Blessings and Pitfalls of Harnessing Employee-Driven Innovation within a Work Model

Completed Research

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Abstract

The rising digitization changes the development processes of innovation in organizations. This provides employees the opportunity to take part in it. Even though their participation offers favorable opportunities, employees’ role as potential innovators has been mainly left unattended both in research and practice. By following examples such as Google’s “Innovation Time Off” and releasing employees temporarily from their regular work to develop new ideas, organizations can take a step in this direction. However, due to the existence of only few practical cases, limited knowledge exists on work models’ successful implementation for employee-driven innovation in general, and its drivers and barriers in particular. Thus, we have conducted a case study with an IT service provider implementing such a work model. Using the technology-organization-environment (TOE) framework as guiding lens, our results show that work models’ effectiveness increases with the presence of ‘innovation champions’ and that work models produce additional positive work-related outcomes.

Keywords

Case study, innovation development, exempting idea generation, TOE framework, employee-driven innovation.

Introduction

The rise of digital technology allows for new practices of organizing innovation, e.g. by enabling innovation collectives based on an extensive variety of actors across an organization (Nambisan et al. 2017) and by interrelating a diverse set of stakeholders (e.g., Fichman et al. 2014). This offers organizations the unprecedented opportunity of capitalizing on the innovation potential of their employees in a systematic way. Organizations can establish digital innovation platforms serving the exchange of ideas and the collaboration of employees across different organizational departments on innovation projects. Consequently, the establishment of digital innovation platforms alters innovation processes and has therefore the potential to enhance organizations’ collective innovation capability, especially outside research and development (R&D) departments. These digital platforms have enabled collaborative innovation projects among individuals inside a community (e.g., Gawer and Cusumano 2014; Tiwana et al. 2010).

Increasingly, organizations realize that innovation does not only occur solely through internal management decisions to invest in R&D or externally through the creation of innovation hubs or pursuing open innovation (Birkinshaw and Duke 2013). Instead, a bottom-up approach inducing constant innovation driven by employees’ ideas could offer considerable benefits to organizations, which aim to be drivers of innovation (Tang 1998). As a result, a variation of outcomes, from novel products and services to innovative business models and new ways of working, manifest itself (Tang 1998). Apart from digital
platforms designed to facilitated innovation, the commitment of innovative and creative employees is required to achieve the desired outcomes (Nijhof et al. 2002). Many potential innovations are never realized due to disbelief and lack of commitment (Imai 1987).

As a consequence, a number of organizations have attempted to get employees’ commitment to develop new ideas by establishing new processes and routines. For example, Google established an “Innovation Time Off” where employees are allowed to dedicate up to 20 per cent of their regular working time on organization-related topics of personal interest (Meridatta 2007; Nightingale 2008). Therefore, one way to prevent innovation discontinuity is to release employees, who have promising ideas, from their ordinary tasks for a certain amount of time to be creative. However, only offering “Creativity Time” is not the key to facilitating employee-driven innovation, as this requires not only a change in employees’ minds but also in organizational infrastructure to facilitate new ways of working and collaboration.

However, only gradually both researchers and managers have directed their attention towards the inherent advantages of broad employee involvement and employee-driven bottom-up development of innovation. Combining a digital innovation platform and creativity time into a work model, might provide organizations with the opportunity to raise the involvement of employees in the innovation process and thereby to ensure their long-term commitment. While prior research primarily stated that innovation processes are either the province of specialists in R&D, design, and IT departments or based on sources of competence external to the organization (Chesbrough 2003; Von Hippel 2005), in the Information Systems (IS) domain work on employee-driven bottom-up development of innovation is rare and prior research in related fields only offers a broad and superficial overview of determinants (e.g., innovative climate) (Nijhof et al. 2002; Tirabeni et al. 2016) without referring to contextual factors. Consequently, not much is known about how employees can be integrated into a work model that utilizes the capabilities of digital technology for innovation development (hereafter referred to as digitized innovation development).

