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Innovating for and with your service customers: An assessment of the current practice of collaborative service innovation in Germany

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Abstract

Methods for managing innovation have been described in academia in many contexts. Service innovation processes pose particular challenges compared to those of product innovation – one of the core reasons being the lack of dedicated R&D structures in service firms or units. Collaborative innovation both with employees and with customers can be an effective means to drive innovation in services. Based on empirical evidence of a study of German innovation managers, this paper discusses findings of service innovation in organizational practice. We review the current extent and future potential of the involvement of employees and customers in the innovation process, as well implications for companies and academia.

Keywords: service customer integration; service innovation process; collaborative service innovation

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1. Introduction

Customers and organizational factors are important sources of information for innovation in services (Schilling & Werr, 2009). While the lack of a dedicated R&D unit in service organizations has been described as an impediment to traditional, inside-out innovation processes, collaborative innovation approaches tapping into the creativity of customers and employees may not require a traditional R&D setup. To better understand the service innovation process, in particular how it includes input from customers and what level of employee empowerment may be helpful, we have conducted a primary survey of 102 service innovation managers in Germany.

With this survey we want to clarify which role and tasks customers and employees may undertake to support and become part of organization's service innovation process. By correlating state-of-the-art research with current practice in daily actual usage we intend to derive development potential.

To analyze the topic, we will first address the background (section 2) against which the empirical study is set (section 3). Afterwards we will outline the key findings (section 4) and finally draw some preliminary recommendations on how to best introduce collaborative innovation into existing service innovation practice (section 5).

2. Prerequisites and Background of Service Innovation in Organizations

In this section, we would like to briefly illustrate the background for the empirical study drawing on the existing literature. First, we will describe our understanding of the service innovation process, before we will review the concepts of customer collaboration and incentive schemes for innovation-friendly behavior.

2.1. Service Innovation process

To gain a foundation for discussing the service innovation process and developing the survey, we have turned to traditional innovation research while being well aware of its manufacturing bias. The different dimensions of innovation are typically presented in the literature as the object dimension (what is new?), the subject dimension (for whom is it new?), the intensity dimension (how new is it?) and the process dimension (what does the process look like?) (e.g. Hauschildt, 1997).

In the following, we will focus on the last dimension – the process – in order to understand current practice and potential of collaborative innovation in services. To build a framework for eliciting the experiences of managers responsible for service innovation, we have derived a generic innovation process from the existing literature (Fig. 1).

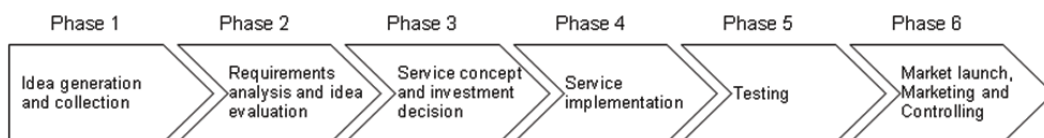


Fig. 1: Generalized innovation process used for this study

While the process is mostly self-explanatory, we briefly review each stage to ensure a common understanding.

Phase 1: Idea generation and collection

In the first phase, ideas for new services are sought out and collected. Sources can be both internal (employees) or external (partners or clients). Service clients, their behavior and complaints are the most important external source of ideas and they can be included in the innovation process using different approaches. Creativity methods can be used to help in the generation of ideas (Wahren, 2004). The objective in this explorative phase is to trigger a large number of ideas and systematically capture them for later analysis and selection.

Phase 2: Requirements analysis and idea evaluation

The ideas captured in phase 1 now need to be evaluated for opportunities and best fit, using market and user requirements as well as information about the organization's own strategy and capabilities. This can be done applying either formal or informal methods. The objective in this phase is to select the most promising ideas for further detailing.

Phase 3: Service concept and investment decision

In the concept phase, the service idea is detailed with a view to implementation and open questions regarding the market opportunity, the feasibility of implementation, the core and extended benefits and the achievable customer value (Schmid, 2005). The objective of this phase is to describe the idea and the business case in enough detail to enable an investment decision.

Phase 4: Service implementation

Any new service concept having received a positive investment decision in phase 3 now needs to be implemented. This is done by defining organizational structures and allocating resources – typically in a project group – setting up any necessary new infrastructure and communicating the new service within the organization. Managing the involved stakeholders to support the new service is a central task of the implementation phase. The objective of this phase is to realize the service as well as setting up its context, including the right procedural and cultural conditions.

Phase 5: Testing

In the service testing phase the focus is on keeping the quality promise of the offered service. Therefore, methods like 'Failure mode and effects analysis' (Fährnich and Opitz, 2005) designed to identify weak spots as well as room for improvement are applicable. Testing the service live with customers involves the risk of competitors copying the service (Thomke, 2003). To avoid this risk, services can also be tested internally by employees – which will, however, not substitute the external factor. The objective of this phase is to be able to guarantee a specific service quality.

