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Toward a Framework of New Service Development Practices

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Abstract: Different frameworks for New Service Development (NSD) practices have been suggested by prior conceptual research. By exploring the practices of NSD empirically, this paper continues the ongoing discussion of what the relevant dimensions of NSD practices are. The detailed practices identified by interviewing 20 employees, all with key roles in relation to NSD in five large Scandinavian service firms, about their NSD practices, are clustered into three aggregated overarching dimensions of NSD practices: 1) identifying needs, 2) assuring support and 3) dividing work. The findings suggest that the NSD process is the prime focus of NSD practices and that different resources are integrated into the different stages of the NSD process. The findings provide both managerial implications and implications for further research.

Keywords: New Service Development; Service Innovation; Innovation Practices Dimensions

1 Introduction

The potential role of New Service Development (NSD) in creating financial performance and competitive advantage for both service and manufacturing firms is increasingly acknowledged (e.g., Aas and Pedersen, 2011). At the same time frameworks of successful NSD practices remain scarce (e.g., den Hertog et al., 2010). The empirical innovation management literature has focused primarily on New Product Development

(NPD) when exploring the practices that firms' undertake when they innovate successfully (Kahn et al., 2006). Due to the differences between services and products and between service innovation and product innovation (Droege et al., 2009), there is, however, no guarantee that the frameworks developed for NPD are also relevant for NSD. From a managerial perspective this gap in the literature is concerning. Managers need to implement efficient practices to succeed with innovation, and due to the lack of frameworks of NSD practices, and lack of corresponding normative guidance, this is now a difficult and hazardous task for managers pursuing a business strategy reliant upon NSD.

An extensive series of empirical NPD management studies (e.g., Kahn et al., 2006) have identified relevant dimensions of NPD practices. Insights from this empirical research stream have formed the basis for developing frameworks of NPD practices and suggesting normative advices for NPD managers, and the Product Development and Management Association (PDMA) now applies strategy, portfolio management, process, tools, metrics, market research, teams, people, and organizational issues as key dimensions in their framework of NPD practices (PDMA, 2013).

The attempts to develop similar frameworks of the key dimensions of NSD practices are limited, and since the few frameworks suggested in the literature are predominantly based on conceptual discussions (e.g., Froehle and Roth, 2007; den Hertog et al., 2010), we argue that more empirical research is needed to confirm, or alternatively disprove, the NSD practices frameworks suggested by prior conceptual research.

Therefore, in this paper our aim is to contribute in filling the literature gap related to what the key dimensions of successful NSD practices are. Hence, we ask the following research question: *What are the key dimensions of NSD practices that firms undertake in order to succeed with their NSD efforts?*

Instead of deploying a conceptual theory-based top-down approach, like most prior research, to answer this question, we follow an empirical bottom-up approach where the starting point is the identification of NSD practices, and where these practices then are aggregated into key NSD practices dimensions on higher levels.

2 Theory

To enlighten the research question we need to combine insights from separate research traditions such as social practices theorizing together with the results of NPD and NSD research:

Social Practices Theorizing

Studying the practices of doing innovation work, requires an understanding of practices as a phenomenon, or with practices as the object of study (Gherardi, 2006). Social practice theorizing focuses on a dynamic view of knowing, which represents a social accomplishment, constituted and reconstituted in actors' everyday work practices (Orlikowski 2002). This entails that studying innovation should move away from a static view of knowledge to a dynamic view, emphasizing knowledgeable action or knowing-how. Understanding then the performative role of both material and human agency in enacting innovative processes, and the inherent consequences of innovation and new knowing becomes important.

Practice connects knowing with doing (Orlikowski, 2002). As such, the practice lens recognizes what people actually do to perform the work in their recurrent, situated context (Orlikowski, 2007a). Schatzki (2001) further explains that practices are "*embodied, materially mediated arrays of human activity centrally organized around shared practical understanding*" (p. 2). Hence, organized human activities are practices. Schatzki (2005) argues that practices are non-individualist phenomena: "*It is people, to be sure, that perform the actions that compose a practice. But the organization of a practice is not a collection of properties of individual people. It is a feature of the practice, expressed in the open-ended set of actions that composes the practice*" (p. 480).

