

MEASURING E- COMMERCE FEATURES BASED ON CONSUMER PERCEPTION IN ETHIOPIA USING SMART PLS APPROACH

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ABSTRACT

The Internet facilitated the expansion of e-commerce in Ethiopia, which led to the establishment and expansion of local online retail stores. The current study analyses how perceived risk of information security and privacy is considered in the Ethiopian setting, despite the fact that many internet users avoid online shopping due to privacy and security worries. Using Smart- PLS, 166 viable sample responses were collected and analysed. The results indicate that a consumer's awareness of privacy, third-party sealing, design element, delivery capability, and service expectation affects their preference for the web as a whole. Additionally, transaction delivery capacity is a major predictor of the route coefficient. Expected and intended internet service characteristics. Therefore, it is strongly advised that e-commerce enterprises keep a careful eye on the most significant variables that consumers evaluate while making online purchases.

Key words: Consumer behaviour; E-commerce; Privacy; security; trust

1. INTRODUCTION

The Internet has aided the expansion of e-commerce on a global scale, resulting in an increase in the number of online retail stores (Ramayah & Ignatius, 2005; Adams, 2017). B2C e-commerce is becoming increasingly popular around the world because of the rapid growth of the internet, particularly through mobile devices. It has shown that the Internet's wide availability of information, interactive experience, convenience, time-saving, variety, cost savings and price comparison all have a positive impact on consumers in the online shopping environment (Kim & Stoel, Apparel retailers: website quality dimensions and satisfaction., 2004; Harn, Khatibi, & Ismail, 2006; Brown & Muchira, 2004; Preibusch, Peetz, Acar, & Berendt, 2016; Jibril, Kwateng, Nwaiwu, Appiah-Nimo, Pilik, & Chovancova, 2020).

Despite this, many internet users refrain from making purchases because they are concerned about their privacy and security (Liebermann & Stashevsky, 2002; Gangadharan, 2017; Otika, Olise, & Oby, 2019; Anic, Škare, & Milaković, 2019). This has made developing confidence in online shopping is critical for the success and expansion of online retailing. Empirical studies by (Wongkitrungrueng & Assarut,

2020; Hazari, Bergiel, & Sethna, 2017; Hsu & Chen, 2018; Wang, Wang, Lin, & Abdullat, 2021) have shown that the features and design of online shopping sites can be leveraged to improve trust on the e-commerce platform for business to consumer transactions and building loyalties.

There have been studies in the past that show that customers' expectations for service quality (Kalia, Arora, & Kumalo, 2016) and information search (William, Appiah, & Botchway, 2016), online design choice (Nasser, Islam, Zainal, Azam, & Prabhakar, 2015; Tian & Wang, 2017), awareness (Zhao, Wang, Tang, & Zhang, 2020; Chen, Rashidin, Song, Wang, Javed, & Wang, 2021), perceived value of online shopping features (Chang & Wang, 2011; Wu, Chen, Chen, & Cheng, 2014; Pham, Tran, Misra, Maskeliūnas, & Damaševičius, 2018), product quality information (Kim & Krishnan, 2015) efficiency of service quality (Jauw & Purwanto, 2017) and web design (Hasan, 2016). Considered as key and major determinant in the case of online purchase intention and a critical for successful business decision. Hence, this study fills this need by focusing on Ethiopians on their perceptions of consumer privacy and information sharing using the keno model.

2. LITERATURE REVIEW

2.1. Online Privacy self-control

Scholars shows that relatively few consumers believe that they have very much control over how personal information, revealed online, is used or sold by businesses (Agre & Rotenberg, 1998; AlGhamdi, Drew, & Al-Ghaith, 2011; Bhowmik, 2012). Hence, the combination of current business practices, consumer fears, and media pressure has combined to make privacy a potent problem for electronic commerce (Kim, Song, Braynov, & Rao., 2005).

Internet literacy is defined as the ability to use the Internet proficiently and securely as a result of how familiar and knowledgeable a person is, in regards toward the Internet (Belanger & Crossler, 2011). For an individual to be considered Internet-literate, the individual must be familiar with the practices used to protect privacy online, as well as the risks that follow the use of online services (AlGhamdi, Drew, & Al-Ghaith, 2011; Acquisti & Gross, 2006). However, the complexity of the Internet increases over time, people are often left uneducated as to the new risks and consequences that develop with the growth of the Internet (Adams, 2017; Acquisti & Grossklags, 2003).

