

A Conceptual Model of Factors Influencing Intention to Use Virtual Store

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ABSTRACT

The development of virtual stores will shape the future of e-retailing, especially in the context of the covid 19 epidemics. However, little research has investigated the factors affecting consumers' intention to use a virtual store. Based on examining related previous researches, therefore, the current study proposes a conceptual model that analyzes the relations between the factors, which include Performance Expectancy, Hedonic Motivation, Trust, Personal Innovativeness, Virtual Store Layout, and behavioral intention to use a virtual store of consumers. The demographic factor will play a mediating role in the conceptual model. Results from the current study not only fill the gap in the knowledge by expanding the body of literature on virtual store consumption but also provide retailers with an in-depth understanding of consumers' underlying factors that affect their intention to use the virtual stores.

KEYWORDS: Virtual store, consumer, intention, conceptual model.

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I. INTRODUCTION

Virtual environments have developed in the last decade as a way to obtain new and stimulating consumer experiences as technological innovation lets retailers employ such advancements in the e-commerce context. The extended adoption of virtual technologies is promoting economic growth and creating new opportunities (e.g., Verhagen et al., 2014; Grewal et al., 2017). As these technologies develop, they tend to increasingly affect the retail sector. However, a related literature review reveals a shortage of researches on factors influencing the use intention of virtual stores. Indeed, retail-related research in virtual environments is slowly evolving into a rather interesting research area. Previous related studies are mainly exploratory approaches; for example, identify the opportunities and challenges for retailers in using virtual store channels to distribute products in the real world (Bourlakis et al., 2009; Park et al. 2008). Other studies have attempted to assess the potential of retailing in virtual environments and suggest effective strategies for retailers (Arakji & Lang, 2008; Gadalla et al., 2013; Hassouneh & Brengman, 2011b). In addition, several studies focused on the success of retail brands in a virtual environment (Barnes & Mattsson, 2011; Tikkanen et al., 2009). Recently, several studies show that the product or brand stimuli can come from consumers' experiences in virtual reality (e.g., Verhagen et al., 2014; Bigné et al., 2016; Yeh et al., 2017) with concepts such as attachment, engagement, and identity being induced by virtual objects (e.g., Koles & Nagy, 2012; Nagy & Koles, 2014; Grewal, Roggeveen & Nordfalt, 2017), as well as purchase behaviors (Krasnikolakis et al., 2014).

With virtual store shopping is growing at a rapid pace, e-retailers need a clear strategy to understand the reasons that lead the customer to use virtual stores and leverage their behavioral intention. Therefore, it is necessary to complement these contributions by studying which factors of the virtual store service affect consumer behavioral intention. The aim of the current study is to recognize the relevant factors in the consumers' behavioral intention to use virtual stores. To achieve this objective, the current study includes a review of the body of knowledge about virtual store factors and their impact on behavioral intention, as well as proposes a conceptual model. These findings can be used to further develop an empirical study for measuring virtual store shopping consumption. They also have important managerial implications for the manager of a virtual store to appreciate the service quality.

II. LITERATURE REVIEW

2.1. Virtual Store

Virtual shopping is a newly emerged term that describes the unique shopping experience that is savored with virtual reality technology. This technology adds the missing piece to ordinary shopping experiences. A virtual store is a type of online store that shows merchandise and an order form. Virtual stores offer great efficiency in the retail channel, and has tremendously facilitated for the diffusion of e-commerce. Exploring the factors of consumers' intention for using virtual stores will give important theoretical contributions to the area of e-commerce and guide to the development of more meaningful and effective strategies for virtual stores.

2.2. Behavioral Intention

Behavioral intention has been defined in previous technology acceptance studies as the individual willingness to use a technology system (Venkatesh et al., 2012; Venkatesh et al., 2003; Davis et al., 1989). Based on the study of Venkatesh et al. (2012), the current study defines behavioral intention as the consumer willingness to use and continue to use virtual supermarket shopping.

On the other hand, there is consensus among scholars that intention to use a certain technology is a main predictor of the actual using of the technology. Due to this, the behavioral intention to use a technology is a central concept of the technology acceptance models (Nikou & Economides, 2017). However, not much consensus is presented among scholars on the aspects that determine the intention to do a certain behavior, in case use virtual supermarket shopping services. Different researchers point out different factors that affect the behavioral intention to use e-retail shopping services (Beck & Crié, 2018; Grewal et al., 2017; Papagiannidis et al., 2013). This will be illustrated in the following sections by looking at several previous studies.

