
Innovation empathy: a framework for customer-oriented lean innovation

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Abstract: This research focuses on customer-oriented lean innovation and introduces the innovation empathy framework that has been developed for the early phases of innovation processes. The framework is based on the idea that increased empathy towards customers helps innovators gain a better understanding of customers' problems and needs, and increases the possibilities to generate more value to the customers. The analysis of the test use of the framework with business managers illustrates how empathising, i.e., putting oneself in the role of the customer, can be rehearsed through empathising exercises and, more importantly, through empathetic facilitation.

Keywords: innovation management; empathy; innovation; facilitation; fuzzy front end; FFE; lean innovation; innovation process.

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1 Introduction

Empathy in company-customer interaction has attracted a growing attention in business research (Gorry and Westbrook, 2011; Mackinnon et al., 2013; Varca, 2009), particularly concerning sales (Delpechitre, 2013; Peterson and Limbu, 2009), service production (Pryor et al., 2013; Wieseke et al., 2012), and leadership (Choi, 2006; Cornelis et al., 2013; Dietz and Kleinlogel, 2013; Hobson et al., 2004; Patient and Skarlicki, 2010). Also, empathy towards the customers and end users has been a long-term interest in design inspired innovation research (e.g., Brown, 2009; Koskinen et al., 2003; Martin, 2009; McQuaid et al., 2003). Prior research lacks, however, discussion about empathy as a theoretical construct that can be used for enhancing innovation. Also, hardly any studies have attempted to develop conceptual frameworks that could be used to study linkages between empathising acts and innovation outcomes as well as to infuse and maintain empathy during different phases of the innovation process performed in business companies. Our study aims to fill these gaps by introducing the innovation empathy framework, and by analysing a real-life case in which the framework was used in collaboration with business managers.

Our study joins the research that approaches empathy, and other types of emotion, as central constituents of social relationships in business contexts (Bolton et al., 2014). We further suggest that the concept of innovation empathy, which refers to the ability of taking other parties' perspective (Axtell et al., 2007; Galinsky and Moskowitz, 2000) in the context of innovation is useful when making innovation processes more customer-oriented, and also, when trying to achieve innovation faster than before.

Empathetic design approaches, which also focus on the relevance of taking another persons' perspective, typically argue in favour of face-to-face personal interaction between designers, customers and end users. Although this practice is highly beneficial, the problem is that it also requires an increased amount of time and money in addition to other resources such as appropriate spaces for creative collaborative work (Kouprie and Sleeswijk Visser, 2009; McQuaid et al., 2003; Sleeswijk Visser, 2009). This is why novel approaches concerning how to enhance empathy in innovation work with limited resources are in great demand in business companies.

The innovation empathy framework focuses on the less researched fuzzy front end (FFE) phase of the innovation process where ideas for innovation are generated. Our framework utilises various types of empathising exercises instead of intensive face-to-face meetings and actual collaborative work with the customers and end users. This is why we argue that the innovation empathy framework provides a cost-effective way to develop lean innovation processes. Here, the term 'lean' refers to processes that are targeted to-the-point in a way that they are both rapid and efficient (Womack et al., 1990/2007).

Our case study was conducted in two business companies with middle managers in two business companies. In both companies, the authors of the article worked together with the managers in order to produce new conceptual prototypes for business development purposes, and in the process developed and refined the innovation empathy framework. The findings of our research show, first, how the innovation empathy framework helped to initiate and maintain the customers' and end users' perspectives throughout the FFE phase. Second, the findings point out that the innovation facilitators' empathy towards the innovators themselves is a critical aspect of practical innovation work and that the concept of empathetic facilitation is an integral part of the framework.

Empathetic facilitation draws from appreciative intelligence approach[®] which refers to the ability to perceive the positive generative potential inherent within the present and the capacity to act on it to make that potential come to fruition (Behara et al., 2008; Thatchenkery and Metzker, 2006). Guided by this approach, empathetic facilitation embraces the positive potential inherent in empathising, encourages reframing ideas for innovation from the perspective of customers and end users, and leads the process into creating prototypes and solutions that give shape to the ideas with positive outcomes to customers and end users.

The article starts with a brief discussion on previous research on lean innovation, FFE of innovation, and the concept of empathy. After that, the participatory action research method and the analysis of empathy in our study will be described. We will then introduce the innovation empathy framework that we have developed and analyse how managers' in interaction with the facilitators expressed empathy towards customers and end users in workshops designed to follow the framework. We will end the article with a discussion on empathetic facilitation and a summary of the key learnings.

