The influence of online store interactivity on customers’ shopping experience: an empirical investigation

M MPINGANJIRA (University of Johannesburg)

Abstract
This paper examines the concept of interactivity in the context of online stores. The aim is to investigate its influence on customers' shopping experience and intentions to revisit online stores. The study followed a quantitative research approach. Data was collected from 201 online shoppers from Gauteng, South Africa using a structured questionnaire. Version 21 of the SPSS/AMOS software was used to analyse the data. The findings show that factors relating to web system interactivity, namely navigation ease and customisation are important predictors of enjoyable online shopping experience. Factors relating to personal interactivity, namely two-way communication and customer communications were not found to have significant influence on shopping enjoyment. Shopping enjoyment was found to have significant influence on online customers' intentions to revisit online stores. The findings contribute to a better appreciation of the need for ensuring that internet technology is applied in ways that take into consideration human needs. Specifically, the findings point to the need for online managers to pay attention to interactivity levels of their websites in order to ensure that customers have an enjoyable shopping experience at their online stores.

Key phrases
online shopping enjoyment; online store interactivity; personal interactivity; web system interactivity

1. INTRODUCTION
The internet has become an important platform for conducting business. E-Marketer (2014:Internet) reported that revenues generated from online business-to-consumer sales around the world stood at US$1.25 trillion in 2013 and are expected to reach US$2.4 trillion by 2017. According to the same report total sales in the Africa and Middle Eastern region stood at US$27 billion in 2013 and are expected to reach US$51.4 billion by 2017.

A report by Ystats (2013:Internet) noted that online retailing is growing at a very fast pace on the African continent with forecasts showing expected annual growth rate of around 40 percent for the next decade. South Africa is currently one of the major players in online retailing on the continent. Online sales figures of goods generated in the country and
purchased online are reported to have increased from R470 million in 2004 to R2.6 billion in 2011 (Economic Analysis Unit 2012:12). By the end of 2013 estimates were that South Africa consumers would spend a total of R4.4 billion shopping online (Wilson 2013:Internet).

While online retailing is undoubtedly full of promising prospects, behind the growing online sales figures lies growing stiff competition between firms for customers. Equipped with a mouse and internet access, individual customers have now available to them a wide range of online sites from which they can buy products. The ability of any online retailer to succeed in this kind of market largely depends on its ability to come up with successful strategies aimed at attracting customers to its site and retaining them.

The differences that are there between the traditional retail environment and the online one make it difficult for retailers to easily transfer their successful strategies across the channels. For example, unlike the traditional retail environment, the online environment does not often allow for ready interaction between customers and retail staff (Yoo, Lee & Park 2010:89). Customers are also not able to physically touch and inspect products. Unlike traditional retailing, online retailing is thus known to come with more interactivity constraints. Unless something is done about this, interactivity problems can have negative impact on online sales (Van Noort, Voorveld & Van Reijmersdal 2012:233)

According to Teo, Oh, Liu and Wei (2003:286) central to the concept of interactivity are two key features namely, user control and information exchange. The concept has its origins in the field of communication and as such many define it as a communication characteristic. One of the most widely quoted definition of interactivity is that by Williams, Rice and Rogers (1988:10) who defined it as ‘the degree to which participants in a communication process can have control over, and can exchange roles in their mutual discourse’.

Commenting on the concept of interactivity in relation to marketing channels Florenthal and Shoham (2010:30) observed that it is important when considering the concept to bear in mind that humans interact not only with fellow humans but also with objects. They further noted humans can ‘interact with objects when they hold, rotate or activate them’ (Florenthal & Shoham 2010:30). In the case of the online channel, interactivity thus covers both human to human interaction and human to media interaction. The human to human interaction in this case takes place in a mediated environment. The media interaction is to do with the web system. Notwithstanding interactivity limitations of using website compared to traditional retailing, the internet is known to present great interactivity opportunities than traditional marketing media including radio, television and print media (Jiang, Yang & Jun 2013:192).
Researchers, including Shen and Khalifa (2012:414) and Van Noort et al. (2012:233), stress the need for online retailers to look for ways in which they can enhance interactivity levels so as to have a positive impact on customer experience and satisfaction. This paper empirically investigates the influence of online store interactivity on customers’ shopping experience.

