
Introducing Open Service Innovation Platforms: A Case Study

Dimitra Chasanidou*, Amela Karahasanović and Marika Lüders

SINTEF ICT, P.O. Box 124, Blindern, Oslo, N-0373 Norway.

E-mail: Dimitra.Chasanidou@sintef.no

E-mail: Amela.Karahasanovic@sintef.no

E-mail: Marika.Lueders@sintef.no

* Corresponding author

Abstract: This paper presents the results from a qualitative study that examines managers' perspectives on open innovation platform (OIP) selection, focusing on their main criteria, requirements and needs. Six managers of a large company were interviewed about their experiences. This paper shows that platform selection is a combination of factors, and the creation of a company culture around OIP is very important in users' minds. Based on the results, we propose a list of selection criteria and dimensions for OIP classification. Selection criteria include ease of access, ease of innovation process, ease of integration and compatibility, as well as cost, fast, secure, differentiation for various user groups and the method of evaluating ideas. These results can be useful to support managers in their decision-making processes when selecting OIPs, in addition to helping platform designers and researchers.

Keywords: Open innovation; open innovation platform; game theory; selection criteria.

1 Introduction

Increasing the quality of services is of vital importance in the service economy. Companies worldwide are exploring new ways to involve their customers in finding innovative ideas for new and better services and products within the open innovation (OI) paradigm (Keinz, Hiennerth, & Lettl, 2012). Open innovation platforms (OIP) can be defined as 'a virtual environment that offers digital services, with the aim to allow the creation of innovations by facilitating time and location-independent, voluntary interaction of innovators' (Hallerstede, 2013, p. 22). As innovation is allegedly becoming more democratic – coming from almost anywhere and anyone (von Hippel, 2005) – OIPs are used for sharing, collecting, co-creating and commenting on ideas.

Many service providers have adopted OIP to invite entrepreneurs, institutions and users to contribute with ideas through innovation tasks. Several OIP are available, such as Imaginatik¹ and Napkin Labs², which fit different companies' needs. Open Service

¹ Imaginatik: service innovation firm, last updated April 2014, <http://www.imaginatik.com/>

² Napkinlabs: software platform for innovation, last updated April 2014, <http://napkinlabs.com/>

Innovation (OSI) platforms are characterised by various features, including their reward system, interface design and innovation strategy. Choosing the most appropriate system for facilitating OSI is therefore challenging.

This case study examines the manager’s perspective on OIP selection, focusing on their main needs, criteria and requirements. The rest of this paper is organised as follows. Section Two continues with related studies on applying OIP in companies. Section Three presents the theoretical basis and methodology, followed by the findings, in Section Four, based on the theoretical framework. Finally, the discussion and conclusions are presented.

2 Related work

Companies using OSI face several challenges. These include maximisation of returns for internal innovation, incorporation of relevant knowledge in innovation activities and motivating employees to contribute to internal innovation processes (West & Gallagher, 2006). Several empirical studies have focused on OI adoption and OI platforms. Gassmann, Enkel and Chesbrough (2010) give an overview of the future of OI and find that certain tools, such as third-party intermediaries, are required when opening up the innovation process. Stoetzel and Amberg (2011) proposed that the platform’s operator and the platform’s purpose are two key differentiating dimensions of OIP classification. Ghazawneh (2010) reports on how OIP can enhance and support innovative practices and discusses the supportive roles of platforms and “platform thinking” in innovation networks. Battistella and Nonino (2012) examine the motivators and drivers for knowledge sharing in innovation platforms, in a qualitative study. Moreover, the study by Frey, Lüthje and Haag (2011) explores how motivation and knowledge diversity correlate with users’ contributions to innovation platforms. Lüders (2012) conducted interviews with nine middle managers in a large service company, exploring their experiences of an OI portal within their company. The results show that realising OIP benefits goes beyond merely motivating users to participate. It also demands an elaborate and reliable method of idea and innovation management and a strategy for leveraging the added value of networked innovation.