2 Empathy in lean innovation process

As the needs of customers and end users change, the competition between companies intensifies and previous competitive advantage is lost. Efforts to build up competitive

advantage through innovation can turn out unpredictable, uncertain, and expensive. Part of the problem can be solved by making innovation processes leaner than before, for instance, by speeding up innovation processes.

We suggest that by strengthening and fine-tuning the innovators' empathy towards customers and end users, high quality innovation can be produced faster than before and more effectively. The use of traditional methods to highlight customer orientation, such as literary and numeric market research and focus group interviews, require significant investments of time and effort. Innovation researchers and consultants have suggested that empathy in general (Patnaik and Mortensen, 2009) and empathy felt towards the customers in particular (Leonard and Rayport, 1997; Liedtka and Ogilvie, 2011) are keys to successful innovation. As yet, the significance of various forms of empathy for innovation outcomes has been scarcely studied (Nakao and Itakura, 2009).

The main idea behind the innovation empathy framework is to build better customer insight during the FFE phase of innovation in particular. The interest is focused, in particular, to the connections that take place in the early phases of innovation processes between increased empathy and the perception of the needs of customers as well as solving the customers' problems.

According to Reid and Brentani (2004), the FFE phase of innovation is central for companies in generating a continuous stream of innovations that can renew the business. The FFE phase, however, is most hard to describe, analyse and develop further. Idea generation forms the core activity of the FFE, but it also includes: evaluation of ideas, concept building, and construction of prototypes. Systematising and speeding up the FFE phase of innovation is in high demand among innovative business companies (Schrage, 2010).

The concept of innovation empathy refers to all forms of empathy, which have connections to how innovators do their work. We are especially interested in the implications that the production of increased levels of empathy, generated through empathy exercises, has on how innovators understand customers' problems and find solutions to them. Empathy is commonly divided into two main components: 'cognitive empathy' and 'emotional empathy' (Smith-Hanen, 1977). While cognitive empathy means 'taking the role of the other', emotional empathy refers to sharing emotions (Davis, 2006; Sleeswijk Visser, 2009; Stueber, 2006). These two aspects are interconnected: in order for empathy to emerge, the cognitive act of 'adopting the role of the other' has to be established (Davis, 2006).

In our research, we focus more on the cognitive aspect, which works through two special mechanisms. The first is the 'egocentric view' according to which people assume their perspective is similar to that of others', and, when proven otherwise, adjust their position until they reach a satisfying interpretation. These adjustments require time, resources and motivation, and therefore, have a tendency to be cut short causing peoples' estimates of the viewpoints of others to excessively resemble their own (Davis, 2006; Karniol, 2003). This viewpoint highlights the concept of 'self' as a starting point of perspective-taking (Håkansson, 2003; Håkansson and Montgomery, 2003). The second mechanism, the 'protocentric' view, states that the starting point of perspective-taking is 'generic representations' (Karniol, 2003) or 'stereotypes' (Galinsky and Moskowitz, 2000). The challenge with this mechanism is that if the process of empathising is cut short, perspective-taking remains excessively stereotypical.

3 Research methodology and data

Two small and medium-sized manufacturing companies participated in the study. In both companies, a small group of managers participated in the study. Managers were in charge of research and development, sales and general business. Innovation empathy workshops were held in the company's premises during a period of four to five months.

The research methodology applied in this study is based on the action research strategy in which the researchers also act as the developers of the issue at hand (Eriksson and Kovalainen, 2008). Consequently, all co-authors of this article have been involved in developing the innovation empathy framework and three of them have been involved in using the framework with middle managers in two manufacturing companies. This means that, in addition to the study of the research participants, i.e., middle managers, we also explore and reflect on our own actions and activities, which is typical to the action research strategy (Eriksson and Kovalainen, 2008).

When doing the analysis, we used two types of data: videotapes collected from the innovation empathy workshops that we facilitated for the middle managers as well as our field notes and other written materials produced in and for each workshop. The data analysis follows the guidelines of narrative analysis (Eriksson and Kovalainen, 2008), qualitative content analysis (Duriau et al., 2007; Hsieh and Shannon, 2005), and guidelines for analysing video data (Heath et al., 2010).