2.2. Trust

Trust has always been an important element in influencing consumer behaviour toward merchants (Fung & Lee, 1999) and has been shown to be of high significance in uncertain environments such as Internet-based commerce's (Chellappa, 2001) While

a variety of factors such as branding(Bhattacharjee, 2002) and store reputation(Bhattacharjee, 2002; Bansal, Zahedi, & Gefen, 2016) may influence trust, one missing factor is the face-to-face communication and lack of touch and feel which is present in physical interactions(Vasić, Kilibarda, & Kaurin, 2019). Therefore, it has been argued that trust would be favorably influenced by increase in perceptions of security and privacy in e-commerce transactions (K., Chellappa, & Pavlou, 2002; Plank, D.A. Reid., & Pullins., 1999).

Trust is perhaps the most important influence on information disclosure(Hoffman et al., 1999; Jarvenpaa et al., 2000; Swaminathan, Lepkowska-White, & Rao, 1999). It is a function of the amount and type of control one has in a relationship and is a central concept of social exchange theory in interpersonal communication research (Bryant, 1992). Social exchange theory asserts that individuals weigh the costs and rewards in deciding whether to engage in social transactions(Chellappa & Sin, 2005). If the rewards are determined to outweigh the costs, then the individual is likely to enter into an exchange relationship(Acquisti & Gross, 2006).

Trust is a critical to this process because it is believed to reduce the perceived costs of such transactions(Corritore, Kracher, & Wiedenbeck, 2003). Indeed, several studies of interpersonal exchange situations have confirmed that trust is a precondition for self-disclosure because it reduces the perceived risks involved in revealing private information(Bakri, 2020; Rahman & Yusrizal, 2020; Walczak & Gregg, 2009; Alwi, Nguyen, Melewar, Loh, & Liu, 2016). Finding shows that indicated that consumers' trust and beliefs in e-businesses are formed by their mental images of e-businesses that developed through brand image development (Walczak & Gregg, 2009; Chen & T.-Y. Chou, 2012; Esch, Langner, Schmitt, & Geus., 2006; Ke, Chen, & Su, 2016).

If there is a strong trust between the consumer and shopper, cooperative behaviours, such as sharing potentially sensitive information with other parties, will be built(Bhattacharjee, 2002; Bakri, 2020). Researchers have identified that trust in service organizations affects users' data disclosure behaviour(Acquisti & Gross, 2006). A previous study indicated that trust in a party yields a higher likelihood of assessing the performance of the party favourably(Chen, Yan, Fan, & Gordon, 2015; Bansal, Zahedi, & Gefen, 2016). People who trust service providers believe that service providers have the ability to offer a positive utility, thereby enhancing the perceived usefulness of the provided service(Corritore, Kracher, & Wiedenbeck, 2003).

Individual with greater trust in a firm has a higher expectation of the benefits of disclosing personal information online(Agre & Rotenberg, 1998). Hence, it enables online consumers to believe that web service providers collect, store, and use their privacy information appropriately, thereby reducing their concerns regarding personal information disclosure(Corritore, Kracher, & Wiedenbeck, 2003). Moreover, a previous study suggested that a higher level of trust in a party's competence,

reliability, and capability to safeguard personal information is associated with a lower degree of perceived privacy risk (Flavián & Guinalú, 2006).

Culnan & Armstrong (1999) point out that although most research has focused on trust and self-disclosure in interpersonal contexts, similar balancing dynamics are used in electronic environments. That is, the risks of disclosing personal information are weighed against the benefits when deciding to provide information to a Web site and so trust is the key to disclosure in both interpersonal and online relationships (Swaminathan, Lepkowska-White, & Rao, 1999; Culnan & Armstrong, 1999; Jarvenpaa & Tractinsky, 1999; Swaminathan et al, 1999). Hoffman et al. (1999) supports this notion; 63% of Internet users who have declined to give information to Web sites reported doing so because of lack of trust.

