

The customers' perception of privacy in the retail industry when adopting digital transformation

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ABSTRACT

In the current 4.0 context, digital transformation is a particularly necessary thing for retail businesses in particular or most businesses in general. That's why a sense of privacy is so important to retailers. This paper focuses on the factors affecting the privacy perception of customers in the digital transformation period in Ho Chi Minh City. 452 Ho Chi Minh City people who have experience with the digital revolution participated in quantitative research to evaluate and examine this correlation. The results of the study show that privacy impression is influenced by privacy worries, retailer vs. consumer advantage, privacy-intrusive experience, and retailer credibility. The association between customer benefit and privacy perception and between technology hedonism and privacy perception is unaffected by the role of store trustworthiness moderators.

1. Introduction

In the current information technology-driven environment, privacy threats are higher and individuals have relatively less control over their data (Whitley, 2009). According to Rejikumar, Gopikumar, Dinesh, Asokan-Ajitha, and Jose (2021), individuals' privacy concerns and consumer privacy beliefs significantly influence their online purchasing behavior. Tifferet (2019), Thelwall, Buckley, and Paltoglou (2012) conclude that the findings show that women have higher levels of privacy concerns and behaviors than men. However, the percentage of women shopping online is higher than that of men (Vietnam Market Research, 2020).

With increasing awareness of data privacy laws, the intention to seek legal redress for damages to individuals affected by privacy breaches may increase (Serwin, 2008). According to Ayaburi and Treku (2020), a company's misuse of customers' personal information can lead to perceptions of privacy violations and "trust deficits" among customers. Increasing customer demand for details of data collected, its uses, and potential harms (Libaque-Saenz, Chang, Kim, Park, & Rho, 2016) has forced companies to acknowledge the need to ensure consumer privacy, gain consumer trust, and create goodwill to avoid the risk of litigation.

All the time for more than 20 years, privacy has always been one of the issues that countries such as the US, the UK, Canada, Belgium, Israel, etc., have inspected. So, cultural differences act as the main driver of diversity in customer behavior (Hong, Muderrisoglu, & Zinkhan, 1987;

Moon, Chadee, & Tikoo, 2008; Pergelova & Angulo-Ruiz, 2017). In Vietnam, Bui (2017) indicated that the consumer perception of protecting private information is quite low despite their difference in demographic factors. On the other hand, the age of customers has an impact on their perception. According to Hoofnagle, King, Li, and Turow (2010), adolescents aged 18 - 24 years have less privacy awareness than adults and privacy knowledge is maximum for adults aged 40 - 55.

The study aims to uncover the factors that affect customers' perception of privacy, especially when digital technology is applied in the retail sector. In addition, considering the impact of culture between countries as well as the influence of specific demographic factors such as gender. Through that result, it is possible to bring new observations to the retailer and find out the best way to improve the customer's perception of privacy. Therefore, the study "The Customers' Perception of Privacy in the Retail Industry When Adopting Digital Transformation" aims to create a scientific basis for proposing managerial implications to improve customer perception in purchasing products through digital technology.

2. Theoretical framework

2.1. Literature review

Perceived privacy, according to Janse, Vink, LeeChin, and Mahmud (2008), is the ability to influence how information is processed. Regarding how this information is processed, Chellappa and Pavlou (2002) view it as a personal opinion. According to Adams and Blandford (2005), whether or not customers feel safe and private depends on how they feel about privacy, similar to how they feel about trust. According to Janse, Vink, Soute, and Boland (2007), customers' perceptions of the system and privacy have changed. In this study, privacy perception takes into account how consumers perceive having control over how their information is processed.

Companies may experience digital transformation in different ways, and it can be challenging to come up with a universal definition. However, in general, digital transformation can be defined as the integration of digital technology into every aspect of an organization, resulting in profound changes to how firms operate and how they provide value to customers (Erol, Jäger, Hold, Ott, & Sihm, 2016). According to Ebert and Duarte (2018), the deployment of disruptive technologies to boost productivity and production value and promote social well-being is what digital transformation means. Digital transformation will also be described by Ebert and Duarte (2018) concepts as a result of a customer perception study.