Table 1 Verbal and non-verbal expressions of empathy

<i>Taking the perspective of the customer</i>	
<i>Verbal (using words or sounds)</i>	<i>Non-verbal (using body language)</i>
I understand the situation or the experience of the customer/end user.	Open and relaxed body, moving body, imitating customers/end users in a positive manner.
I have had the same experience; I have been in the same situation as the customer/end user.	Nodding and smiling when customers/end users are being discusses.
I want to interpret and reflect on the situation or the experience of the customer/end user.	Laughing when customer/end user is happy.
I am concerned; I have bad feelings about the situation or the experience of the customer/end user.	Being troubled and sad when customer/end user is troubled and sad.
I am happy; I have good feelings about the situation or the experience of the customer/end user.	Being attentive and alert when speaking or hearing about customers/end users.
I am interested in; would like to hear more about how the customer/end user thinks.	Observing, focusing attention to details about customers/end users.
I am a customer/end user myself in other situations.	Expressing openness and responsiveness towards customers/end users.
I know how to help; I want to help the customer/end user.	

The process of working through the innovation empathy framework in both companies was co-authored by two researchers in the form of chronological narrative. The narratives focused on how innovators adopted and maintained the perspective of the customer, which was expressed through verbal and non-verbal empathetic acts towards the

customer. For details on how expressed empathy can be identified (see Gerdes et al., 2010; Hofelich and Preston, 2012). Table 1 illustrates the types of verbal and non-verbal acts that we analysed from the point of view of expressing empathy towards the customers and the end users.

In the data, verbal and non-verbal acts were interlinked. The analysis showed that expressions of empathy cannot be analysed as single acts. In order to gain a full appreciation of the expressions, attention was also paid to the situation and the context of the conversation.

In the following section, we will first describe the content and logic of each element of the innovation empathy framework and then analyse how we followed those when working with a small group of middle managers in two manufacturing companies. After that, we will analyse how empathy was initiated and maintained through verbal and non-verbal empathetic acts described in the methodology section in Table 1. At the end of the analysis, we will reflect on our own role as the facilitators of the process.

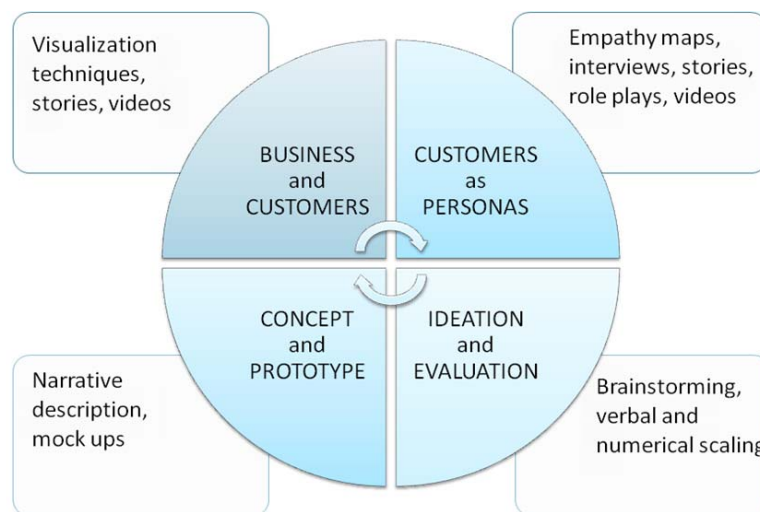
4 Innovation empathy framework

The innovation empathy framework consists of four elements (see Figure 1), which focus on:

- 1 outlining the current and future business and customers of the company
- 2 building one or more customer personas
- 3 generating new ideas and evaluating them
- 4 outlining a verbal concept and a physical prototype.

We identified and tested specific empathising tools and exercises that can be used in a flexible manner with each element. A workshop was held for each element and various tools and methods were used in the workshops.

Figure 1 Innovation empathy at the FFE of innovation (see online version for colours)



Before starting the actual workshops, we had a meeting with the managers in which we introduced to them the basic principles of the innovation empathy framework. In addition to this, managers were provided with information about the objectives of the framework and an outline of the whole working process. They were familiarised with the core principles of innovating and empathising, curiosity, openness and a positive attitude towards customers.

4.1 Workshop 1: business and customers

The first workshop concentrates on the upper left corner of the framework, business and customers. In this element, the focus is on discussing the current business situation, identifying the main challenges in particular business areas, and recognising the needs of the customers and end users within business. The main objective of the first workshop is to develop an insider view of the business, to take the perspective of the customer or the end user, and analyse their problems and needs. Developing an insider view of the business starts by an open discussion and sharing prior knowledge that the innovators have about the business. More specific customer-end user chains are then visualised, e.g., on white board or large sheets of paper on the wall, so that all participants can see the visualisations.

