

# Customers' online channel switching behavior: The moderating role of switching cost

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## Abstract

Mobile applications offer retailers a new distribution channel. Because of some extra functions, mobile applications provide unique benefits in comparison with websites, creating extra value for customers. There are few researches about online channel switching behavior within retail industry. This study, aims to investigate channel switching behavior in two internet retail channels: sites and mobile applications, along with the moderating role of switching cost. A conceptual model was developed to (1) identify the possible values that customers perceive in using mobile applications and test the effect of these identified values on attitude toward channel-switching and channel switching intention, (2) investigate the moderating role of switching cost. Findings from this study indicated that utilitarian and epistemic values were generally associated with attitude toward channel-switching; and switching cost had a significant moderating impact. Hence, attitude toward channel-switching influenced channel-switching intention. The results from this study will be useful for retail marketers in planning digital interaction with customers.

**Keywords:** Mobile application, Mobile marketing, Channel switching, Switching cost, Retail industry

## 1. Introduction

Advancements in information technology have affected consumer behavior within retail industry (2007, Pookulangara, Hawley et al. 2011). Different online shopping alternatives have made different shopping channels available to customers (Shankar, Venkatesh et al. 2010). Because of multiple shopping channels, customers can easily switch from a shopping channel /retailer to the one that create more value for them. Channel-switching, is a process in which a consumer visits one of the distribution channels- a bricks- and - mortastore, a retailers' catalogue or the Internet (Sullivan and Thomas, 2004) before making a purchase decision. Multi-channel shoppers can still find attractions and detractions about each channel (DoubleClick, 2003). Customers are looking for beneficial shopping ways by which they would be able to save energy, time and money. Customers may switch from one channel to another based on the shopping benefits they are looking for (Pulliam, 1999).

Two main online retail channels are retailer's website and mobile application. Mobile application is a new channel available to customers (Yang and Kim 2012). In recent years, the phenomenal growth of smartphone subscribers has led to popularity of mobile applications, commonly referred to as mobile "apps". Originally, "app" referred to software for general productivity and information retrieval purposes, including email, calendar and contact management, and stock market quote and weather information lookup. In-Stat (2011) projects 48 billion mobile application downloads annually by 2015. E-commerce can be supported by mobile applications (Nah, Ciau, and Sheng, 2005). Mobility, flexibility, and dissemination are some advantages of mobile applications for customers. Mobile devices enable retailers to enter the customers' environment, anywhere, anytime (Yang and Kim 2012). Retailers can use mobile channels for pushing sales promotion for the consumers to access instantly. By adopting mobile devices, consumers and retailers can deal more efficiently, reduce price dispersion, and enhance supply efficiency (Jensen 2007).

There are few research about online channel switching behavior within retail industry (Ström, Vendel et al. 2014). Unique characteristics of mobile applications influence customers' attitude and behavior (Young Im and Hancer 2014). The challenge in the area of retail mobile marketing, then, is to know more about the level of channel switching and what

drives this behavior (Ström, Vendel et al. 2014). In mobile marketing area, no research has discussed the switching behavior between websites and mobile applications, which is important and must be considered by retailers to enable them to gain competitive positioning. In spite of the extensive literature on the influence of value on shopping behavior there is no study examines the role of value with respect to channel switching in online environment. Thus this study explores the added value of mobile applications and examines customers' intention to switch to mobile application by moderating the role of switching costs.

## **2. Channel switching behavior**

Earlier studies attempted to examine the benefits/value of different shopping channels ( eg., catalogs, and Internet) for multi-channel customers (Pookulangara, Hawley et al. 2011). Value is described as “the consumer’s overall assessment of the utility of a product (or service) based on perceptions of what is received and what is given” (Zeithaml 1988). The motivating role of hedonic and utilitarian value in using new technologies has been studied within retail online shopping area (Childers, Carr et al. 2002). Additionally some researches have examined why customers switch from one distribution channel to another. For example, Noble et al., (2005) found utilitarian value is a driver for using channels in multi-channel retail context. Pookulangara et al., (2011) provided evidence on channel-switching behavior in three retail distribution channels including: catalogs, bricks and mortar shops, and the Internet. Results revealed channel switching is predicted by hedonic, utilitarian, and normative values. However previous studies did not focus on switching within online environment. Given the advances in online retailing and different shopping channels alternatives, retailers should pay particular attention to understand how they can motivate customers to start to use new online channels. Hence creating superior channel service output can help retailers to prevent customers to switch to competitors (Rangaswamy and Van Bruggen 2005). In this study channel switching behavior (switching intention) refers to customer decision to switch from retail website to retail mobile application. In the context of present study, users can derive three types of value including epistemic, utilitarian, and emotional values, as they download and use retail mobile applications. More specifically, when customers perceive that mobile application adds value to them, it affect their attitude toward channel switching and they will be more interested to switch channel. Influence of attitude on behavioral intention has been widely accepted (Ajzen and Fishbein 1980). Consequently this study suggests attitude toward channel switching as predictor of switching behavior.

