The Customer Experience… Is there an App for that? A conceptual understanding of the customer experience with m-commerce mobile applications.

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Abstract

This paper examines the customer experience in relation to high street retailers' m-commerce mobile applications. The aim of the research is to gain an understanding of the variables capable of influencing the customer experience during use of high-street retailers' m-commerce mobile applications, resulting in the development of a conceptual customer experience with m-commerce mobile applications model. From a review of the literature the paper illustrates a number of hypothesised relationships. In contrast to the e-commerce environment with regard to flow theory, this research suggests that customers are conscious of the length of time spent completing an activity on an m-commerce mobile application, thus should customers perceive to spend longer than necessary using the application, it will result in a negative customer experience. Additionally, we suggest that smartphone screen-size may play a moderating role on the customer experience. This research investigates mobile applications as a service delivery channel for high-street retailers, while understanding the variables capable of influencing the customer experience.

1. Introduction

Mobile applications (apps) continue to emerge as a powerful and ubiquitous service delivery channel due to retailers' ability to offer a variety of products and services through such channels to consumers (Garg and Telang, 2013). The rapid advancement of mobile technology and the subsequent service innovation deriving from it is causing consumer behavior to evolve in terms of how consumers interact and utilise service delivery channels that are accessible to consumers anytime, anywhere

(Shankar et al, 2016). The number of smartphone users is expected to continuously grow to reach 80% of the world's population by 2020 (Ericsson, 2015), while at the same time consumers' willingness to use mobile commerce (m-commerce) is witnessing a rapid growth that is beyond expectations (Criteo, 2014). Due to the increase in the number of smartphone users and the willingness to adopt mobile commerce, marketers are increasingly using mobile to meet the demands of such consumers (Shanker et al, 2016). Retailers in particular are allocating large percentages of their marketing budget in order to enhance the customer experience through mobile applications (WARC, 2015).

Traditional high-street retailers (brick and mortar) have encountered numerous strategic challenges and opportunities over recent years. First was the introduction of e-commerce websites that challenged the existence of many high street retailers with numerous well-known brands exiting the market (Reynolds, 2000). However, over the years, high-street retailers who have continued to compete have adapted their strategy to include an online presence through an e-commerce website (Martin et al, 2015).

The Internet continues to be an essential factor in the evolution of the retail landscape. Numerous high-street retailers have gone on to take significant advantage of what the channel has to offer (Klaus and Nguyen, 2013) including the expanded reach, reduced costs, lower barriers geographically, as well as 24/7 availability (Christodoulides et al, 2012).

More recently numerous high-street retailers have further adapted to an Omni-channel retail strategy, Omni being the Latin for 'every', where high-street retailers operate multiple service delivery channels including, in-store, website and on mobile app (Piotrowicz and Cuthbertson, 2014). The term 'mobile app' has become a popular abbreviation for mobile applications amongst industry professionals, academics and consumers over recent years. Mobile applications are associated with software that is downloaded to a smartphone's operating system from an online store platform such as the iTunes store or the Google Play Store (Garg and Telang, 2014; Purcell et al., 2010). From a marketing perspective, mobile apps are defined as software that is downloadable to a mobile device, which prominently displays a brand identity, often via the name of the app and the appearance of a brand logo or icon, throughout the customer experience (Bellman et al, 2011). The added benefit for retailers, unlike websites, is that mobile apps can utilise the hardware and features of the smartphone to deliver a tailored experience to users, i.e. scanning of bar codes through the use of

