

# A Coherent Set of Customer Experience Factors for the Developers of Industrial Product Services

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*It is widely regarded and accepted among the developers of industrial product services that offering a compelling product service environment, which provides value for their customers in the form of experiences, has far-reaching positive consequences on long term profitability and competitiveness. The customer experience factors play an increasingly significant role in determining the success of a company's offering. Yet, little is explored concerning the factors that can distinguish this compelling service experience for service development. Consequently, our aim in this paper is to show how to possibly distinguish coherent customer experience factors in service design by selecting a set of established service experience dimensions. This procedure can serve to determine qualified dimensions through an empirical study that tends to comply with the expectations of customer-specific industry services.*

## **1. Introduction**

Service-intensive products such as machine-tool, medical devices or passenger lifts are heavily reliant on the quality of customers' service experience. However, despite the wide range of contemporary service-development strategies that are applied during service development, it remains true that the level of the competitive success of any industrial product service provider depends on the degree of customer satisfaction, which in turn, is ultimately determined by the customer experiences. By the term industrial product service(s) used in this paper, we mean where products and services needs to be integrated (Schweitzer and Aurich, 2010, 158-164). In recent years, the product-service industry has become increasingly aware of the need to create value for customers in the form of experiences (Berry, et al., 2002, 85). Some of the reasons behind this may be that the positive customer experience offers the possibility of long-term competitive advantage to the firms and can also result in satisfied and loyal customers with positive word-of-mouth communication, improved retention and reduced complaints (Garg and Rahman, 2014, 87-117). Millions of euros are spend each year on various enhancement programs to improve the service sectors effectiveness in service development, in an attempt to remain competitive.

Customer experience can be defined as the imminent response of a customer to its encounter with a company, that is, user's interpretation of their total interaction with the organisation. According to (Yahya, 2010), customer experience is a notion that accounts for customer needs, perceptions, intentions, behaviours and is developed through the service lifecycle.

Considering that today customers have a greater number of choices than ever before, and more channels through which to pursue them. With such a disparity, the prospect of improvements remains in urgent demand. As a result, we observe companies striving to offer superior service encounters that could lead to outstanding customer experience (Gilmore and Pine, 2002, 4-11). This may involve offering of brand messaging, value-enhanced products, excess of features, coupons, rewards or baited rebates (Meyer, 2007, 1-11).

While companies have been trying to quantify customer experience across phases of a customer's journey and have acquired plenty of data in this quest, the problem is that measuring customer experience does not tell how to achieve it. This challenge remains, despite the fact that immense efforts and progress that have been made to systematically engineer the customer experience. This paper attempts to respond to this challenge. In our investigation, we focus on recognising those characteristics that can guide the product service provider to gauge the effectiveness of their services.

To spell out what constitutes a comprehensive customer experience, all of its contributing elements needs to be embraced, that is, by analysing absolute customer experience into factors or component experiences. Thus, service experience factors can be defined as those contributing elements or aspects that together constitutes the right environment for engineering customer experience.

The rest of the paper is structured as follows: firstly, we briefly provide the concept of customer experience dimensions and briefly explain all of the proposed dimensions in Section 2. Secondly, we present the study to validate and to further investigate on each service experience dimension in Section 3. In Section 3.2, the findings of this study are presented. Finally in Section 4, we discuss the strength and limitations of our proposal and conclude the paper.

## **2. Customer Experience Dimensions**

Researches have attempted to establish factors which could be used to evaluate customer experiences (Nasution and Mavondo, 2008, 204-213). The crux of their efforts has focused on exploring ways to assess or improve customer value and customer quality, thereby to deliver quality service to customers. However, studies in devising the right stimuli to engineer an excellent customer experience are still scarce (Gentile, et al., 2007, 395-410; Verhoef, et al., 2009, 31-41). In this regard, this investigation sheds light on establishing a clear set of proposed service experience categories or dimensions that could assist service providers in setting a coherent set of contributing service experience factors. The notation of dimensions with respect to setting customer experience factors can be defined, as the distinct aspect of any product service offered. In this study, the proposed set of service experience dimension aims to pave a path through which a service provider can select and order the most appropriate service factors to their business service environment. Falling under each dimension, the possible set of contributing service factors may positively influence to engineer a higher level of customer experience.

