim for it — do not look at innovation as a separate exercise. Completely impossible to engage in customer-oriented development without conducting innovation — we do it but it is driven from the bottom up — not as a strategy from the top, with dedicated roles and processes it. (IT specialist, Insurco)

An explicit innovation strategy is not considered necessary, as innovation is perceived as a tool to reach the business strategy:

We have a strategy, but not specifically on innovation. Innovation will support the overall strategy.[…] Innovation is a tool. (Business developer, Teleco)

With respect to the utilisation of external resources in the innovation projects we found that innovation activities in the five scale-intensive service firms to a large extent were sourced internally,
and that client involvement in the innovation process is to a large extent assumed to entail prototype testing and feedback through i.e. focus groups:

_All redevelopment that we conduct should be tested by our customers, but it does not always happen. Can test the old channels; instead we use focus group._ (Manager, Banco)

In all the firms issues related to knowledge transfer was addressed. Not just issues related to sharing potentially business sensitive insight with external parties but also knowledge sharing within the organisation.

_The challenge is to collect the insights we have internally. We as an organization encounter enormous information. There are a lot of reports and customer surveys. We collect a vast material, much quantitatively, and we have plenty of customer and market information._ (Business developer, Safeco)

Issues related to knowledge transfer were addressed as related to strategy implementation both with respect to organisational structure and incentives to promote certain knowledge sharing practices.

_This means that you need to have a kind of flexibility so you can coordinate the decision points in the two companies. And it’s a very different kind of process than if you then decide speed internally._ (Manager, Teleco)

### 4.3. Open innovation strategy evaluation

As described above, our findings show that the problem is not the number of ideas, but the ability to connect innovation and strategy so that new ideas find their resources to develop and implement the ideas. Consequently several informants address issues related to the innovation decision process, how to structure new ideas and
that the critical issue is not ideas but the capacity to prioritise between them:

We have a large number of new ideas, the challenge lies in taking ideas to commercialization. It is mostly about to implement, prioritize and develop good ideas. (Business developer, Safeco)

The findings show that the challenge with evaluating innovation performance and the contribution of innovation on the achievement of strategy. Apart from general organisational performance there is feedback on the innovation process. To measure innovation in advance and assess the potential contribution to the strategic goals are deemed difficult. For example, customer experience is a strategic area where a large strategic gap should be closed with innovation initiatives, and yet in the innovation process described weeds away those ideas due to the inability to express innovation outcomes in financial terms:

In the business development department, we try to create [innovation project] mandate and measures —what is the resources, time, scope, and type of impact we believe the initiative can bring. Once that is done, we go into a creative idea phase to see what’s our options — create hypotheses to see what is possible, technical, marketing and resources […] So we establish a formal project and getting resources to manage the project. (Business developer, Safeco)

The informants also express that it is difficult to measure innovation outcomes in monetary terms, or to assess financial implications short-term versus long-term:

It’s hard. Because the prioritization requires a business case with quantifiable measures. (Business developer, Safeco)

Thus, the challenge is to make strategic decisions in the innovation process. It appears that innovation decisions are made more on the bases of what is currently identified as profitable rather than on a long-term strategic choice.
If 4-generation mobile network had been evaluated at the beginning of the innovation process with the present structured stage-gate approach it would never have been decided on. (Manager, Teleco)

Our findings expose that service innovation activities appear to be more linked to the existing business strategy than to an innovation strategy in the five large scale-intensive service firms. Innovation is considered to be a tool to realise strategy. Client expectations are used to legitimise innovation activities, but often they have clear short term, cost reducing or efficiency enhancing goals.

The role of the client in the innovation process is much weaker than anticipated. Clients are to a limited degree utilised as a resource in the innovation process. Clients interact with innovation activities during tests of prototypes or for market research purposes. The external environment is to a limited degree utilised for new ideas. Although there are an abundance of innovation ideas and initiatives, a structured approach to prioritise between them is much more critical.

Service innovations involve an external environment that appears chaotic, unpredictable, and unstructured and all the firms are making an effort to establish innovation processes that enhance structured, predictable, and formal decision making to take place. Paradoxically, the result is that many truly strategic long-term decisions do not qualify and are not initiated as innovation projects due to the structured process that requires i.e. innovation outcomes expressed in financial terms. The challenge is to make strategic decisions in the innovation process.

5. Discussion and Conclusions

We coded our data to inform open service innovation strategy development, open service innovation strategy implementation, and open service innovation strategy evaluation in the innovation practices studies. Open service innovation strategy development entails the purposive choices of market selection and development and idea...
generation in collaboration with external resources. To our surprise, we find that explicit innovation strategies lack in all five firms. Open service innovation strategy implementation entails how open service innovation strategy affect the service innovation practices, i.e. with respect to how ideas are prioritised, how projects are sourced with internal or external roles innovation process, how innovation resources are built to realise the strategy. Open service innovation strategy evaluation entails the feedback and learning processes between the firm and the external environment, identifying how the evaluation of strategy achievement occur and whether measures or control procedures give feedback to the innovation process and strategy. The findings also suggest that clients are utilised to a lesser degree in innovation activities than suggested in literature and that the logic of innovation and strategy is hard to integrate in practice for these firms. Innovation is thus considered as a tool to realise strategy. Based on the findings of this study it appears that service innovation activities are more linked to the existing business strategy than to an innovation strategy. These observations contradict extant innovation management literature, and we contribute to the literature with our five main findings:

- The distinction between business strategy and innovation strategy is less explicit in service innovation;
- The utilisation of clients in innovation activities is to a limited degree strategic;
- There is an abundance of innovation ideas that are challenging to prioritise between;
- Innovation strategy requires linking innovation resources, both internally and externally;
- There is a conflicting logic between innovation and strategy in services.

Our empirical exploration confirm that service innovations need to be distinguished from product innovations and that service innovations necessitate a broader link to business strategy due to the more game changing nature of the service innovation process. Moreover,
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Open service innovations involve an external environment that appears chaotic, unpredictable, and unstructured and all the firms are making an effort to establish innovation processes that enhance structured, predictable, and formal decision-making. Paradoxically, the result is that many truly strategic long-term decisions do not qualify and are not initiated as innovation projects due to the structured process that requires i.e. innovation outcomes expressed in financial terms. The challenge is to make strategic decisions in the innovation process.

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