## **3. Value Dimensions**

### **3.1 Epistemic value**

Epistemic beliefs play an important role in evaluating and using multiple information sources within online environment (Kammerer, Bråten et al. 2013). Epistemic value refers to the level of knowledge users gain when trying new things (Pihlström and Brush 2008). According to Pagani (2004) people prefer to use more innovative services (Pagani 2004). Within information technology context personal innovators are individuals who cope with uncertainty for trying out new technologies. The newer the technology is the more interested the personal innovators to try it (Al-Debei and Al-Lozi 2014). Individuals who are personal innovators pioneer new technologies and evaluate their ease of use and usefulness (López-Nicolás, Molina-Castillo et al. 2008). However and although the process of experimenting new mobile services will not always lead to continuance adoption of those service, it has been revealed that epistemic value described as the curiosity to learn new things and gain new knowledge amongst innovators has a positive effect on the adoption intention of various technologies (Bhatti 2007, Pihlström and Brush 2008).

### **3.2 Utilitarian value**

The significant role of utilitarian value in adoption and use of mobile services and marketing has been widely acknowledged by previous research (Ström, Vendel et al. 2014). Utilitarian value is the outcome of productive, functional , and economically experiences (Jones, Reynolds et al. 2006). According to Kim and Hwang (2006) utilitarian value within mobile application area is relevant for online shopping. The more utilitarian value mobile users perceive they are more likely to show high quality mobile services perceptions (Kim and Hwang 2006). Besides economic benefits,

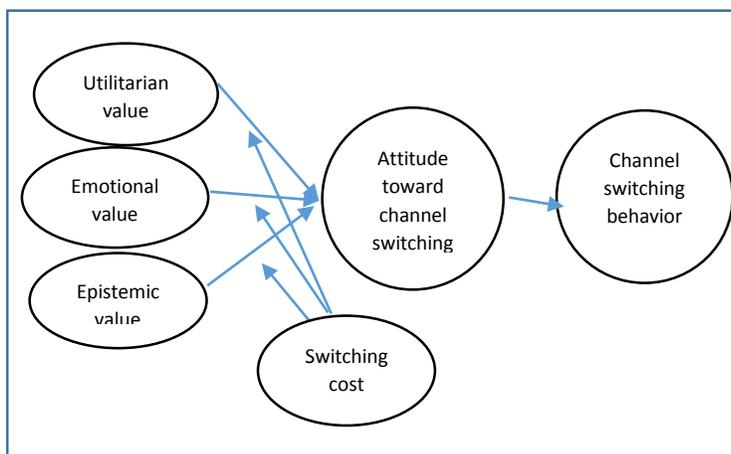
credibility and convenience are the other two major utilitarian benefits of mobile services and marketing from customer perspective (Ström, Vendel et al. 2014).

### 3.3 Emotional value

The emotional aspect of shopping has been documented and examined as excitement, arousal, joy, festivity, escapism, fantasy, and adventure (Fischer and Arnold 1990, Babin, Darden et al. 1994). Emotional value has dominant influence on adoption and use of mobile services and marketing (Ström, Vendel et al. 2014). According to Baggozi and Warsaw (1992) people are more likely to adopt enjoyable technologies. Research by Dabholkar and Baggozi (2002) found positive relationship between emotional value and attitude toward using self-service technologies. Okumus and Bilgihan (2014) revealed emotional value is a motivator for using mobile applications to order food. In the same line study by Young Im and Hancer (2014) found the significant role of emotional value in shaping tourist’ attitude in applying tourism mobile applications.

