Analyzing the Effect of One-Stop Shopping on Purchase Intention in E-Commerce

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ABSTRACT
Beginning with the advent of the internet in the mid-nineties, e-commerce started to be a viable alternative way of shopping for consumers worldwide. Without doubt, it could be said that e-commerce has become indispensable in our lives. The recent global pandemic has increased e-commerce adoption by elderly people even further as the sole way of buying their needs. This paper studies the direct and indirect effects of product portfolio in B2C e-commerce websites on customers’ purchase intention through perceived value and brand loyalty. SEM method was used to test the hypotheses. The results of the study indicate that product portfolio does not have a direct effect on purchase intention. However, it does have an indirect influence on purchase intention through perceived value and brand loyalty. As a result, this study validates the extant literature by confirming the mediating role of brand loyalty between the relationship between perceived value and purchase intention. The findings obtained are believed to provide a significant contribution to the related e-commerce literature.

KEYWORDS
Brand Loyalty, Customer Satisfaction, E-Commerce, Product Portfolio, Purchase Intention

1. INTRODUCTION
With the advent of the Internet, consumer-buying behavior has started to change permanently. Thanks to its convenient nature, online shopping has become the preferred medium of consumption for consumers all around the world. This trend has accelerated in the recent years. Owing to the ever-increasing mobile penetration rates and increased adoption of smartphones, this change has become more prevalent in the recent years. As one of the parts of this trend, electronic commerce (e-commerce) has started to be a preferred way of conducting business with the brands. As such, global adoption of e-commerce paved the way to a substantial increase in e-commerce growth rates. B2C e-commerce share of total global retail sales has almost doubled in 5 years.

E-Commerce can be defined as the use of digital medium to conduct business transactions (WTO, 2020). Business-to-Consumer (B2C) e-commerce has a special importance by enabling trade for consumers worldwide, providing more convenient ways of shopping. As a consequence, businesses...
should take e-commerce into account when formulating their strategies. Therefore, scholars as well as marketing and brand managers have to tailor their efforts toward e-commerce environment.

In explaining the rise of e-commerce medium, some unique characteristics of e-commerce environment are worth noting. First, e-commerce enables individuals all around the world to buy from anywhere at anytime (Rohm et al., 2004). E-commerce enables increased value-add by providing place utility (location independency) and time utility (being able to buy on a 7/24 basis). Additionally, online consumers seek more variety (Donthu et al., 1999). Wide product portfolio, that is, offering a broader array of product assortments is also critical for providing a better shopping experience (Kim et al., 2003). Product portfolio has even increased more, and thus, has become more important nowadays as global giant e-commerce web sites like Amazon, eBay etc. dominate the e-commerce markets by providing one-stop-shopping experience to their online consumers (Srinivasan et al. 2002). As such, this study analyzes product portfolio’s effect on customer perceived value, brand loyalty and purchase intention in the context of e-commerce. The recent Covid-19 (Coronavirus) pandemic, in particular, has brought about the fact that even elderly people who are not so acquainted with the online medium have felt the need to use online shopping as the sole method for fulfilling their needs to survive during lockdown. Shopping of all kinds of necessities is now possible through global e-commerce websites like Amazon.com. Even niche products that are not available in physical stores can conveniently be found in the e-commerce environment. The e-commerce adoption rate increased sharply from 13 percent to 30 percent in a single year, which was projected to reach in 5 years (Salesforce, 2020). First time digital consumers account for about 40 percent of the growth in e-commerce consumption. These developments have paved the way for e-commerce web sites to further expand and enrich their product offerings to meet the needs of their consumers. Product portfolio, that is, the width and depth of products, offered in e-commerce web sites has become an important factor in the competitive e-commerce environment. Consumers increasingly spend more time dealing with e-commerce giants like Amazon, eBay, AliExpress as the means for “one-stop shopping”, searching for all kinds of products. Hence, wide product portfolio has become a sought-after criterion in e-commerce web sites. In fact, wide product portfolio is a decisive factor of e-commerce due to the fact that consumers can find everything, including even the niche items that cannot be found elsewhere on e-commerce web sites. Product portfolio is increasingly important in today’s world as consumers from all around the world increasingly resort to e-commerce for fulfilling their needs of all types in the post-pandemic marketing environment.