2. PROBLEM STATEMENT AND RESEARCH OBJECTIVE

Despite its acknowledged importance in e-business, the concept of interactivity has not received much needed empirical research attention (Fang 2012:1790). Van Noort et al. (2012:224) and Yoo et al. 2010:90) noted that great uncertainty exists about the concept of interactivity more so in the context of online shopping. Mollen and Wilson (2010:920) observed that the even the very value of interactivity in general is sometimes questioned in literature. Coyle and Thorson (2001:75) for example failed to find any relationship between levels of interactivity and attitude towards marketing websites. Song and Zinkhan (2008:100) observed that there is no relationship between provision of interactive features and consumers appreciation of website interactivity. Inconsistent findings on the value of interactivity may be attributable to among other factors, the fact that the effects of interactivity may be dependent on many other factors including purpose of the website (Teo et al. 2003:283). Freeman and Freeman (2011:442) pointed out the need for e-commerce software systems to be task-domain specific so as to support associated operations.

The fast pace at which competition in online retailing is growing as well as its distinctiveness from the traditional way of retailing highlights the importance of understanding the effects of online store characteristics on customer experiences and behaviour. Online retailers’ ability to successfully take advantage of the growing number of online shoppers in the country may not be possible without the development of online stores that appeal to customers. Pentina, Amialchuk and Taylor (2011:743) noted that interactivity provides additional and unique opportunities for online retailers to achieve experience-based differentiation. These opportunities can however only be taken advantage of if the problem of lack of clarity on what constitutes online store interactivity including its dimensions is attended to. A clear understanding of online store interactivity including identification of its dimensions and its effects can be beneficial to retailers in terms of facilitating use of more effective ways of appealing to customers through enhanced interactivity.
This study aims at contributing to this understanding by proposing and testing a conceptual model on online store interactivity and its effects on customer shopping experience in terms of enjoyment as well as on customers’ online store revisit intentions. The specific objectives of the study are to (i) examine the influence of online store interactivity on customers’ experience of shopping enjoyment (ii) investigate levels of influence that different online store interactivity dimensions have on customers’ experience of shopping enjoyment and (iii) assess the level of influence that shopping enjoyment has on customers’ intentions to revisit online stores.

3. THEORETICAL FRAMEWORK AND CONCEPTUAL MODEL

This study makes use of the Stimulus-Organism-Response (S-O-R) theory proposed by environmental psychologists Mehrabian and Russell (1974) in order to understand the influence of online store interactivity on customers’ shopping experience. According to the S-O-R theory, cues in the environment act as stimuli (S) which affects an individual’s psychological state i.e. emotions (O) which in turn affects behavioural response (R).

Commenting on stimuli in relation to consumer behaviour Jacoby (2002:54) observed the need for stimuli to be understood as a package of many including store environments and word of mouth communication. He argued that the business task rests in identifying sources of stimuli and analysing their influence on customers.

Focusing on the physical environment and taking cognisant of the S-O-R model Bitner (1992) introduced the concept of ‘service-scapes’ in order to understand among other things the influence of physical surroundings on consumer behaviour. His conclusion was that ‘through careful and creative management of service-scape firms may be able to contribute to the achievement of marketing goals’ (Bitner 1992:67). Bitner’s study was based on the physical service environment and included under the environmental stimuli factors relating to ambient conditions, spatial layout and functionality, as well as signs, symbols and artefacts.

By its nature stimuli in the online retail environment is rather limited in that it cannot include factors that require touch and smell. Focusing on the online environment Mollen and Wilson (2010:920) noted that both machine and social related interactivity factors serve as sources of environmental stimuli. Accordingly, this study defines online store interactivity as consisting of factors relating to web system interactivity and human interactivity.

According to the S-O-R model, the stimuli have influence on an individual’s emotional experience which in this study is denoted by the level of enjoyment experienced by customers when they shop at a specific online store. Shopping enjoyment refers to the extent to which...
one believes that shopping provided reinforcement in its own right, going beyond performance consequences (Childers, Carr, Peck & Carson 2002:531).

Research shows that customers have a range of underlying motivations that trigger their shopping behaviours. For example some shoppers are more driven by hedonic motives while others are driven more by utilitarian motives. Utilitarian shoppers are known to be more task oriented in their shopping, seeking efficiency and saving of time while hedonic shoppers love adventure associated with shopping irrespective of whether the buying task is achieved or not (Chiu, Wang, Fang & Huang 2014:96).