### 4. Switching cost

Based on the literature switching cost is an important element within marketing area (Wu, Tao, Li, Wang, and Chiu, 2014). Switching cost refers to time, money, and psychological cost (Dick & Basu, 1994). According to Wu, Tao et al. (2014) switching behavior of customers is decreased due to the increase in switching cost. It should be also notices that different construct are using for measuring switching cost in different industries. Jones (1998) categorized the switching cost to six dimensions of continuity, contractual, learning, search, setup, and sunk costs, when customers want to switch from one service provider to other one. However Burnham et al., (2003)



divided the switching cost into the three major categories of procedural, financial, relational switching costs. For instance customers’ perception of risk in switching to other channel will increase the likelihood that the customer will continue with the current channel. Figure 1 shows the conceptual model.

### 4. Methodology

A self-administered survey was considered the most appropriate method for this study. Potential survey participants were University students. Only students who had previous mobile apps buying experience for retail products were shortlisted. A sample graphic of a retail mobile application was put in the questionnaire to ensure that students realize what types of mobile applications are being used for this research (Figure 2). Two hundred students participated in this survey. A questionnaire instrument was used to collect the data. This study adapted previous established questionnaire. The construct measurement were adapted from previous literature (see Table 1). All items were measured using a 7-point Likert scale.

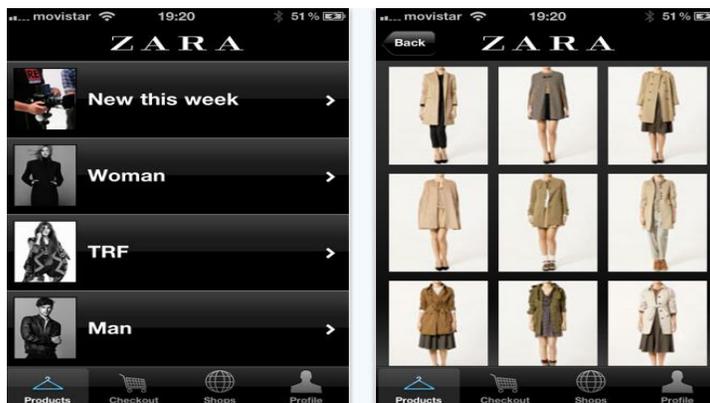


Figure 2. A sample graphic of retail mobile applications

#### 4. Data analysis

Coronbach's alpha was calculated to test the scale's reliability. The results showed good reliability (for the remaining factors Alpha coefficients exceeded 0.80). Based on Table 2 the factor loading for all factors were higher than 0.50. Chi-square = 534, d.f.=179, p=0.000, chi-square/df= 3, CFI=0.91, GFI=0.91, AGFI=0.88, RMC=0.05. The results showed good fit of model (chi-square/df< 5).

Table.2. Reliability and factor loading of constructs

Measure/Scale Item (Reference)	Loading	Alpha
<b>Utilitarian value</b> (Davis 1989, Bauer, Barnes et al. 2005) (Mahatanankoon, Wen et al. 2005), - Using retail mobile apps is good value for money. - Through mobile app I receive timely information. - Through using mobile apps I receive exclusive information. - Using mobile apps would increase my chances of achieving things that are important to me. - Compared to the effort and time I need to put in and spend, the use of mobile apps would help me accomplish things more quickly - I value receiving time sensitive discount tickets from physical store (e.g., e-coupon based on upcoming sales).	0.81 0.60 0.71 0.80 0.62 0.82	0.89
<b>Emotional value</b> (Sweeney and Soutar 2001, Bauer, Barnes et al. 2005, Al-Debei and Al-Lozi 2014) - I find buying through mobile apps exciting. - The advertising messages customized to my profile are fun (e.g, personalized shopping offers). - Buying through mobile apps gives me pleasure. - Mobile apps would be the services that I feel relaxed about using.	0.82 0.66 0.82 0.82	0.81
<b>Epistemic value</b> (Al-Debei and Al-Lozi 2014) - If I heard about a new shopping channel such as mobile application, I would look for ways to experiment with it. - I always look forward to a new shopping channels such as mobile application so as I can get new knowledge about new technologies and services - Among my peers, I am usually the first to explore new shopping channels	0.77 0.76 0.81 0.71 0.74	0.85
<b>Switching cost</b> (Hsieh, Hsieh et al. 2012, Wu, Tao et al. 2014) - Mobile applications have access to my personal information and mobile data - Downloading mobile applications takes time and effort - Learning to use the features offered by the mobile application would take time	0.72 0.75 0.73	0.80
<b>Attitude toward channel switching</b> (Pookulangara, Hawley et al. 2011) - I think changing from retailers' website to retailers' mobile app - I think using retailer' mobile app would provide me great value as compared to other channels	0.75 0.82	0.83
<b>Channel switching intention</b> (Wu, Tao et al. 2014) - I intend to change to retailers' mobile app from retailers' website, while shopping - I plan to change to retailers' mobile app from retailers' website, for all my shopping	0.82 0.84 0.86	0.82