The advantages seem largely dependent on consumers' technology acceptance although new technologies are being invested in strongly (Mwesiumo, Halpern, Budd, Suau-Sanchez, & Bråthen, 2021). Accordingly, the Technology Acceptance Model (TAM) has been adopted widely to guess the construct (Davis, 1989). According to the TAM and its developments (such as Venkatesh & Davis, 2000), customers' intentions to embrace technology can be represented as a function of the technology's usefulness and simplicity of use. TAM has been widely used to explain consumers' attitudes toward technology acceptance because of how sparse it is (Venkatesh & Davis, 2000). However, some researchers have argued that this sparsity has a downside because it prevents the inclusion of other factors that might affect consumers' opinions of retail technologies (Kleijnen, De Ruyter, & Wetzels, 2007). By conducting their research, Pizzi and Scarpi (2020) added consumer privacy issues to the theoretical framework offered by TAM.

In other, the Justice Theory (Deutsch, 1985) proposes that the advantages of technologies could be counterproductive whether the advantages obtained are overbalanced by the number of information given (Aguirre, Roggeveen, Grewal, & Wetzels, 2016). This line of inquiry examines whether consumers believe they are obtaining enough value in return for the data they provide to retailers (Inman & Nikolova, 2017). Therefore, the justice theory contributes to the development of the privacy calculus model by explaining how individuals are subject to a trade-off between the costs and benefits of information disclosure (Dinev & Hart, 2006). According to the privacy calculus model, consumers' decisions regarding their privacy disclosure depend on how much weight they give to the risks and advantages associated with such disclosure (Dinev & Hart, 2006). This model specifically states that people are more inclined to divulge personal information when the advantages exceed the risks (Sun, Wang, Shen, & Zhang, 2015; Trepte, Scharkow, & Dienlin, 2020). In this vein, Norberg, Horne, and Horne (2007) identified a privacy paradox in which consumers act contrary to their stated objectives about privacy disclosure when the perceived risk of doing so outweighs any potential rewards.

Consequently, our study focuses on the most core factors based on a combination of previous studies. Besides, the proposed model is built based on the basic foundation of the TAM model and Justice Theory.

2.2. Hypothesis development

Retailer vs. Consumer Benefit concentrates on consumers' perceived value of sharing information with the retailer (Inman & Nikolova, 2017). These notions of distributive fairness are unique in the area of personal information disclosure since they take into account both the advantages received and the information provided (Pizzi & Scarpi, 2020). In this situation, perceived justice or fairness has sometimes been defined as the extent to which customers view an exchange with the shop as fair and balanced (Maxham III & Netemeyer, 2003). Customers may adopt minor privacy incursions and even give up some privacy if the stock of distributive justice is high (Pizzi & Scarpi, 2020). To execute their experimental manipulations, Pizzi and Scarpi's research (2020) employed the theatrical approach (Russell, 2002). As a result, this study was conducted in a natural setting to provide it with the benefit of enhanced ecological validity.

H1: Consumers' privacy perception is less affected when they perceive they will receive more advantages than the retailer through using technology

Through the study by Babin, Darden, and Griffin (1994), prior studies have indicated that pleasure, fun, and enjoyment are essential in promoting consumers' recognition of technologies. Prior research has shown that hedonism can be a more powerful motivator of favorable behavioral outcomes than utilitarianism (Scarpi, 2012), mostly by enabling consumers to forget about their daily problems (Mathwick, Malhotra, & Rigdon, 2001). For instance, technology can nevertheless offer users fascinating and worthwhile benefits even when they do not directly benefit users (Gabriele et al., 2020). Therefore, one may claim that when customers use a technology that promotes high hedonism, they will have fewer reservations about sharing personal information (Pizzi & Scarpi, 2020). The technologies that the earlier researchers selected as experimental stimuli, however, were based on standards supported by earlier retailing investigations. With more technologies included in this study, we can examine the conceptual model's resiliency under varied technology selection criteria.

H2: Consumers' privacy perception is less affected when they use a technology that provides higher hedonism

Prior literature has proposed how consumers' use of technologies (Marbach, Lages, Nunan, & Ekinci, 2019; Sun et al., 2015) and how they provide personal information through the Internet (Bansal, Zahedi, & Gefen, 2016) might be affected by personality traits. Previous studies have focused on gender- (Tifferet, 2019) and age- (Priporas, Stylos, & Fotiadis, 2017) related differences. The study by Pizzi and Scarpi (2020) also takes into account the customer personality factors and suggests that may have an impact on privacy concerns. Due to the possibility that varied privacy laws could impact customers' sensitivity to privacy issues, this study could compare consumers from other nations, notably Vietnam.