In this study shopping enjoyment is considered to be a phenomenon that online customers are expected to experience irrespective of their shopping orientation so long as the right conditions exist. The study postulates that online store interactivity is one such condition that should result in customers enjoying their shopping experience. It also postulates that shopping enjoyment has a positive influence on customers’ behavioural response in terms of behavioural intention to revisit an online store.

3.1 Web system interactivity and shopping enjoyment

An online store web system that is more interactive is regarded as one that facilitates ease with which customers search for and view products online. Product acquisition regardless of whether it is done online or offline involves search and evaluation before the actual buying. Cognisant of the two key features associated with interactivity, namely control and information exchange, this study posits that navigation ease and customisation are key factors associated with web system related interactivity that capture an individual’s control and ease of access to online store content including information.

3.1.1 Navigation ease

With regard to online store information search, researchers observe that online customers are interested in shopping sites that are easy to navigate (Agarwal & Ganesh 2014:122). In order for this to be possible, the web system needs to be designed in such a way that it facilitates customers’ ability to easily log on and move around the store. This also entails the need to ensure that site pages are able to load fast enough. Akrimi and Khemakhem (2014:230) found that slow loading of web sites is one of the main reasons behind customer dissatisfaction with online retail sites. Saleem-ur-Rahman, Salo, Hussain & Zaheer (2013:1537) found that ease of use has positive influence on customers’ feelings of satisfaction with websites. Pantano & Servidio (2012:283) found that perceived ease of use
of virtual stores has positive influence on perceived enjoyment. It is therefore hypothesised in this study that:

**H1:** Navigation ease is positively related to online store shopping enjoyment

### 3.1.2 Customisation

This relates to online customers’ ability to tailor the web environment in accordance with one’s preferences. Advancements in technology have resulted in availability of tools that online businesses can use to facilitate their customers’ ability to customise the way in which they want to view products (Altarteer, Charissis, Harrison & Chan 2013:221). Specifically, tools are now available that enable customers to zoom on products, view products from different angles and/or in different dimensions.

Customisation has the potential to help stimulate cognitive capacity and reduce risk associated with online shopping. This is because by being able to view products more closely and at different angles one is able to get a better appreciation of the product’s features and be more informed to evaluate the product before deciding on whether to buy or not (Shim & Lee 2011:953).

Rose, Clark, Samouel and Hair (2012:314) found that the greater the opportunity to customise a retail website, the greater the level of customers perceived control. They also found that the greater the level of perceived control when using online shopping sites, the greater the customers’ affective experiential state. Lee, Kim and Fiore (2010:140) found that online shoppers’ ability to experiment with product appearance positively affected their level of shopping enjoyment. It is thus hypothesised in this study that:

**H2:** Customisation is positively related to online store shopping enjoyment

### 3.2 Human interactivity and shopping enjoyment

Human interactivity in this study captures the ability to interact as well as ease with which interactions take place between retailers and customers and/or between online customers themselves. Yoo et al. (2010:90) observed that user control in online person interactivity is associated with ability of the user to take some action to start a communication or create a message. They further noted that of interest in personal interactivity is also the issue of responsiveness in terms of whether the user gets feedback on their message and the speed at which the message is provided. The study focuses on two sub-dimensions of person interactivity. These are:
3.2.1 Two-way communication
Not all online stores provide opportunities for reciprocal retailer-customer communication. This may explain why lack of human interaction, in particular with sales assistants, is recognised as one of the major barriers associated with online shopping (Fang 2012:1790). Saleem-ur-Rahman et al. (2013:1541) pointed out that when online retailers make it easy for customers to contact them and ask questions it does not only help in ensuring that customer queries are addressed but it also helps enhance trust in the retailer.

Gu, Oh and Wang (2013:327) observed that reciprocal communication is widely recognised in literature as an important facet of interactivity. Ganguly, Dash and Cyr (2011:16) found that two-way communication between online retailers and customers has a positive influence on customer satisfaction. In online retailing reciprocal communication between online retailer and customer is regarded as an important factor that determines customers’ perceptions of a site’s level of socialness.

Wakefield, Wakefield, Baker and Wang (2011:118) found that web socialness perceptions have positive influence on level of enjoyment experienced by users of a site. They also found that perceptions of a site’s helpfulness positively influences level of enjoyment experienced. It is thus hypothesised in this study that:

H3: Two-way communication is positively related to online store shopping enjoyment

3.2.2 Customer communication
Businesses today are increasingly taking advantage of interpersonal communication opportunities presented by the internet by establishing platforms such as chat-rooms and customer feedback pages on their sites where customers can socialise and share their shopping experiences (Curty & Zhang 2013:267).