Swaminathan et al. (1999) find trust to be a key antecedent to engaging in consumer transactions online because it reduces the risks associated with purchasing goods and services over the Internet. Jarvenpaa and Tractinsky (1999) found that trust increases confidence in a company, which lowers the perceived risk of electronic exchange with that company and, therefore, increases the likelihood of consumers engaging in electronic transactions. Hence, it is reasonable to suggest that trust will influence disclosure of personal information and particularly significant to the process of online exchange (Sultan, Urban, Shankar, & Bart, 2002; Boyd, 2003). Studies shows that trust in technology service providers can reduce consumer perceptions of risk (Fung & Lee, 1999; Noort, P. Kerkhof, & Fennis, 2007) hence, its protection may be a main value proposition in the online business market (Acquisti & Grossklags, 2003). There are a number of antecedent of trust.

2.3. Online Trust Dimensions

There is evidence that trust is a control mechanism in relationships concerning exchanges. It is characterized by uncertainty, vulnerability or dependence (Acquisti & Gross, 2006; Bansal, Zahedi, & Gefen, 2016; Bakri, 2020; AlGhamdi, Drew, & Al-Ghaith, 2011). Yet online shopping experience challenges that remain in making the user to click the purchase become most difficult task (Acquisti & Grossklags, 2003; Bhowmik, 2012; Alwi, Nguyen, Melewar, Loh, & Liu, 2016). This make trust is an important factor in the decisions of consumers shopping on the Internet (Acquisti & Gross, 2006; Bansal, Zahedi, & Gefen, 2016; Chen & T.-Y. Chou, 2012). Finding shows that online trust can be discussed in four dimensions as trust perception of the person (AlGhamdi, Drew, & Al-Ghaith, 2011), website design and product information (Alwi, Nguyen, Melewar, Loh, & Liu, 2016), reputation of the website as well as recommendations incident to the website and the website's security (Acquisti & Gross, 2006; Rahman & Yusrizal, 2020; Bansal, Zahedi, & Gefen, 2016; Flavián & Guinalú, 2006).

2.4. Perceived trust of the Person

(Alwi, Nguyen, Melewar, Loh, & Liu, 2016) shows that trust in the individual namely psychological sense shows personality-centered feature formed by life experiences, established feelings or beliefs of individuals that also defined by (Tan & Sutherland, 2004). Finding shows, consumer trust depends on the personal experiences (Rahman & Yusrizal, 2020; Bhattacharjee, 2002; Chellappa & Sin, 2005) and reputation of the store (Bhattacharjee, 2002; Bakri, 2020). The finding clearly signified that electronics vendors with good reputation significantly build trust and reduce perceived risk.

2.5. Website Design and Product Information

Consumers are drawn to a website's design, which in turn affects their level of trust (Blanco, Sarasa, & Sanclemente, 2010; Cyr, 2013; Fimberg & Sousa, 2020). Six stages are involved in website design: Search engines, site maps, and search results pages make it easier for users to find what they're looking for (Madu & Madu, 2002; Duyne, Landay, & Hong, 2007). Communication between the two parties is possible because of mutual interaction and communication mechanisms site visitors, sellers, and site administrators. Customers' personal information must be protected under the terms of the security and privacy statement (Papacharissi & Fernback, 2005; Keshav, 2010; Shaikh, Examining a Norwegian Clients Response over Information Security and Privacy Policy. , 2015; Chua, Herbland, Wong, & Chang, 2017).

3. MATERIAL AND METHOD

3.1. Sampling procedure

As of the 31st of December 2021, 200 questionnaires had been given and 166 had been returned, with the study's participants being primarily drawn from popular social media platforms like Facebook and Telegram. All variables in this investigation were modified from prior studies involving many authors (Shaikh, Sultan, & Asim, 2021; Hassan, Shukur, & Hasan, 2020; Suleman, Suharyadi, Rusiyati, Riffiasari, & Marwansyah, 2020)

The PLS-SEM technique was adopted by the authors because it can analyse aberrant data and complex models while also analysing a limited sample size. Technique ((Sarstedt, Hair, Cheah, Becker, & Ringle, 2019)). The Smart-PLS was used to evaluate the measurement and structural model of the data obtained (Hair et al., 2019). According to (Bailey & Bakos, 1997; Tsai & Yeh, Perceived risk of information security and privacy in online shopping: A study of environmentally sustainable products., 2010; Milne & Culnan, 2004; Hernandez, 2009; Demirdogen, Yaprakli, Yilmaz, & Husain, 2010; Thakur & Srivastava, 2014; Martín & Camarero, 2009) participants were asked to rate their level of concern about privacy and security of their personal data

Six measurements, which have been employed in different research, were used as key measurement for effective implementation of the Kano model. The research included in the information on product quality(Wells, Valacich, & Hess, 2011; Kim & Krishnan, 2015; Flanagan, Metzger, Pure, Markov, & Hartsell, 2014; Tsiotsou, 2006; Makgosa & Mohube, 2007; Chiu, Chang, & Cheng, 2009; Liao, Liu, & Chen, 2011).Efficient service quality (Jahangir & Begum, 2008; Ameen, Tarhini, Shah, & Madichie, 2020)and transaction and delivery capability were used six measurements that take from (Tsai & Yeh, 2010).