the built in camera function or offering location specific content through the use of GPS. Thus, mobile apps are also seen as end-user software applications that are designed for a mobile phone operating system and extend the phone's capabilities by enabling users and app providers to perform specific tasks (Purcell et al, 2010). However, due to the nature of mobile devices, consumers are now presented with a different interface and size of device to interact with. Thus, during an experience with mobile devices, interfaces have shifted from computer mice to touchscreens (Brasel and Gips, 2014). Therefore, the interface change may subsequently change the response of consumers using and viewing content with a different set of variables influencing the customer experience. High-street retailers are adopting 'm-commerce' at an exhilarant rate and clearly part of the Omni-channel strategy (Brynjolfsson et al, 2013). Mobile applications can be seen as an important part of m-commerce, yet we have little understanding on what influences the customer experience during use of m-commerce mobile applications. . Previous research has focused on the scope of mobile marketing (Shanker and Balasubramanian, 2009), mobile service delivery (Kleijnen et al, 2007), the mobile interface (Venkatesh et al, 2012), mobile browsing (Adipat et al, 2011), how mobile applies to retailing (Shanker et al, 2010), the demand for mobile apps (Garg and Telang, 2013), mobile advertising (Andrews et al, 2015) and mobile shopping (Wang et al, 2015).

This paper however, aims to add to our theoretical understanding of mobile applications through exploring the variables capable of influencing the customer experience during use of high-street retailers' m-commerce mobile apps. Mobile apps offer consumers an alternative channel for browsing and shopping and are unique in terms of the functions they can offer consumers and retailers (Wang et al, 2015), thus understanding the variables that influence the customer's experience is of significant value. In particular, high-street retailers offer an interesting area of study due to their continued adaption to new, digital, service delivery channels. As a result, two research objectives stem from our aim:

1) To develop an understanding of the potential variables that could influence the customer experience with high-street retail mobile applications.

2) To develop a conceptual Mobile Applications Customer Experience Model (MACE) providing an initial theoretical understanding of the customer experience with m-commerce mobile applications.

2.0 Theoretical Background

2.1 Customer Experience

Researchers previously highlighted service quality as a differentiator between a retailer's offerings of goods and services (Reinartz and Ulaga, 2008). The focus and importance attributed to service quality resulted in the development of SERVQUAL, a multi item scale that has been extensively used in order to assess service quality and its impact on consumer behaviour (Parasuraman et al, 1998). Subsequently, e-SERVQUAL was introduced as an online extension of the original scale in order to measure service quality in the online environment. However, more recently, researchers have suggested that service too has become increasingly standardised (Klaus, 2013), thus customers now require more than competent service, instead an effective customer experience that meets and exceeds expectations (Shobeiri et al, 2015).

The theoretical foundation of the customer experience is based on the concept that the customer experience is the combination of all cues and touch-points a customer has with an organisation, which in turn creates an overall experience (Homburg et al, 2015; Payne et al 2008). Meyer and Schwager (2007, p.18) define customer experience as, 'the internal and subjective response that customers have to any direct or indirect contact with a company'. However, more recently, Homburg et al (2015, p.8) follow on from Verhoef et al (2009) and suggest that 'the customer experience is the evolvement of a person's sensorial, affective, cognitive, relational and behavioural responses to a brand by living through a journey of touchpoints along pre-purchase, purchase and post-purchase and continually judging this journey against response thresholds of co-occurring experiences'. As a result, the customer experience can be seen as a holistic process and combination of cognitive, affective, social and physical components (Verhoef et al, 2009) leading to take away impressions.

A key distinction between the customer experience and service quality is the acknowledgement of customer emotions within the experience (Edvardsson, 2005; Schembri, 2006). The inclusion of customer emotions makes assessing the customer

experience a complex area of study (Juttner et al, 2013). Customer emotions are often vividly recalled, yet difficult to describe, thus numerous researchers have applied psychology theories adopting the PAD model (Mehrabian and Russell, 1974), the PANAS theory (Watson et al, 1988) as well as the differential emotion theory (Izard, 1977) to assist in understanding and an element of measuring the customer experience. Some research studies have focused on the measurement of the cognitive dimension of the customer experience (Lemke et al, 2010), however it is important that researchers include customer emotions as part of the measurement of the customer experience (Juttner et al, 2013).