Both the main customers of the company (e.g., other companies, e.g., company A, company B, public sector organisations, e.g., hospital X, hospital Y) and the end users (e.g., professional family men who love fast cars, or social media natives employed by companies that restrict the use of social media at work) are named. In order to recognise the needs of both the customers and the end users, various types of drawings, pictures and photographs with written and oral explanations can be used. The objective of the first workshop is to select the customers and end users which will be worked with further in the second workshop.

The middle managers we worked with found it easy to name the most important company customers and describe them on a general level. The managers expressed both verbal and non-verbal understanding of the company customers' situations and shared experiences they had had with the customers. The managers were not as familiar with the end users and had more difficulty in identifying, describing, understanding and interpreting the needs of end users. Managers were comfortable with visualising the company customers but not the end users.

During the workshop, in both companies, the managers mostly sat by the table and let the facilitators to draw and write. Particularly, taking the perspective of the end users in the beginning of the workshop was difficult and required extra effort from the facilitators. This included that the facilitators talked about the end users and their needs in a manner that expressed that they understood the customers'/end users' situations and shared some of their experiences. When doing this, the facilitators expressed both verbal and non-verbal empathy towards the end users. As it was evident that the managers were unfamiliar especially with the end users, and partly with the company customers, the facilitators gave them home work: every manager had to make a personal contact with at least one company customer or one end user before the next workshop.

4.2 *Workshop 2: customers as personas*

The second workshop deals with the element of the framework in the upper right corner, customers as personas. The objective of the second workshop is to construct one or more customer personas, fictional characters representing a larger group of company customers or end users. Customer personas illustrate and give life to the goals, attitudes, behaviour patterns, life-styles, and living environments of chosen customer and end user groups that the company wants to serve. Customer personas are crafted in the form of visual and verbal presentations based on empathy maps. Each map illustrates what the customer or the end user does, thinks, says, hears and sees. Also, the map illustrates both the customer's or end user's problems and key concerns and his or her dreams and aspirations.

Empathy maps are visual collages, which provide an overall personal illustration of the person in question, e.g., who the person is, what the person is like, and what makes the person interesting. Personal details are added in order to make the customer persona as realistic and interesting as possible. This is done to embed the personas into the context and to take the perspective of the persona. Here, specific empathising exercises can be used to strengthen empathy. These exercises include writing narratives about the person, doing role plays and using drama to identify with the person, and watching videos or photographs to imagine the person.

The middle managers in our study considered this workshop as the most important workshop in terms of initiating and maintaining empathy towards the customers and end users. Even though the managers were not familiar with the working methods of the workshop, they adopted the methods quickly and with ease. In taking the perspective of the other, the personalisation of the customers and the end users with pictures (cut outs from a magazine), showing their faces, naming them, and describing their families, hobbies, educational and working backgrounds was critical. The managers used a lot of time discussing the characteristics of the personas in great detail and combining the imagined characteristics with their own knowledge, understandings, interpretations and experiences with customers. Both verbal and non-verbal empathy was strongly expressed towards the customers/end users was strong in this workshop.

When the facilitators encouraged the managers to continue the construction of the empathy maps in pairs, the participants became uneasy. They expected that that the facilitators took a more active role in the construction work. As a result, the workshop continued as an intensive dialogue between the managers and the facilitators, who put extra effort in maintaining empathy towards the customers/end users both verbally and non-verbally in the dialogue. This way of working was useful in maintaining perspective taking, and the facilitators decided that role plays or drama were not needed to strengthen empathy.

4.3 *Workshop 3: ideation and evaluation*

The third workshop focuses on the element in the lower right corner of the framework, ideation and evaluation. Ideation is an iterative and creative process of generating new ideas concerning customers' problems and needs and presenting new solutions for the challenges. The workshop starts with participants refreshing their understanding of the problems and needs of the customer personas. To do this, the participants use the empathy maps completed in the previous workshop. Then, the participants generate new

solutions to the customers' and end users' problems and needs identified earlier. Throughout the workshop, the challenge is to keep in mind that ideas and solutions should be developed from with the customer personas' perspective and not from the company's perspective. The main goal of the workshop is to produce several chains of problems, needs and solutions so that these chains make sense from the customers' perspective. Brainstorming methods are typically used for ideation (Paulus and Brown, 2003), and specific methods can be used for the evaluation of ideas. Such methods include, for instance, rating ideas and assessing ideas using different perspectives. What is important is that ideas are constantly evaluated from the customer value perspective. The customer value of the chains of thought and ideas is assessed in terms of relevance, sensibility, and novelty for the customers.