H3: Consumers' privacy perception is less affected when they are more open

The retailer's trustworthiness, which has been emphasized in prior studies, is consumers' belief in the integrity and reliability of retailers (Wulf & Odekerken-Schroeder, 2003). Horne and Horne (2002) chronicled how potentially negative outcomes after disclosing information affect the level of consumers' belief; Chaudhuri and Holbrook (2001) announced if consumers believed a seller, they would trust that they would not be harmed. According to two independent studies, customers' reactions to a shop's activities, whether they are taken offline (Walz & Celuch, 2010) or online (Bleier & Eisenbeiss, 2015), depend on how trustworthy they perceive the retailer to be. This means that based on the perceived level of trust, shoppers will be more likely to disclose personal information to businesses (Taddei & Conena, 2013). According to Pizzi and Scarpi (2020), giving information to a trustworthy store makes customers feel safer because they believe their personal information will be handled honestly.

Additionally, the study by Pizzi and Scarpi (2020) predicted that consumers' level of trustworthiness in a merchant would consolidate the favorable influence of justice and hedonism on privacy views and technological acceptance. Therefore, the degree of consumer confidence in a retailer will help to reinforce the favorable effects of hedonism and justice on privacy perceptions and technological acceptance. For instance, the more strongly technological adoption and privacy are impacted, the more trustworthy the retailer's technology is offered (Pizzi & Scarpi, 2020).

H4a: The interaction between fairness and privacy will be moderated positively by the retailer's trustworthiness

H4b: The interaction between the technology's hedonism and privacy will be moderated positively by the retailer's trustworthiness

Goldfarb and Tucker (2012) detect denials to provide information have increased, and younger people are more likely to do so than older people. Decisions to provide personal data had been influenced notably by privacy concerns (Morosan, 2018). The connection of focal variables' prior exposure is the major factor to build privacy invasion and decisions to provide personal data (Mwesiumo et al., 2021). Besides, perceptual and behavioral consequences built from consumers' assessments are a set explained through the theoretical framework of Pizzi and Scarpi (2020).

Besides, prior studies that privacy concerns were viewed as a third-order construct (Mwesiumo et al., 2021). Smith, Dinev, and Xu (2011) supposed that, in any case, a multi-dimensional scale should be used to measure privacy concerns. Like Hong and Thong (2013), we modeled privacy concerns by three dimensions: interaction management, information management, and awareness.

Interaction management is considered how an individual manages his or her interactions with others (Hong & Thong, 2013). According to Hong and Thong (2013), interaction management is one of two parts of interpersonal interaction that is the center of privacy concerns on the Internet.

The information management is considered how an individual manages personal information (Hong & Thong, 2013). According to Culnan and Williams (2009), a lacking of data and out-of-control personal data make consumers vulnerable in purchase exchanges. So, how one is notified or manages how the data is used defines conditions of privacy violations (Culnan & Regan, 1995; Foxman & Kilcoyne, 1993).

The efforts to protect consumers' data after being collected are a concern of online consumers (Buchanan, Paine, Joinson, & Reips, 2007; Culnan & Williams, 2009; Pavlou, Liang, & Xue, 2007), and protecting data integrity is very important (Stewart & Segars, 2002). Malhotra, Kim, and Agarwal (2004) identified the level of awareness that stems from a person concerned about privacy practices on websites.

H5: When consumers' privacy concerns are higher, their privacy perception is more affected

The connection between privacy invasion and willingness to disclose information shows that the privacy invasion experience creates privacy concerns (Mwesiumo et al., 2021). In a specific case, this statement is argued that the threats had been able to advance through knowledge about privacy invasion, and then factors that could affect privacy can be recognized (Masur, 2019). For example, recently, privacy concerns have affected the decision to provide information positively (Ioannou, Tussyadiah, & Lu, 2020). According, privacy concerns influence the decision to disclose information negatively. Now, customers tend to hold their information against loss (Mwesiumo et al., 2021).