The motivation behind this research is that, although there is an excess of work that studies the effect of e-service quality dimensions on customer loyalty and purchase intention in the extant literature (Srinivasan et al., 2002; Chao et al., 2014; Kassim et al., 2010; Otim et al., 2006; Kumar et al., 2020), there are only a few studies that focus specifically on product portfolio as a distinct and increasingly important dimension of e-service quality (Zeng et al., 2009; Jiang et al. 2016).

Zeng et al. (2009) assessed product portfolio as one of the key subconstructs of customer satisfaction as a precedent to purchase intention and have found out that product portfolio has a direct significant effect on purchase intention in e-commerce environment.

Similarly, Jiang et al. (2016) have studied product portfolio as one of the main five dimensions of e-service quality that affect perceived value and brand loyalty. Jiang et al. (2016) study conforms with Parasuraman and Grewal’s (2000) quality-value-chain model. The present study is innovative in that it fills the gap in the literature by assessing all the aforementioned phenomena, namely; product portfolio, perceived value, brand loyalty and purchase intention together by investigating the direct and indirect relationships between them.

Branding strategy, customer satisfaction, brand loyalty and purchase intention are crucial to the overall performance of B2C e-commerce websites.

There are a number of studies in the extant literature that investigate the effect of different electronic commerce quality constructs on different variables. The summary of the existing research which focus particularly on perceived value, brand loyalty and purchase intention is given in Table 1.
Table 1. Summary of the existing research on e-service quality and related constructs

<table>
<thead>
<tr>
<th>Authors(Years)</th>
<th>Context</th>
<th>Variables</th>
<th>Consequences</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lin and Sun (2009)</td>
<td>Online Shopping customers in Taiwan</td>
<td>e-Service Quality</td>
<td>Brand Loyalty</td>
<td>221</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Perceived Usefulness</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Perceived Ease of Use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bernardo et al. (2012)</td>
<td>Online Travel Agency Customers in Spain</td>
<td>Functional Quality</td>
<td>Perceived Value</td>
<td>1201</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hedonic Quality</td>
<td>Brand Loyalty</td>
<td></td>
</tr>
<tr>
<td>Chiu et al. (2014)</td>
<td>Online Shopping (Yahoo!Kimo Shoppers in Taiwan)</td>
<td>Utilitarian Benefit</td>
<td>Repurchase Intention</td>
<td>782</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hedonic Benefit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wen et al. (2014)</td>
<td>Online Shopping (Collage Students in US)</td>
<td>Channel Quality including product portfolio</td>
<td>Brand Loyalty Customer Satisfaction</td>
<td>717</td>
</tr>
<tr>
<td>Jiang et al. (2016)</td>
<td>Online Shopping customers in US</td>
<td>e-Service Quality including product portfolio</td>
<td>Perceived Value Brand Loyalty</td>
<td>235</td>
</tr>
<tr>
<td>Yang et al. (2017)</td>
<td>Mobile Shoppers in China</td>
<td>e-Service Quality m-Service Quality</td>
<td>Customer Satisfaction Repurchase Intention</td>
<td>317</td>
</tr>
</tbody>
</table>

As can be seen from the figure, although there are a few studies that investigate the effect of product portfolio on brand loyalty and perceived value, there is a lack of study that focus particularly on the chain effect of these variables as a whole.

Hence, this study tries to fill in the gap in the literature by analyzing the indirect, as well as direct effects of product portfolio on customers’ purchase intention through customer perceived value and loyalty to the websites. In conceptual background, product portfolio, perceived value, brand loyalty and purchase intention concepts are discussed. Conceptual model is followed by introducing the research model and methodology. The last part includes the analysis results, discussion and implications for future research.

2. CONCEPTUAL BACKGROUND

2.1. Product Portfolio

Product portfolio refers to the breadth and depth of products found in e-commerce websites (Rangone et al., 2000). Simonson (1999), on the other hand, defined product portfolio as the total set of items offered by an online retailer. Through e-commerce websites, it is convenient for consumers to search and find a wide variety of products (i.e. Amazon.com, eBay etc.)