Phase 6: Market launch, marketing and controlling

The market entry phase involves the implementation of launching a marketing concept as well as a tracking of performance indicators. Early feedback from customers and employees is also crucial for identifying and fixing unanticipated problems. The objective of this phase is a successful market launch and interaction with potential customers.

In practice, innovation processes often differ from theoretical process models. Some phases may be left out; others may be revisited in a cyclical fashion. Often the service implementation is done with very limited market research, concept and product tests (Schneider, 1999). However, as we verified in pre-tests, this generic process provides a suitable foundation for discussing activities with innovation managers.

Results of the interviews show that firms with a documented innovation strategy achieve significantly higher average growth in sales and their new services make up a larger share of their revenue.

2.2. Collaboration with customers

In successful service innovations, customers are significantly more deeply involved in the innovation process compared to less successful service innovations (Martin Jr. and Horne, 1995).

On the one hand, customers are – besides management and sales – the most important source for new innovative ideas (Scholich et al., 2006¹). Collaboration with customers in the innovation process usually does improve the competitive situation of the company (Kirchmann, 1996). Additionally, it reduces the risk that the new service will not find market acceptance. This approach may also avoid image loss, which would present a serious danger by a

¹ In their survey they analyzed more than 140 German service companies.

lack of market and customer orientation.² In the early phases of the innovation process considerable time savings may be achieved by integrating customers, because potential research areas for finding new ideas will be identified better from the very beginning. Later on in the innovation process, e.g. in the phases of conceptualization and implementation, collaboration with customers may positively affect development speed (Reckenfelderbäumer and Busse, 2003).

On the other hand, collaboration with customers in the innovation processes poses a number of challenges to companies, like loss of confidentiality, higher transaction costs for the setup, execution and control of customer involvement (Reichwald and Schaller, 2003).

Nonetheless, especially customers who are actively and creatively expanding the use of a service beyond the current paradigm are motivated to participate in developing an innovation and therefore suitable from the company's perspective. All these attributes fit to lead users, who are especially qualified and motivated customers who may recognize future trends earlier and may provide innovation-relevant information (von Hippel, 1986; Lüthje, 2003; Busse, 2005).³ The question is therefore how to include valuable feedback from customers into the process while limiting the obvious challenges that an increased collaboration across company boundaries poses.

2.3. Incentives for encouraging innovation activities

Increasing the willingness to support innovation by incentives appears to be possible (Gussmann, 1988). Therefore, a system of incentives should be tailored to the persons involved in innovation in order to incentivize behavior driving innovation (Corsten, Gössinger & Schneider, 2006). With such a system, an innovation-friendly behavior and environment should be developed, instead of a system of inflexible incentive-rewards relationships for expected and desired behavioral patterns (Leptien, 1996).

For this survey, we differentiate two types of incentives: 'hard' or tangible incentives, like money, and 'soft' or intangible, like social incentives.

Whereas social incentives are harder to directly influence by companies, because they get satisfied in daily interaction between individuals (e.g. changes in established group structures), tangible incentives can be directed and controlled more easily, which may explain their prevalence in innovation literature.

Concerning the innovation process and integration of incentive systems, Corsten et al. (2006) point out, that immaterial incentives are better suitable for generating ideas and increase the involvement of employees to participate in the process. For the implementation of ideas, material incentives are more convenient, which means that different incentive systems should be used in a differentiated way during an innovation process, depending on the process phase.

3. Survey of German Service Innovation Managers

Based on the foundations above and a number of exploratory interviews with experts, we compiled a survey on service innovation in organizations. We identified, screened and finally surveyed over 100 expert practitioners in Germany who are involved in managing service innovation as part of their daily responsibilities, covering a variety of industries and company sizes.

3.1. Methodology

We selected the experts using the following criteria: First, the respondents were required to hold de-jure or de-facto responsibility for managing innovation in their organizations. Second, we were looking for experience

² A focus on the customers' perspective is also pointed out as a enormous success factor in the survey by Martin Jr. and Horne (1995).