H6a: When consumers' privacy experience is more, it has negative effects on the privacy concerns

H6b: When consumers' privacy experience is more, their privacy perception is more affected

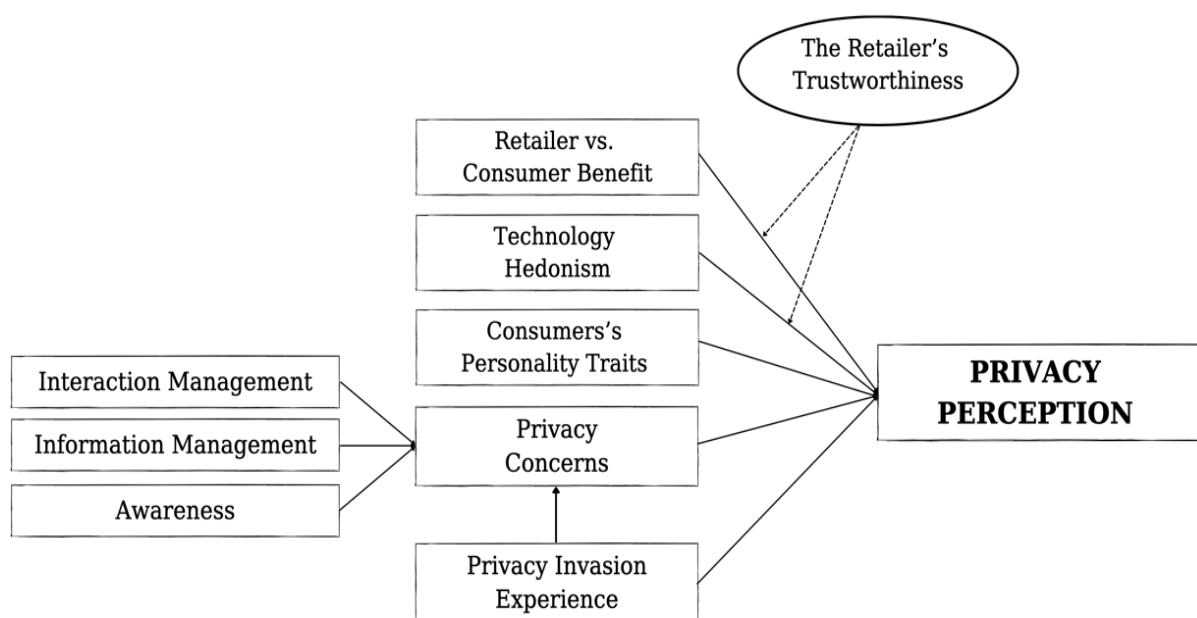


Figure 1. Theoretical model

Source: The researcher's data analysis

3. Methodology

3.1. Measurement development

Observed variables in the questionnaire use the Likert scale (07 levels). This scale can bring positive results with many options, and many levels so that respondents can easily record according to their feelings and evaluations. There are 08 scales including customer interest, technological hedonism, customer personality, retailer reliability, privacy concerns, privacy-intrusive experiences, and perceived privacy.

3.2. Data analysis

Firstly, the authors perform Cronbach's Alpha test to check whether observed variables in the same scale are measuring for the same concept. Following confirmatory factor analysis CFA, an observed variable can only load on one factor, the cross-load coefficient will be fixed at zero. Based on the results of testing the model through Confirmatory Factor Analysis (CFA). The research model is adjusted to have appropriate data to conduct testing of the research model (linear structural model) using AMOS 20.0 software. Next, to check if a model exists for a variable, the first step is to transform and calculate the normalization of all variables, especially the two moderators and predictors. Besides, the research has mentioned a high-quality literature review and a strong empirical base, and the number of factors is fixed a priori this is the reason why this research could skip EFA

4. Result and discussion

4.1. Result

4.1.1. The descriptive statistics of sample demographics

The population that this study targeted was the residents living in Ho Chi Minh City who shopped with digital technology. Through the statistical process, a total of valid 452 valid questionnaires were. The result showed that most of the participants were female residents, which corresponds to 66.81%. Regarding education level, most of the participants were college degrees, which was 52.66%.

4.1.2. Scale assessment

As shown in Table 1, Cronbach's Alpha for all construct scales ranged from 0.804 to 0.928, exceeding Nunnally's proposed threshold of 0.7. (1978). This showed that all of the measurement scales in this study's constructs had excellent reliability, which refers to the consistency of items within each construct.

Table 1 reveals that all standardized factor loading values of measured items were greater than 0.5, and the Average Variance Extracted (AVE) of all scales of all constructs was greater than 0.5. As a result, this study's measuring scales have convergent validity (Hair, Celsi, Ortinau, & Bush, 2010).