In the workshops held in the case companies, we first discussed the empathy maps which had produced in the previous workshop. The facilitators had prepared short stories about the customer/end user personas and presented them for the purpose of encouraging the managers to generate more stories about the personas. Also, the facilitators took the perspective of the customer and elaborated on their needs and problems. This initiated an intensive question and answer session in which the managers wanted to know more about the customers' logic of action. This facilitator-as-customer role taking was a very effective method in enhancing managers' empathising acts towards the 'real' customers, and also towards the facilitators.

The dialogue between the managers and the facilitators generated strong verbal and non-verbal empathy and advanced taking the customers'/end users' perspective. The dialogue generated humorous details about the personas' lives which served as entry points into their perspectives. This empathy strengthening exercise was followed by ideation; generating new ideas about how the customers'/end users' problems could be solved. Ideation was carried out through joint discussion with brain storming elements embedded into the working style. The customer/end user perspective was maintained throughout the ideation phase. This was followed by evaluation of the ideas, during which it was clearly more difficult to maintain the customer/end user perspective. Overall, the evaluation of ideas was challenging because, besides the customer/end user perspective, ideas had to be evaluated also from the company perspective. Moving in between the customer/end user perspective and the company perspective was difficult and required extra effort from the facilitators.

4.4 Workshop 4: concept and prototype

The fourth workshop deals with the lower left element in the framework, concept and prototype. This workshop focuses on the construction of a textual description of the new idea, be it a product, a service, or a business model. The purpose of the textual description is to develop the idea further and continue to justify its value from the customer's perspective. The textual description depicts the elements of the new idea and explains what the customer and/or end user can do with it. In this workshop, also a physical prototype of the new idea is produced. A limited time is used for making the prototype or mock up. The main purpose of the prototype is to get a concrete and tangible feel about the new idea and its value for customers/end users. The prototype includes the physical elements of the new idea and it works together with the textual or visual conceptualisation. The prototype helps in giving a tangible shape to the

conceptualisation, thus making it more concrete. It is, thus, useful to refine the textual description simultaneously with constructing the prototype.

In our case study, in the beginning of the fourth workshop, the facilitators summarised briefly the customer personas and the ideas that had been chosen as the best both from customer's and company's perspective. A brief, informal and positively humorous discussion about the customer personas was used again to strengthen empathy towards the customers. Also, in this final workshop the facilitators took the perspective of the customer and elaborated on their needs and problems in a detailed way. Again, this was an effective way of enhancing empathy towards the customers.

In the fourth workshop, conceptualisation and construction of the physical prototypes was carried out simultaneously with an emphasis on conceptualisation that the managers felt was easier and more useful. When coming to this phase, the managers had developed closeness with the customer personas that they had worked with throughout the process and a strong familiarity with their perspective. However, they still considered it relevant and useful that the facilitators also actively took the perspective of the customer and provided their comments from the facilitator-as-customer position.

5 Discussion: empathetic facilitation

Our earlier study, in which we tested the innovation empathy framework with business students, suggested that action-oriented, collective and collaborative exercises (i.e., designing a play and acting, making visual collages, telling and sharing stories) were more efficient in generating empathy towards the customers than cognitive and individual exercises (interviewing, observing and writing stories). To a certain extent, this study confirms the same, but it also points out the central role of the facilitator(s) as empathy generators. In our work with the managers, collective and action-oriented exercises were more effective than individual and cognitive exercises. The managers did not seem to be very enthusiastic about using action-oriented exercises, which were out of their comfort zone (e.g., role plays and drama), but despite of this, action-oriented exercises provided the most fruitful results.

Already in our earlier study, we emphasised that the workshops must be facilitated by a person who has experience in using various innovation methods, and who is familiar with group dynamics. It is important that the facilitator keeps in mind, and continuously reminds participants that the early phase of a customer-oriented innovation process is based on the identification of customer problems and needs. To be able to do this, the facilitator needs to have empathy towards participants and understand that taking the customer's perspective is not easy but requires much effort. In a way, participants become customers of the facilitator, the behaviour of which the facilitator needs to understand and reflect on.