Overall, a deeper understanding of innovation development through employees outside R&D enabled by digital technology is urgently needed (Fichman et al. 2014). Thus, IS scholars have called for further research into IS-enabled transformations of work models in organizations (Fichman et al. 2014; Lucas et al. 2013). It is especially important to generate knowledge on the influencing factors of a work model that organizations have to consider to exploit the potential of employee-driven innovation. Thus, we aim to answer the following research questions:

**RQ1:** How does the introduction of a work model for employee-driven innovation change the development of innovation?

**RQ2:** What are organizational and technological drivers and barriers of a work model for employee-driven innovation?

We approach these research questions by investigating the case of a work model’s implementation for employee-driven innovation, henceforth only referred to as the work model, at an IT service provider. Such a work model incorporates two parts; the provision of creativity time within the scope of employees’ ordinary working time and the introduction of a digital platform to establish an environment that promotes digitized innovation development. We analyze our results using the technology-organization-environment TOE framework (DePietro et al. 1990) as a guiding lens.

While existing literature (e.g., Leidner and Kayworth 2006) highlights the significance of an innovation culture, methods identifying actual procedures to attain such a culture are rare. Hence, our case study offers first insights to such an approach and contributes to literature by synthesizing influencing factors inhibiting or strengthening the use of a work model that fosters employee-driven innovation, thereby providing a deeper understanding of blessings and pitfalls of its implementation for digitized innovation development. In addition, we recognize the vital role of innovation champions (ICs) for digitized innovation development and explain how they affect all components and associated interdependencies of the TOE framework. Moreover, we offer helpful implications on arising challenges and the requirements for managers conducting work models’ transformation for digitized innovation development. Based on our research, organizations can evaluate if the presented work model is applicable and useful for their innovation management.

The structure of this paper is as follows. First, we present the research background of our study by describing the recent state of research on digitized innovation development in IS and innovation
management literature. Then we delineate the methodology of our case study. Next, we outline our findings building on the TOE framework by DePietro et al. (1990) and examine the influencing technological and organizational drivers and barriers for digitized innovation development. Lastly, we discuss this model and its implications for future research and practice.

**Research Background**

**Digitized Innovation Development**

The nature of new services and products has transformed essentially by digital technology (Nambisan et al. 2017; Fichman et al. 2014). Based on the definition of Nambisan et al. (2017), we define *digitized innovation development* as the creation of and consequent change in (IS-supported) business systems or models that result from the use of digital technology. Through these changes in innovations' characteristics, novel groups of actors with distinct goals, skills and knowledge have been involved in new types of value creation and appropriation processes (Nambisan et al. 2017). For instance, a digitization and democratization of the innovation process has enabled everyone to participate in *digitized innovation development* (Yoo et al. 2010; Fichman et al. 2014). Regarding innovation development and outcomes, the accessibility of open standards and *digital platforms* has enabled innovation projects, where employees inside an organization collaborate and together drive innovation (e.g., Gawer and Cusumano 2014; Tiwana et al. 2010).

Over the past years, open innovation (Chesbrough 2003) and user-driven innovation (Von Hippel 2005), examples of idea generation on *digital platforms* grounded on knowledge input from external sources, have gained much attention. The majority of this research is founded on innovation developed in external (e.g., open innovation, innovation hubs) or exclusively internal departments (e.g., R&D). In contrast, the phenomenon of employee-driven innovation on *digital platforms* has mainly been overlooked up to this point, as IS scholars have given relatively little attention to how the growing accessibility and use of digital work-infrastructures and technologies in the organization affects *digitized innovation development* processes (Fichman et al. 2014). To overcome this shortcoming, IS researcher have called for research into IS-enabled transformations of work models in organizations (Fichman et al. 2014; Lucas et al. 2013). To receive a comprehensive understanding of new work models that include all employees in digital internal platforms, future research needs to consider all components affecting such models.

**Creativity Time for Innovation Development**

Whereas innovation development is often seen as either the internal province of specialists in R&D (Tidd et al. 2005) or based on input from sources of competence external to the organization, in principal every employee could possess the necessary underlying problem-solving skills and creative capabilities for innovation development. Thus, to profit from the innovation potential of employees’ skills, knowledge and ideas, organizations are establishing new practices. Employees are motivated to contribute to incremental process innovations by submitting innovative ideas for the enhancement of organizational procedures and methods by means of suggestion boxes or idea management systems (Sandstrom and Bjork 2010). Innovative organizations improve the notion of idea suggestion boxes and systems by either assigning a substantial amount of working time for employees to develop their own ideas or by providing space within the regular work structure for creative organization-related activity (Birkinshaw and Duke 2013; Nijhof et al. 2002). These new work models have been termed with the buzzwords “Time Out”, “Slack Time” or “Creativity Time”. For instance, Google labeled it as “Innovation Time Off”, whereby employees are encouraged to use up to 20 per cent of their regular working time on organization-related innovation projects for their own interest (Meridatta 2007, Nightingale 2008). So far, merely practitioner-oriented research articles have covered these approaches of creativity time (e.g., Nijhof et al. 2002).