³ A survey by Hünerberg and Mann (2004) pointed out that more than 75% of the interviewed service companies (N=285) do not actively collaborate with their customers. Just a few organizations use customer advisory boards. According to Busse (2005), this customer participation and collaboration has to be reinforced in the future since it is the only possibility for customer focused developing and conception building.

specifically related to *service* innovation (e.g. innovation managers from manufacturing were screened out if they were not also involved in service innovation). And finally, we selected addressees based on conceptual expertise demonstrated by publications or invited lectures (e.g. eliminating mere ‘executors’). Qualified participants were identified via screening innovation networks, conferences, seminars and workshops on innovation in general and service innovation in particular. Participants were also able to nominate additional experts, who – when deemed appropriate – were also invited to participate. The experts were given the option of participating in the form of either a telephone interview or an online format. It is particularly important to note that the invitations to participate were personalized: every link in the online survey only worked once, giving us control over the quality of the data – in contrast to frequent online studies that use a generic URL which can be forwarded, leading to questionable response quality.

3.2. Sample structure

In total, 102 experts participated in the survey (out of 280 which have been invited – which corresponds to a return rate of more than 36 %). Of these, 97 answered the questionnaire online while 5 were interviewed in half-hour telephone interviews.

The majority of the participating organizations operated in IT, Software or Media (18%) as well as Finance and Assurance (12%). There were also industrial enterprises from Construction (10%) and other metalworking industries (7%). The participants’ organizational sizes were also diverse – from organizations with less than 100 employees up to companies with more than 10,000 employees, which made up nearly 1/3 of the participating companies (Fig. 2).

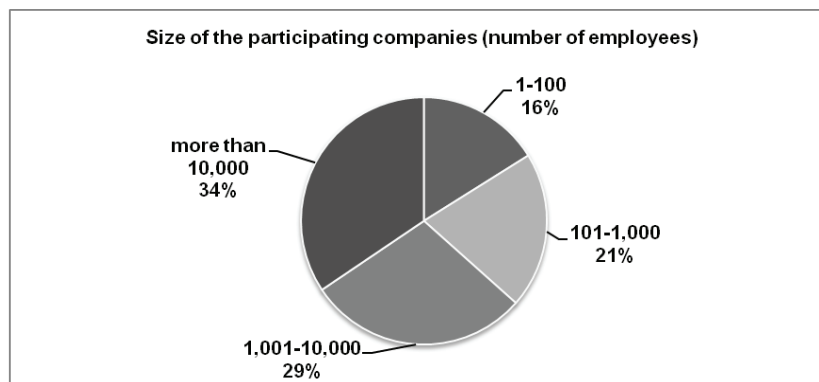


Fig. 2: Size of the participating companies – based on data mentioned by respondents

4. Empirical Findings on Service Innovation

The results of our survey showed that for most organizations it is not a problem to identify new service ideas. However, finding many new ideas is not equal to having success on the market: it is essential to identify and pick those ideas with the highest prospects, to develop them via concept and implementation and to bring them to market successfully.

Studies on product ideas (Kerka et al., 2006) have shown that a third of the original ideas develop into products, 13% entered the market, but only six percent could be considered successful. The results of our survey on service innovation produced very similar results to this study on product innovation: On average more than 28 % of the service ideas had been designed after a first review. Nearly 12% of the ideas were taken to market and only about 4% of the initial ideas became a commercial success (Fig. 3).

When analyzing the underlying structures, interesting patterns are revealed regarding the use of structured innovation processes (section 4.1), the application of customer collaboration (section 4.2), the empowerment of employees (section 4.3), the incentives for employees to innovate (section 4.4) and the planning of service innovation (section 4.5).

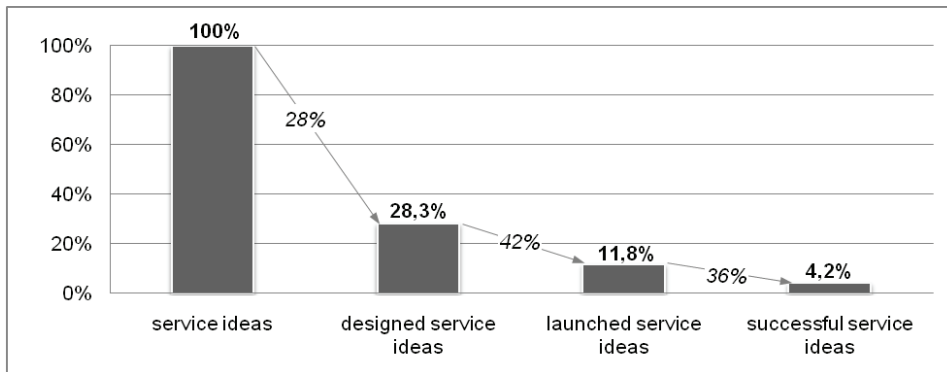


Fig. 3: Share of service ideas which were designed, launched and became successful

4.1. Structure of the innovation process

Analyzing only the share of successful service ideas on the market in conjunction with all service ideas generated at the beginning of the process will not deliver equivalent statements about the effect of structured innovation processes. Those organizations which support creativity and idea generation by their employees (e.g. by spaces of autonomy in their daily work time) and therefore get more ideas from the beginning on will have a higher reduction from the first indicator ‘service ideas’ to the second indicator ‘designed service ideas’, which results in a worse ratio.

