

Using Ethnography as a Research Tool for Exploring User Experience in B2B-Businesses for Product Innovation Process

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I. INTRODUCTION

Developing new and enhancing existing products are core drivers for the competitiveness, success, and survival of small and medium-sized enterprises (SMEs), in particular in the B2B sector (Henard and Szymanski, 2001). However, recent studies found that 30% to 95% of newly launched products fail in the market (Armstrong et al., 2011; Barczak et al., 2009; Choffray & Lilien, 1984; Cooper, 1980). One of the reasons is the insufficient effort in customer-oriented research before the product launched due to limited financial resources of SMEs which are almost exclusively invested in technological development (Kärkkäinen et al., 2001). This is surprising, because SMEs have close contacts with their customers in the B2B sector - sales personnel mainly have contact with customers during the purchase phase. Therefore, gathering reliable information on customer-oriented needs and requirements could be less difficult for SMEs compared to large companies operating in a B2C environment.

The scholarly literature in the context of the fast-moving consumer goods market shows that ethnographic studies are flexible, relatively inexpensive, and powerful alternatives compared to established practices in B2B research (Barczak et al., 2009). Especially when there are close links between the company and their customers, ethnography seems to have high potential to create deeper insights into handling routines of industrial goods at the point of use. Thus, small and mid-sized companies in B2B sectors are particularly suitable for the use of ethnographic methods for product innovation and improvement.

A trend towards the use of ethnographic methodology could be seen in B2B consumer research (e.g., Arnould & Thompson, 2005; Arnould & Wallendorf, 1994; Belk et al., 1989; Elliott & Jankel-Elliott, 2003; Fellman, 1999; Holt, 1995; Valtonen et al., 2010), however, academic research in the context of B2B is very rare. It seems that managers in SMEs dealing with industrial goods are not aware of the potential of ethnographic research for gaining deeper insights into customer needs and requirements.

The objective of this investigation is the examination of CEOs' acceptance and barriers of using ethnographic methods for the identification of latent customers' needs. Therefore, eight explorative problem-centered expert interviews (Witzel, 2000) with CEOs from German B2B companies gain insights into managers' thoughts and barriers of using ethnographic methods. Thereby this research contributes to the success of implementing ethnographic research methods in product-related innovation processes in SMEs operating in B2B markets. This implementation can lead to new product developments, product innovations and the innovation in services.

II. BACKGROUND

Ethnography is often described in the scholarly literature as a procedure which combines a multitude of approaches (Watson, 2011). It is not exclusively seen as an observation of individuals but more as a procedure to gain information about latent needs and deep insights of an individual in the context of community life (Angrosino, 2009; Mariampolski, 2006).

The purpose of ethnographic methods is to reach a "native point of view" and investigate a community from the inside (Malinowski, 2014). Therefore, ethnography is more than an examination of a situation or community. It also helps to understand complex structures of consumptions (Cayla & Arnould, 2013). Market-oriented ethnography allows gathering data of daily phenomena or routine behavior of consumers systematically. For a "native point of view" the observation takes place in the natural environment of the observed consumer (Elliott & Jankel-Elliott, 2003) and consequently, the place of observation in a B2B context is consumers' workplace where they actually use the product (Rosenthal & Capper, 2006).

The overall goal of market-oriented ethnography is to collect data about the behavior of consumers and the context in which this behavior occurs (Arnould & Wallendorf, 1994). Based on Elliott and Jankel-Elliott (2003), knowledge about complex consumer behavior can only be observed through an empathic process of understanding and participating, which leads to valuable information about consumers' product decisions. To reach a deep understanding of consumer behavior it is necessary that the researcher works in the natural environment for a longer period of time (Arnould & Wallendorf, 1994). Therefore, ethnography overcomes the boundaries of traditional research methods which occur in artificial scenarios or laboratory experiments (Arnould et al., 2014; Rosenthal & Capper, 2006). The advantage of market-oriented ethnography is to uncover latent needs and gain deep insight of consumer behavior which often cannot be articulated in qualitative interviews (e.g., Arnould & Wallendorf, 1994; Goffin et al., 2010; Rosenthal & Capper, 2006). In many cases consumers are not aware of difficulties in their product usage because they developed a solution on their own, become used to