The above studies focused mostly on the user’s perspective, exploring motivational factors for users and – in the evaluation of OIP – reporting differentiating factors. One study focused on the company’s perspective. However, understanding is still lacking of how companies select OIP. This understanding would not only help practitioners planning to use OIP and designers of such platforms but also contribute to the development of OIP taxonomy. This leads us to the following research questions:

- RQ1 What are the main criteria for the selection of OIP? In other words, what are the requirements and needs of companies in OIP?
- RQ2 What are other expectations companies have regarding OIP?

3 Methodology

To answer the above research questions, we conducted a case study within a large service-sector company. The company is piloting an OIP, after which a decision will be made regarding the OIP. The company was selected for this case study because of its

size, capacity to absorb innovation practices and previous experience with innovation and innovation platforms. The pilot study was conducted on January 2014, where two managers were interviewed in a semi-structured, recorded interview. The interview protocol covered questions regarding their previous experiences with innovation platforms, their selection criteria and the company's current strategy. Based on the pilot study, we refined the research questions and the interview guide. The participants in the pilot study proposed four other managers who met our criteria and were willing to participate in interviews. The main case study included six interviews with middle managers who are involved in OIP management and/or the innovation strategy of their company. The consent form and a short questionnaire, covering their involvement in OI activities, were sent out before the interviews. The updated interview protocol focused on managers' needs, requirements and selection criteria for OIP, as well as general, strategy-related questions. The interviews, conducted on March 2014, were recorded and lasted 30 minutes. First, these interviews and the pilot interview were transcribed verbatim. We then developed a simple coding schema consisting of the following main topics: selection criteria, requirements, needs, strategy and users. We used these to code the data in NVivo10. A more detailed theme-coding schema was defined during the analysis, so that similarities and differences in responses could be found and systematised.

5 Findings

As a theoretical framework for the results analysis, we used game theory. Game theory is used in analysing strategic interactions between two or more decision-makers, called players (Colman, 1998), and can help to understand processes within a company selecting OIP. The essence of the game theory model in this study is to describe conscious, goal-oriented, decision-making processes involving one or more players. Common features in game models are players, choices, desired outcomes and strategic interactions.

4.1 Players: defining OIP

The players in this context are the managers who work in different areas, such as business and concept development, corporate strategy, customer-relationship management. They are all involved in innovation and OI activities, with an average of five years of experience. Within innovation platforms, they have worked on implementing the platform, involving the partners in innovation, managing the project of testing the platform and collecting ideas. They are all informed about other managers' work but use different definitions for OIP, reflecting their perspectives, which vary from user-oriented to tool-oriented.

“An OIP is when you have internal and you also have external users.”
(Interview 2)

“It is a platform for communication and idea sharing for employees, customers, customers' customers and partners.” (Interview 1)

“It's a communication and customer-relationship management tool.” (Pilot)

4.2 Desired outcomes: building a reputation

One of the desired outcomes in using OIP is to get a more open view into the future, the market and the external environment. Other desired outcomes are building the company's reputation, better communication with users and better customer relations. Furthermore, the managers hope to inspire and show internal users the benefits of OIP.

“By listening to them, we get these ambassadors that spread the positive work (...).” (Interview 6)

“So obviously, there is a huge potential for the rest of the company to use a system like this (...). I hope we can influence the rest of the company.” (Interview 5)

4.3 Strategic interactions: organising OIP strategy and corporate culture

The interactions between players are grounded in a common vision, while their opinions tend towards implementing OIP on many levels, differentiating between internal and external user groups and aligning OIP with corporate strategy. As reported by two managers, internal strategic goals concerning OIP are to connect and share responsibilities within departments and to organise a working group for the OIP. Motivating employees to participate in the OIP, through regular meetings and other processes, is an easier task than motivating external users. External strategic goals are empowered by the need to follow a fast-moving market, embrace new perspectives and establish communication channels with external users.

“It is a kind of win-win situation because we get a lot of new ideas (...), and the users will eventually be given better products.” (Interview 2)

Another strategic goal is to build company culture around the OIP. This is reflected in the company's management and customer-centric logic. In addition, the preparation phase of learning through piloting OIP and sharing experiences on OIP with other companies and partners creates a long-term effect on the company's culture, according to three managers.