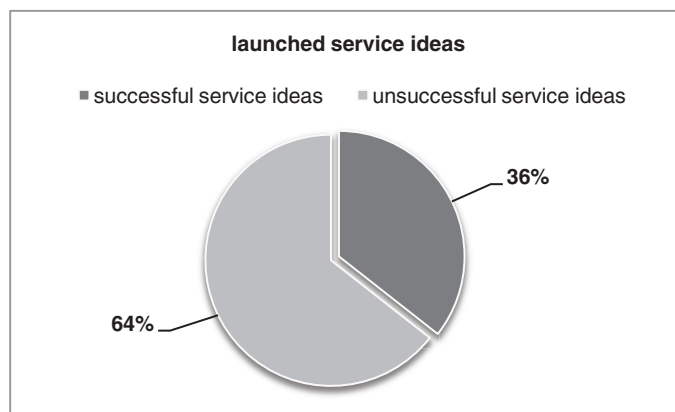


Fig. 4: Share of launched service ideas with market success

The proportion of successful services on the market is nearly 60% higher at firms with a structured process (41.4% of all launched ideas are successful) than at firms without such a process (only 26.3% of all launched services are successful). Additionally, companies without a structured service innovation process need significantly more time (more than 18 months) to bring a new service offering to the market (companies with a service innovation process need only 14.9 months, saving more than a quarter of the time).

4.2. Collaboration with customers

Our survey revealed that phase 2 (‘requirements analysis and idea evaluation’) as well as the phase 3 (‘service concept and investment decision’) are considered to have the biggest impact on the final market success of a new

service (Fig.5). As we have seen from literature analysis⁴, the integration of customers, who are one of the most important sources for new innovative ideas, improves the competitive situation of the company and reduces the risk that the service will not be accepted by the market. Accordingly, we would expect that it is exactly those phases within the innovation process that customers' involvement will be sought out most.

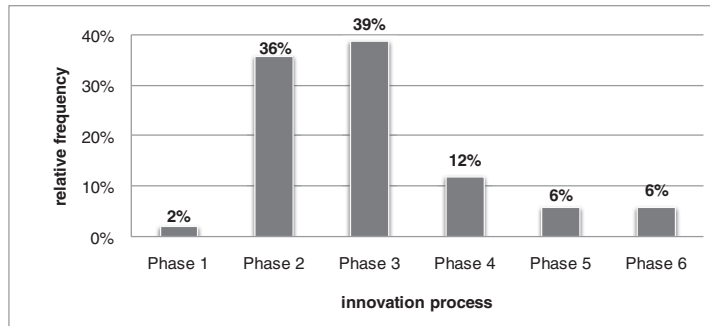


Fig. 5: Most critical process phases with regard to the success of the innovation

However, Figure 6 shows the average customer integration in each phase of the service innovation process – ranging from ‘customers are not involved’ (1) to ‘customers are strongly involved’ (4). It is noteworthy that phase 3 (‘service concept and investment decision’) not only has the lowest average customer integration, but 28% of the companies did not involve their customers in this phase at all. This outcome is in line with a study of Reichwald and Schaller (2003), which also presents the main customer integration in the phases of idea generation (phase 1) and market entry (phase 6), with lower integration in the intermediate phases.

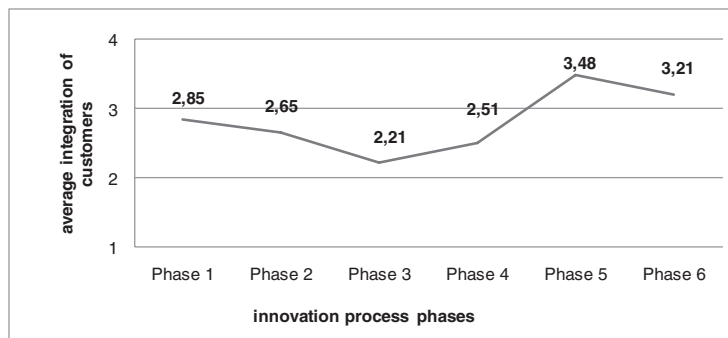


Fig. 6: Customer integration in the innovation process

Inclusion of customers in the innovation process is most limited in those phases that are most decisive for market success. Companies could well be advised to consider effective integration of their customers in those phases to help with the down-selection of the most promising innovations.