certain problems, or do not know that they use the product in a wrong way (Mariampolski, 2006; Slater & Mohr, 2006). Those insights can be achieved through ethnography in combination with traditional market research methods and can be used for new product innovations or unexpected product developments (Beckmann & Barry, 2007; Goffin et al., 2010; Rosenthal & Capper, 2006). To sum up, to the best of our knowledge, the current literature only focuses on using ethnographic methods in the B2C context rather than the B2B area. Moreover, there is still a gap in the scholarly literature about using ethnography methods for product development and product innovation processes of SMEs.

III. METHODOLOGY

The conducted exploratory qualitative study examines the acceptance, feasibility and barriers of ethnographic research in small and mid-sized businesses (SME) in the German B2B sector. Therefore it is necessary to strive for an open minded exchange with dedicated experts. Thus, we used a purposive sampling (Patton, 2002) to acquire eight CEOs of different German SMEs. All SMEs are producing different types of products/machines to ensure heterogeneity for more generalizable insights. Figure 1 provides an overview of the sample.

Name	Position	Business	Year of Foundation	Company Size*
Company 1	CEO	Surface processing	1992	Small
Company 2	CEO	Synthetic production	1954	Mid-sized
Company 3	CEO	Palletizing robots	1993	Mid-sized
Company 4	CEO	Construction	1949	Mid-sized
Company 5	CEO	Bicycle construction	1968	Mid-sized
Company 6	CEO	Ticketing-System	1986	Mid-sized
Company 7	CEO	Transport securing device	1935	Mid-sized
Company 8	CEO	Crane technology	1958	Mid-sized

* Small (10-49 employee); Mid-sized (50-499 employee) (based on the SME Definition, IfM Bonn 2016)

Figure 1: Sample and product information

We used a problem-centered interview (Witzel, 2000) to get explorative information. The interview guideline was part-structured through a question guide based on findings of ethnographic characteristics out of the before mentioned literature review of ethnography. The guideline was iteratively improved during the interviews. Therefore, two CEOs were interviewed again due to a new emerged topic which was explored in later interviews. All interviews were recorded, transcribed and analyzed with the Software-Tool MAXQDA. Subsequently, we conducted a hermeneutic, iterative analysis (Spiggle, 1994; Thompson, 1997) of the interview data. We followed a grounded-theory approach in order to identify emerging codes and categories (Fischer & Otnes, 2006). To ensure validity, codings were crosschecked by an independent research assistant.

IV. RESULTS AND DISCUSSION

The results show that the acceptance and the feasibility of ethnographic customer-orientated research must be divided into two sections. On the one hand, there are (mental) barriers and problems of acceptance at the producer site. On the other hand, different barriers exist at the customer site. Both sites will be explained in the following part. However, the general problem of ethnography methods in B2B - in contrast to B2C - is that the producer has to overcome two distances and consequently two barriers. While producers in the B2C context directly communicate with the end user of their product, in B2B producer must convince the customer (first distance) and subsequently the end user (second distance) with their products (see Figure 2).

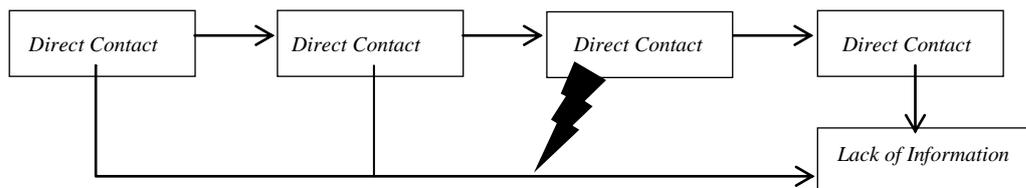


Figure 2: Lack of information (see Backhaus and Voeth 2014)