Sites that provide such opportunities are associated with high levels of interactivity. Coverdale and Morgan (2013:6) observed that ability to interact with other customers and provide reviews online helps to enhance customers’ feelings of social presence. Ogonowski, Montandon, Botha and Reyneke (2014:488) found that perceptions of social presence have significant positive influence on customers’ online shopping enjoyment. It is therefore hypothesised in this study that:

H4: Customer communications is positively related to online store shopping enjoyment
3.3 Enjoyment and intention to revisit

Coverdale and Morgan (2013:9) pointed out that examination of continuance intention is extremely important in e-commerce as repeat customers are essential for business success. Cyr, Head and Ivanov (2009:859) found that online sites that are perceived to be more interactive are associated with high levels of enjoyment and that enjoyment is positively related to users’ loyalty to online site. They defined users’ loyalty as a plan to continue visiting a site in future.

Al-Maghrabi and Dennis (2011:911) also found that experience of enjoyment is positively related to online shoppers’ continuance intentions. These findings are in line with assertions by Mehrabian and Russell (1974:11-12) that consumer response to marketing stimuli can be represented by approach or avoidance behaviours. Intention to revisit a store is an example of approach behaviour. It is thus hypothesised that:

H5: Shopping enjoyment is positively related to online store revisit intentions.

3.4 Conceptual model

Figure 1 presents the conceptual model tested in the study. The model brings together the hypothesised relationships in the study. It posits that online store interactivity influences customers’ shopping experience as evidenced by enjoyment which in turn affects customers’ behavioural intentions as defined by intentions to revisit an online store.

4. METHODOLOGY

4.1 Research approach

The study followed a quantitative research approach. This involved collection of quantitative data using a structured questionnaire. The choice of research approach was informed by the need to collect data from many respondents so as to allow for hypothesis testing using statistical techniques. According to Burns and Bush (2010:235) quantitative unlike qualitative research is a good approach to take when there is need to collect data from a large number of people.
4.2 Target population and sampling
The target population for the study was online shoppers from Gauteng. Due to the need for informed consent, only shoppers who were 18 and above were targeted for data collection. Non-probability sampling in the form of quota sampling was used in selecting the respondents. Non-probability sampling was selected as there was no readily available list of online shoppers that could be used to draw a random sample. Quota sampling was chosen so as to ensure adequate representation of both male and female online shoppers.

4.3 Measures and data collection
Constructs of interest in the study were measured using multi-item scales the details of which are provided in Table 1. All items were drawn and adapted from literature. This helped to enhance the validity of the measures. Specifically items used to measure navigation ease and customer communications were drawn and adapted from Dholakia and Zhao (2009:837) while items used to measure customisation were adapted from Srinivasan, Anderson and Ponnavolu (2002:48). Items used to measure two-way communication were adapted from...
Dholakia and Zhao (2009:837) and Wang and Head (2007:122). Shopping enjoyment was measured using items adapted from Cyr et al. (2009:866) while behavioural intention to revisit was measured using items adapted from Gounaris, Dimitriadis and Stathakopoulos (2010:154).