To integrate customers into a service innovation process seems to be a critical decision to make. While not statistically significant, the trend in the survey results was that greater customer integration is indicative of a higher share of new services, but also with a longer average duration of the innovation processes.⁵ While this point will need further research, it may indicate that collaboration with customers involved a tradeoff challenge between better innovation results and shorter development time.

⁴ s. chapter 2.2. Collaboration with customers

⁵ The discrepancy to the findings of Reckenfelderbäumer and Busse (2003) that were mentioned in chapter 2.2 of this paper may be due to higher coordination effort requiring additional time.

4.3. Autonomy and incentives to encourage innovative activities of employees

In addition to customers, employees are an important and critical source of new ideas. Therefore, they should be supported and motivated to participate in finding and developing new service ideas (Gussmann, 1988). In our survey, we looked both at the autonomy and at the incentives provided by the organizations queried.

The general – more specifically: ‘non-R&D’ – employee population is increasingly being recognized by organizations as an under-utilized innovation potential. In a global survey of over 700 executives, the general employee population was rated as the most important source of innovation – more important than internal R&D (IBM, 2006). Capturing this potential requires both the right infrastructure and tools, as well as empowerment and initiative on the side of the employees. But where is the ideal grade of employee empowerment to take initiative? Should the employees ask their managers pro-actively for getting the possibility to take part in service innovation or proposing smart activities? Both very low and very high initiative are associated with certain risks – from lack of impulses and speed on the one hand to the risk of unaligned action by employees on the other hand.

Because most new services are not developed in dedicated R&D departments, as it is typically done for products, employees should have some autonomy during their work time to investigate innovative ideas (Vermeulen and van der Aa, 2007). Official rules and regulations for setting aside time to work on new ideas are implemented by only 11% of the organizations, while 70% appreciate this, but not formal documentation exists (Fig. 7).

Companies in which spaces of autonomy are supported (regulated officially or at least appreciated) achieved an average growth in sales of 10.7% over the last three years, whereas other companies only reached 3.6% on average within the same time frame.

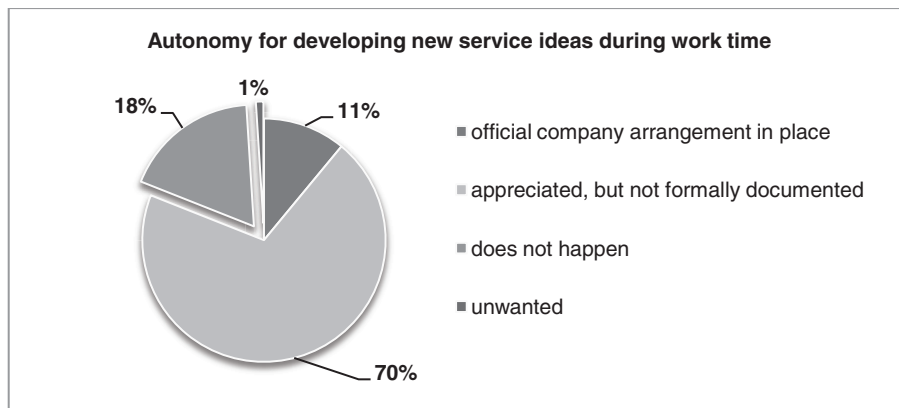


Fig. 7: Autonomy for developing new service ideas during work time

The surveyed innovation managers frequently applied incentives of awards by management, gratifications through premiums, profit sharing on the specific service innovation as well as service innovation as part of target setting. The innovation managers motivate their employees mostly by paying bonus gratifications and appreciation by management through rewards (Fig. 8).

In 40% of the companies service innovations are made part of employees’ personal target agreements. The theoretical appraisal of profit sharing is interesting, which was rated nearly as an equal alternative to gratification through premiums, but is implemented only as the last possibility. This may be caused by the difficulty of measuring and isolating success of new services.

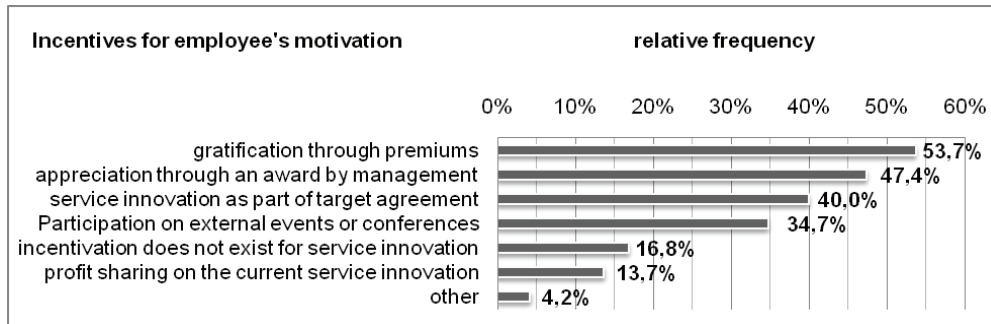


Fig. 8: Frequency in which incentives for employee motivation are used

Our analysis pointed out that companies without any incentive system have lower growth in sales (4.5% less within the last three years) and need three months more for their entire innovation process on average. 27% of all services introduced to the market had been successful in companies, which do not use any incentive system, while companies with established incentive systems see about 38% of their ideas succeed.