The significant importance of product portfolio in e-commerce websites has been highlighted by different scholars (Yang et al. 2004; Srinivasan et al. 2002). Product variety has been acknowledged...
as an important factor in e-commerce practices. This is because customers expect to see a variety of choices to pick from in a given category according to their diverse needs (Barcia, 2000; Cho and Park, 2001). Although product portfolio is classified as one of the important e-service quality dimensions, this dimension is not studied as much as other dimensions in the literature. One of the few studies on product portfolio is that of Jiang et al. (2016) in which product portfolio is found to directly affect perceived value and brand loyalty in B2C e-commerce setting.

In conforming the significance of product portfolio in e-commerce setting, Page et al. (2002) have identified the wide product assortment as one of the key ingredients in building perceived value. Likewise, Srinivasan et al. (2002) have pointed out product portfolio as a precedent to brand loyalty in e-commerce. Chao et al. (2014), on the other hand, have studied the effect of a number of variables on purchase intention in online shopping and found, among others, product portfolio to be affecting purchase intention. Furthermore, Yan et al. (2016) argue that product portfolio even plays an important role in recommendation systems in online setting.

One peculiar characteristic of the e-commerce setting is that consumers could find some particular, niche products only in the e-commerce environment. This is because such niche products are not available in physical stores. This distinct characteristic of e-commerce signifies the importance of product portfolio further in online shopping. This attribute of e-commerce websites could also be classified as convenience (Jiang 2013). In recent years, e-commerce websites have increased their product range even further in order to positioning themselves as “one-stop-shop” brands. Amazon.com, Aliexpress.com and the like brands can be provided as examples to such e-commerce websites.

In the light of recent trends, it is more important than ever to interrogate the effect of product portfolio on other critical dimensions in e-commerce web sites. Within this framework, this study focuses on perceived value, brand loyalty and purchase intention as the dimensions affected by product portfolio.

2.2. Customer Perceived Value

Equity theory can be assessed as the origin of customer perceived value. According to the equity theory, customers assess the outcome, that is, what they get based on the input and what they give in their relationship with the other party (Oliver et al., 1988). In other words, customers assess the ratio of output they receive to the costs and sacrifices they made and, as a result, expect to be treated equitably (Bolton et al., 1999). This evaluation process is inclusive of evaluation of non-monetary as well as monetary costs. Non-monetary costs include time cost, the energy and mental effort required to perform the transaction, etc. (Oliver et al., 1988, Komulainen et al., 2007). Adopting this view, Oliver (1997) defined customer perceived value as an overall assessment of the risks and rewards in conducting business with a brand and its products.

Although customer perceived value basically represents this tradeoff based on equity theory, some scholars argue that perceived value is a broader concept that also incorporates rather intangible constructs like overall shopping experience and so forth. (Zeithaml, 2000; Sinha et al., 1998). As such, Zeithaml (2000) defines customer perceived value more broadly as the overall assessment of the utility of a brand’s product or service as perceived by customers. This utility is not in consideration of the product on its own, but in e-commerce setting, brand’s web site quality, product portfolio etc. all contribute to the value perceived by customers (Keeney, 1999). As such, this study adopts Zeithaml’s broader definition of customer perceived value.

Given the fact that competition is even higher in online shopping, Yang et al. (2004) has demonstrated the direct effect of perceived value in achieving brand loyalty in e-commerce. Regarding the effect of customer perceived value on purchase intention, some scholars have associated customer perceived value as a direct antecedent to purchase intention. Chen and Dubisky (2003), for example, identified customer perceived value as a critical variable that has effect on purchase intention. However, many scholars identify customer perceived value as a variable that contributes to brand loyalty in the long run, which ultimately paves way to repeat purchase intention.
We argue that this view is more appropriate as purchase intention is a long-term phenomenon whereas customer perceived value is rather a momentary phenomenon that represents the reflection of the experience at that particular moment.

As such, in our research model, we do not propose a direct relationship between customers perceived value and purchase intention. In contrast, we propose that customer perceived value affects brand loyalty and brand loyalty, in turn, affects purchase intention in the long run.

Customer perceived value reflects consumers’ net gain from their consumption behavior, thus it is likely to be used as an indicator of purchase intention (Chen and Dubinsky, 2003). In other words, customers generally choose certain products based on their superior value compared to competing products. It is especially the case in e-commerce setting that customers search for websites that provide better customer value (Chang and Wang, 2011).