The current study pointed out one more core issue about facilitation. The facilitator(s) can be much more involved into the process and even serve as examples who take the perspective of the customer themselves. The facilitator-as-customer method can be a very effective way of generating and maintaining empathy towards the customers.

The minimum time for working through the whole framework is 16 hours (4 × 4 hour workshops), but more time can be used when necessary. The four elements of the framework can be carried out in four workshops, the length of which can vary between

4 and 8 hours. The workshops can be performed with very little time in between them (e.g., two full days in a row) or with more time in between them (e.g., one workshop in a week). When the workshops are not done back-to-back, performing some extra work between them throughout the process is of utmost importance. The purpose of the extra work is to maintain the achieved empathy towards the customer. Depending on the workshop, extra work can include, for instance, reading or writing stories about customers, observing and taking photographs, watching videos, etc.

Although the framework is based on consecutive sessions, this does not mean they are separate from each other. In addition to the continuous iteration of activities within the workshops, participants need to re-consider and refine the outcomes of their previous work in each new workshop. This means, for instance, some chains of thought and ideas, which were dropped in an earlier session, can be brought back into the process if necessary.

To strengthen and maintain empathy, one participant in each working group could take the role of the customer persona. If more resources can be used, some real customers could also be included into the groups. A participant acting a customer persona or a real customer would not serve as an informant for the other participants, but they would act as mirrors for reflecting the appeal of the new solutions from the customer's view.

Overall composition of the groups should be given due attention to use different characteristics, experience and competence of the participants. The groups can remain the same throughout the workshops, or the members can be changed. In our earlier study, we noticed that changing groups around not only enhance circulation of ideas but also make the innovation process more open and the participants more relaxed.

Finally, the framework works best when the participants and the facilitators adopt a pragmatic approach to the innovation process. This means that instead of seeking to perfect customer/end user perspective through excessive empathy, it is better to continuously consider when the achieved empathy is deep and focused enough in relation to the goals that were set out at the beginning of the process.

6 Conclusions

This research focuses on customer-oriented lean innovation and introduces the innovation empathy framework that has been developed for the early phases of innovation processes. The framework is based on the idea that increased empathy towards customers helps innovators gain a better understanding of customers' problems and needs, and increases the possibilities to generate more value to the customers and to the business. The analysis of the test use of the framework with business managers illustrates how empathising, i.e., putting oneself in the role of the customer can be rehearsed through empathising exercises and, more importantly, through empathetic facilitation.

In this paper, we have outlined an innovation empathy framework for lean and customer-oriented innovation process. In our study, we have focused particularly on the FFE of innovation, where ideas are generated.

This paper explicates the purpose of each of the four elements of the innovation empathy framework and provides in-depth analysis of experiences in using the method in two small- and medium-sized manufacturing companies. In addition to presenting the innovation empathy framework, this study highlights the importance of empathetic facilitation, which is needed in successful implementation of the framework.

The framework is designed for the use of innovators who work in small groups of four to six people. The innovators can be professionals, managers, employees, customers or other stakeholders of business companies of other organisations. Also, we have designed the framework primarily for small and medium-sized companies in mind. Overall, our observation is that the framework is most valuable when developing new products and services for which there are no existing needs or customers. It can, however, also be used when refining existing products and services.

The study contributes to literature on innovation in two ways. First, utilising various types of empathising exercises helps to initiate and maintain the customers' and end users' perspectives throughout the FFE phase. Using empathising exercises instead of intensive face-to-face meetings and actual collaborative work with the customers and end users provides the benefits of cost efficiency and high quality customer understanding. A variation of empathetic exercises engages the managers into taking customers' and end users' perspectives on the innovation, and thereby, into an in-depth understanding of the customers' and end users' needs. Utilising empathy provides a cost-effective way to develop lean innovation processes.

Second, the findings indicate that the innovation facilitators' empathy towards the innovators themselves is a critical aspect of practical innovation work. Empathetic facilitation strengthens empathy in interaction and helps in maintaining the customer and end user perspective in the core of idea generation. Innovation empathy framework along with empathetic facilitation makes use of the tacit knowledge about customers and end users that already exists within the company. Empathetic facilitation leads to a deep appreciation of the customer and end user through tapping onto cognitive, experiential and emotional knowledge of those participating in the innovation process. Furthermore, it leads to a capacity to act on the positive potential inherent the customer and end user perspectives.