Further, understanding practice as an ontology claims that the social is performed in and through socio-material practices (Gherardi, 2006; Orlikowski, 2007a). An emphasis on the sociomateriality becomes important, as technology and the material context of work are understood as inseparable from the work itself, using a relational ontology (Orlikowski and Scott, 2008). In other words, the practice turn is not one theory. However, there are various common assumptions such as situatedness of action, performativity materially mediated (Schatzki, 2005) or through social-material practices (Orlikowski, 2006), agency as heterogeneous with an apprehension of multiplicity, emphasizing connectivity between practices and people, and the production of effects through practices (Bjørkeng, Clegg, & Pitsis, 2009; Gherardi, 2000; Gherardi, 2006; Mol, 2003; Nicolini, 2007; Orlikowski, 2007a; Orlikowski, 2002, 2006)

Dimensions of NPD Practices

The innovation management literature has focused primarily on NPD when exploring the practices that firms undertake when they innovate (Kahn, Barczak & Moss, 2006). This research stream has resulted in a set of aggregated innovation practices dimensions that are often used as basis for innovation management research.

Kahn, Barczak and Moss (2006) for example suggest that NPD practices are delineated across six dimensions: 1) strategy, 2) portfolio management, 3) process, 4) market research, 5) people, and 6) metrics and performance measurement, and similar aggregated dimensions practices dimensions are for example deployed by the Product Development and Management Association (PDMA) in their NPD best practices surveys (e.g., PDMA, 2011). In their latest NPD best practices survey PDMA uses the following NPD dimensions: 1) culture, 2) strategy, 3) portfolio management, 4) process, 5) front end, 6) tools and 7) measures and metrics (PDMA, 2011), and in their latest certification work seven similar aggregated NPD dimensions are deployed: 1) strategy, 2) portfolio management, 3) process, 4) tools, 5) metrics, 6) market research and 7) teams, people, and organizational issues as dimensions (PDMA, 2013).

Although the PDMA practices dimensions are a result of NPD research they have also been used by several researchers as a framework for studying NSD practices empirically (e.g., Zomerdijk and Voss, 2011; Barczak, Kahn and Moss, 2006). However, due to differences between products and services and between NPD and NSD (e.g., Droege et al., 2009) it is unclear to what degree the NPD practices dimensions are suited to guide empirical studies of NSD practices.

Dimensions of NSD Practices

The attempts to develop frameworks of the key dimensions of NSD practices are limited, and the few frameworks suggested in the literature are predominantly based on conceptual discussions. A recent example of a framework derived from theory, is "the resource-process framework of NSD" suggested by Froehle and Roth (2007). This framework suggests two key dimensions of NSD practices; resource-oriented practices and process-oriented practices, and the authors further suggest that the resource-oriented practices may be subdivided into intellectual resources, organizational resources and physical resources, whereas the process-oriented practices may be subdivided into design stage, analysis stage, development stage and launch stage.

Frohle and Roth (2007) also conduct an empirical study (i.e., multiple rounds of interviews and card-sorting exercises with senior service managers) to detail the description of the NSD practices within each dimension, and based on this exploration they suggest 45 detailed constructs for NSD related practices However, the aggregated top level NSD practices dimensions are not discussed in light of the empirical findings. Consequently, there is a risk that if these aggregated levels are irrelevant for NSD, the 45 detailed constructs they derive are inaccurate.

Another example of a conceptual study suggesting a NSD practices dimensions framework is den Hertog et al. (2010). Based on insights mainly from the strategic management literature the authors discuss conceptually what activities firms should undertake to build the capabilities needed to succeed with NSD. Although the authors do not use the term "innovation practices", their suggested framework may be perceived as a framework describing the practices firms undertake to build (service) innovation capabilities, thus a framework of NSD practices. Perceived like this the framework suggested by den Hertog et al. (2010) consists of six dimensions of NSD practices: 1) signalling user needs and technological options, 2) conceptualising, 3) (un-)bundling, 4) co-producing and orchestrating, 5) scaling and stretching and 6) learning and adapting.