Building long-term relationships and loyalty with the consumers is especially important in e-commerce because of the fact that consumers can easily find alternatives in an online medium.

### 2.3. Brand Loyalty

Brand loyalty is defined as a consumer’s disposition (in terms of preference, attitude and behavior) to one or more brands in a product category (Engel et al., 1982). Odin et al. (2001) define brand loyalty as the degree to which a consumer is committed to a brand, and Boulding et al. (1993) stated that brand loyalty can be inferred by the inclination to recommend the brand to acquaintances.

Brand loyalty concept is one that evolves through different phases over time. Oliver (1997) categorizes these phases into four distinct parts. These phases are, cognitive, affective, conative (also known as behavioral intention) and action loyalty, in respective order. When it comes to the dimensions of brand loyalty, scholars mainly identified two distinct dimensions; namely, attitudinal loyalty and behavioral loyalty (Zeithaml, 2000; Oliver, 1997; Chaudhuri et al., 2001; Anderson et al., 2003). Attitudinal loyalty represents a long-term, high order psychological commitment to maintain a relationship with a brand (Czepiel and Gilmore, 1987; Shankar et al., 2003). Behavioral loyalty, on the other hand, represents the demonstration of a repeat usage of a brand (Koo, 2006).

Within the scope of this study, attitudinal loyalty is explored in terms of brand loyalty. In this regard, two distinct constructs; namely, word of mouth and repurchase intention are brought into question. Word of mouth could be defined as a consumer’s positive or negative assessment of a brand’s performance, in oral form (Buttle, 1998), as a result of the consumer’s satisfaction level with the brand (File et al., 1994). Repurchase intention can be defined as a consumer’s intention to buy from the same brand in the future based on their past experience with the brand (Hellier et al., 2003; Seiders et al., 2005).

As today’s marketplaces became much more competitive, brand loyalty is acknowledged as one of the most important marketing strategies for the brands (Zhang and Bilgihan, 2015). This especially holds true for the e-commerce landscape because of its more competitive nature and consumers’ being able to switch the website of their choice much more easily (Yang et al., 2004). The e-commerce environment is also known as the one that is more difficult to attain brand loyalty. Acknowledging this viewpoint, Smith (2005) has identified loyalty maximization as one of the most crucial objectives of e-commerce websites. Özgener and İraz (2006) confirmed this fact by highlighting that acquisition of new customers is five to ten times more costly than customer retention. Another study confirms the same phenomenon by demonstrating that a typical online customer becomes profitable only after the fourth or fifth purchase from the online retailer (Mainspring and Bain Co., 2000).

On the other hand, Ganesh et al. (2000) have pointed out that customers who are loyal to the brand are less price sensitive and less prone to competitive attacks. Furthermore, Reinartz and Kumar (2002) found out that brand loyalty also leads to customer to spend more, to be willing to pay premium and to refer the brand to their acquaintances positively (a.k.a. word of mouth - WoM). As a consequence, brand loyalty can be said to bring about increased revenue for e-commerce brands (Aksoy, 2013).
2.4. Purchase Intention

Based on the planned behavior theory, Ajzen (1991) states that behavioral intention is the most important indicator of behavior. Scholars generally use purchase intention to represent the actual behavior (Lin, 2006). Purchase intention can be defined as a customer's probability of continuing to buy from the brand (Davis, 1989). In the e-commerce context, purchase intention is crucial for the brand website to be profitable (Lee, 2002). In the end, behavioral consequences are more important in e-commerce than other measures like customer attitudes and so on. Therefore, purchase intention is used as a dependent variable in this study to predict the actual behavior.

3. RESEARCH MODEL AND HYPOTHESIS DEVELOPMENT

The conceptual research model shown in Figure 1 constitutes four hypotheses, which were put forward to clarify the effect of product portfolio on purchase intention.

