Full length article

The value of human interaction in service channels

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ABSTRACT

The influence of digitalisation on service experiences requires new capabilities from customers. In particular, the computer-mediated interaction affects customers' perceived accessibility into self-services. Thus, we posed the following research question: "How does an individual's ability to use a computer influence the need for direct person-to-person interaction in services?" The study is based on a postal survey conducted in south-eastern Finland. Data were collected using a random sample of N = 3000 people ranging from 60 to 90 years of age. A total of 1121 valid responses were received. The data were slightly biased towards respondents who are coping well. We employed structural equation modelling with a multi-group moderation approach in the analysis.

The findings indicate that satisfaction is related to routines in the service process. Customers' ability to perform the requisite role in the service process influences their preference for human interaction. Interestingly, the value of human interaction is driven by customers' expected abilities, whereas physical restrictions have a minor influence. We contribute to the literature explaining co-creation in computer-mediated services by applying human behaviour models to assess the customers' value expectations.

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1. Introduction

A service is a collaboration process to integrate internal capabilities of actors into external ones during which customers actively participate in value co-creation (Barrett, Davidson, Prabhu, & Vargo, 2015; Flores & Vasquez-Parraga, 2015; Vargo, Maglio, & Akaka, 2008). Co-creation is fundamental for service-dominant logic in which the customer's contribution is an essential part of the process. Contribution refers to the interactions before and during the service process, when the customer actively co-creates value by providing information, rights, activities and physical objects for the service provider (Fliess, Dyck, & Schmelter, 2014; Flieβ & Kleinaltenkamp, 2004). The interactions between the customer and the service provider take place in service channels. The preference for technology-mediated services or human interaction depends on the compatibility of the particular interface with a person's capability, the available technologies and the customer's role in the required task. Instead of a growing number of different internet-based service platforms emerging in both public and private sectors, the interaction preferences are overlooked premises of the services. Based on empirical evidence, digitalisation has raised new accessibility issues which may restrict some customers from using the services due to behavioural burdens (Goins, Williams, Carter, Spencer, & Solovieva, 2005; Wellstood, Wilson, & Eyles, 2006).

At present, researchers are limited in explaining the intention to use to technology-based service due to the lack of discussion on the preferences for electronic versus human-to-human service channels. Open questions exist in the literature regarding the link between perceived control to use particular service channels and the requirements for customers to contribute to the service process (Fliess et al., 2014). In this study, we have emphasised the relational value experience of the service process. We explain the link between direct human-to-human interaction and the value-creation potential of service encounters. The value in these circumstances is measured by the customers' sense of enjoyment from developing relationships through the process of co-creation (Flores & Vasquez-Parraga, 2015). We also connect value creation to personal capability requirements to explain why human interaction often improves customers' service experience. To challenge the digitalisation trend, we pose the following research question: "How does an individual's ability to use a computer influence the customer's need for direct person-to-person interaction in services?"

Focusing the present study on human interaction provides two beneficial paths to approach the value co-creation phenomenon.

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First, at the customer level, the need for human contact during the service process is a relevant factor in predicting customers' use of self-service technologies, which explains channel preferences (Aslanzadeh & Keating, 2014). Second, the present study increases the system-level understanding of users' capability requirements in different service channels, which defines the frame for value co-creation (Breidbach, Kolb, & Srinivasan, 2013). The technology acceptance model provides the basis for understanding situational and human factors that may change consumers' decision of either a self-service technology or human-to-human interaction for the service channel (Lee & Lyu, 2016). We apply several concepts related to service usage behaviour, technology use capabilities and users' health status. We have developed a research model that considers the relations among the value of human interaction, service self-efficacy, perceived physical restrictions regarding computer use and perceived behavioural control over a computer. We have tested the research model with empirical data collected via a postal survey of a random sample of 3000 people ranging from 60 to 90 years of age. A total of 1121 valid responses were received. We employed structural equation modelling. Furthermore, we conducted a multi-group analysis to test the influence of self-rated cognitive function and self-rated health.

The service channel's relational attributes influence customers' overall value experience, which is discussed in relation to service-dominant logic. We conclude that the need for human interaction drives the customer's control over the service process and self-efficacy. Here, the findings indicate the existence of requirements regarding customers' cognitive and physical capabilities of using services effectively in digital channels (Fliess et al., 2014). A customer's cognitive capabilities are meaningful if his or her accumulated experience and familiarity foster effective use later (Chiu & Hofer, 2015; Collier, Moore, Horky, & Moore, 2015). We contribute to the service-dominant logic by providing an analytical approach to assess person-related features' impact on the relevance of the service channels, which either foster or hinder customers' contribution to co-creating value.