The frameworks of both den Hertog (2010) and Frohle and Roth (2007) are based on theoretical discussions where the theoretical insights are used to derive relevant practices dimensions. There is a risk, however, that these theoretical derived "maps" are inconsistent with the real activities or practices implemented by firms. Therefore, instead of deploying a top-down approach like den Hertog (2010) and Frohle and Roth (2007) to derive the relevant innovation practices dimensions for NSD we deploy a bottom-up approach in this paper where the starting point is the identification of practices, and where these practices then are aggregated into practices dimensions on higher levels.

3 Method

Since social practice theorizing focuses on a dynamic view of knowing, which represents a social accomplishment, constituted in actors' everyday work practices (Orlikowski, 2002), and since Schatzki et al. (2001) explains that practices are "*embodied, materially mediated arrays of human activity centrally organized around shared practical understanding*" (p. 2), we chose a qualitative case oriented research approach to identify NSD practices.

The study is based on empirical case materials derived from twenty interviews in five large international service firms. The five firms selected operated in both business to

consumers and business to business markets, they all provided services both to other firms and consumers. The five firms provided different types of services: One firm provided telecom services, three firms provided financial and insurance services and one firm provided logistics services. All firms were successful in the market, as they had expanded beyond the national border to more than three countries.

Between three and five employees in each firm were interviewed. We followed a semi-structured interview guide, where the informants were asked open questions about how they conduct innovation activities. Each interview lasted between one and two hours. The interviews were recorded and transcribed. To reflect the overall NSD practices of the firms, informants with different roles, and from different firm levels, were chosen: Top/line managers, project/innovation managers and specialists. During the interviews we investigated what the employees did, the types of problems the employees solved, what kind of tools they used, and how the actors interacted.

In order to make sense of the data, the analysis progressed in several stages. First, the material was thoroughly discussed and made in a presentation form in Power Point. The aim was to present it to selected employees and managers in the firms to validate the data's veracity and enhance the trustworthiness of the analysis (Lincoln & Guba, 1985). Second, the data was examined in light of the research questions, specifically looking at how service innovation was performed in the firms. According to what the practitioners told us that they did, we coded their explanations according to the language they used into first-order categories. Then we clustered them together into different groups, being researcher induced concepts and second-order themes. Further, these second order themes were assembled in overarching dimensions to gain a theoretical framework that linked the practitioners' explanations of their ways of performing service innovation.

4 Findings

The findings from interviewing those who were involved in and managed NSD in the case organizations resulted in the identification of a great number of detailed first-order categories of successful NSD practices. A small, but representative, selection of these first-order categories is provided in Table 1 in the form of representative quotes.

The clustering of these first-order categories of NSD practices resulted in the identification of six second-order NSD practices categories: 1) initiating projects, 2) focusing on customers, 3) legitimizing, 4) convincing, 5) involving units and 6) collaborating. These six second-order categories of NSD practices was then grouped into the following three overarching key dimensions of NSD practices: 1) identifying needs, 2) assuring support, and 3) allocate work.

From a NSD point of view *identifying needs* refers to the activities conducted by employees to focus on customers' needs and initiate NSD projects (sometimes in the reverse order) to become more competitive and to differentiate the services from others in the market. *Assuring support* refers to the activities conducted by employees to legitimize and convince the group of internal decision makers (e.g., boards and managers) and other internal stakeholders (experts and "ordinary" employees) that investment in the NSD project is worthwhile. *Dividing work* refers to the activities conducted to involve both internal and external people, and define their tasks and roles, to enable the successful implementation of the NSD project.