3.1. The Relationship Between Product Portfolio and Perceived Value

Product portfolio can be assessed as one of the primary quality constructs in online service (e-service) context. Yang et al. (2004) have identified the other dimensions as reliability, ease-of-use and responsiveness. Parasuraman et al. (2000) explained the relationship between service quality and other consumer behavior-related dimensions with a chain model (quality → perceived value → loyalty chain). On the other hand, Cronin et al. (2000) have pointed out a significant relationship between product portfolio and perceived value. Chen and Dubinsky (2003), have demonstrated a relationship between e-service quality dimensions and perceived value. From the B2C e-commerce perspective, this model has been validated by Jiang et al. (2016), demonstrating a significant relationship between product portfolio and perceived value.

Hence, based on the finding in the previous literature, we formulate the following hypothesis:

H1: Product Portfolio has a positive effect on Perceived Value.

3.2. The Relationship Between Customer Perceived Value and Brand Loyalty

Chiu et al. (2005) have demonstrated that perceived value has a positive effect on brand loyalty both directly and indirectly through customer satisfaction. Agustin et al. (2005) have demonstrated that customer perceived value is an important precedent of brand loyalty. Chen and Dubinsky (2003) argue that high customer perceived value is one of the primary motivations for customer patronage, and hence, brand loyalty in e-commerce. Parasuraman and Grewal (2000), Leden et al. (2007), and
Civelek et al. (2018, 2019) studies also draw similar conclusions. Sirdeshmukh et al. (2002) argue that customer perceived value is a superordinate goal and brand loyalty is a subordinate goal. As stated in the goal and action theory, a superordinate goal regulates a subordinate one. Accordingly, Sirdeshmukh (2002) argues that customer perceived value regulates brand loyalty.

Confirming all of these findings, Luarn and Lin (2005) have postulated various arguments on the critical importance of perceived value in building brand loyalty. Consumers’ perception of significant value leads to sticking with the vendor and being less likely to switch vendors. Oliver et al. (1988) argue that everything else being equal, high-perceived value may increase brand loyalty significantly.

Thus, in the light of the existing literature, we hypothesize that:

\[ H_2: \text{Perceived Value has a positive effect on Brand Loyalty.} \]

### 3.3. The Relationship Between Brand Loyalty and Purchase Intention

Supphellen et al. (2001) have found significant relationship between brand loyalty and purchase intention in e-commerce environment. The study by Wang et al. (2006), which incorporated brands’ both traditional and online retail store, has confirmed this relationship. Kamariah et al. (2005) have also demonstrated brand loyalty as a good indicator of purchase intention on the brand’s website.

Hence, it can be concluded that consumers with a high loyalty to an e-commerce site is also highly likely to have a strong purchase intention on the site.

Thus, in the light of the existing literature, we hypothesize that:

\[ H_3: \text{Brand Loyalty has a positive effect on Purchase Intention.} \]

### 3.4. The Relationship Between Product Portfolio and Purchase Intention

Product portfolio can be assessed as an important variable that leads to purchase intention from e-commerce websites. This is due to the peculiar nature of e-commerce websites that fulfills diverse needs of online consumers including but not limited to niche products which are not available in physical stores (Barcia, 2000). In assessing customer satisfaction in e-commerce, Zeng et al. (2009) argue that product portfolio has a significant effect on purchase intention. Similarly, Chao et al. (2014) have studied the effect of a number of variables on purchase intention in online shopping and found, among others, product portfolio to be affecting purchase intention indirectly.

Therefore, based on the previous literature, we can form the following hypothesis:

\[ H_4: \text{Product Portfolio has a positive effect on Purchase Intention.} \]

### 4. RESEARCH METHODOLOGY

To test the research hypotheses, structural equation modeling was used as a quantitative research method. The survey was designed according to five-point ordinal Likert scale. In the first step of data analysis, the reliability and validity of the scales were tested. Due to the complex structure of the conceptual research model, structural equation modeling was chosen as a multi-variable statistical method to clarify the direct and indirect relationships among the dimensions (Civelek, 2018). The superiority of this method lies in the taking measurement errors into consideration (Byrne, 2010). SPSS and AMOS statistics programs were used for conducting analyses.

#### 4.1 Measures and Sampling

The scale adopted from Jiang et al. was used to measure product portfolio, brand loyalty and perceived value (Jiang et al., 2016). The scale adopted from Chen et al. was used to measure purchase intention.
(Chen, Teng, 2013). More than 500 questionnaires were distributed in prominent cities throughout Turkey. 464 valid questionnaires were collected and the sample consists of 240 males and 224 females.