This study is initially based on quality dimensions of Servqual (Parasuraman, et al., 1988, 12-40), and later thorough literature research and with a combination of detailed discussions with research groups from service industry and the domain experts

from industrial partners of the Association for Service Management International (AFSMI), we identified twelve distinct dimensions. A brief detail on each of these service experience dimension are outlined as follows:

1. **Reliability** - This dimension refers to the extent that service providers have the ability to offer the promised service, dependably and accurately. This is to confirm that the service provider offers what he has committed to. In accordance with this dimension, for example, some of the relevant proposed service experience factors are: i) punctuality; ii) adherence to deadlines; and iii) ability to take customers problems seriously. Therefore, based on these three customer experience factors, the customer rates, whether the service provided at the agreed time, the agreed date is met and that any problem is taken seriously.
2. **Know-How** - This dimension refers to the satisfaction with the knowledge and the transfer of this knowledge from the service provider, such as in the form of training, consulting and coaching support with expert advice. For this dimension, for example, some of the proposed relevant service experience factors that falls under this category are: i) skills; ii) advice; and iii) training.
3. **Competence** - This dimension refers to the extent that the service providers has competence in meeting the industrial challenges to stay up to date and be capable of advancing, which will allow them to handle upcoming problems and challenges in an expert manner. In accordance with this dimension, some of the relevant proposed service experience factors are: i) innovation; ii) ability to improve; iii) handling with upcoming problems.
4. **Appreciation** - This dimension represents a psychological aspect and describes the perception of how much a customer is appreciated and valued, such as due courtesy of service personal towards them and also in comparison to the other customers of this service. In addition, the service provider's loyalty to customers by sending them best offers and deals on time. In agreement with this dimension, some of the relevant proposed service experience factors are: i) appreciation as a customer; ii) friendliness of service personnel; iii) service provider loyalty towards customer.
5. **Empathy** – This is the ability of the service provider to put themselves in the customer's shoes. That is, how a company is able to respond to their individual customer's needs, to make the customer comfortable, for example, customer friendly opening timing, individual customer care, or to have a unique understanding of customer's specific needs. For this dimension, some of the relevant proposed customer experience factors are: i) emotional component; ii) Understanding of service needs; iii) Target compliance with the client's interests.
6. **Communication** - This dimension takes into account the overall exchange of information on the offered service lifecycle between service provider and the customer. That is, how often the company communicates with the customer, whether the contents of the service are documented, or regular communication is held on the status of the offered service. The relevant proposed customer experience factors may include: i) claims or complaints; ii) frequency of communication; iii) documentation
7. **Security** - This dimension takes into consideration the security aspect in relation to the exchange and transmission of sensitive information and data. The relevant

proposed service experience factors that could impact on the security aspect of the offered service and may include: i) data security; ii) information security; iii) safe atmosphere.

8. **Related Product** - This service experience dimension deals with the actual product with which the service is coupled with, that is, a poor quality, lower performance and maintenance-intensive product may result in negative customer experience factor. Therefore, the product quality and design itself plays a major decisive role regardless of the excellence of its service offered. The relevant proposed service experience factors are: i) quality of the primary product; ii) maintenance friendly primary product; iii) reliability of the primary product.
9. **Tangibles** - This dimension deals with furnishing of the technical equipment and other required materials, such as, the maintenance and appearance of physical facilities and personnel. The customer experience factors that may fall under this dimension are: i) availability of spare parts; ii) appearance of premises; ii) appearance of the personal.
10. **External Resources** - This dimension focuses on the indirect support of qualified resources or services that are external and are not directly conducted by the service provider, which may be required by the customer. The relevant proposed customer experience factors under this category may include: i) quality of cooperation partners; ii) quality of contractors.
11. **Profitability**- This dimension is concern with cost effectiveness of the service offered, that is, an adequate return on the customer's investment during the service lifecycle. The relevant proposed customer experience factors under this category may include: i) price-performance ratio; ii) profitability over service lifetime
12. **Responsiveness** - This dimension deals with the high responsiveness from the service provider in concern with urgency or emergency. That is, the ability of service provider to react fast, accurately and targeted to a customer's call. The relevant proposed customer experience factors that may fall under this category are: i) quickness; ii) availability of service; iii) emergency plan.

In an attempt to better respond to the interest of various stakeholders involved in product service industry, we have proceeded with our study by conducting a survey.