Table 1

Items' standardized factor loading and measures' AVE

Items	Standardized Factor Loading	Average Variance Extracted (AVE)	Cronbach's Alpha
Retailer vs. Consumer Benefit		0.703	0.876
RC1	0.830		
RC2	0.847		
RC3	0.838		
Technology Hedonism		0.604	0.848
TH1	0.581		
TH2	0.821		
TH3	0.895		
Consumers's Personality Traits		0.662	0.806
PT1	0.804		
PT3	0.879		
PT4	0.753		
The Retailer's Trustworthiness		0.680	0.804
RT1	0.788		
RT2	0.970		
RT3	0.692		
Privacy Concerns		0.735	
Interaction Management			0.893
IM4	0.736		
IM5	0.831		
IM6	0.867		
IM7	0.848		
IM8	0.790		
IM9	0.799		

Items	Standardized Factor Loading	Average Variance Extracted (AVE)	Cronbach's Alpha
Information Management			0.880
IFM1	0.586		
IFM2	0.615		
IFM3	0.594		
IFM4	0.828		
IFM5	0.841		
IFM6	0.811		
Awareness			0.891
AW1	0.839		
AW2	0.868		
AW3	0.845		
Privacy Invasion Experience		0.715	0.872
PE1	0.792		
PE2	0.937		
PE3	0.799		
Privacy Perception		0.643	0.928
PP1	0.704		
PP2	0.785		
PP3	0.871		
PP4	0.896		
PP5	0.853		
PP6	0.711		
PP7	0.769		

Source: The researcher's data analysis

The squared correlation coefficients between constructs and constructions' AVE are shown in black boldface in Table 2. The AVE of measures was lower than the value of squared correlation coefficients between constructs. As a result, it is possible to conclude that the measurement scales for all constructs in this study attained discriminant validity (Hair et al., 2010).

Table 2

Squared correlation between constructs and the scales' AVE

	PC	TH	PT	RT	PE	RC	PP
PC	0.858						
TH	-0.004	0.777					
PT	0.124	0.049	0.814				
RT	0.175	-0.030	0.319	0.825			
PE	0.704	0.046	0.065	0.125	0.845		
RC	0.059	-0.009	0.272	0.227	0.041	0.838	
PP	-0.078	-0.045	0.285	0.190	-0.030	0.779	0.802

Source: The researcher's data analysis

The next stage was to test the model fit to see how well the model fit the data acquired after the measurement model's reliability and validity had been validated (Barrett, 2006).

To achieve a model fit, the value of Chi-square/degree of freedom (Cmin/df) has been suggested less than 5 is acceptable, and less than 3 is good (Hu & Bentler, 1999). The GFI value should be equal to or over 0.9; however, in this case, GFI is below 0.90, but the GFI is known to depend on the sample size (Mulaik, James, Alstine, & Bennett, 1989). So over 0.80 is an acceptable value for GFI (Baumgartner & Homburg, 1996; Doll, Xia, & Torkzadeh, 1994). RMSEA value should be between 0.05 and 0.08 (Fabrigar, Wegener, MacCallum, & Strahan, 1999). CFI values greater than 0.90 may suggest that the model is reasonably well-fitted (Kline, 2005). TLI was suggested to be over 0.90 for an acceptable model fit (Hu & Bentler, 1999). For PNFI, there is no widely accepted cutoff value for a satisfactory model, relatively high values represent a relatively better fit (Hair, Black, Babin, & Anderson, 2019). It should be over 0.50. This sample exhibits a good fit for the 6-factor model based on these indices.

Table 3

The fit indices of the measurement model

Fit indices	Path
Chi-square/ degree of freedom (χ^2 / df) (< 3)	2.772
Root mean square error of approximation (RMSEA) (≤ 0.08)	0.063
Parsimony Normed fit index (PNFI) (≥ 0.5)	0.782
Comparative fit index (CFI) (≥ 0.9)	0.913
Goodness-of-Fit Index (GFI) ≥ 0.8	0.834
Tucker Lewis Index (TLI) ≥ 0.9	0.903

Source: The researcher's data analysis

4.1.3. The result of testing hypotheses

According to the analysis, the retailer's moderating role - in terms of its ex-ante trustworthiness - had no significant effect on the Consumer Benefit-Privacy Perception (P-value = 0.2) and Technology Hedonism- Privacy Perception relationships (P-value = 0.552). As a result, no observed support was found for H4a and H4b. The lack of statistical significance is consequential because it implies that the retailer's reputation is not relevant to customers when their privacy is at risk. Instead, the exchange between giving customers clear advantages and disclosing information through technology makes positive privacy perceptions for all retailers.