2.3. Factors Affecting Consumers' Virtual Store Behavioral Intention

2.3.1 Performance Expectancy

Performance longevity refers to the extent to which an individual believes that adopting a certain service or technology will enable them to successfully achieve related tasks (Venkatesh et al., 2003). This factor is equivalent to Perceived Utility (PU) in the Technology Acceptance Model (TAM) (Venkatesh et al., 2003). In previous studies, PE has been shown to have a significant influence on consumer behavioral intention in the contexts of e-commerce (Chong, 2013), mobile Internet (Venkatesh et al., 2012). Furthermore, the virtual supermarkets allow users to shop at convenience time. At meanwhile, Activity lifespan has consistently been shown to be the strongest predictor of behavioral intention (e.g., Venkatesh et al., 2003, 2012; Escobar-Rodríguez & Carvajal-Trujillo, 2014) and purchase intention (Miguel et al., 2015). Therefore, these results lead to the forecast that when the convenience aspect of virtual supermarket's performance expectations are met, the VS-shopper's intention to use will be worthwhile.

2.3.2 Hedonic Motivation

Hedonic motivation reffers the pleasure or fun derived from using a new technology, and it has been known as an key role in using technology (Brown & Venkatesh 2005). In previous studies, hedonic motivation has been found to affect technology acceptance and use (Van der Heijden, 2004; Thong et al., 2006). In the consumer context, hedonic motivation has also been found to be an important determinant of technology acceptance and use (e.g., Venkatesh et al., 2012; Brown & Venkatesh, 2005; Childers et al., 2001). Thus, the current study add hedonic motivation as a influencing factor of consumers' use intention for vistual stores.

2.3.3 Trust

One of the most frequently cited reasons for consumers not shopping on the Internet is the lack of trust (Lee & Turban, 2001) and a level of risk. Researchers found that people rely on their general disposition to trust when in a novel situation (Rotter, 1971). Consumers cannot physically check the quality of a product or monitor the safety and security of sending sensitive personal and financial information while shopping on the Internet (Lee & Turban, 2001). Hallegatte and Nantel (2006) stated that the non-technological related factor of trust on a website influences the visit intention for a retail website again. Hence, this study suggests that consumers' trust in virtual stores has a positive effect on use intention.

2.3.4 Personal innovativeness

Personal innovativeness is defined as the degree to which a person prefers to try new and different products or channels and to seek out new experiences requiring a more extensive search (Midgley & Dowling, 1978). When shoppers come into contact with a new technology or innovation, they have the opportunity to

adopt or refuse it. Prior research has shown that innovative customers prefer to explore and use new alternatives (e.g., Steenkamp & Baumgartner, 1992; Rogers, 1995; Konoş et al., 2008). In addition, several related studies have found the key role that innovativeness plays in use intention in different fields (Escobar-Rodríguez & Carvajal-Trujillo, 2014; Citrin et al., 2000; San Martín & Herrero, 2012).

2.3.5 Virtua store layout design

Virtual store layout was also studied by some researchers. For example, Lorenzo et al. (2007) investigated the effect of different web layouts on internal and behavioral consumer responses within an online shopping situation. They found that offering freedom of movement during navigation and web animated layouts could generate more positive consumer responses, and consequently, increase their purchases. Lao et al. (2013) also noted that store layout could induce consumers’ sensation experience in virtual environments. Other researchers studied several 3D elements together and their effect on the shopping experience (Papadopoulou, 2007; Papagiannidis et al., 2013). In the currentnt study, researchers proposed that virtual store layout will effect on consumers' shopping experiences, and then enhancing their purchase intentions.

2.3.6 Demographic factors

Older consumers tend to face more difficulty in processing new or complex information, thus affecting their using of new technologies (Morris et al., 2005; Plude & Hoyer, 1985). This difficulty may be attributed to the decline in cognitive and memory capabilities with the aging process (Posner, 1966). Hence, compered to younger consumers, older consumers tend less to use virtual store. Moreover, women, more than men, are willing to spend more effort to shopping. Thus, women tend more to use virtual store. In general, we expected the moderate effect of demographic variables, such as gender and age, on behavioral intention for using virtual store.

III. A CONCEPTUAL MODEL OF FACTORS AFFECTING BEHAVIORAL INTENTION TO USE VIRTUAL STORE

Based on synthesized the literature review, the research model consists of five independent factors (e.g., Performance Expectancy, Hedonic Motivation, Trust, Personal Innovativeness, Virtual Store Layout), and the dependent factor (behavioral intention). These independent variables affect directly consumers’ intention for using virtual store. Furthermore, the relationship between behavioral intention and five independent variables is moderated by the demographic variables which are gender, age. The conceptual model is displayed in Figure 1.