### 3. The Study

#### 3.1. Objective and Overview

To assess and improve upon the proposed service experience dimensions, a survey was carried out, where a total of 62 individuals belonging to product service industry participated. The survey consists of almost 21 questions in total, classified mainly into four different categories: The first category seeks background information on participants such as which participant belongs to which product service industry, average years spent working in this industry and their current work activities. In second category, the participants were asked to grade each of the twelve customer experience factors, based on the Likert scale of five (1 denotes "not important", and 5 "very

important”). In the third category, we questioned participants on their views, and to identify if any dimension important to their customers was omitted. The fourth category targets the ranking the dimensions according to their significance, where the most important on the top and the least important on the bottom of the rank list.

### 3.2. Findings

The finding reflect three main aspects of this study. The first aspect provides background information on the participants. The next two aspects of this study aims to assess the significance of each distinct service experience dimension and the second assists to determine the importance ranking.

We have learned from the background information of respondents to our survey, that they represent six distinct product service industries, as shown in Figure 1. What we established was that the highest number of participants to this survey represented mechanical engineering industry and thereafter electrical engineering industry. Another interesting fact we observed is that 60 percent of participant had over 20 years’ experience in the product service industry (see Figure 2). These basic statistics illustrate that almost 74 percent of participants reflect the perspective of two main engineering industries and majority of respondents had prolonged industrial experience.

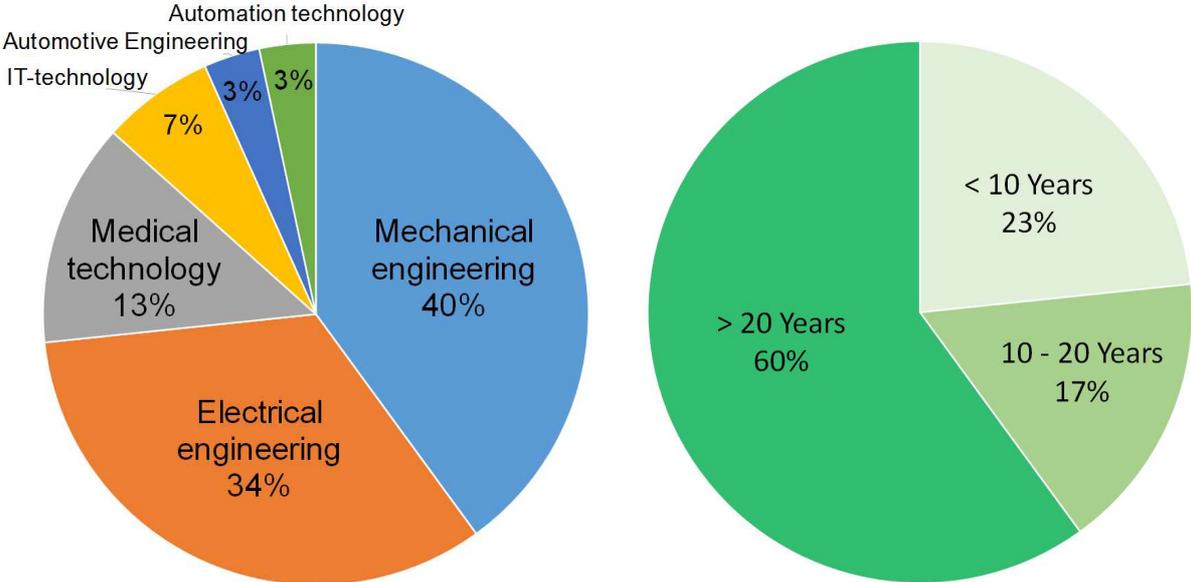


Figure 1: Survey participants representing range of Industries      Figure 2: Years of industry experience

The second facet of our survey findings is where participants recorded their opinion on the significance of the proposed dimensions, by arranging them in descending order of importance. We learned that almost 21 percent of participants ranked the service experience dimension, *Competence*, highest in their list, and almost 17 percent placed the dimensions *Know-how* and *Reliability* in second position in a descending list of the most important dimensions. The importance ranking on the rest of

the dimensions are presented in Figure 3. Furthermore, in the third aspect of the survey, when participants were asked to score each dimension separately based on their importance, on the Likert-scale, we discovered that the dimension *Reliability* scored highest. The second highest score was awarded to the dimension *Competence* and the third highest to *Know-how*. In the same manner, we can infer that the least significant dimension is *External resources*. The feedback from this phase of the survey allows us to identify the most and the least significant service experience dimensions for industrial product services.