**TABLE 1: Measurement scales, reliability and factor loadings**

<table>
<thead>
<tr>
<th>Constructs and items</th>
<th>Composite reliability coefficient</th>
<th>Factor loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>EON – Ease of navigation</td>
<td>.783</td>
<td>.826</td>
</tr>
<tr>
<td>EON 1 - When I surf this site the pages load fast</td>
<td></td>
<td>.847</td>
</tr>
<tr>
<td>EON 2 - It is easy to find information I want on this website</td>
<td></td>
<td>.832</td>
</tr>
<tr>
<td>EON 3 - This site enables me to complete transactions quickly</td>
<td></td>
<td>.866</td>
</tr>
<tr>
<td>Cus – Customisation</td>
<td>.790</td>
<td>.831</td>
</tr>
<tr>
<td>Cus 1 - When surfing this site, I felt like I had a lot of control over how I can view product on the site</td>
<td></td>
<td>.866</td>
</tr>
<tr>
<td>Cus 2 - This website enables me to view the merchandise from different angles/view different parts</td>
<td></td>
<td>.819</td>
</tr>
<tr>
<td>Cus 3 - I felt that I had a lot of control over how I can see and examine a product on the website</td>
<td></td>
<td>.815</td>
</tr>
<tr>
<td>TWC – Two-way communication</td>
<td>.760</td>
<td>.859</td>
</tr>
<tr>
<td>TWC 1 - When surfing this site I felt I had a lot of control over what to do when I want to communicate back</td>
<td></td>
<td>.815</td>
</tr>
<tr>
<td>TWC 2 - I feel that this retailer responds to customers queries very fast</td>
<td></td>
<td>.782</td>
</tr>
<tr>
<td>TWC 3 - The website facilitates two way communication</td>
<td></td>
<td>.784</td>
</tr>
<tr>
<td>CC – Customer communications</td>
<td>.901</td>
<td>.936</td>
</tr>
<tr>
<td>CC 1 - This website allows customers to share their shopping experiences with other customers</td>
<td></td>
<td>.907</td>
</tr>
<tr>
<td>CC 2 - Customers socialise with other members of the customer community on this website</td>
<td></td>
<td>.903</td>
</tr>
<tr>
<td>CC 3 - I felt that I had a lot of control when I wanted to leave my reviews</td>
<td></td>
<td>.917</td>
</tr>
<tr>
<td>SE – Shopping enjoyment</td>
<td>.754</td>
<td>.841</td>
</tr>
<tr>
<td>SE 1 - The website creates a shopping experience that is interesting</td>
<td></td>
<td>.828</td>
</tr>
<tr>
<td>SE 2 - The website creates a shopping experience that is pleasurable</td>
<td></td>
<td>.784</td>
</tr>
<tr>
<td>SE 3 - The website creates a shopping experience that is frustrating</td>
<td></td>
<td>.844</td>
</tr>
<tr>
<td>OSRI – Online store revisit intentions</td>
<td>.877</td>
<td>.852</td>
</tr>
<tr>
<td>OSRI 1 - I intend to revisit this site in future</td>
<td></td>
<td>.844</td>
</tr>
<tr>
<td>OSRI 2 - I am likely to revisit this site in the near future</td>
<td></td>
<td>.852</td>
</tr>
<tr>
<td>OSRI 3 - I will revisit this site in future</td>
<td></td>
<td>.852</td>
</tr>
</tbody>
</table>

Source: Calculated from survey results
A five point Likert scale anchored on 1 = strongly disagree to 5 = strongly agree was used to measure the respondents’ level of agreement with each statement item. In answering the questions, respondents were asked to keep a specific online retail store in mind. Trained research assistants were used to collect the data.

Respondents were personally approached by the data collectors at varied places including shopping malls and places of work and asked to participate in the study by filling the questionnaire. Since the population of interest was online shoppers, the questionnaire had a screening question that asked individuals to indicate if they shopped online or not. The data collectors were present during the filling of the questionnaire ready to respond to any questions that the respondents may have had and also to ensure that all the questions were answered. At the end of the data collection stage a total of 201 usable questionnaires were received. 103 of the respondents were males while 98 were females.

4.4 Data analysis

Version 21 of SPSS/AMOS statistical software was used to analyse the data. Structural equation modelling was the main statistical technique used for the analysis. A two stage process was followed during the analysis.

The first stage involved assessment of the measurement model using confirmatory factor analysis. The model was assessed in terms of goodness of fit as well as reliability and validity of the constructs. The second stage involved examination of the structural model for goodness of fit and hypothesis testing.

Goodness of model fit for both the measurement and structural model was assessed using multiple fit indices including the normed chi-square, the goodness of fit index (GFI), the Comparative Fit Index (CFI), the Tucker Lewis Index (TLI) and the Root Mean Square Error of Approximation (RMSEA). Hair, Black, Babin and Anderson (2010:672) recommend use of a mix of indices in assessing goodness of fit of measurement and structural models.

Construct reliability was measured using the composite reliability coefficients. According to Geldhof, Preacher and Zyphur (2014:73) composite reliability coefficients provide more precise estimates of reliability than those provided by alpha coefficients. In assessing validity the study looked at convergent validity, nomological validity as well as discriminant validity.