Satisfaction, trust, re-visit intention, re-purchase intention and loyalty have all been outlined as outcomes of a positive customer experience (Shobeiri et al, 2015; Verhoef et al, 2009), thus it is not surprising that numerous retailers have a firm focus on delivering an exceptional customer experience (Homburg et al, 2015; Rose et al, 2012) regardless of the service delivery channel. The customer experience is often centred around the notion of 'value in use' where the customer jointly determines the value of the good or service offering (Gronroos, 2008). Thus, the experience the customer encounters is co-created through an alignment between the customer's goals and the retailer's offerings (Vargo and Lusch, 2008). The co-creation process limits the extent that a company can control the customer's experience as it can only support and facilitate customers' value creating process (Gronross, 2008).

Regardless of the service delivery channel, i.e. in-store, online website or mobile application, customers always have an experience; this experience may be good, bad or indifferent and occurs whenever a customer buys a product or encounters service from a retailer (Berry et al, 2002). Focus on the online customer experience has emerged due to the transition from static websites to dynamic and interactive e-commerce sites (Klaus, 2013). Similarly, mobile applications provide a further dynamic channel to browse and purchase products, yet little is known on what influences the customers experience with such software. A number of variables are capable of influencing the cognitive and affective components of a customer's experience in the offline and online environment. In order to provide the study with further theoretical understanding, the following section will provide an overview on

the variables highlighted as influencing the customer experience during use of online websites involving flow theory (Hoffman and Novak, 2009).

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2.2 Variables influencing the experience

Numerous variables have been outlined as being capable of influencing the customer experience in the online web environment, namely, ease of use (navigational control), customisation/personalisation, convenience (usefulness), enjoyment, telepresence, time distortion and flow (Hoffman and Novak, 2009; Klaus, 2013; Rose et al, 2012; Martin et al, 2015; McLean and Wilson, 2016). A review of such variables may help us gain an understanding into the potential variables capable of influencing the customer experience with high-street retailers' m-commerce mobile applications. Deriving from the technology acceptance model (Davis, 1989), Rose et al (2012) outline ease of use as an important variable capable of influencing customer emotions within the online retail environment. Ease of use refers to the ease in which a customer can learn to use a system and understand the basic functions, while avoiding error during their activity (Davis, 1989). In addition, based on existing theory on consumer purchase intention (Rose et al, 2012) research has highlighted customisation as a variable capable of influencing the customer experience. The increasing role of technology in service delivery has seen an increase in the use of technology to provide customised services (Truel and Connelly, 2013). Customisation refers to the personalisation or individualising of services and content to a customer's own preferences and interests (Lee and Cranage, 2013), as well as a retailer's ability to personalise the delivery of the right content, to the right person at the right time (Tam and Ho, 2005). Thus, customisation can influence feelings of control and the ability to be an active part in creating the customer's unique experience (Cheng et al, 2010). Retailers' offering of a customised experience can aid in reducing a level of uncertainty that exists during Internet shopping (Magrath and McCormick, 2012). Therefore, offering customers the ability to filter content, favourite content and be provided content relevant to them, can result in positive customer emotions (Rose et al, 2012). However, research highlights that customisation is not as critical on the customer experience as ease of use within the online web environment (Martin et al, 2015). In spite of this, the distinctive nature of smartphone apps that allow customers to store data in a unique manner (Hsiao et al, 2016) and the ability of retailers to

utilise such data for location awareness, context sensing and product personalisation (Alnawas and Aburub, 2016), may increase the importance of customisation as a variable capable of influencing the customer experience.

In line with the ability to use mobile apps to provide customers with a customised experience, previous research has highlighted that customers are able to access mobile applications anytime, anywhere (Shanker et al, 2016) leading to a convenient way to shop. Customers often use mobile applications 'on the go' (Wang et al, 2015), thus convenience, even within a hedonic context, may become an important variable within m-commerce in comparison to what research has shown within e-commerce (Rose et al, 2012). Further to this, Magrath and McCormick (2012) suggest that ease of use, customisation and convenience are all interlinked. Thus, we hypothesise that (H1) a relationship exists between the variables of ease of use, convenience and customisation to combine together as a higher order utilitarian factor.

