Consumers' attitudes and intentions toward Internet-enabled TV shopping

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ABSTRACT

An increasing number of households are equipped with Internet-enabled televisions (IETVs) that yield opportunities for online activities. This research contributes by investigating the motivational factors of consumers' attitudes and intentions toward IETV shopping. A quasi-experimental study in the environmental context of a living room was designed to explore IETV shopping behavior. Findings indicate that utilitarian motivations are determined by characteristics of technology and hedonic motivations from the physical environment. Attitudes toward IETV shopping are primarily influenced by hedonic shopping motivations. Conclusions suggest that by providing an IETV shopping app, retailers would make online shopping more enjoyable and comfortable for consumers.

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1. Introduction

This study focuses on consumers' attitudes and intentions toward online shopping via an Internet-enabled TV (IETV) and investigates how technological and environmental aspects influence the motivations to shop via this technology. An IETV is a TV that is connected to the Internet through either integrated Internet capability (e.g., Smart TVs) or additional hardware, such as an Internet-enabled game console, a Blu-ray player or an Internet TV box (e.g., Google TV). About one in five (18.3%) households across 40 countries have a television connected to the Internet, and the share of IETVs is expected to grow at double-digit rates in the next several years (Digital TV Research, 2013). Moreover, market data indicates that consumers and retailers consider IETV as a relevant device for online shopping. A global study of 19,000 online shoppers found that 24% of respondents who own an IETV have already used it to purchase goods and services (WorldPay, 2012). Nearly 5 out of 10 US adults who have a TV connected to the Internet agree that they would be interested in using their remote control to purchase products that appear in a TV show (Delivery Agent/Nielsen, 2015). The American Home Shopping Network (HSN) offers to "shop by remote," i.e., when consumers watch HSN broadcast on IETV and see something they like, they can purchase the product directly via IETV (HSN, 2015). Compared to alternative devices, such as desktop computers or mobile devices, IETVs

feature other technological characteristics (e.g., screen size, handling) and a different utilization context (e.g., place of use, usage time, intended purpose). These technological and situational differences should lead to a novel online shopping experience and changed consumer behavior that is produced by the interaction between environment and technological space (Wood, 2002). Therefore, we assume that the exterior environment of the living room will positively impact motivations toward online shopping via an IETV. While previous studies have investigated the motivations to use a technology to shop online (e.g., Childers et al., 2001), research that includes the physical environment of online shopping is lacking.

Despite the availability of new online channels through diverse Internet-enabled devices, most current literature on online retailing is limited to shopping behavior via a retailer's website (e.g., Li and Kannan, 2014) or online shopping in general (e.g., Emrich et al., 2015) without considering the employed device. Past research has consistently demonstrated that attitude toward an online store format is positively related to purchase intentions (Badrinarayanan et al., 2014). Moreover, how a specific retail channel provides advantage (e.g., convenience) in comparison to alternative sales channels has become a central issue for practitioners and academic researchers (Banerjee, 2014). Nevertheless, only few studies emphasize the relevance of IETV as an online retail channel (e.g., Wagner et al., 2013) or consider the adoption of interactive television for online shopping (e.g., Kim and Lee, 2013).

Prior research has called for an investigation of the motivations that are likely to vary across shopping formats (e.g., Arnold and Reynolds, 2003). With regard to the digital environment, many

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new Internet-enabled devices (e.g., smartphones, tablets) offer the opportunity to access an online store through diverse shopping formats. The standard shopping format is an online store that consumers usually access through an Internet browser. An alternative and more versatile shopping format is a shopping app, which can be adjusted to the characteristics of a device. Electronic retail formats are expected to shift many marketplace patterns, such as hedonic and utilitarian aspects of shopping (Wood, 2002). This work extends prior research by investigating the moderating role of two distinct shopping formats (an IETV shopping app vs. the standard online store via an IETV browser) of the same online retailer for consumers' motivation to use an IETV to shop online.

In the context of IETV shopping, we address the following research questions. What motivates consumers to employ an IETV for online shopping? To what extent do technological and environmental determinants affect consumers' motivations to shop online via an IETV? How is consumers' evaluation of IETV shopping affected by the shopping formats a retailer provides? By addressing these research questions, the contribution of this study is three-fold: (1) we conduct an explorative study to research which motivations affect attitudes and intentions toward online shopping via IETV in the atmosphere of the living room, (2) test the roles of technological fit and environmental fit as predictors of utilitarian and hedonic motivations, and (3) investigate the moderating role of shopping formats.