**Research Methodology**

An interpretative case study design (Walsham 1995) was used to examine the organizational and technological drivers and barriers to digitized innovation development in the new work model. This methodological approach fits nicely with the research setting as qualitative case studies apply a research strategy, which enables us to comprehend the mechanism that exist within individual settings (Gephart 2004). The observation of the implementation of a new work model is a process lasting a longer time...
frame from several months up to years. To examine the changes occurring from such a work model implementation, we tracked an IT service provider for a period of two years. To highlight the work models’ implementation comprehensively, our observation period begins before the work models’ formal introduction. We further accompanied a group of employees in their work endeavor developing innovation within the new work model from the early period of use to regular use of the related innovation platform.

The corporate group we studied is a large IT service provider, which offers a wide range of IT services, comprising the development and implementation of IT solutions and technical infrastructure as well as consulting, and support for all subsidiaries as well as partner organizations. The organization has a total turnover of 1,800 million EUR and employs more than 3,000 people. On average the corporate group handles approximately 90 billion technical transactions and is accountable for servicing 125 million accounts.

**The Idea Generation Work Model**

In order to foster employee-driven innovation, in 2015 the organization introduced a novel work model. This work model comprises two parts, a technological component (the innovation platform) and a temporal component (the 5/95 per cent ratio for creativity time). In so doing, all employees are encouraged to use 5 per cent of their time for the development of novel or the extension of already existing ideas on a digital platform. The work models’ concept is that ideas are submitted from regularly employees, whose official job description does not encompass innovation development.

The innovation idea must be submitted in advance to a management team with a standardized draft including necessary details of the new idea suggestion. Employees are required to describe their idea by evaluating a number of criteria (e.g., the organization needs to be able to implement it within a certain time frame). After submitting an idea, an innovation management executive evaluates the proposal. Depending on the outcome of the approval process, the idea is then released onto the digital platform, where each employee is encouraged to evaluate, discuss, and suggest alterations to the proposed ideas. In addition to this idea approval process, the employee has to apply for creativity time for up to 2 hours per week within the regular work time. After the supervisors’ approval the employee can develop and realize the idea either communal as part of an innovation project team or alone. The participation in this work model is not compulsory.

The idea is to establish an internal crowdsourcing community, where every employee can offer input concerning new innovation ideas. Moreover, after a moderate participation rate in the beginning, a reward system grounded on the findings of an employee survey was incorporated. The system was intended to additionally motivate employees to generate innovation within the work model. With respect to the research setting, we offer some usage data statistics synthetized from the platform: 75 employees have been registered for the work model and used the platform regularly in the end of 2017. They had developed 28 ideas on different topics; such as the evolution of commute-sharing app. While nine ideas had been executed, four were not viable.

**The Experts Interviewed**

The first expert (24 years old, male) started his career as a student in a dual study program at the IT service provider in 2010 and became a permanent employee in 2013. He has been engaged in employee-driven innovation since 2015 when he first pursued and implemented an innovation idea in the focal organization. Additionally, he initiated the innovation project that we accompanied during the case, applied for creativity time, and acted as the project leader. The second expert (54 years old, male) joined the IT service provider as a manager back in 2003 and became a senior manager and department head in 2013. He was deeply involved in the planning and implementation process of the new work model as well as in the approval processes of submitted ideas and creativity time within the new work model. The third expert (28 years old, male) started his career as a student in a dual study program in the focal organization in 2010 and became a permanent employee in 2013. As a software developer he was deeply involved in the development process of the prototype for the accompanied innovation project. The fourth expert (34 years old, female) started her career as an apprentice in the systems department of the IT service provider in 2004 and has been an employee continuously since then. Since 2015, she has been managing innovation projects within the new work model. The fifth expert (26 years old, female) joined
the organization in 2014 as a fulltime employee after finishing her master’s degree in Information Systems. She focused on implementing measures to enhance colleagues’ motivation to adopt the new work model after its launch.