Moreover, the level of enjoyment a customer experiences has been illustrated in later versions of technology acceptance theories (Venkatesh and Bala, 2008; Venkatesh et al, 2012) as well as being outlined as leading to satisfaction with the experience (Hsiao et al, 2016). Enjoyment is referred to as the activity of using a specific system that is enjoyable in its own right, aside from any performance consequences resulting from system use (Venkatesh, 2000). Mcgrath and McCormick (2012) suggest that ease of use, customisation and convenience may lead to high levels of enjoyment. Previous research within the online web environment highlight that those customers who do not experience enjoyment during their online shopping activity will seek to complete the activity at an alternative provider (Faiola et al, 2013; Lee et al, 2011). More recently, Hsiao et al (2016) suggest that customers will not be satisfied while using mobile applications without the hedonic element of enjoyment. Thus, during the online shopping encounter, previous research suggests that customers will not achieve the optimal experience should they not experience enjoyment in their activity (Hoffman and Novak, 2009). Therefore, we hypothesise (H2) that the utilitarian factors drive a customer's level of enjoyment during use of high-street retailers' mobile applications. Additionally, (H3) we hypothesise that the level of enjoyment a customer has during use of a high-street retailers' mobile application will influence a customer's level of satisfaction with the experience and a customer's emotions.

In line with research on enjoyment during online shopping, Novak et al (2000) introduced the concept of flow within the online environment in relation to the customer experience. The key premise of the concept of flow is based on a cognitive state where an individual is completely absorbed in an activity to the extent that they are fully immersed and engaged in the task while experiencing time distortion and a loss of self-consciousness (Csikszentmihalyi, 1997). Flow within the online environment has been defined as 'a cognitive state experienced during online navigation' (Novak et al, 2000, p.24). Therefore, flow can be considered as a motivational variable influencing the customer's experience (Hoffman and Novak, 2009). However, recent literature has revealed much debate around the concept of flow (Trevinal and Stenger, 2014; Mollen and Wilson, 2011) with regard to antecedents and consequences of flow. As well as enjoyment, telepresence and time distortion have been highlighted as both antecedents and consequences of flow (Hoffman and Novak, 2009).

Lee and Crange (2011) outline that telepresence is the feeling of being present within a virtual environment that is more dominant than the real life environment that the individual lives in. Hoffman and Novak (2009) outline that those individuals experiencing telepresence forget about their surroundings when searching online, thus while an individual's body may be in a physical environment, their mind is in a 'virtual space' in which the individual can find more real than the real life world. Thus, Faiola et al (2013) suggest that in turn consumers become completely immersed and engaged in the shopping activity they are completing and experience a distorted sense of time and positive emotions. Within this virtual environment, consumers loose the connection with real time, while it slowly fades away into the background of consciousness (Martin et al, 2015).

Similar to telepresence, time distortion is highlighted as a key part of flow (Hoffman and Novak, 2009). Time distortion, refers to the point in which consumers are so involved in the task that time elapses quickly without knowledge (Fan et al, 2013). Hoffman and Novak (2009) highlight that the time distortion experienced by consumers, where time passes un-consciously to the consumer, results in positive customer emotions and subsequently a positive customer experience.