The primary objective of the data analysis was to compare consumer purchase demand with actual behavior. Six primary factors and 34 items were presented to evaluate consumer perception. On the first section, the items focused on what the consumers need to know about the website, such as the third party ceiling, information sharing, privacy notification, and how to use the data. The second section included product quality information, such as price, quality warranty, and overall performance, as well as default notifications to the consumers. Bipolar questionnaires were employed.

The first dimension measures how the implementation was regarded by us, while the second measures how much is required. Six defining points were included in the measurements. i.e., the appealing often referred to as delighters, these are features that clients do not anticipate, but that make them extremely happy. These are stringent requirements; if you do not meet them, your product will fail in terms of performance. These characteristics, also referred to as one-dimensional, simply promote enjoyment. Questionable refers to responses that are illogical, such as satisfaction increasing when a feature is both added and indifferent, which refers to features that a respondent does not necessarily care about, including or excluding does not increase or decrease, and features that result in dissatisfaction when implemented are referred to as features that cause dissatisfaction..

4.1. Data Analysis

The finding shows significant number of participant in the current study (54%) of them were female . also , 67% of them were engage in one line purchase activities for the last six month. 94% of them were having BA degree and disposable income above 10,000 on average. (Table 4.1.).

Table 4.1: Gender and Nationality of Respondents

| | | Frequency | Valid Percent |
|------------------------|---------|------------------|----------------------|
| Gender | Male | 90 | 54.0 |
| | Female | 76 | 46.0 |
| | Total | 166 | 100.0 |
| Education level | Diploma | 2 | 1.2 |
| | BA | 156 | 94.0 |

| | | | |
|---|----------|-----|-------|
| | Above BA | 8 | 4.8 |
| | Total | 166 | 100.0 |
| Purchase activities for last six month | Yes | 112 | 67.0 |
| | No | 54 | 33.0 |
| | Total | 166 | 100.0 |

Sources: - Survey Data 2022

4.2. Path coefficients

It is evident from the route coefficient that there is a relationship between expected service quality and web design, with a value of 0.382, but awareness of predicted service quality has a value of 0.212. Privacy and website design characteristics were 0.304. The route coefficient for privacy and transaction delivery was, as expected, 0.317. The correlation between product quality information and projected service quality was 0.642. In addition, there was a strong association between the proposed site design and the anticipated transaction delivery. Using factor analysis, the items in this study were reduced to six major functions. The objects had a loading of greater than 0.5. There were six primary dimensions for each of the 34 elements, indicating that the model accurately reflected the indications.