According to Gaskins (2013:Online) convergent validity ‘means that variables within a single factor are highly correlated while discriminant validity refers to the extent to which factors are distinct and uncorrelated’.
Nomological validity means that relationship between constructs supports the theoretical framework of a study (Hair et al. 2010:724). In this study convergent validity was assessed using the average variance extracted (AVE) while nomological validity was assessed by observing levels of correlation between constructs hypothesised in the model to be related. Discriminant validity was assessed by comparing the AVE with the maximum shared variance (MSV) as well as by comparing the absolute values of the construct correlations with the square root of the average variance extracted.

5. RESULTS

5.1 Assessment of the measurement model

The composite reliability coefficient of each of the six constructs used in the study was checked first followed by statistics relating to model fit and validity testing. According to the Hair et al. (2010:710) composite reliability coefficients of 0.7 and above indicate that high levels of construct reliability. According to the results in table 1, all the constructs used in this study showed very high levels of reliability. The Composite reliability coefficients of the constructs ranged from 0.754 to 0.901 with the lowest being for shopping enjoyment and the highest being for online customer communications.

The results on goodness of fit of the measurement model showed that the Chi-square ($\chi^2$) was found to be 165.172 with 119 degrees of freedom (df) and a significant p value of 0.003. Other fit indices showed acceptable fit as per Gaskins (2013:Online) as well as Hair et al. (2010:672). Specifically the normed chi-square ($\chi^2$/df) was found to be 1.388 which is well below the recommend maximum value of 3. The value for GFI was 0.918, the CFI was 0.972, the TLI was 0.972 while the RMSEA was 0.044. Thus values for the GFI, CFI and the TLI were all above the recommended minimum of 0.9 while that of the RMSEA was below the recommend maximum value of 0.06.

Results on validity of the constructs are presented in Table 2.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>EON</th>
<th>Cus</th>
<th>TWC</th>
<th>CC</th>
<th>SE</th>
<th>OSRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>EON</td>
<td>4.29</td>
<td>.647</td>
<td>.739</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cus</td>
<td>3.83</td>
<td>.668</td>
<td>.605**</td>
<td>.747</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TWC</td>
<td>3.80</td>
<td>.763</td>
<td>.590**</td>
<td>.693**</td>
<td>.717</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TABLE 2: Means, standard deviations and construct validity
The influence of online store interactivity on customers’ shopping experience: an empirical investigation

<table>
<thead>
<tr>
<th>Construct</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>EON</th>
<th>Cus</th>
<th>TWC</th>
<th>CC</th>
<th>SE</th>
<th>OSRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC</td>
<td>3.45</td>
<td>1.047</td>
<td>.200**</td>
<td>.446**</td>
<td>.447**</td>
<td>.868</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SE</td>
<td>4.14</td>
<td>.584</td>
<td>.599**</td>
<td>.603**</td>
<td>.477**</td>
<td>.284**</td>
<td>.713</td>
<td></td>
</tr>
<tr>
<td>OSRI</td>
<td>4.34</td>
<td>.605</td>
<td>.665**</td>
<td>.501**</td>
<td>.459**</td>
<td>.102**</td>
<td>.625**</td>
<td>.839</td>
</tr>
<tr>
<td>AVE</td>
<td></td>
<td>.546</td>
<td>.557</td>
<td>.514</td>
<td>.753</td>
<td>.508</td>
<td>.705</td>
<td></td>
</tr>
<tr>
<td>MSV</td>
<td></td>
<td>.442</td>
<td>.480</td>
<td>.480</td>
<td>.200</td>
<td>.391</td>
<td>.442</td>
<td></td>
</tr>
</tbody>
</table>

Note:
1. ** correlation is significant
2. Construct correlations are off first diagonal values while first diagonal values are the square root of the AVE

Source: Calculated from survey results

According to the results all the constructs met the conditions of convergent validity. As per Hair et al. (2010:709) convergent validity is evident when a construct’s AVE coefficient is 0.5 or higher. The AVE coefficient for the constructs in this study ranged from 0.514 to 0.753 with the lowest being for two-way communication and the highest being for online customer communications. Hair et al. (2010:722) notes that factor loadings of 0.5 and above are also an indication of convergent validity. The results in Table 1 shows that all the items used to measure each construct had loading of greater than 0.5 thereby supporting the conclusion of adequate convergence.

Correlation results presented in Table 3 show that there were significant correlations between constructs hypothesised in the study to be related. These include correlation between shopping enjoyments and all its hypothesised interactivity related precursors as well as between shopping enjoyment and online store revisit intention.