“Culture is very important, and that needs to come from the top-management and down (...).” (Interview 1)

4.4 Choices: requirements and needs for OIP

The majority of reported requirements and needs in reference to OIP focused on three aspects of the ease of use. The first aspect is user access, where a user-oriented OIP is defined as a visually attractive, intuitive and accessible system.

“The visual is really important (...) inviting the user to start to use it and for me to work in it. The user's experience should be well organised. They won't spend a lot of time in a system that is not really easy to use and doesn't invite you to use it.” (Interview 3)

The second aspect concerns the innovation process, which is determined by the automated distribution of incoming ideas to the corresponding departments/ people, by a

transparent backing of follow-up and handling of ideas and by gamification methods with competitions and rewards. The third aspect is integration and compatibility with the company's existing IT systems and responsive OIP, which are flexible enough to use on different platforms.

“It has to be suitable for mobile use (...). We have to have different sources and not just a webpage.” (Interview 6)

A fourth requirement is the ability to create community through OIP, as reported by two managers. User engagement, auto-reminders for login, gathering and stimulating discussion on ideas, and the use of a social-media approach can be achieved more effortlessly through a community.

“(…) because of the overall goal, we would like this to be a community. (...) because if there is nothing more, we always have to invite and motivate people.” (Interview 4)

Finally, the need for separate OIP for internal and external environments, as reported by two managers, is considered necessary for the company's protection and for testing ideas in the two environments.

4.5 Choices: selection criteria for OIP

The most frequently reported selection criterion for OIP was the ease of use, meaning easy access for the users to the platform, an easy innovation process for both company and user, and easy integration and compatibility with other existing company systems. All managers reported this criterion as the most important.

“First of all, it was technical criteria. It needed to be fast and reliable and easy to log in. (...). It needed to be very easy to use, like Facebook (...) and definitely needed to have a good price.” (Interview 2)

The ease of the innovation process for the user refers to the simplicity of submitting ideas and getting feedback. For the company, the ease of the innovation platform relies upon a limited number of features for it to be easily managed. Moreover, the scalability and the integration of OIP with other company's systems were considered valuable. The economic criterion was the second most important for players, as reported by three managers. They believe that they have to examine 'what drives the cost'. An economic model of OIP that focuses on the number of user accounts is not regarded as viable for the company.

“If they have a small fee (for every user) every month, the costs are enormous if you have a lot of users.” (Pilot)

An interesting criterion reported by three managers was the feature of differentiating between various user groups.

“If it is possible to differentiate between different groups (...) business-consumer-partner, how we can twist those different criteria, we don't know yet.” (Pilot)

“But I think also it needs to have an external platform and an internal platform, I don't think you can mix those (...). That would be chaos.” (Interview 2)

The importance of fast and secure OIP was mentioned by two managers. In addition, the criterion of the method of evaluating ideas through OIP was reported to a significant degree. According to two managers, they want to eliminate the waiting queue of incoming ideas into their OIP, during the initial phases of processing and testing.

Table 1 summarises the study’s findings, categorised by the contextual factors of general technical, organisational and strategic criteria.

Table 1: Summarised findings.

<i>Context</i>	<i>Selection criteria</i>	<i>Requirements & needs</i>	<i>Strategic Interactions</i>	<i>Desired Outcome</i>
Technical	Ease of use	Ease of use		
	a. Ease of access	a. User-oriented		
	b. Ease of innovation process	b. Automated processes		
	c. Ease of integration and compatibility	c. Flexibility		
	Cost	Cross-platform functionality		
	Fast and secure			
Organisational and Strategic	Different platforms for different user groups	Community creation	Shared responsibilities within departments	Inspiration for the company
		Different platforms for different user groups	Working groups for OIP	
	Method of evaluating ideas	Rewards system	Embrace new perspectives	Building a reputation
		User engagement	User engagement	Communication with users
		Establish communication channels	Better customer relations	
		Culture		

7 Discussion and conclusions

This paper contributes with an empirical study suggesting factors for selecting an OIP, the requirements and needs of managers and other strategic interactions. The study described shows that platform selection is a combination of factors and an interrelated part of a company’s overall innovation strategy.