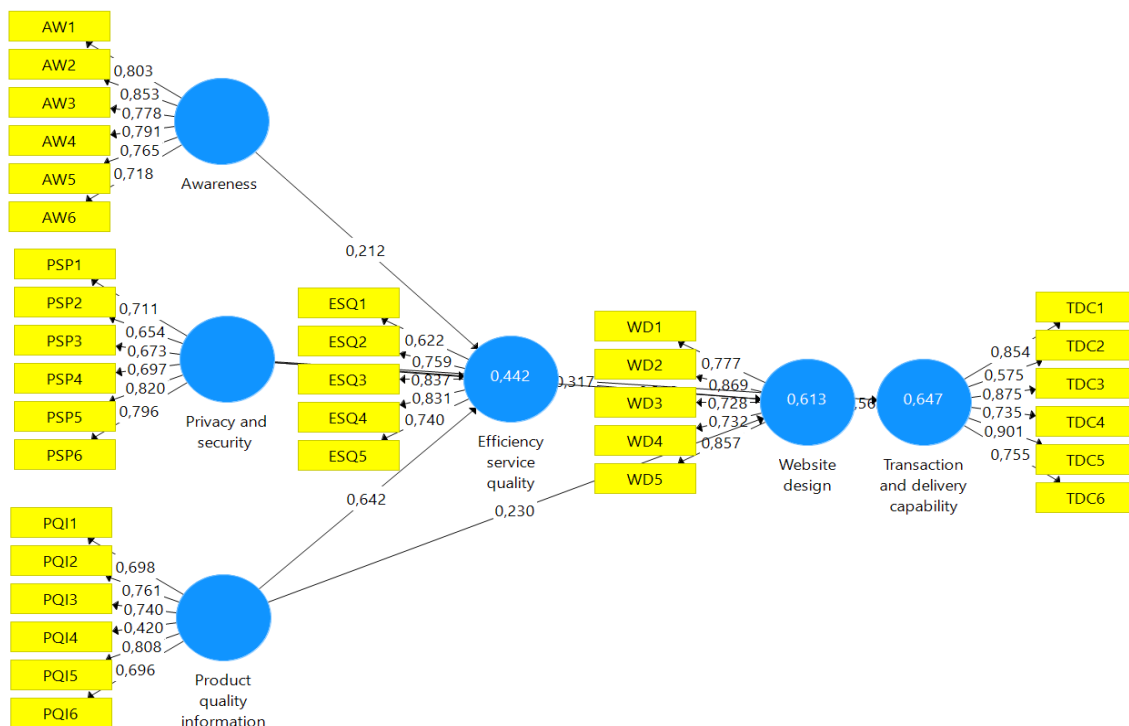


Figure 4.1. Interaction effect of E-commerce web quality measurements

Sources:- Survey data 2022

PLS-SEM technique was used to confirm the validity and “reliability of the current study. Reference to Hair et al. (2013) estimation of the “reliability, the indicators for the current study were higher than 0.50, and loading was significant at the level of $\alpha = 0.05$. To measure the validity of constructs on how a specific measurement truly measures, convergent validity test were conducted (Hair, Ringle, & Sarstedt, 2013). Hair et al. (2013) recommended examining AVE for verifying the convergent validity for construct levels. Except for one dimension, The AVE value that has a minimum threshold of 0.5 was ensured except for product quality information dimension. The composite reliability for the study was above the value of 0.7 showing it meet the displayed threshold of 0.7 (Sarstedt, Jr, F., Nitzl, & Howard, 2020).

Table 4.2. Outer Loading, Reliability and Validity Result

| | Indicators | Outer loading | Outer weight | Cr. alpha | rho_A | CR | AVE |
|-----------------------------|------------|---------------|--------------|-----------|-------|-------|-------|
| Level of awareness | | >0.708 | | >0.5 | | >0.7 | >.7 |
| | | | | 0.815 | 0.819 | 0.873 | 0.580 |
| | AW1 | 0.803 | 0.192 | | | | |
| | AW2 | 0.853 | 0.244 | | | | |
| | AW3 | 0.778 | 0.184 | | | | |
| | AW4 | 0.791 | 0.252 | | | | |
| | AW5 | 0.765 | 0.203 | | | | |
| Expected service quality | AW6 | 0.718 | 0.193 | | | | |
| | | | | 0.876 | 0.884 | 0.906 | 0.617 |
| | ESQ1 | 0.622 | 0.271 | | | | |
| | ESQ2 | 0.759 | 0.267 | | | | |
| | ESQ3 | 0.837 | 0.248 | | | | |
| | ESQ4 | 0.831 | 0.301 | | | | |
| Product quality information | ESQ5 | 0.740 | 0.232 | | | | |
| | | | | 0.824 | 0.841 | 0.870 | 0.530 |
| | PQI1 | 0.698 | 0.221 | | | | |
| | PQI2 | 0.761 | 0.242 | | | | |
| | PQI3 | 0.740 | 0.277 | | | | |
| | PQI4 | 0.420 | 0.134 | | | | |
| | PQI5 | 0.808 | 0.277 | | | | |
| PQI6 | 0.696 | 0.253 | | | | | |