The article is structured as follows. First, we review the conceptual background of value co-creation and describe process and service channel—related concepts. Second, we build the research model and hypothesis to illustrate the factors that drive the expected value of human interaction. Third, we describe the research approach and then present the results of the empirical study. Finally, we draw conclusions about aging users' service provision behaviour and the policy implications.

2. Conceptual background of value co-creation

To understand value co-creation in services, we need to define customers' contribution in relation to the service process and the service channel. The service-process perspective clarifies the meaning of a customer's role in co-creating value, whereas the service-channel perspective links the service process to the customer's expectation of value.

2.1. Customers' contribution to the value co-creation process

Customers' contributions are an essential part of the service process in which they actively co-create value by providing information, rights, activities and physical objects for the service provider (Fliess et al., 2014; Flieβ & Kleinaltenkamp, 2004). For this purpose, various forms of customer participation activities are embedded in service operations in the airline, banking, hotel, retail and health industries. The successful implementation of such service activities depends mainly on two factors: (1) the clarity of the actions taken by the customer and (2) the appropriateness of the

service channel for the particular purpose. The central concept for co-creation is the service channel, or customer interface, which is visible to the customer. The interfaces can be either digital or carried out in direct human-to-human interaction depending on the complexity of the service-related task. Digitalisation refers to self-service options supported by self-service technologies (SSTs). SSTs are technological interfaces that enable customers to produce a service independent of the direct involvement of service employees (Meuter, Ostrom, Roundtree, & Bitner, 2000). SSTs encompass a broad range of service channels and types, such as ATMs, kiosks, internet/online and measuring technologies (e.g. blood-pressure meters in health care). Previous studies have categorised the types of SSTs as "onsite" and "offsite" (Dabholkar & Bagozzi, 2002), "internet" and "non-internet" (Forbes, 2008) and "public" and "private" (Collier, Sherrell, Babakus, & Horky, 2014).

The breadth and depth of customers' participation roles in the co-creation of value may vary, and many concepts, including customer involvement (Mittal, 1995), participation (Bolton & Saxena-Iyer, 2009) and engagement (Brodie, Hollebeek, Juric, & Ilic, 2011), have been introduced to explain the phenomenon. Involvement is often defined as an individual's level of interest and personal relevance in relation to a focal object or decision (e.g. to select a service channel) explained through basic values, goals and self-concept (Brodie et al., 2011; Mittal, 1995). In turn, participation emphasises the role differences customers might have in services; that is, it takes into account the degree to which customers produce and deliver a service (Bolton & Saxena-Iyer, 2009; Brodie et al., 2011). Further, the concept of customer engagement, which is heavily rooted in the service-dominant logic and relationship marketing, is defined as "a psychological state that occurs by virtue of interactive, co-creative customer experiences with a focal agent/object (e.g. a brand) in focal service relationships" (Brodie et al., 2011). Other relational concepts, such as involvement or participation, represent specific customer engagement antecedents and/or consequences. Moreover, customers' role in service operations may also shift from a traditional payer role towards a service-provider role in which customer communities co-create value in peer networks and the service provider facilitates the process. Customers' service-channel preferences or role depends on their capabilities and volume and the complexity of their activities in the service process (Sousa, Amorim, Rabinovich, & Sodero, 2015). Customers' readiness to perform a particular role in either self-service or in a human interaction influences the value co-creation process positively or negatively directs the overall net value of the experience (Verleye, 2015). Regarding role readiness, individuals' personal capabilities and physical or cognitive restrictions influence expected usefulness of the service because the interface design influences customers' value co-creation abilities by defining interaction experiences (Flores & Vasquez-Parraga, 2015). Therefore, fostering direct human-to-human interactions may increase the value for the customer, and creating multichannel strategies is a preferable option for service providers.

2.2. Service channels as a source of value

A customer experiences the value of a service through the social benefits connected with peers, personal status benefits, cognitive and learning benefits, pragmatic benefits related to personal needs, economic benefits and hedonic benefits of pleasurable service experiences (Verleye, 2015). To summarise, the service value for the customer is based on (1) the perceived benefits related to accomplishing requisite tasks during the process or (2) the gains experienced at an emotional level. More generally, the benefits noted by customers include greater efficiency in a transaction (Collier & Kimes, 2013; Dabholkar, Bobbitt, & Lee, 2003) and emotional and