Other types of incentives, which are used in organizations to motivate employees, are public rankings, which inform about employees with most successful service ideas, or awards, which are tied to the share of the turnover of the innovation. Delegation of responsibility is another possible incentive for employees to engage in innovative ideas; this of course raises the question what the right level of employee empowerment is, which we will discuss in the next section.

4.4. Collaborative innovation with employees

In order to capture the level of employee initiative with regard to innovation in services, we used the scale by Oncken (1987), reaching from Level 1 (lowest initiative level) to Level 5 (highest initiative level). The five levels, which differentiate the grade of self initiative in this survey, are:

Level 1: Wait until told – employees will not become active until their manager demands this

Level 2: Ask what to do – employees ask their manager actively for possibilities to take part

Level 3: Recommend, than take resulting action – employees suggest actions to their responsible manager and, then if approved, carry out the agreed actions

Level 4: Act, but advise at once – employees conduct activities on their own but report to their manager immediately

Level 5: Act on own, then routinely report – employees conduct self dependent activities and report to their responsible manager intermittently.

In most organizations the employee initiative is seen to be at level 3: suggest actions to management for decision and then implement the actions if they have been approved (Fig. 9). In 20% of the organizations, employees conduct self dependent activities concerning service innovation (level 4). Autonomous activities, where report is given intermittently (level 5) occur in only 11% of the participating companies.

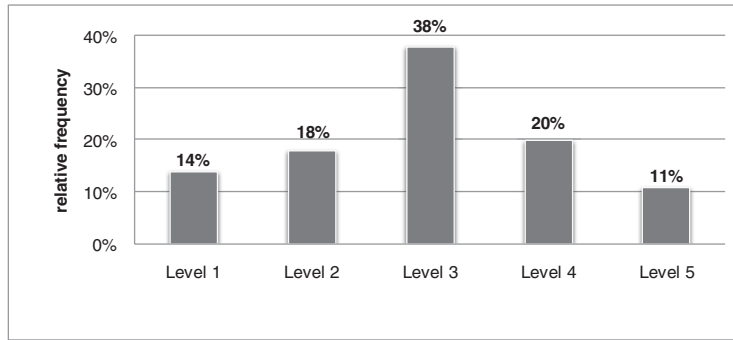


Fig. 9: Employees' levels of initiative concerning service innovation

For further investigation, we have combined levels 1 and 2 as well as levels 4 and 5 to get achieve appropriate cell sizes for analysis. Thereby we get a distribution with 32% of the participants in levels 1 and 2, 38% are in level 3 and 30% of the companies in levels 4 and 5.

Organizations with employees mainly on levels 1 and 2 achieved a 7.8% sales growth within the last three years. Companies with employees mostly on level 3 achieved 9.1%, while the growth in sales of organizations with empowered personnel taking high initiative (levels 4 and 5) reached 11.2%: the higher the employee initiative to work on service innovation tasks, the more direct positive influence they exert on the growth in sales.

Furthermore, a higher initiative of the personnel enables a greater share of successful new services: in organizations where employees have a high grade of self initiative (levels 4 or 5) nearly half of the services which get introduced on market become a success (44%) – in contrast to companies with personnel mainly on levels 1 or 2 where roughly only every fourth service introduction (27%) is successful (see Fig. 10).

Thus, the level of employee initiative correlates both with the share of successful innovations and with higher revenue growth.

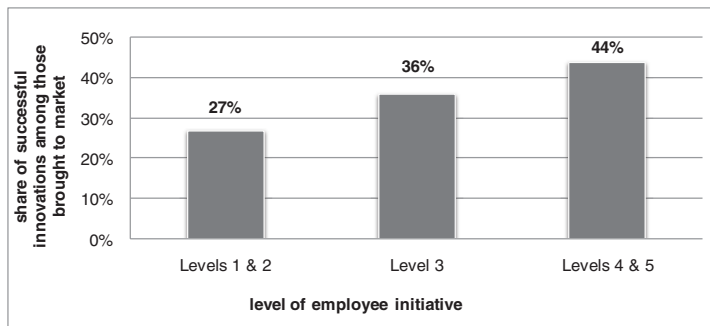


Fig. 10: Correlation between employee initiative and share of successful services