| | | | | | | | |
|-----------------------------------|------|--------------|-------|--------------|--------------|--------------|--------------|
| Privacy and security | | | | 0.781 | 0.808 | 0.847 | 0.488 |
| | PSP1 | 0.711 | 0.219 | | | | |
| | PSP2 | 0.654 | 0.162 | | | | |
| | PSP3 | 0.673 | 0.192 | | | | |
| | PSP4 | 0.697 | 0.230 | | | | |
| | PSP5 | 0.820 | 0.289 | | | | |
| | PSP6 | 0.796 | 0.267 | | | | |
| Transaction and delivery capacity | | | | 0.875 | 0.906 | 0.907 | 0.624 |
| | TDC1 | 0.854 | 0.260 | | | | |
| | TDC2 | 0.575 | 0.140 | | | | |
| | TDC3 | 0.875 | 0.245 | | | | |
| | TDC4 | 0.735 | 0.164 | | | | |
| | TDC5 | 0.901 | 0.239 | | | | |
| | TDC6 | 0.755 | 0.194 | | | | |
| Web design | | | | 0.852 | 0.859 | 0.895 | 0.632 |
| | WD1 | 0.777 | 0.245 | | | | |
| | WD2 | 0.869 | 0.274 | | | | |
| | WD3 | 0.728 | 0.236 | | | | |
| | WD4 | 0.732 | 0.231 | | | | |
| | WD5 | 0.857 | 0.270 | | | | |

Sources: - Survey data 2022

4.2. Quality Criteria

Calculating (R^2) Value

The productivity latent construct in the inner path model got a value of 0.44. In addition, it reveals that these models account for 44% of the variation in kaizen dimensions and performance that can be attributed to productivity. The efficiency of the model's service quality and web design contributed 44,3 percent and 61,3 percent, respectively, to the rise in transaction delivery capacity. This study's findings were compared to those of Hair et al. (2013), using their suggested cutoff as a guide. There was a moderate to strong correlation between the current and dependent variables' R^2 values (.44 and .61, respectively). In other words, the results indicated

that R2 and path coefficients meet the current model evaluation criteria..(Hair, Ringle, & Sarstedt, 2013)

Table 4.3. R Square

| | R Square | R Square Adjusted |
|-------------------------------------|----------|-------------------|
| Efficiency of service quality | 0.442 | 0.431 |
| Transaction and delivery capability | 0.647 | 0.642 |
| Website design | 0.613 | 0.606 |

Sources:- Survey data 2022

4.3. Measuring the Effect Size (f^2)

The effect sizes (f^2) of the awareness, perceived privacy and product quality information ($f^2 = 0.473, 0.273, \text{ and } 0.317$ reflect a moderate effect between the independent, moderating and predicted variable as it shown in the threshold recommend by (Cohen, 2013). Hence, the findings on (f^2) present a satisfactory connection between expected service quality, awareness, perceived privacy and product quality information.

Table 4.4. f Square

| | F ² | Rating |
|------------|----------------|----------|
| ESQ->WD | 0.220 | Medium |
| AW->ESQ | 0.047 | Low |
| PV->ESQ | 0.017 | Low |
| PV->TDC | 0.165 | Medium |
| PV->WD | 0.106 | Medium |
| PQI->ESQ | 0.317 | High |
| PQI->WD | 0.045 | Low |
| WD->TDC | 0.518 | High |
| SRMR | 0.089 | Accepted |
| d_ ULS | 4.691 | Accepted |
| d_ G | 0.778 | Accepted |
| Chi-Square | 1529.806 | Accepted |
| NFI | 0.634 | Accepted |

Sources:- Survey data 2022

4.4. The Standardized-Root-Mean-Square-Residual (SRMR)

With a value of 0.08, the SRMR used to evaluate the fit of a projected model indicates satisfactory performance, which is equal to the threshold value of 0.08. The model is therefore acceptable. As shown in Table, the results indicate an NFI value of 0.634 and a goodness-of-fit score of 0.778.

Discriminate Validity

The Fornell-Larcker test is also performed to check discriminate validity (Fornell & Larcker, 1981) Table 5 shows the square root of the AVE is greater than the corresponding interconstruct correlations indicating the discriminate validity is well established.