Our results show that a preliminary list of criteria should include the following: ease of access, ease of innovation process, ease of integration and compatibility, as well as cost, fast, secure, differentiation for various user groups and the method of evaluating ideas. The requirements and needs (Table 1) reveal another perspective on the same question, perhaps reflecting a more department-oriented view of OIP. We expected a

similarity between this list of criteria and needs and requirements, to provide us with feedback on a structured managerial opinion of OIP and the different needs of departments. These needs may be more directly reflected in the list of criteria for future OIP selection. Another explanation of these differences between criteria and needs is short- and long- term perspectives, whenever managers think of OIP. We believe that they have adopted a “platform thinking” (Ghazawneh, 2010) in OI and that they are going to commit to OIP.

The use of game theory provided a theoretical framework for analysing the interrelations of a group of managers. Our findings support game theory and thinking in business as an insightful way of gaining feedback on complex decisions involving many parties. The use of game theory could also provide managers with insights into other managers’ goals and strategies regarding OIP. The players examined are six managers from various departments engaged in a co-operative “game”, as they make choices jointly to achieve the best outcome. The strategic interactions and the desired outcome (Table 1) highlight a need for collaboration and a shared best outcome from using OIP. The choice of OIP is defined by companies’ strategies, available knowledge and agreements between companies. We think that this choice should also be a product of the learning experiences shared by managers, employees or other companies.

We believe that there is a need for a structured selection procedure, where companies can test several OIP using pilot programmes, recommendations and support teams. In addition, an evaluation and classification is needed of available innovation tools and OIP. Potential dimensions of this classification include the degree of openness, relating to the number of external and/or internal users that are allowed to participate – depending on their needs – and the degree of scalability and flexibility. It is also defined by the cost of the platform, the ability to handle a growing number of incoming ideas and the method of reward – specifically, gamification methods of rewarding user participation. When comparing these dimensions with Table 1, we chose to include mostly strategic and organisational criteria for OIP. Openness represents the criterion of differentiation for various user groups. The degree of scalability and flexibility merges the criterion of method of evaluating ideas and shared responsibilities within departments. The methods of reward support previous related studies of motivational theories and gamified OIP. These dimensions need to be tested in future research across a number of OIP.

To conclude, because it is a time- and resource-consuming process to select and implement an OIP – mainly for how it integrates with users’ minds and creates a company culture around OIP – this process should include a dedicated group. The findings of this study can be useful to managers making decisions about which OIP to use, as well as platform designers identifying user needs and requirements. Our list of criteria can shape thinking about platform design, from the conceptual level to platform development. Finally, the findings also contribute to research on OI by proposing useful dimensions for OIP taxonomy.

Acknowledgements

Our thanks are due to the interview participants and our industrial partners for their support. This research is funded by the Norwegian Research Council through the Centre for Service Innovation (www.csi.nhh.no).

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Areas for feedback and development

The paper has many potential areas for development, regarding (a) the contribution, the interpretation of data and theoretical background, (b) the selection of methods and expansion of the case study, and (c) future work on classification of OIPs.

The first area for feedback concerns the general contribution to the practitioners. The paper ends up with a list of criteria for selection of OIP. Those criteria need to be tested to make their validity stronger for generalizations. How to strengthen the contribution? Is the testing with various cases enough?

The second area for feedback includes the interpretation of data in relation to the choice of a theoretical background. The study used the game theory for matching and explaining the interactions and the parts of the game. Was this theory appropriate for explaining the results? What other theoretical background could provide better interpretations in this topic? Could game theory be used as a prediction model for best outcome for all players?

The third area for feedback refers to the selection of methods and the expansion of this case study into more cases with other companies, in order to validate the list of selection criteria for OIP and to suggest the dimensions for OIP classification. What types of companies would be better fitted as a representative sampling for examining this topic? How many cases provide safe results here? What methods would satisfy better the purpose of the study? What changes should I make to methodology and methods that I use?

The last area for feedback concerns the future work on classification of OIPs. The proposed dimensions need to be tested. Which methodologies and methods are most suitable to test these dimensions? Could the classification of several OIPs be a helpful tool for companies to select platform?