Data Collection and Analysis

In our case study we used multiple methods to collect data. For the objective of achieving an appropriate level of generalizability (Lee 1989), two interview sessions with each expert occurred during our observation period. Since the launch of the work model had already taken place in 2015, we asked the participating experts in the first interviews sessions to assess the introduction and implementation of the novel work model in retrospective. The second interview sessions in the beginning of 2017 was dedicated to the lessons learned during the work model’s implementation and related reward system. For a time period of 1-2 hours two researchers interviewed each expert.

Additionally, we participated in the biweekly virtual jour fixe over a period of almost two years, where a group of employees was working on an employee-driven innovation project relying on the new work model. The group involved seven employees with diverse professional backgrounds from various locations and departments. At least two out of four researchers joined in every jour fixe session. During these appointments, lasting from half an hour to two hours, we received updates of the project’s progress and status. For the objective of achieving high internal validity we utilized several sources of data (data triangulation) (Stake 1995). Hence, we additionally collected documents such as meeting records, an internal employee survey, project documentations and submitted idea drafts (Table 1). These secondary data sources supported our evaluations of the interviews and jour fixes.

To capture and analyze the shift related to the work model’s introduction, we selected the TOE framework model by DePietro et al. (1990) as a guiding lens. The TOE framework suggests investigating the effects of technology itself, organizational characteristics, as well as the external environment on decision-making around the development, implementation, and adoption of innovations. This framework has been often applied by IS researchers and has proved itself to be valuable in understanding the drivers and barriers for the procedures of digitized innovation development (e.g., Zhu et al. 2003). In contrast to prior research, the external environment within the TOE framework was neglected in our analysis, as industry characteristics, government regulations, and market structure are less relevant for internal digitized innovation development.

We analyzed our data by first transcribing and coding all field notes, jour fixe meeting protocols and interviews. All of these materials were content analyzed using the key components embodied in the TOE model. The TOE framework suggests investigating the effects of the work model introduction for employees and department leader. Lessons learned of innovation processes’ standardization and reward systems’ introduction

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We analyzed our data by first transcribing and coding all field notes, jour fixe meeting protocols and interviews. All of these materials were content analyzed using the key components embodied in the TOE framework. Each passage in every interview was assigned to a code modeling a topic the coder perceived the speaker to be talking about. The researchers revised the coding categories during feedback loops. The whole coding process revealed a total of 132 coded quotes. Inter-coder agreement between the two researchers was around 89 percent making it necessary to discuss and resolve discrepancies in 12 codes.

<table>
<thead>
<tr>
<th>Collected data</th>
<th>Themes</th>
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<tbody>
<tr>
<td>Interviews</td>
<td>• Work models’ introduction; Strengths and weaknesses of work model</td>
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<td></td>
<td>• Motivational changes, team work, and progress</td>
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<td>• Work models’ degree of use in department and individual work for innovation development</td>
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<td></td>
<td>• Opinions on the effects of the work model introduction for employees and department leader</td>
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<td>• Lessons learned of innovation processes’ standardization and reward systems’ introduction</td>
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<tr>
<td>Jour-fixe/ Meeting records</td>
<td>• Team members’ cooperation and collaboration; Team members’ selection</td>
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<td></td>
<td>• Team leaders’ problem solving approach; Variations in team recruitment, structure</td>
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<td></td>
<td>• Progress of project</td>
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<td>Survey</td>
<td>• Acceptance of new work model; Motivational changes induced by new reward system</td>
</tr>
<tr>
<td>Project documentation</td>
<td>• Innovation projects’ progress and status updates</td>
</tr>
<tr>
<td>Idea drafts</td>
<td>• Evaluation of organization’s preselection; Employee’s entry barriers for submitting ideas</td>
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Figure 1. Case Data Overview

Results

Using the TOE framework (DePietro et al. 1990) as a guiding lens, we investigated technological and organizational drivers and barriers fostering and/or hindering innovation development on a digital platform. Furthermore, we identified a focal mechanism guiding and driving the digitized innovation
development, the innovation champion and additional work-related outcomes that emerged through the new work model (Figure 1).

**Technological Drivers and Barriers**

The existing technology components turn out to be a technological driver in facilitating digitized innovation development through the new work model (see Figure 1). The accessibility of an existing and recognized wiki, for example, embodied a key driver for digitized innovation development on a digital platform in the organization. Before the work model’s introduction, the IT service provider utilized an intranet website for the collective editing of content important to a large numbers of employees. As the new internal crowdsourcing platform built on this wiki and its related functionality, the implementation could be accelerated and positive side effects could be observed. Using the wiki also standardized the idea submission process. Based on the functionality of the existing wiki, the new crowdsourcing platform now allows organizing and coordinating innovation projects across the organization’s different locations and departments. Moreover, the possibility to offer information with a high degree of visibility and structure facilitates describing multifaceted innovation project ideas in an understandable language and form.