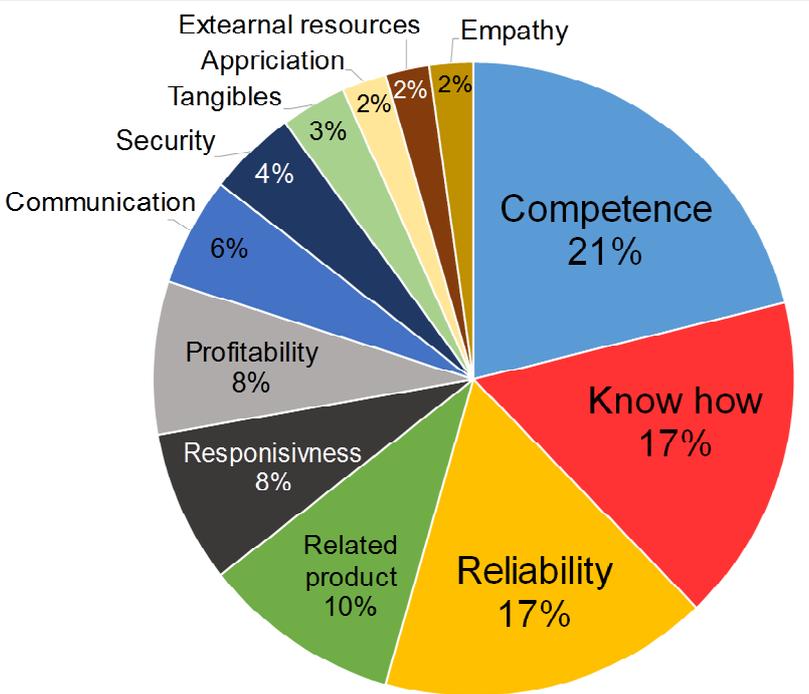


Figure 3: Ranking industrial product's service experience dimensions

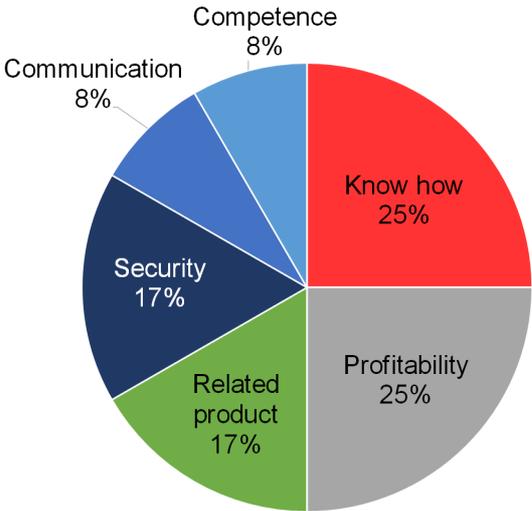


Figure 4: Mechanical Industry



Figure 5: Electrical Industry

An interesting fact that was revealed from this study when we examine the responses recorded, from the participants who only representing mechanical and electrical engineering industry. In both cases the maximum selection of appealing dimensions are not more than six, where four out of six service experience dimensions are commonly selected, which are *Know-how, Profitability, Competence and Communication*, as show in Figures 4 and 5 respectively. Another interesting fact is that dimension *Reliability*, which has been awarded as the one of the most important, is not selected as important at all, which allow us to apprehend how subjective the selection of these dimension can be for any product service industry. Furthermore, on the question of the missing dimensions, some of the suggestions we received as a feedback were: *brand, interfaces know-how, cross-process understanding, solution orientation, out-come troubleshooting and the benefits of use*.

## **4. Discussion and Conclusion**

The results show that the successful product's service experience may leverages more than one dimension, the particular combination of the involved dimensions depends on the characteristics of the service itself. Furthermore, we can infer that, by leveraging more service experience dimensions, we may intensify the whole hedonic value of the offered service. The selected set of dimensions by any product service providers may need to stay up to date, as to what constitutes a customer' service experience which may change over time, depending on several variables, such as customer changing age, family structure, new customer or existing one. In addition, the response of this survey reflects Central European culture, which may differ by region. This study focuses on Business-to-Business service environment and targets primarily common product service providers with equally competitive business market and not those who enjoy monopoly power in the relevant market. Furthermore, in many situations, this proposed set of dimensions may not play such an influential role such as in case when the need is immediate such as in emergency and have no time to schedule it.

The proposed list of service experience dimensions is not exhaustive and does not cover all possible service areas but the most prominent ones to select when developing product services. Therefore, this study aims to set out a path, covering possible fronts, where industrial product services may be employed. In addition, the proposed set of dimensions intends to qualify for typical industrial product services on a broad scale and aims to assist the service developer to take into account all possible aspects of customer experience factors.

## **5. Acknowledgment**

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