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References

- Axtell, C., Parker, S., Holman, D. and Totterdell, P. (2007) 'Enhancing customer service: perspective taking in a call centre', *European Journal of Work and Organizational Psychology*, Vol. 16, No. 2, pp.141–168.
- Behara, R.S., Thatchenkery, T. and Kenney, C. (2008) 'Empathic knowledge management: reverse simulation experiments in a learning laboratory', *International Journal of Information Technology and Management*, Vol. 7, No. 3, pp.283–314.
- Bolton, R., Gustafsson, A., McColl-Kennedy, J., Sirianni, N. and Tse, D. (2014) 'Small details that make big differences: a radical approach to consumption experience as a firm's differentiating strategy', *Journal of Service Management*, Vol. 25, No. 2, pp.253–274.

- Brown, T. (2009) *Change by Design: How Design Thinking Transforms Organizations and Inspires Innovation*, Harper Business, New York.
- Choi, J. (2006) 'Theory of charismatic leadership: envisioning, empathy, and empowerment', *Journal of Leadership & Organizational Studies*, Vol. 13, No. 1, pp.24–43.
- Cornelis, I., Van Hiel, A., De Cremer, D. and Mayer, D.M. (2013) 'When leaders choose to be fair: follower belongingness needs and leader empathy influences leaders' adherence to procedural fairness rules', *Journal of Experimental Social Psychology*, Vol. 49, No. 4, pp.605–613.
- Davis, M.H. (2006) *Handbook of the Sociology of Emotions*, Department of Psychology, St. Petersburg, Springer, USA.
- Delpuchitre, D. (2013) 'Review and assessment of past empathy scales to measure salesperson's empathy', *Journal of Management & Marketing Research*, Vol. 13, No. 2, pp.1–16.
- Dietz, J. and Kleinlogel, E.P. (2013) 'Wage cuts and managers' empathy: how a positive emotion can contribute to positive organizational ethics in difficult times', *Journal of Business Ethics*, Vol. 119, No. 4, pp.461–472.
- Duriau, V., Reger, R. and Pfaffer, M.D. (2007) 'A content analysis of the content analysis literature in organization studies. Research themes, data sources, and methodological refinements', *Organizational Research Methods*, Vol. 10, No. 1, pp.5–34.
- Eriksson, P. and Kovalainen, A. (2008) *Qualitative Methods in Business Research*, Sage, London.
- Galinsky, A. and Moskowitz, G. (2000) 'Perspective-taking. Decreasing stereotype expression, stereotype accessibility, and in-group favoritism', *Journal of Personality and Social Psychology*, Vol. 78, No. 4, pp.708–724.
- Gerdes, K.E., Segal, E.A. and Lietz, C.A. (2010) 'Conceptualizing and measuring empathy', *British Journal of Social Work*, Vol. 40, No. 7, pp.2326–2343.
- Gorry, A. and Westbrook, R. (2011) 'Once more, with feeling: empathy and technology in customer care', *Business Horizons*, Vol. 54, No. 2, pp.125–134.
- Håkansson, J. (2003) *Exploring the Phenomenon of Empathy*, Doctoral dissertation, Department of Psychology, Stockholm University.
- Håkansson, J. and Montgomery, H. (2003) 'Empathy as an interpersonal phenomenon', *Journal of Social and Personal Relationships*, Vol. 20, No. 3, pp.267–284.
- Heath, C., Hindmarsh, J. and Luff, P. (2010) *Video in Qualitative Research, Analysing Social Interaction in Everyday Life*, Sage Publications Ltd., London.
- Hobson, C.J., Kesic, D., Rosetti, D., Delunas, L. and Hobson, N.G. (2004) 'Motivating employee commitment with empathy and support during stressful life events', *Internal Journal of Management*, Vol. 21, No. 3, pp.332–337.
- Hofelich, A.J. and Preston, S.D. (2012) 'The meaning in empathy: distinguishing conceptual encoding from facial mimicry, trait empathy, and attention to emotion', *Cognition and Emotion*, Vol. 26, No. 1, pp.119–128.
- Hsieh, H. and Shannon, S.E. (2005) 'Three approaches to qualitative content analysis', *Qualitative Health Research*, Vol. 15, No. 9, pp.1277–1288.
- Karniol, R. (2003) 'Egocentrism versus protocentrism. The status of self in social prediction', *Psychological Review*, Vol. 110, No. 3, pp.564–580.
- Koskinen, I., Battarbee, K. and Mattelmäki, T. (2003) *Empathic Design. User Experience in Product Design*, IT Press, Helsinki.
- Koupric, M. and Sleeswijk Visser, F. (2009) 'A framework for empathy in design. Stepping into and out of user's life', *Journal of Engineering Design*, Vol. 20, No. 5, pp. 437–448.
- Leonard, D. and Rayport, J.F. (1997) 'Spark innovation through empathic designing', *Harvard Business Review*, November–December, Vol. 75, No. 6, pp.102–115.
- Liedtka, J. and Ogilvie, T. (2011) *Designing for Growth. A Design Thinking Toolkit for Managers*, Columbia Business School Publishing, New York.