Nevertheless, other framework conditions, such as the low acceptance and low functionality of the existing technology formed barriers to digitized innovation. Although the variety and quantity of digital tools in the IT landscape was quite sufficient, digitized innovation development in the organization suffered due to a poor user acceptance rate of these tools in general and of the crowdsourcing platform in particular. As the crowdsourcing platform served two purposes by processing interesting ideas for innovation and by managing the subsequent projects, the low user acceptance rate caused a significant number of employees to be cut off from the digital innovation project endeavors. Furthermore, the restricted functionality of the crowdsourcing platform itself built a technological barrier to digitized innovation development. For example, the absence of an alert system for new incoming ideas, led to reducing numbers of users and therefore a less effective flow of information.

**Organizational Drivers and Barriers**

Organizational factors, in addition to technology, also act as drivers and barriers for digitized innovation development within the new work model (see Figure 1). The use of formal boundary spanning structures, low centralization, corporate innovation culture, slack resource, as well as the newly implemented reward system were observed to be the most important drivers of the organizational system.

In particular, the emerging flat structures caused by the new work model enhance digitized innovation development as they helped to remove structural barriers impeding change. The work model creates structures facilitating coordination, voluntary active internal communication and information exchange between subunits of different departments. Moreover, the work model also changes the way employees are managed and organized. Within the innovation teams no formal hierarchies are implemented (low centralization) and thus every team member appears to be of equal importance. For example, our first expert acts as a project leader without formal authority for the innovation idea he introduced. Despite not being formally authorized employees feel more valued by the organization for taking over the responsible task of leading an innovation team for a short time frame. In turn, this increases employees’ satisfaction.

With the implementation of the work model a shift in the organizational innovation culture could also be observed. By being released for 5 per cent of weekly working time, employees have the chance accelerate the progress of their innovation projects. Thus, the interviews emphasized that the work model stimulates an innovation-focused organizational culture by providing free room for employees’ creative thinking. Employees reported to develop an understanding that every individual employee is important for innovation development and not just single departments. In this new work model, human resources are also handled more flexible. Organizational slack is reduced as employees are enabled to shift between their repetitive standard work procedures of their actual job and creative tasks in innovation projects. Also, the reward system incentivizes and motivates employees to submit and edit more innovation ideas.

Apart from this, the following organizational barriers were observed to inhibit digitized innovation development: conservative organizational structure, high formalization and works council. Although the induced structural changes through the new work model are beneficial in many ways, digitized innovation development in the organization suffered due to a predominantly conservative organizational structure in general and due to a high number of rules and specific procedures in particular. Due to this high degree of
regulation under which the IT service provider has to operate, the regulatory requirements for the submission and approval of innovation ideas are also considerably high. Furthermore, the work model is also not automatically accessible to all employees, as it is subject to the supervisor’s approval. Thus, employees with a strained relationship with their supervisor cannot participate and submit their proposals. Besides, due to supervisors’ narrow mindedness of being solely an IT service provider without the duty to develop new or improve existing IT artifacts, some employees are neither allowed to submit their own innovation ideas for approval, nor to edit the ideas of others. Moreover, the early assumption of the management that such a work model could be realized without incentivizing employees proved to be not correct. Accordingly, the work model was not well accepted as apparent by the low involvement rate in the first years. Another major barrier that hampered the enforcement of innovation ideas is the works council. To act in compliance with the works council, a well-developed innovation idea encounters many requirements and evaluation processes. Such additional evaluation processes deter employees from submitting new innovation ideas and additionally hamper the implementation of ideas.

**Innovation Champion**

During our collection of interviews and secondary data, we found evidence that single actors played a major role in initiating and pushing innovation projects forward. This role of an IC was a major determinant for digitized innovation development in the work model. In innovation management and IS literature, the IC is defined as an individual who is willing to take risks to enthusiastically promote innovations through the various stages of the development process (Jenssen and Jørgensen 2004; Howell and Shea 2001). While organizational and technological drivers and barriers have always formed part of the TOE framework, our observations demonstrated the essential role of the IC moderating the effects of the technological and organizational environment on innovation development, acceptance, and use.