4.5. Planning for successful service innovation

Finally, we directed questions towards the strategic foundation of service innovation. Most of the organizations (55%) turned out to introduce new successful services reacting to competitive and market pressure. Only about a

fifth (21%) of the companies strategically plan their new services longer term (Fig. 11). That means successful service innovations in most of the organizations are not planned but emerge mostly by external forces or chance.⁶

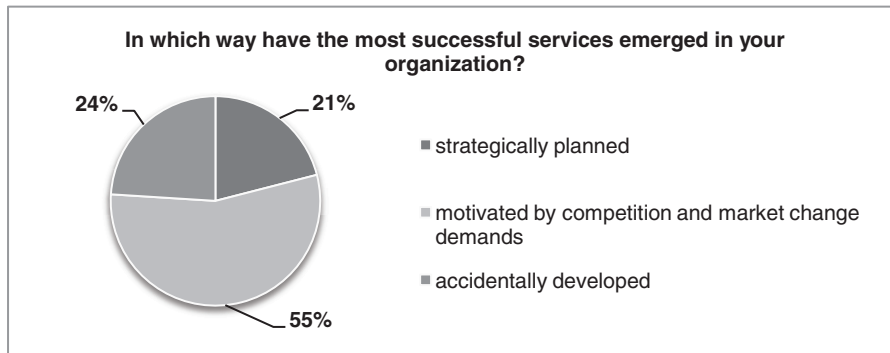


Fig. 11: Emerging of new successful services

The findings pointed out that in a considerable part of companies ‘new successful services is currently based mainly on chance. Companies that strategically develop their service are more successful and more efficient. Competitive pressure and chance currently seem to be more important drivers for successful service innovation than purposeful strategic planning and development. This illustrates the significant room for performance improvement in service innovation – both in the ‘chance’ and the ‘competitive pressure’ areas a collaborative approach may yield significant improvement potential.

5. Synopsis of Findings, Recommendations and Limitations

Based on the analysis of the interviews and surveys, we can draw some preliminary recommendations on how to best introduce collaborative innovation – tapping both into employees and customers – into existing service innovation practice.

The innovation managers clearly indicated the idea evaluation (phase 2) and the service concept and investment decision (phase 3) as the most important determinants of success. Surprisingly, these crucial phases are exactly those in which the customer integration is lowest on average, which can lead to new services being developed with limited customer input. Obvious barriers to the integration of customers in those important phases are the risk of losing confidentiality and the costs of managing the customer involvement. We believe organizations should improve their integration and move ahead with limited trials in order to build the expertise required to manage this trade-off.

Furthermore, we were able to show that companies with a clearly defined innovation process for services were faster and more successful in developing new services. Those companies typically also had a higher revenue growth and a higher share of their total revenue was due to new services. This indicates that companies should critically examine their innovation strategy and process with a special attention to services, to ensure service innovation is not left to coincidence.

Our survey showed that incentives may help organizations to better motivate their employees, innovate faster and increase their growth in sales. The tools for offering incentives to employees are broader in scope than traditional financial incentives, which may make them harder to integrate with existing governance structures, but on the other hand may also be successfully rolled out without a monetary incentive budget.

⁶ Nearly 63% of the companies, in which successful new services emerged by chance, do not have a documented innovation strategy for services. Companies, in which new and successful services are planned and developed strategically, mostly (81%) have formulated an innovation strategy (both for products and especially for services).

Additionally, a corporate culture that provides the space for employees to actively participate in the innovation process – including explicitly condoning employee initiative and allowing for some risk and experimentation – also has shown a clear positive impact on the success and innovation of a company. Those companies whose employees showed a high level of self dependent initiative – supported by the company – showed higher revenue growth and a higher share of new service revenue.

As with any empirical investigation, there are certain limits to consider with regard to our work. One is that when asking the innovation managers for phases where they directly involve customers, these may be influenced by certain biases and internal policies, and a correlation does not reveal the direction of any causal relationship. As such, we need to be cautious with the interpretation. However, in an area such as service innovation, which until a few years ago has seen little empirical research, it is still of interest if successful companies all share common approaches.

A second restriction to keep in mind is that the empirical survey was conducted in Germany and therefore it may be limited in its generalizability. While the 102 interviewed experts provide a broad spread of both industries and company sizes, results of a survey taken in another geography might differ significantly.

While our survey can only be a snapshot of the current practices in one country, our findings could point to a number of areas for immediate improvement in businesses and at the same time highlight a number of research questions to be addressed in the future. Where we could only provide status quo and some tentative statements, more elaborate quantitative analysis of the cause-effect-relationships are required, e.g. measuring the effectiveness of collaboration within the individual phases of the innovation process. The development need of service-specific methods and tools, from collaborative generation of service ideas to collaborative investment decisions and implementation, is becoming ever more prevalent, and there are indications that they can yield considerable competitive advantage to their early adopters.