Table 4.5. Fornell-Larcker Criterion

| | ESQ | AW | PV | PQI |
|-----|-------|-------|-------|-------|
| ESQ | 0.762 | | | |
| AW | 0.476 | 0.786 | | |
| PV | 0.452 | 0.631 | 0.728 | |
| PQI | 0.643 | 0.567 | 0.745 | 0.699 |
| TDC | 0.634 | 0.540 | 0.681 | 0.687 |
| WD | 0.667 | 0.529 | 0.648 | 0.702 |

Sources:- Survey data 2022

4.5. Heterotrait-Monotrait Ratio

Due to recent discovery of shortfalls of early discriminant validity measures such as cross loadings and Fornell–Larcker criterion (Voorhees, Brady, Calantone, & Ramirez, 2016). Heterotrait-Monotrait ratio of correlations (HTMT) were used as proposed by Henseler et al. (2016). Based on their recommendation Discriminant validity become an issue when the values of the analysis exceeded 0.85 (HTMT0.85) or 0.90 (HTMT0.90)(Henseler, Hubona, & Ray, 2016). Based on the result all the values between the constructs are lesser than the thresholds'. Therefore, it indicates that discriminant validity of this measurement model is ascertained and proves of no concern.

Table 4.6. Heterotrait-Monotrait Ratio (HTMT)

| | ESQ | AW | PV | PQI |
|-----|--------------|--------------|--------------|--------------|
| ESQ | | | | |
| AW | 0.548 | | | |
| PV | 0.520 | 0.750 | | |
| PQI | 0.784 | 0.660 | 0.899 | |
| TDC | 0.729 | 0.608 | 0.767 | 0.802 |
| WD | 0.797 | 0.610 | 0.752 | 0.854 |

Sources:- Survey data 2022

4.6. Discrete analysis

The Kano model demonstrates that the level of requirement for raising awareness regarding privacy, product quality discount, online feature, and overall service efficacy was very low; nonetheless, consumers view this as a crucial must-have criterion that makes them happy. Additionally, more than a third of the replies indicate that the criteria offered for the web serve as performance indicators for the online business in Ethiopia.

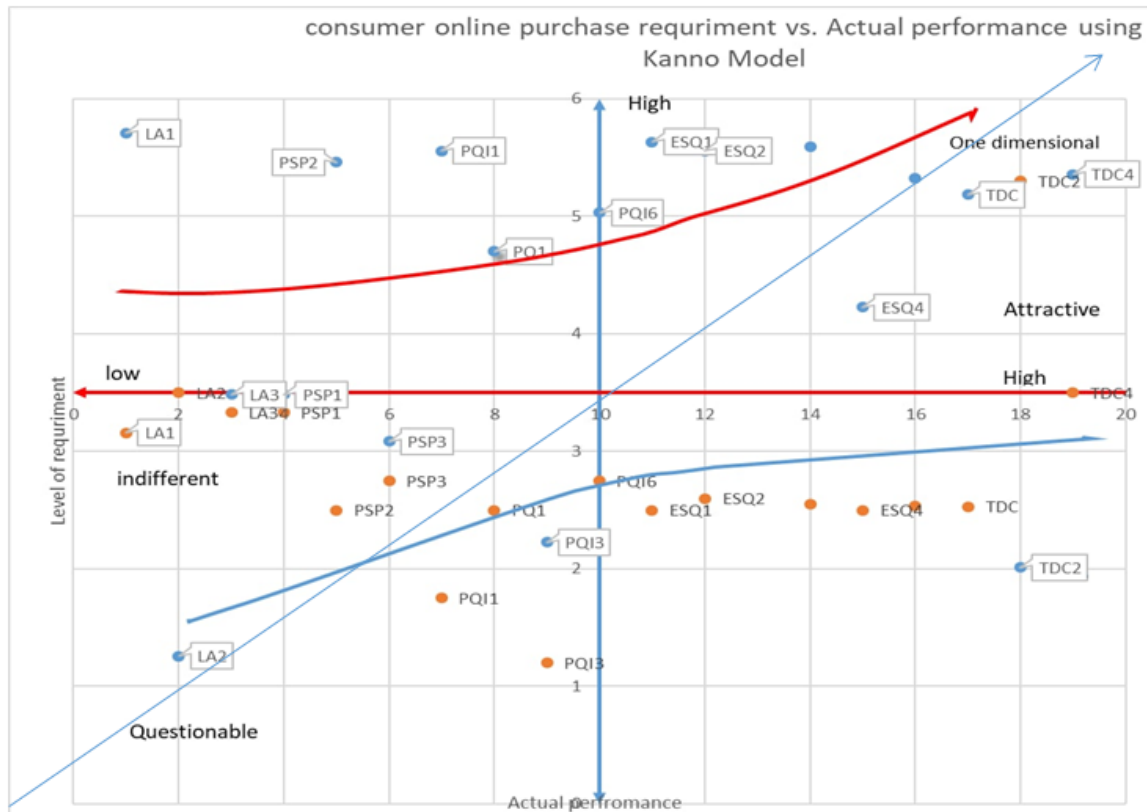


Figure 4.2. Consumer online purchase requirement vs. actual performance

Sources:- Survey data 2022

5. DISCUSSION AND CONCLUSION

5.1. Discussion

Approximately 46% of the participants were male, while 166 were female (54 Percent). Nearly two-thirds of individuals who participated in the study were women aged 41 to 50. The remaining participants' ages ranged from 18 to 35 years old. Between the ages of 20 and 30 and between the ages of 31 and 40