Our data emphasized that during the different innovation stages, a key individual showed innovative behavior by generating new ideas for the digital platform and planning, controlling and pushing the idea forward until its implementation. The individual recruited other employees proactively from various departments for the project and managed the team until the innovation’s implementation. Through the informal influence of this so-called IC, more employees became aware of the work model and actively participated in the project. Furthermore, the IC promoted the innovation vigorously through the various stages of the development process against resistance of work council and other employees by personally taking risks of failure.

The IC not only developed own innovation ideas for the digital platform but also selected promising creative ideas and spread them among other employees in the organization. In two-weekly jour fixes the IC maintained the teams’ enthusiasm, and openly addressed technical and procedural problems. In addition, the IC connected with others employees and built new networks via the digital platform. The formation of these new networks brought a constant flow of other employees from different departments into the innovation projects, which facilitated the transfer of information and knowledge. During the adoption decision stage she presented information to the work council board, which was critical for the successful implementation of the innovation. In addition, she ensured that the issue stayed on the work council’s agenda and showed persistence and commitment to the innovation over a period of two years. The importance of the IC extends even farther. The IC reinforced the organizational and technological drivers by actively promoting the use of the digital platform and the work model to other employees.

**Work-related Outcomes**

First and foremost organizational and technological drivers and barriers influence the innovation development at the IT service provider. At the same time they also have some interesting additional side effects leading to additional outcomes that influence the organization as a whole but are not exclusively related to the innovation process (see Figure 1). Similar to the IC, we identified these work-related outcomes as another important component in the TOE framework.

Through the new work system employees can work on projects beyond their day-to-day business. Besides, they are able to choose whether and to which innovation projects they wanted to dedicate their time. Some employees had been interested in innovation ideas before they were formally able to devote part of their working time to it. After the work models’ implementation, new ideas can now be realized without pressure, and new organizational challenges can be tackled. At the same time, employees can work together with colleagues, with which they otherwise would not be able work together due to missing job
overlap or topic fit. Therefore, employees reported an increased job satisfaction as an additional side effect. In addition, some individuals not only develop ideas and contribute them to the digital platform, but also take over the innovation teams’ management and coordination. Consequently, they gain experience in team leadership, and learn team members’ moderation and project coordination. Moreover, the work model also increases innovation acceptance within the organization. By handling digitized innovation development via a freely accessible digital platform, the employees are informed about the continuous progress within the innovation projects. This gradually creates a creeping acceptance of the new innovations among all employees. In the end, innovation projects do not encounter any unexpected resistance, as employees can have shared their concerns about a topic on the platform at any time.

Some interviews about the situation in the past outlined that it was common understanding among the organization’s employees that the R&D department was the only internal authority for developing or extending a new IT service and/or solution. Furthermore, before the work model was implemented certain departments did not wish to share information with others in the same organization. Our interviews on the current situation indicated, however, a strategic rethink. Through the new work model, the common silo mentality, as described above, was broken (innovation culture improved). Furthermore, by observing employees’ effort and success on the platform, the organization was able to better identify employees with project management or technical expertise. For instance, project members can evaluate the colleagues’ knowledge and capabilities better, apply their skills to day-to-day operations as well as new projects, and return to those individuals by asking them for advice. As a result, the collaboration in innovation projects not only promotes digitized innovation development, employee satisfaction and the innovation power but also leads to better business outcomes in daily business.

In summary, these work-related outcomes, such as an increased innovation culture among the organization’s employees, also influence digitized innovation development, e.g., by reinforcing commitment to innovative work. Further observations emphasize that the processes within the work model also entail feedback loops for the entire organization. Thus, work-related outcomes are not only influenced by organizational and technological factors but also reinforce them (see Figure 1). For instance, knowledge created within innovation projects acts in turn as a driver of the technology and organizational system because knowledge acquired in innovation projects enables employees to use technology more efficiently in general. Thus, work-related outcomes arising during creativity time also influence regular day-to-day business.