2. Theoretical framework

In research on consumer shopping behavior, shopping motivations that relate to a utilitarian or hedonic shopping experience are frequently used, however they are defined in diverse forms in literature. Wagner and Rudolph (2010) introduced a hierarchical model of shopping motivations that includes purpose-specific, activity-specific, and demand-specific shopping motivation. While the authors define purpose-specific shopping motivation as the overall underlying objective of a shopping trip, the activity-specific motivation refers to how consumers anticipate to accomplishing the overall aim of a shopping trip. The demand-specific level represents consumers' attribute preferences when choosing among different shopping alternatives. In this context, the choice of a device for online shopping refers to the demand-specific level.

By extending a motivational model with specific concepts from fit theory, we aim to move theory development in the direction of including technology-specific and situational-environmental factors into our understanding of the use of technology in an online shopping context. Our key proposition is that the combination of task-technology fit and task-environment fit has considerable potential to explain demand-specific shopping motivations.

Based on the assumptions of task-technology fit, the use of a technology results in different outcomes depending on its configuration and on the task for which it is used (Goodhue and Thompson, 1995). Users will choose the technology that enables them to complete a task with the greatest benefit, i.e., the technological system will be chosen based on which capabilities best match the demands of the task (Dishaw and Strong, 1999). The concept of task-technology fit implies that consumers do not merely evaluate a technological system (i.e., the hardware) but rather evaluate particularly the benefit derived from the system's capabilities (i.e., the software), such as a shopping format. Therefore, consumers' acceptance and adoption of an IETV as an alternative device for online shopping might depend on the ability of available shopping formats to support the shopping task.

Lewin (1935) suggests that behavior is a function of the whole situation, which is the fit between the person and his or her environment. Based on this assumption, one might argue that when consumers utilize a technology for online shopping, the "whole situation" is a combination of the technological and physical environments. Based on these considerations and derived from the conceptualization of task-technology fit, we introduce and define task-environment fit as the congruence between a technology and the external environment in which the technology is utilized to perform a task. In the context of online shopping, task-environment fit results from the fit between the task (or goal) to shop online and the physical environment. We assume that consumers' motivations to shop online via an IETV should be enhanced through the living room atmospherics that create a pleasurable "lean back" atmosphere and thereby a comfortable exterior shopping environment.

Drawing on Deci's, (1975) motivational theory and on the motivational model of technology acceptance (Davis et al., 1992), hedonic and utilitarian motivations should affect consumers' attitude toward using a device to shop online. While some consumers may employ a specific device primarily for utilitarian benefits, others may particularly appreciate the hedonic aspects of a shopping technology (Huffman and Houston, 1993). Both kinds of demand-specific motivations may affect the attitude toward using a device for online shopping. Utilitarian motivations to use a technology have been widely examined through Davis' (1989) technology acceptance model (TAM). In TAM, the intention to use a technology is determined by one's attitude toward the technology, which is influenced by its perceived usefulness and its perceived ease of use. As previous research demonstrates, shopping convenience functions as a valid extrinsic determinant of consumers' online shopping intention (e.g., Childers et al., 2001). In this context, convenience is a utilitarian benefit resulting from an online shopping opportunity that helps consumers to save time and effort. Thus, we include convenience in our IETV shopping model. Because TAM was originally developed for work-related contexts, Davis et al., (1992) added enjoyment as predictor to capture the hedonic motivation to use a technology. With regard to the "lean back" atmosphere of the living room, we also add comfort, which has been found to motivate shopping activities (Wang, 2004) as another hedonic variable. Comfort is commonly understood as the "self-conscious satisfaction with the relationship between one's body and its immediate physical environment" (Crowley, 1999, p. 750). Dellaert et al. (2008) suggest that consumers include the benefit of "feeling comfortable" in their decision for a shopping location. Moreover, we assume that usefulness, ease of use and convenience as utilitarian motivations are mainly a result of task-technology fit, while enjoyment and comfort as hedonic motivations are a consequence of task-environment fit.

3. Hypotheses

3.1. Task-environment fit

Robinson et al. (2007) suggest that situational factors such as the physical environment may be important in the study of online shopping motivations. As consumers choose different stores on the basis of situational conditions and the task definition they derive, their perception of the environment may also affect the perceived fit between the task and the technology (van Kenhove et al., 1999). In particular, we assume that the "lean back" atmosphere of the living room positively influences hedonic motivations such as the enjoyment and comfort to use an IETV for online shopping. Hence, we postulate:

H1: The greater the perceived task-environment fit is, …

a) *… the greater consumers' perception of task-technology fit will be.*