4.2 Construct Validity and Reliability

For the exploratory factor analysis, principle component analysis was conducted. In this step, data were purified and prepared for confirmatory factor analysis (CFA). CFA analysis was conducted for the remaining 15 items. By means of CFA, convergent validity of the constructs was determined (Anderson & Gerbing, 1988). CFA model fit indices have been found to be adequate as follows: χ²/DF = 1.843, CFI=0.954, IFI=0.955, RMSEA= 0.060. χ²/DF ratio is under the threshold level of 3 (Bagozzi & Yi, 1990) and shows good fit. Furthermore, other fit indices exceeded their recommended thresholds and show good fit.

In Table 2, the results of confirmatory factor analysis are indicated. The standardized factor loads of each item are larger than 0.5 and significant. Along with good fit indices results, this strengthens the determination of the convergent validity of the scales. The square roots of AVE values of each variable were calculated to determine the discriminant validity of the scales. The diagonals in Table 3 represent the square root of AVE values. Composite reliability and Cronbach α values are also indicated in Table 3. These values were found to be beyond the threshold level (i.e. 0.7) (Fornell & Larcker, 1981). Construct Correlation, composite reliabilities, average variance extracted values, and Cronbach α values of each constructs are presented in Table 3.

4.3 Test of Hypothesis

To test the hypotheses, maximum likelihood estimation method was used. In CB-SEM, the evaluation of the structural regression model was performed by calculating the goodness of the fit indices. The χ² statistic and the root mean square error of approximation (RMSEA) are considered to be the absolute goodness of fit indices. On the other hand, the comparative fit index (CFI) and the incremental fit

<table>
<thead>
<tr>
<th>Variables</th>
<th>Items</th>
<th>Standardized Factor Loads</th>
<th>Unstandardized Factor Loads</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Portfolio</td>
<td>Ppo0330</td>
<td>0.752</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Ppo0229</td>
<td>0.674</td>
<td>0.999</td>
</tr>
<tr>
<td>Perceived Value</td>
<td>Pva0434</td>
<td>0.695</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Pva0535</td>
<td>0.702</td>
<td>0.998</td>
</tr>
<tr>
<td></td>
<td>Pva0333</td>
<td>0.508</td>
<td>0.839</td>
</tr>
<tr>
<td></td>
<td>Pva0131</td>
<td>0.553</td>
<td>0.819</td>
</tr>
<tr>
<td></td>
<td>Pva0232</td>
<td>0.693</td>
<td>1.052</td>
</tr>
<tr>
<td>Brand Loyalty</td>
<td>Bly0641</td>
<td>0.580</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Bly0136</td>
<td>0.831</td>
<td>1.544</td>
</tr>
<tr>
<td></td>
<td>Bly0439</td>
<td>0.630</td>
<td>0.225</td>
</tr>
<tr>
<td></td>
<td>Bly0237</td>
<td>0.864</td>
<td>0.512</td>
</tr>
<tr>
<td></td>
<td>Bly0338</td>
<td>0.717</td>
<td>1.416</td>
</tr>
<tr>
<td>Purchase Intention</td>
<td>Pin0142</td>
<td>0.727</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Pin0344</td>
<td>0.840</td>
<td>1.115</td>
</tr>
<tr>
<td></td>
<td>Pin0243</td>
<td>0.850</td>
<td>1.119</td>
</tr>
</tbody>
</table>

p<0.05 for all items
Table 3. Construct descriptives, correlation and reliability

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Product Portfolio</td>
<td>(0.714)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Perceived Value</td>
<td>0.493*</td>
<td>(0.635)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Brand Loyalty</td>
<td>0.427*</td>
<td>0.521*</td>
<td>(0.733)</td>
<td></td>
</tr>
<tr>
<td>4. Purchase Intention</td>
<td>0.341*</td>
<td>0.414*</td>
<td>0.590*</td>
<td>(0.807)</td>
</tr>
<tr>
<td>Composite reliability</td>
<td>0.675</td>
<td>0.769</td>
<td>0.850</td>
<td>0.848</td>
</tr>
<tr>
<td>Average variance ext.</td>
<td>0.510</td>
<td>0.404</td>
<td>0.537</td>
<td>0.652</td>
</tr>
<tr>
<td>Cronbach α</td>
<td>0.670</td>
<td>0.785</td>
<td>0.846</td>
<td>0.844</td>
</tr>
<tr>
<td>Mean</td>
<td>3.98</td>
<td>3.74</td>
<td>3.82</td>
<td>3.98</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>0.77</td>
<td>0.65</td>
<td>0.74</td>
<td>0.75</td>
</tr>
</tbody>
</table>

*p < 0.01
Note: Diagonals show the square root of AVEs.