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Table 1 Empirical data supporting interpretations of NSD practices

1st order dimensions of NSD practices (representative quotes)	*2nd order dimensions of NSD practices*	*Overarching dimensions of NSD practices*
"I started out by asking, 'ok, what do we want? Why shall we stake a lot on the youth segment? What do we need?' …I do not want ideas as the only things that counts are deliveries. And ideas are not a problem when you know what you want…it is about rewinding and ask what kind of needs do we solve… it is a hand craft, to be worked on, use time and energy on to systematize and try to think I customer scenarios. Try to think which axes that are suitable to compete in and deliver something…"	Initiating project	
"So I started with a concrete area where there would be substantial differences for the customers and prove it afterwards. I then got responsibility for the project 'Simplification' and taken that project. It suited me well to start here due to the 275 000 customers involved. "		**Identifying needs**
"It is a fine line: What do customers want? And that we ask in many forum, like 'what can we do better?' Then we ask questions covering what customer think we should solve. And there are a lot of good answers. That is one way of doing it. Another way is to try to think what we think customers' need, that the customers don't know that they need? Because I work in a bank, I know that this and that would be damn great for the customers to get. So then I try to catch both those perspectives. "	Focusing on customers	
"I got the project... And I made a budget which I presented for the steering committee. As all projects have. There is a steering committee for all the projects I drive…I put forward a document to the steering committee and held this presentation: what are we going to do, what is the solution, what are we changing, a gross prototype, yes we have to work with the first page…When I presented this to them, we found out that it was a good idea…It was a mixture between logical arguments, ethos: our competitor had done it, and pathos: we can't send this out. All together it makes them say yes, and go."	Legitimizing	
"It is as if my job is a talking job, and I go around and talk and talk, and I get so feed up of my own voice. And I get people to meet and often it gets to "why don't you talk with him, why don't you know each other?" and then they answer "I have never talked to him" and I reply "but I know that he is sitting and working on exactly the same things as you do?" I take it for granted that people collaborate, if not we won't make it. That is why all these ideas have been lying there unsolved, because they have not collaborated…So mainly it is about walking around, talking to people and making them talk together."	Convincing	**Assuring support**
"What I did? I approached the management group for instance to e-business and Market and asked who the right resources were and got the manager for the unit to recommend me. And from then on I have worked very closely with e-business and market. "	Involving units	
"We have some agencies that we have concern agreement with. For instance an advertisement agency and they are really good in digital services, and then we have a PR agency as well. So it is not about getting more agencies on board, but on using the agencies we have an agreement with, the right way. Because then we have the network, we know they deliver. And then I have worked a lot with some people in our IT department who are way ahead in relation to services. And that is so much fun. A thing I just initiated: There is a conference named 'Innovate' taking place in London and San Francisco twice a year, and there I brought with me one from IT and one from e-business to assure that we have the same understanding since we are dependent on each other to succeed in what we do."	Collaborating	**Dividing work**

In the first column of Table 1 we provide our empirical findings in the form of representative quotes from our informants. These quotes are equivalent to the detailed first-order categories of NSD practices. Table 1 also indicate how the first-order categories were grouped into second-order dimensions of NSD practices (second column), as well as third-order (overarching) dimensions of NSD practices (third column).

Figure 1 summarizes the findings visually and suggest a NSD practices framework.