![Figure 1. Extended TOE Framework](image)

**Figure 1. Extended TOE Framework**

**Limitations**

Even though this case study provides valuable insights into drivers and barriers to innovation development in a new work model, some limitations have to be recognized. The findings represent an example of a work model for digitized innovation development and its associated procedures, individuals, and organizational effects in only one specific organization and cultural setting. The examined changes for people, technology and the related processes in an innovation context might be different for other types of innovations or organizations in different countries. Consequently, to a certain degree the generalizability of the findings might be limited. Nevertheless, case study methodologists have claimed that a study containing only one case is also adequate (Sarker et al. 2013).

**Implications for Research and Practice**

By accompanying an IT service provider for two years, we gathered answers to the questions, how a work model for employee-driven innovation changes the development of innovation (RQ1) and what the organizational and technological drivers and barriers of such a work model for the development of innovation are (RQ2). Within this research, we showed how organizational and technological factors strengthen the implementation of such a work model for the development of innovations. Furthermore,
we also examined the significant role ICs play in promoting innovation development and determined potential work-related outcomes in the work model. An individual who promotes an idea and ensures its implementation does not have to be the initial owner of an idea. Due to the standardized and digitized innovation development process, others can carry on the ideas’ realization. Therefore, the findings contribute to innovation and IS research by offering insights of a first case study that leads to a profounder understanding of work models for employee-driven innovation consisting of two parts, a temporal component and a digital platform.

ICs as Key for Employee-Driven Innovation

Our case study has shown that the work model requires systematic programs and activities to strengthen the desired behaviors, and most importantly it needs constant and proactively championing and monitoring from ICs. We have identified that ICs are a key for employee-driven innovation development. They are important moderators in the idea generation work model, due to their ability to manage and inspire employees. For instance, our findings exposed that employees are skeptical of working on tasks that are not part of their role profile. If something is not legitimized, such as the original wiki, this can easily prevent some employees from submitting ideas. As a result, some valuable ideas get probably lost. The IC in our case was able to alleviate these barriers of inhibition.

While few innovation projects within the work model were never realized, others were very successful. We observed that ICs’ presence was decisive for the realization and development of the innovative ideas and their subsequent implementation. Consequently, organizations that target at raising their long-term innovativeness should introduce a new formal position in order to uncover, develop and motivate ICs.

Due to the ongoing digitalization, new challenges can be expected to arise. While the overall organization is still characterized by old-fashioned transactional hierarchies, we observed open democratized structures among innovation teams. ICs, who link both parts of the organization, are positioned in a field of tension between new and old organizational mindset. Thus, future research is needed to discover how ICs can manage such encounters or whether diverse groups of ICs might be essential to overcome these difficulties.

The New Work Model as a First Step towards an Innovation Culture

Scholars assume that innovation processes become more distributed and open (Fichman et al. 2014). Nevertheless, how organizations could achieve these changes in processes of innovation has not been researched so far. In alignment with the expectations of some researchers (Fichman et al. 2014, van Hippel 2005), we describe one example for distributing innovation development to become more employee-driven. The digital platform, one component of the new work model, empowers regular employees to develop and promote new innovation ideas in the organization. A novel way of thinking among employees has to grow first so that standardized and democratized processes are accepted by them. While existing literature (e.g., Leidner and Kayworth 2006) highlights the significance of an innovation culture among employees, methods identifying actual procedures to attain such a culture are rare. Hence, our case study offers first insights to such an approach. The results in the first period of the case study highlighted that employees viewed the R&D department to be mainly responsible for the digitized innovation development. A strategic rethink in the employees’ minds, facilitated through the new work model, was demonstrated through the results gathered in the last phase of our study. Thus, the work model could be a first step in reducing one-dimensional viewpoints and a silo mentality within the organization.

Especially the creation of a common innovation culture as a by-product of the introduction of an internal crowdsourcing platform contributed to this development. Additionally, the possibility for employees to be granted creativity time demonstrated employees the importance of innovation and that innovation idea development is a part of everybody’s job. Only if employees see themselves as valuable and integral parts of the innovation process, they will sustainably develop innovative ideas and utilize the new work model in the future. Employees have to understand that they can increase an organization’s innovation power through their individual contribution by being the owners of new innovation projects. This shift of ownership will also create novel challenges for organizations. Employees will request a stare of innovations’ profits, if their ideas result in important financial advantages for the organization. Thus, questions regarding employees’ innovation ownership should be answered in the future. In the meantime,
research has to generate propositions for the management of such challenges. Consequently, organizations are facing grand challenges in getting away from a mostly unplanned innovation approaches to more explicit programs designed in order to improve employee innovativeness.

**REFERENCES**