Table 4. Hypotheses test results

<table>
<thead>
<tr>
<th>Relationships</th>
<th>Standardized Coefficients</th>
<th>Unstandardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Portfolio → Perceived Value</td>
<td>0.733*</td>
<td>0.880*</td>
</tr>
<tr>
<td>Perceived Value → Brand Loyalty</td>
<td>0.719*</td>
<td>0.619*</td>
</tr>
<tr>
<td>Brand Loyalty → Purchase Intention</td>
<td>0.599*</td>
<td>0.754*</td>
</tr>
<tr>
<td>Product Portfolio → Purchase Intention</td>
<td>0.100</td>
<td>0.130</td>
</tr>
</tbody>
</table>

*p < 0.05

index (IFI) are considered as the relative goodness of fit indices (Akgün, Ince, Imamoğlu, Keskin, & Kocoğlu, 2014).

As shown in Figure 2, structural model fit indices adequately indicate model fit. χ²/DF value is 1.849 and within threshold levels (i.e., between 0 and 2). CFI and IFI are 0.948 and 0.949, respectively. RMSEA is 0.061. The results indicate that the model has adequate fit (Civelek, 2018). As shown in Table 3, H₁, H₂ and H₃ are supported; and H₄ is not supported. These results of the tests indicate a positive and significant relationship between product portfolio and perceived value, between perceived value and brand loyalty and between brand loyalty and purchase intention. Yet, there does not exist a significant direct relationship between product portfolio and purchase intention.

4. DISCUSSION

The findings signify that product portfolio, which was previously found to have direct affect on purchase intention in the extant literature (Zeng et al., 2009) doesn’t affect purchase intention directly. However, it does have an indirect effect through the mediating role of customer perceived value and brand loyalty, which can be viewed inline with the well-known quality→value→loyalty chain (Parasuraman and Greenwal, 2000).

This paper is, significant in that it analyzes the increasingly important, but less studied product portfolio dimension in terms of its effect on customer perceived value, brand loyalty and purchase intention in the context of B2C e-commerce. This study also emphasizes the role of the perceived...
value in the creation of brand loyalty. In this context, the importance of product portfolio, which plays a triggering role at the beginning of this mechanism, has been revealed once again with this study.

5. CONCLUSION

In the light of recent trends, it has become more important than ever to interrogate the effect of product portfolio on other critical dimensions in e-commerce web sites. Within this framework, this study focuses on perceived value, brand loyalty and purchase intention as the dimensions affected by product portfolio. It can be noted that this research provides significant contribution to the existing body of literature by explaining the relationship between product portfolio, perceived value, brand loyalty and purchase intention. Through this study, it has been revealed that product portfolio does not directly affect purchase intention in B2C e-commerce context, which can be indicated as the most prominent finding of this study compared to the previous literature regarding the effect of product portfolio on intention (Zeng et. al., 2009) through the employing of structured equation modeling technique. On the other hand, product portfolio has an effect on purchase intention on an indirect basis through perceived value and brand loyalty.

This particular finding points toward the fact that product portfolio found in B2C e-commerce websites is concerned with the improved perceived value of the e-commerce brand ultimately, adding to the brand loyalty. In turn, brand loyalty paves the way to the purchase intention of customers. The findings have important practical and managerial implications. In the light of the aforementioned
insights take-commerce brand managers could take more educated steps with regard to the planning and execution of their e-commerce website strategies as well as improving their brands. The findings indicate that rich product portfolio is not sufficient on its own to create purchase intention. Perceived value and brand loyalty should be involved consecutively so that customer intention for purchase can be created in the long term.
REFERENCES


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