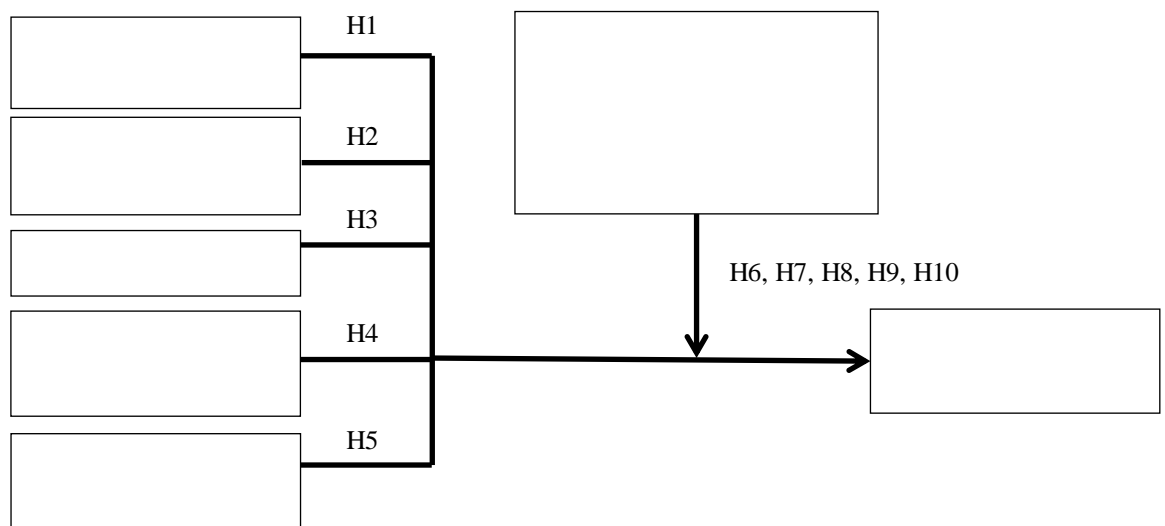


Figure 1 A Conceptual Model

From this framework (as shown figure 1), we may suggest ten hypotheses:

- H1: Performance Expectancy is positively associated to Virtual store using Intention.
- H2: Personal innovativeness is positively associated to Virtual store using Intention.
- H3: Trust is positively associated to Virtual store using Intention.

- H4: Hedonic motivation is positively associated to Virtual store using Intention.
- H5: Virtual Store Layout is positively associated to Virtual store using Intention.
- H6: Demographic factors will moderate the effect of performance expectancy on behavioral intention to use a virtual store.
- H7: Demographic factors will moderate the effect of personal innovativeness on behavioral intention to use a virtual store.
- H8: Demographic factors will moderate the effect of trust on behavioral intention to use a virtual store.
- H9: Demographic factors will moderate the effect of hedonic motivation on behavioral intention to use a virtual store.
- H10: Demographic factors will moderate the effect of virtual store layout on behavioral intention to use a virtual store.

IV. DISCUSSION AND CONCLUSION

Based on a comprehensive reviewing of related literature, the current study further extends understanding by suggesting a conceptual model for consumers' intention to use virtual stores. The model include determinants which affecting on use intention of consumer, such as Performance Expectancy, Hedonic Motivation, Trust, Personal Innovativeness, and Virtual Store Layout. Demographic variables will play a mediating role in the conceptual model.

For theoretical contribution, the current research is novel in itself because it is the first to propose a model of virtual store consumption. This has certainly filled the gap in the existing literature regarding e-retailer. It also provides a springboard for a further extension of virtual store shopping research in relation to empirical study as well as virtual store shopping dissemination. It further expands the current knowledge of this shopping behavior that is more focused on level factors affecting consumers' behavioral intention to use virtual store.

For managerial contribution, the results of this study can also support virtual store marketers and consumers. The investigation of the factors that affect consumers' intention to use the virtual store has created a fruitful outcome that can support the retailer industry in several ways. Retailers need to analyze the consumer behavior they are targeting before designing and implementing virtual store services in the market. It is crucial to know the factors that consumers consider in their shopping consumption behavior to maximize their enjoyment of virtual store consumption. In addition, the findings of the current study will suggest consumers to better understand possible factors that impact their shopping behaviors.

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