**TABLE 3: Results of the hypothesis testing**

| Shopping enjoyment | --- Ease of navigation | .487 | .118 | .000 | H1 Supported |
| Shopping enjoyment | --- Display customisation | .351 | .124 | .008 | H2 Supported |
| Shopping | --- Two-way communication | .002 | .129 | .987 | H3 Not |
The influence of online store interactivity on customers' shopping experience: an empirical investigation

<table>
<thead>
<tr>
<th></th>
<th>Standardised regression coefficient</th>
<th>SE</th>
<th>P</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>enjoyment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shopping enjoyment &lt;-- Customer community</td>
<td>.006</td>
<td>.046</td>
<td>.941</td>
<td>H4 Not supported</td>
</tr>
<tr>
<td>Online store revisit intentions &lt;-- Shopping enjoyment</td>
<td>.711</td>
<td>.084</td>
<td>.000</td>
<td>H5 Supported</td>
</tr>
</tbody>
</table>

Source: Calculated from survey results

As per Hair et al. (2010:710.) these significant correlations provide evidence of nomological validity. Results in Table 3 also provide evidence of discriminant validity. According to Gaskins 2013:Internet) discriminant validity is evident when the MSV is less than the AVE. This condition was met for all the constructs which means that each is distinctively different from the other.

The findings in this study thus show that the measurement model was acceptable as it met conditions for reliability, validity and several model fit indices.

5.2 Assessment of the structural model

After establishing the goodness of the measurement model, the structural model was examined in order to establish its goodness of fit as well as test the hypothesised relationships. In terms of goodness of fit, the chi-square value was found to be 193.206 with 123 degree of freedom and a significant p value of 0.000.

All other fit indices showed acceptable fit of the structural model as per Gaskins (2013: Internet) and Hair et al. (2010:672). The normed chi-square value was found to be 1.51, the GFI was 0.902, the CFI was 0.958, the TLI was 0.947 while the RMSEA was 0.053. These results provide evidence of acceptable fit of the structural model.

The results of the hypothesis testing, presented in Table 3 show that three of the hypothesised five paths had significant p values. These include the path from navigation ease and customisations respectively to shopping enjoyment as well as the path from shopping enjoyment to online store revisit intention.

Of the significant precursors of shopping enjoyment, ease of navigation was found to have more influence on enjoyment than customisation as evidenced by its higher standardised regression coefficient value of 0.487 compared to 0.351 for customisation. The results also
show that shopping enjoyment has very strong effect on online store revisit intention. The standardised regression coefficient associated with this path was 0.711.

6. DISCUSSION AND IMPLICATIONS

6.1 Need for customer shopping enjoyment

Scholarly literature including Al-Maghrabi and Dennis (2011:915) and Shephard, Kinley and Josiam (2014:278) points to the need for retailers to pay attention to ensuring that customers have an enjoyable experience when shopping in their stores. The findings in this study affirm the importance of shopping enjoyment. They show that enjoyment has an important influence on online customers’ intentions to revisit online stores. In marketing, it is widely acknowledged that the cost of recruiting new customers is much higher than the cost of returning existing one (Beitelspacher, Richey & Reynolds 2011:216).

Some scholars state that the cost of recruiting new customers can be as much as five times or more when compared to the cost retaining existing ones (Kuo, Hu & Yang 2013:170). The online retail environment specifically the fact that it is easy for customers to visit many stores, makes it harder online retailers to retain customers. Nevertheless, by working on measures aimed at ensuring that customers have an enjoyable shopping experience, retailers can retain their existing customers and minimise costs to be incurred on ensuring that their stores have an optimal customer base in terms of numbers.

6.2 Work on web system interactivity so as to influence shopping enjoyment

The web site is the primary interface between customers and online stores. The findings in this study point to the need for online retailers to pay attention to web design issues so as to ensure higher levels of system interactivity. The findings in particular show that websites that are designed to be more interactive as to allow ease of navigation have more positive influence on customers’ level of shopping enjoyment than those that are not. Commenting on ease of navigation Saleem-ur-Rahman et al. (2013:1537) noted that people in general find websites that are difficult to navigate very frustrating. Taylor, Sullivan, Mullen and Johnson (2011:904) observed that poor web usability resulting from navigation difficulties are one the major reasons behind website abandonment.