- Mackinnon, C., Murfett, U., Rogers, P. and Ang, S. (2013) 'Is empathy effective for customer service? Evidence from call center interactions', *Journal of Business and Technical Communication*, Vol. 27, No. 2, pp.123–153.
- Martin, R. (2009) *The Design of Business*, Harvard Business School Press, Boston.
- McQuaid, H., Goel, A. and McManus, M. (2003) 'When you can't talk to customers. Using storyboards and narratives to elicit empathy for users', Paper presented in *DPPI '03, Proceedings of the 2003 International Conference on Designing Pleasurable Products and Interfaces*, New York, USA.
- Nakao, H. and Itakura, S. (2009) 'An integrated view of empathy: psychology, philosophy and neuroscience', *Integrative Psychological Behaviour*, Vol. 43, No. 1, pp.42–52.
- Patient, D.L. and Skarlicki, D.P. (2010) 'Increasing interpersonal and informational justice when communicating negative news: the role of the manager's empathic concern and moral development', *Journal of Management*, Vol. 36, No. 2, pp.555–578.
- Patnaik, D. and Mortensen, P. (2009) *Wired to Care: How Companies Prosper When They Create Widespread Empathy*, FT Press, New Jersey.
- Paulus, P. and Brown, V. (2003) 'Enhancing ideational creativity in groups', in Paulus, P.B. and Nijstad, B.A. (Eds.): *Group Creativity: Innovation through Collaboration*, pp.110–136, Oxford University Press, Oxford.
- Peterson, R.T. and Limbu, Y. (2009) 'The convergence of mirroring and empathy: communications training in business-to-business personal selling persuasion efforts', *Journal of Business-to-Business Marketing*, Vol. 16, No. 3, pp.193–219.
- Pryor, S., Malshe, A. and Paradise, K. (2013) 'Salesperson listening in the extended sales relationship: an exploration of cognitive, affective, and temporal dimensions', *Journal of Personal Selling & Sales Management*, Vol. 22, No. 2, pp.185–196.
- Reid, S. and Brentani, U. (2004) 'The fuzzy front end of new product development for discontinuous innovations: a theoretical model', *Journal of Product Innovation Management*, Vol. 21, No. 3, pp.170–184.
- Schrage, M. (2010) *Getting Beyond Ideas: The Future of Rapid Innovation*, John Wiley and Sons, Canada.
- Sleeswijk Visser, F. (2009) *Bringing the Everyday Life of People into Design*, Rotterdam, Ingenieur Industrieel Ontwerpen geboren de Rotterdam.
- Smith-Hanen, S.S. (1977) 'Effects of nonverbal behaviors on judged levels of counselor warmth and empathy', *Journal of Counselling Psychology*, Vol. 24, No. 2, pp.87–91.
- Stueber, K. (2006) *Rediscovering Empathy. Agency, Folk Psychology and the Human Sciences*, MIT Press, Cambridge.
- Thatchenkery, T. and Metzker, C. (2006) *Appreciative Intelligence. Seeing the Mighty Oak in the Acorn*, Berrett-Koehler Publishers, San Francisco.
- Varca, P. (2009) 'Emotional empathy and front line employees: does it make sense to care about the customer', *Journal of Services Marketing*, Vol. 23, No. 1, pp.51–56.
- Wieseke, J., Geigenmüller, A. and Kraus, F. (2012) 'On the role of empathy in customer-employee interactions', *Journal of Service Research*, August, Vol. 15, No. 3, pp.316–331.
- Womack, J., Jones, D. and Roos, D. (1990/2007) *The Machine that Changed the World: The Story of Lean Production, Toyota's Secret Weapon in the Global Car Wars that is Now Revolutionizing World Industry*, Free Press, New York.