4.1 Resistance of Producers

The results show that ethnography methods are perceived critically in a B2B setting. In particular, the limited resources (money, time and personal) of small and mid-sized companies are an important barrier. Therefore CEOs prefer traditional research methods in contrast to ethnographic approaches with uncertain results. Described examples show that some ethnographic sessions do not provide usable results, but others lead to

unexpected ideas resulting in new product developments. Another explored barriers that companies are not aware of the usefulness of ethnography methods for products which are individualized specific customers. CEOs argue that possible results are not transferable to other individual products. Moreover, they think that no latent customers' needs exist because they produce the products individually customized with specific requirements, which are communicated by the customer itself. Thus, the sense of the usefulness of ethnography results for individualized products inhibits the acceptance of ethnographic methods. Moreover, during the interviews, it turns out that the companies have an impact on product design (e.g., during a consultancy service) showing that ethnographic methods can be useful.

CEOs disagreed about the status of frontline-employees. Those Gatekeepers, which are also described as useful persons to get a start into the field (Rosenthal & Capper, 2006), provide enough information about the customer and product users for product innovations. CEOs think that they sometimes already use unsystematic and implicate approached of ethnographic methods to improve products or services. However, only one company out of eight examines the everyday situation of users and make a successful use of ethnography methods. This company emphasized that their approaches lead to new ideas for product developments and improvements of existing products. Many theoretical barriers described by the CEOs do not exist inevitably and are sometimes only mental barriers.

4.2 Resistance of Customer

Customers must be convinced that producers are allowed to implement ethnography in their companies. Without the unrestricted support of the customer it is impossible to realize an ethnography approach. However, customers have less motivation to participate in ethnography research when they do not see a direct benefit for their own company. This benefit does not have to be monetary as an example shows, described by one of the CEOs. Possible benefits for the customer could also be an efficient use of the product/machine or an easier way to use the product/machine for end-users. Another main barrier is data privacy. In contrast to the literature (Schembri & Boyle, 2013), CEOs described it as a strong barrier of acceptance. For the CEOs, the privacy of B2C customer is not comparable with the private data of business companies. They are more important to be protected from competitive businesses. Moreover, workers could be afraid of an observation at their workplace with negative consequences after making a mistake. As a result, it was found out to be essential to clarify the reasons and goals of ethnographic methods with customers and the end-users. The different parties have to trust each other to increase the acceptance and to make ethnography research successful in a B2B context. One main driver for a trustful ethnography approach is a strong and long relationship between the companies. The size of the company was also found out to be crucial because small customer companies have often lower concerns with private data and the CEOs describe them as more uncomplicated (e.g., no employee organization). Consequently, bigger customer companies have higher barrier of acceptance due to higher privacy standards.

V. CONCLUSIONS AND FUTURE RESEARCH DIRECTIONS

As a conclusion, mental barriers of acceptance could be identified out of theoretical assumptions and the qualitative data. The acceptances of ethnography on the producer side are higher when they produce a standardized product and have already frontline-employees who have a close contact with customers. The acceptance of customers and end-users are expected as higher when the reasons of the ethnography will be clarified previously and when they identify a direct benefit for themselves. Trust in each other is the key factor for successful ethnography which can result out of a long and strong relationship.

This qualitative study demonstrates which barriers must be overcome in SME to successfully implement ethnographic research methods in those companies for product innovations and improvements. But as the successful ethnography approach of one interviewed CEO demonstrates, ethnography in SME in B2B is possible and can lead to unexpected insights and new product developments. In a next research step we will analyze different ethnographic methods and how they can be implemented with regards to the limited resources of SME in B2B areas as well as the explored barriers. Afterwards, ethnographic field studies are planned to explore the acceptance and barriers of the customer and the end-users and to develop an ethnographic research structure. The investigation of different ethnographic methods, their implementation as well as ethnographic field studies and the research structure will be available for presentation at the conference date.