Despite this, the usefulness of flow and the variables of time distortion and telepresence have been called into question (Mclean and Wilson, 2016; Klaus, 2013). McLean and Wilson (2016) and Klaus (2013) outline that the customer experience is context specific. Thus, due to the nature of the smartphone device and the use of mobile apps often used 'on the go' in a utilitarian manner (Wang et al, 2015), consumers may in-fact be conscious of time spent on an activity and thus, the ability to complete shopping activities in a timely manner may lead to an effective customer experience within this context. Resource allocation theory (Kahneman, 1973; Zakay and Hornik 1991) highlights that individuals are occupied with the passage of time and often make time estimations during their activity. Therefore, while customers use apps on the go and often for convenience (Wang et al, 2015), the time spent using the app could be conscious to the individual. Therefore, in contrast to the traditional e-commerce environment (Rose et al, 2012) customers may be time conscious during use of m-commerce mobile applications. Therefore, we suggest that customers are conscious of time and thus hypothesise (H4) the utilitarian factor made up of ease of use, customisation and convenience will influence customers' perception of being able to complete tasks in a timely manner. Additionally, (H5) should customers be unable to complete tasks in a timely manner then they will have a negative customer experience with negative emotions. Figure 1.0 outlines our conceptual model.
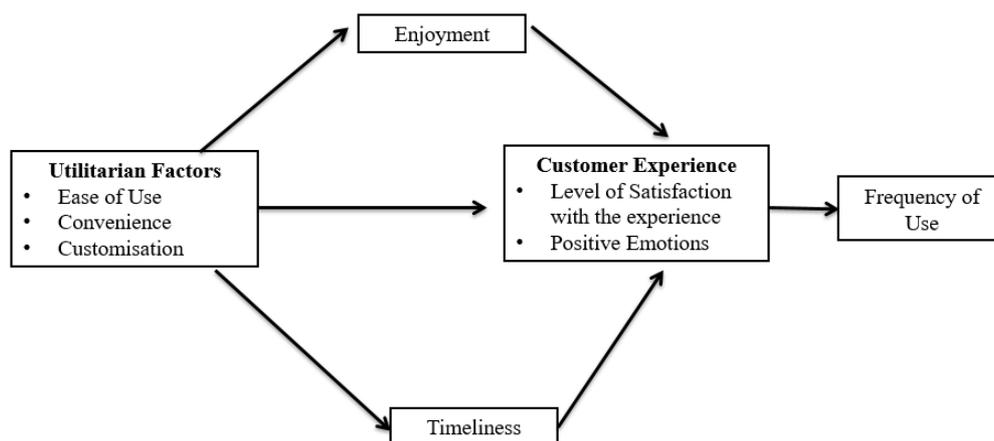
3.0 Conclusion

3.1 Implications and future research

This conceptual study attempted to identify the variables capable of influencing the customer experience during use of m-commerce mobile applications. From a review of the literature we have developed five research hypothesis resulting in the development of a conceptual model. Over recent years' Mobile applications have emerged as a powerful and ubiquitous service delivery channel due to retailers' ability to offer services and products through such a channel. The rapid growth of consumers' adoption of such channels for shopping purposes highlights the importance of studying the area. Previous research has highlighted the difference between mobile applications and traditional e-commerce. Wang et al (2015) highlights that mobile applications are used 'on the go' and often in a goal directed context. Thus, the variables capable of influencing the customers experience during use of m-commerce mobile applications may differ from those in the traditional e-commerce environment. In particular, flow (telepresence/time distortion) has been outlined as a variable leading to the optimal customer experience within the e-commerce environment, however in contrast, due to the suggestions of m-commerce mobile applications being used in a goal directed context, and often on the move, consumers may be conscious of the time spent using the m-commerce application which ultimately has an effect on the customer's satisfaction with their experience. To date few studies have explored the customer experience with m-commerce mobile applications. Many studies have outlined the importance of exploring the customer experience within varying contexts. Due to high-street retailers continually adapting their retail strategy to include e-commerce and more recently m-commerce through mobile applications, it is important that we gain a theoretical understanding on the customer experience in differing contexts and channels. Specifically, this study establishes a conceptual model making the initial strides for future research to empirically test. During testing of the model, it would be advantageous to examine demographic variables such as age, gender and occupation. In addition, it would be useful to explore the role of screen size, an array of different smartphone screen sizes are available to consumers, identifying if the screen-size plays a moderating role

between variables will continue to enhance our understanding of the experience customers have with m-commerce mobile applications.

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