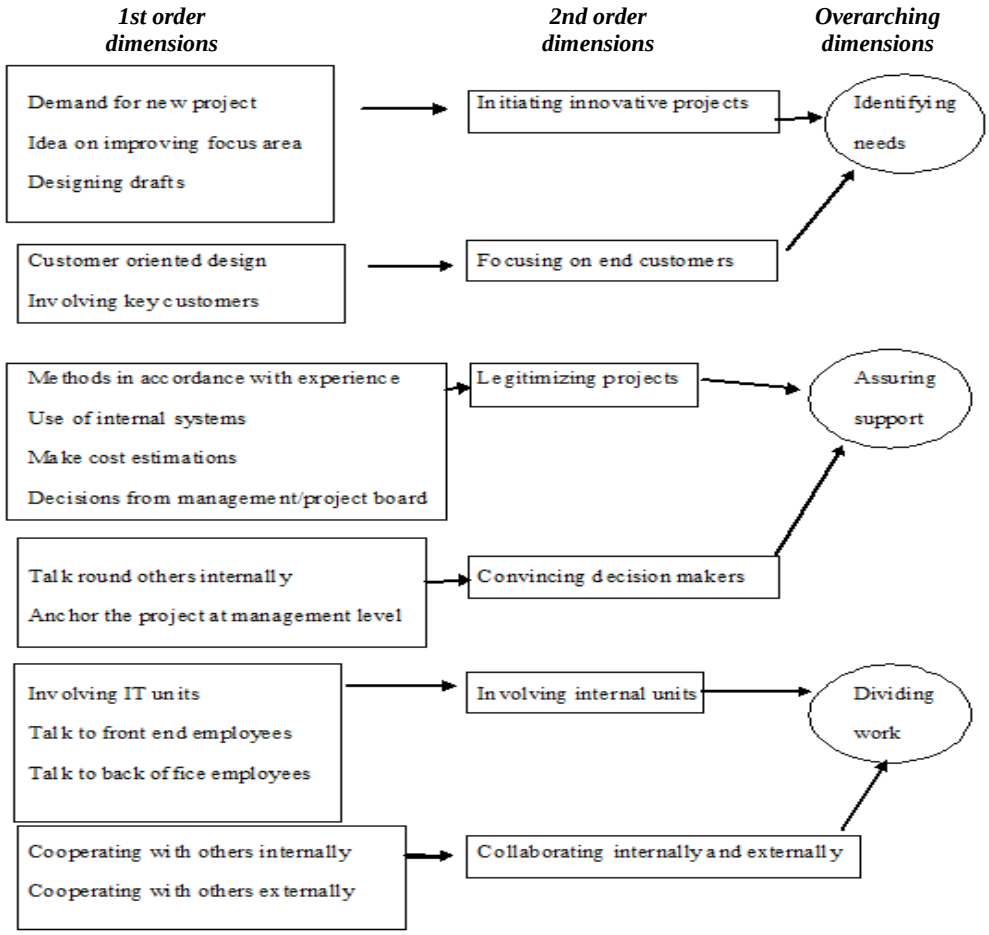

Figure 1 NSD practices dimensions

5 Discussion and conclusions

Our study is an empirical contribution in the ongoing discussion on what the key dimensions of NSD practices are. When we compare our findings with the NSD practices frameworks suggested by prior conceptual research (e.g., Froehle and Roth, 2007; den Hertog et al., 2010) we observe that we have relatively different findings. For example our findings suggest that the resource-oriented practices dimension suggested by Frohle and Roth (2007) should not be perceived as an overarching dimension. Our findings

suggest that the NSD process is the prime focus of NSD practices since the resources needed in different stages of the NSD process varies. Thus, for NSD it does not seem to be relevant to build a set of general NSD resources that can be used during the entire NSD process. Rather, it seems to be important to build several sub-sets of resources (either inside or outside of the border of the firm) that are integrated into the process in six distinct themes (our second-order themes) and that may be mobilized in different stages.

Our findings are more similar with the framework suggested by den Hertog et al. (2010). Den Hertog et al. (2010)'s dimensions called "signalling user needs and technological options", "conceptualising" and "(un-)bundling" correspond to a certain degree with our "identifying needs" dimension, and den Hertog et al. (2010)'s dimensions called "co-producing and orchestrating", "scaling and stretching" and "learning and adapting" correspond to a certain degree with our "allocating work" dimension. However, there seems to be one important distinction between our framework and den Hertog et al. (2010)'s framework: Our overarching dimension called "assuring support" seems to be lacking (or at least hidden in sub-dimensions) in den Hertog et al. (2010)'s framework, whereas our findings suggest that this is a key dimension of NSD practices.

Although our paper does not offer detailed normative advice, the new framework of NSD practices suggested in the paper, may be a valuable guiding map to managers aiming to improve the NSD practices of their firm. However, our research design does have limitations in particular due to the fact that the research has been conducted in a specific service sub-sector, i.e. large service firms providing standardized services at a large scale, and it is difficult to assess whether the findings are generalizable to firms in other service sectors. Thus, further empirical research is needed in different service contexts to validate and confirm the relevance of our findings for NSD in general.

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