Assessment of the measuring model. It was conducted in accordance with Hair et al. (2019) and Hair et al. (2020) recommendations, including the evaluation of internal consistency reliability, indicator loadings, and convergent and discriminant validity of the measurement models. Internal consistency is evidence of credibility. Composite Reliability Values must be larger than or equal to 0.70, and construct indicator loads must likewise surpass that number (Hair et al., 2020). As stated in Table, the acceptable composite dependability for each variable is greater than or equal to 0.70. Indicators display loads.

Aim for a loading indicator number greater than 0.708% for the best outcomes. (Hair et al., 2020). There is a significant association between items with loading values between 0.731% and 0.967%. On the basis of the loading, variables from the first to the last dimension were minimized. Validity that corresponds with one another. The average variance extracted (AVE) was utilized to test for convergence validity, and a value larger than 0.50 is advised (Hair et al., 2019). As demonstrated in the following table, the Avg. Loading (AVE) for each construction falls between 0.74 and 0.87. All indicators included in this study have attained convergent validity. Value that sets apart. The discriminant validity of heterotrait–monotype ratio criteria (HTMT) was evaluated. HTMT readings less than 0.85 are generally regarded as safe for use (Hair et al., 2019). The HTMT test exhibits discriminant validity since all variables in Table 4 have a value less than 0.85.

Now, the investigators can go on to the structural model evaluation phase of their investigation for model. The mathematical model of the structure is evaluated. Next, the structural model evaluation is presented, including an evaluation of the coefficient of determination (R^2), effect size (f^2), predictive significance (Q^2), and structural model path linkages (hypotheses testing). Robustness is quantified by R^2 . The predictive potential of a structural model is determined by its R^2 value, which Hair et al. (2019) classify as 0.25 (weak), 0.50 (moderate), or 0.75 (strong) (substantial). This study demonstrates that, according to Hair et al., 43% of the variance was explained by the efficiency of service, 62% by transactional delivery, and 61% by site design.

The f^2 effect size test is used to determine how the value of R^2 changes when making predictions based on the study model. When an independent variable is eliminated from the study model, the effect on the dependent variable is investigated. According to Hair et al., there are three f^2 impact size levels: 0.35 (big), 0.15 (medium), and 0.02. (2019). (small). Where the model value changes between small and large values. hence, based on the proposed model, the level of awareness, the perception of security and privacy, and the quality of information influence the expected service quality, the expected product quality influences the web design, and the web design influences consumers' transaction capacity and delivery expectations. The finding demonstrates that web design influences the performance and expectations of an organization's online design.

However, it is challenging to build an e-commerce page that would appeal to and satisfy a large number of online shoppers. Based on the respondents' rankings, the findings of this study provide insight on how to customize a page to boost its level of trustworthiness. The addition of each and every function stated is not the greatest solution, as the website will appear cluttered, disorganized, and complicated. Instead, it is suggested that website owners conduct a survey to get information on the bulk of their customers.

5.2. CONCLUSION

This research was undertaken to determine the potential impact on level of awareness, product information quality, perceived risk, and security of design features and transaction online capability. The results indicate that there is a large gap in customer requirements. Actual execution on the rising Ethiopian market should build consumer trust based on their stated preferences.

Theoretically, the findings of this study contribute to our understanding of e-commerce trust, human/computer interaction and psychology, and customer preference. The results provide information on the primary elements chosen by online consumers, which may be utilized for evaluation and selection of websites, demonstrating how carefully e-commerce websites must be designed.

The findings of this research study inform e-commerce website owners, from a managerial aspect, of the need to identify important futures that facilitate the enhancement of trust. It specifies the exact feature that should be present on an e-commerce website, allowing the sectors to expand swiftly without interruption or acceptance issues.

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