6. References

- Busse, D. (2005). *Innovationsmanagement industrieller Dienstleistungen – Theoretische Grundlagen und praktische Gestaltungsmöglichkeiten*. Gabler, Wiesbaden
- Corsten, H., Gössinger, R. & Schneider, H. (2006). *Grundlagen des Innovationsmanagements*. Vahlen, München
- Fährnich, K. & Opitz, M. (2005). *Service Engineering - Entwicklungspfad und Bild einer jungen Disziplin*. In: H. Bullinger & A. Scheer (Ed.): *Service Engineering*. Springer, Berlin
- Gussmann, B. (1988). *Innovationsfördernde Unternehmenskultur - Die Steigerung der Innovationsbereitschaft als Aufgabe der Organisationsentwicklung*. Schmidt, Berlin
- Hauschildt, J. (1997). *Innovationsmanagement*. Vahlen, München, p. 7
- Hünerberg, R., Mann, A. (2004). *Dialogkommunikation als Instrument des Innovationsmanagements*. In: M. Bruhn & B. Stauss (Ed.): *Forum Dienstleistungsmanagement*. Gabler, Wiesbaden
- IBM (2006). *IBM CEO Study 2006 - Expanding the Innovation Horizon*. IBM, Armonk, New York.
- Kerka, F., Kriegesmann, B., Schwering, M., Happich, J. (2006). „Big Ideas“ erkennen und Flops vermeiden - Dreistufige Bewertung von Innovationsideen, Berichte aus der angewandten Innovationsforschung.
- Kirchmann, E. (1996). *Innovationskooperation zwischen Hersteller und Anwender*, *Zeitschrift für betriebswirtschaftliche Forschung*, 48, pp. 442-465
- Lüthje, C. (2003). *Methoden zur Sicherstellung von Kundenorientierung in den frühen Phasen des Innovationsprozesses*. In: C. Herstatt & B. Verworn (Ed.): *Management der frühen Innovationsphasen. Grundlagen – Methoden - Neue Ansätze*. Gabler, Wiesbaden, pp. 35-56.
- Martin Jr., C. & Horne, D. (1995). *Level of success inputs for service innovations in the same firm*. *International Journal of Service Industry Management*, Vol. 6, No. 4, pp. 40-56
- Oncken, W. (1987). *Managing Management Time: Who's Got the Monkey?*. New York Institute of Finance, New York
- Reckenfelderbäumer, M. & Busse, D. (2003). *Kundenmitwirkung bei der Entwicklung von industriellen Dienstleistungen – eine phasenbezogene Analyse*. In: H. Bullinger, A. Scheer (Ed.): *Service Engineering – Entwicklung und Gestaltung innovativer Dienstleistungen*, pp. 142-166.
- Reichwald, R. & Schaller, C. (2003). *Innovationsmanagement von Dienstleistungen, Herausforderungen und Erfolgsfaktoren in der Praxis*. In: H. Bullinger & A. Scheer (Ed.), *Service Engineering – Entwicklung und Gestaltung innovativer Dienstleistungen* (pp. 167-194). Springer, Berlin
- Schilling, A. & Werr, A. (2009). *Managing and organizing for innovation in service firms*. *Vinnova Report*, Stockholm, vol. 6
- Schmid, M. (2005). *Service Engineering – Innovationsmanagement für Industrie und Dienstleister*. Kohlhammer, Stuttgart, p. 104
- Schneider, M. (1999). *Innovation von Dienstleistungen - Organisation von Innovationsprozessen in Universalbanken*. Gabler, Wiesbaden
- Scholic, M., Gleich, R. & Grobusch, H. (2006). *Innovation Performance - Das Erfolgsgeheimnis innovativer Dienstleister*. *European Business School (ebs)*, Oestrich-Winkel, p. 22
- Thomke, S. (2003). *Innovationen für den Service*. *Harvard Business Manager*, 7, pp. 44-59
- Wahren, H. (2004). *Erfolgsfaktor Innovation, Ideen systematisch generieren, bewerten und umsetzen*. Springer, Berlin, p. 135
- Vermeulen, P., van der Aa, W. (2007). *Organizing Innovation in services. Service Innovation - Organizational responses to technological opportunities & market imperatives*, *Series on Technology Management*, Vol. 9, pp. 35-53.
- von Hippel, E. (1986). *Lead Users: A Source of Novel Product Concepts*, *Management Science*, Vol. 32, No. 7, pp. 791-805.