Table 2 below shows the results of the conceptual model. Among the seven relationships tested, five were found to be significant at the level of 0.01. Utilitarian value had a strong positive relationship with attitude toward channel switching ( $\beta = 0.61$ ,  $t = 8.44$ ,  $p < 0.01$ ). Emotional value did not a significant positive relationship with attitude toward channel switching ( $\beta = 0.13$ ,  $t = 1.49$ ,  $p > 0.05$ ). Based on the results epistemic value had significant positive relationships with attitude toward channel switching ( $\beta = 0.35$ ,  $t = 3.93$ ,  $p < 0.01$ ). The positive relationship between attitude toward channel switching and channel switching intention was found ( $\beta = 0.56$ ,  $t = 6.39$ ,  $p < 0.01$ ).

#### 4.1 Moderating effect of switching cost

The forth, fifth, and sixth hypothesis assumes the moderating effect of switching cost on attitude toward channel switching through utilitarian, epistemic, and emotional value. Based on the results the interaction of switching cost with utilitarian value imposed negative influences on attitude toward channel switching ( $\beta = -0.22$ ,  $t$ -value= 2.98,  $p < 0.01$ ). Hence H5 and H6 are not supported ( $\beta = 0.12$ ,  $t$ -value= 1.23,  $p > 0.05$ ;  $\beta = 1.32$ ,  $t$ -value= 1.64,  $p > 0.05$ ).

## 5. Results and discussion

The present study examined the relationships of utilitarian, emotional, and epistemic value with attitude toward channel switching and channel switching behaviour. According to the results, both utilitarian and epistemic benefits of retail mobile applications predicted attitude toward channel switching. It should be emphasized that utilitarian value was more significant in predicting attitude toward channel switching. This research showed the importance of epistemic value in switching to retail mobile applications. Based on the earlier literature, epistemic value triggers the use of new product/service or novelty (Sheth, Newman et al. 1991). Research by Richard (2005) revealed the influence of novelty seeking behaviour on customers' intention to browse new websites. Customers who use retail mobile applications, experience something new which they want to know its functions. Emotional value was not found influential on attitude toward channel switching. So this study shows consumers are less likely to be influenced by their emotional motives in choosing online retail distribution channels. According to Kim and Hwang (2006) emotional value of mobile applications is more related to the use of mobile for entertainment/sociability purposes rather than shopping and trading. Our analysis revealed that switching cost moderates (negative) the relationship between utilitarian value and attitude toward channel switching. Customers' attitude toward switching intention decreases even more as a result of high switching cost when they perceive even high utilitarian value. Switching cost did not play a moderator role on the relationship between epistemic value and attitude toward channel switching. It shows that customers nowadays looking for novelty and even in spite of high switching cost, are interested to try new channels. Attitude toward channel switching was the predictor of the channel switching behaviour. Within consumer research area the significant role of attitude in predicting customers' behaviour has been widely accepted.

Retailers can persuade customers to use their mobile applications by creating utilitarian value. Although epistemic value also influences attitude toward channel switching but it can be only useful for persuading customers to start to use, not for keeping them loyal to mobile applications. According to Sheth et al., (1991) if customers start to use technologies because of novelty reasons, after responding to their need for change, they may return to their previous consumption pattern. So other types of value rather than epistemic value affect continuous use of new services.

Retailers by decreasing the level of switching cost can encourage customers to start to use retail mobile applications. One of the main barriers to switch to mobile application is privacy concerns. Mobile application developers should improve the transparency of privacy practices of mobile applications. Privacy can be a competitive advantage for mobile applications. Mobile applications by collecting only information which is necessary for applications to function can attract customers' trust. Developing privacy policy and allowing customers to adjust privacy settings may decrease the level of uncertainty among customers.

This research focused only on how retailers can persuade customers to start to use mobile applications. However, keeping customers loyal to mobile applications is another issue. Other factors such as performance value are important for customers when they evaluate a mobile application (Hsu and Lin 2015). Future research should study how retailers can convince customers to continue to use mobile applications. Also it is suggested for future studies to examine the role of demographic factors such as age, gender and education in switching behaviour.

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