Managers interested in ensuring that their online stores are easy to navigate need to pay attention to web design and functionality. The findings in this study underline the importance of these factors. They show that customers value website that they can enter and look
around without problems. Online managers can ensure this by among other things making use of trained web designers to help with their online store development as well as by making sure that they have access to adequate bandwidth to support expected traffic to their stores. Technology is readily available these days to allow managers check on traffic levels to their stores.

The need for care in designing online store is also evident by the findings in this study which shows that online retailers can also improve levels of customers’ enjoyment with their shopping experience by designing their websites so as to allow customers to be able to customise how they view information including products. By allowing customisation, online retailers may be able to demonstrate higher levels of responsiveness to customers’ needs than if they do not. Researchers often point to lack of ability to have a proper view of a product as one of the major factors that contribute to online shopping being associated with more risk than shopping at traditional retail outlets (Shim & Lee 2011:946). While this problem cannot be completely removed as it is impossible to physically view products bought online, display customisation allows customers to get a better view of products than would otherwise be possible.

6.3 Human interactivity

The retail environment is not only about space for information and products, but also for personal interaction. In the traditional retail environment, store assistants are often readily available to ensure that customers are properly served including ensuring that customer queries are attended to promptly (Chu & Yuan 2013:132). Additionally online retailers can have in place online sales assistants to help customers with queries they may have albeit in a computer mediated environment.

The website can also be designed to allow customers to be able to interact with one another through store sponsored social sites or through reviews pages where customers can post, read and comment of other customers review comments. Studies have attested to the positive influence that personal interactivity has on customers especially on feelings of social presence as well as attitude towards and satisfaction with online shopping sites (Coverdale & Morgan 2013:6)). While this is so, the findings in this study show that personal interactivity does not have a significant impact of levels of shopping enjoyment per se. This may be due to a number of factors.
One of these could be the fact that one of the benefits of online shopping is to do with ability to shop in private and avoid the influence of other people. Customers who may be primarily driven by this benefit may not be interested in personal interactivity in their shopping.

Another related reason may be to do with the need for assistance. Two-way communication is especially important when customers have issues that need the assistance of others including retail staff in order to be resolved. Thus while the findings show that personal interactivity does not contribute to shopping enjoyment, it does not mean that personal interactivity is not necessary in online shopping. Customers are likely to need such services in times when they have queries or problems that need to be addressed. Customers’ ability to easily contact staff and the speed with which staff are able to resolve customers queries can help ensure customer satisfaction with their shopping experience.

7. CONCLUSION

The online channel offers great business opportunities for retailers in South Africa and beyond. Use of the channel does not however guarantee retail business success. Stiff competition in the online environment demands that managers look for and implement strategies that can help differentiate themselves from other retailers in ways that are appealing to customers. While there are many possible factors that manager can look into, this study investigated the concept of online store interactivity and the influence that it has on online shopping experience of enjoyment as well as on their behavioural intentions to revisit an online store.

From the findings it can be concluded that online managers can exert positive influence on their customers’ levels of shopping enjoyment by improving on interactivity levels of their websites. Personal interactivity factors in particular ability to easily engage in two way communication with retail staff as well as communicate with fellow customers do not have significant influence on customers’ experience of enjoyable shopping at an online store. Levels of shopping enjoyment experienced by online customers do have significant positive influence on their intentions to revisit online stores.

The findings in this study point to the importance of interactivity in marketing, more so, in online retailing. The study contributes theoretically by proposing and testing a model showing the effects of different dimensions of interactivity on line shopping experience. In so doing the study extends our understanding of the relative impacts of web system and human interactivity in online retailing context. The findings are also of significant practical implications. Managers and designers of online retail systems including web stores can use
the findings to guide them on how to ensure online store interactivity and the likely effects of different interactivity factors on their customers.

While the study makes contributions to understanding online store interactivity and its effects on customer experience, it is not without limitations. The first limitation relates to the fact that the study is based on a sample of online shoppers from a limited geographical area, namely Gauteng. Secondly the sample was drawn using non-probability sampling techniques. This means that the findings may not be generalisable to the wider population of online shoppers in South Africa. More studies are thus needed to help ascertain the benefits associated with interactivity found in this study as well as to identify more interactivity related factors associated with the different benefits.

REFERENCES


The influence of online store interactivity on customers' shopping experience: an empirical investigation


The influence of online store interactivity on customers' shopping experience: an empirical investigation