Table 4

Path analysis of retailer's trustworthiness

	Path	Standardized coefficient (β)	P-value	Testing result	Testing result
H4a	<i>Retailer trustworthiness moderates Retailer vs. Consumer Benefit \rightarrow Privacy Perception</i>	-.035	.200	Non-significant	Support
H4b	<i>Retailer trustworthiness moderates \rightarrow Technology Hedonism \rightarrow Privacy Perception</i>	.028	.552	Non-significant	Support

Note: P-value = *** means that P-value. < 0.001

Source: The researcher's data analysis

Consumers' confidence in a technology's privacy issues increased when they considered the technology to be more useful to them than to the seller ($\beta = 0.766$, P-value = ***), giving support to H1. Hedonism, in contrast to H2, was found to not affect people's confidence in releasing information through technology ($\beta = -0.047$, P-value = 0.201).

Privacy perceptions were affected positively and significantly by openness ($\beta = 0.126$, P-value = ***), meaning that one will provide personal data more comfortably if they can adapt to a new idea, which supported hypothesis H3. Privacy concerns had a significant and negative effect on privacy perceptions ($\beta = -0.183$, P-value = 0.002). This indicates that hypothesis H5 is supported.

Privacy invasion experience influenced significantly and positively privacy concerns ($\beta = 0.709$, P-value = ***). The evidence-informed that there was no significant relationship between privacy invasion experience and privacy perceptions ($\beta = 0.067$, P-value = 0.232). This indicates that hypotheses H6a and H6b were supported. This observation implies that customers of online shops only become less confident in providing personal data for further services if a previous privacy infringement has raised their privacy concerns.

Table 5

Path analysis of the relationship between other factors and privacy perception

	Path	Standardized coefficient (β)	P-value	Testing result	Testing result
H1	Retailer vs. Consumer Benefit → Privacy Perception	.766	***	Significant	Support
H2	Technology Hedonism → Privacy Perception	-.047	.201	Non-significant	Support
H3	Consumers' Personality Traits → Privacy Perception	.126	***	Significant	Support
H5	Privacy Concerns → Privacy Perception	-.183	.002	Significant	Support
H6a	Privacy Invasion Experience → Privacy Concerns	-.709	***	Significant	Support
H6b	Privacy Invasion Experience → Privacy Perception	.067	.232	Non-significant	Support

Note: P-value = *** means that P-value. < 0.001

Source: The researcher's data analysis

4.2. Discussion

4.2.1. Result discussion

Research results are obtained from an online survey of 452 people who have experienced buying through e-commerce platforms. The concepts that need to be measured are retailer vs. consumer benefit, technological hedonism, consumers' personality traits, retailer trustworthiness, privacy concerns, privacy invasion experience, and privacy perception. Research results show that most of the factors have statistical significance (P-value < 5%). In which the most impactful factor is Privacy Intrusive Experience (PE), followed by The Retailer's Trustworthiness (RT), Privacy Concerns (PC), and finally, Retailer vs. Consumer Benefit (RC).

4.2.2. Managerial implication

First, the factor that has the strongest impact on the customer's perception of privacy is the Invasion of Privacy Experience. The degree to which a new technology creates customer privacy issues should be closely monitored by all retailers, regardless of how well-respected they are, as this will affect consumer adoption of the technology and retailers' sense of its worth (Pizzi & Scarpi, 2020). Therefore, businesses need to set up personal information security for customers through individual login accounts. In addition, it is necessary to put in place regulations to ensure that the customer's information collection process is confidential in terms of providing personal information after the customer's privacy-infringing experiences.

Retailer Reliability has a positive impact on customers' perception of privacy. The more trust a customer has in the retailer they intend to purchase from, the higher the customer's perception of privacy. Therefore, the information of the enterprise must have a clear title on the website to be public when selling, and information when registering with the Ministry of Industry and Trade attached with the registration certificate of the E-commerce trading floor the Ministry

of Industry and Trade must be registered with the Ministry of Industry and Trade displayed on the company's website. At the same time, always update and amend regulations on the data management systems to protect customers' personal information, and ensure compliance of company employees with the customer data system. Avoid employees disclosing customer information to the outside.

Customers' privacy concern also harms customers' privacy perception which means that the more privacy-concerned a customer is, the lower the perception of privacy will be thus. But, a recent study by Ioannou et al. (2020) discovered that privacy concerns have a beneficial impact on people's willingness to disclose behavioral data. This observation runs counter to both common sense and the results of other studies. They suggested that the privacy paradox, which holds that people who care about privacy would nonetheless be eager to divulge personal information if they would benefit in return, was most likely the cause of the positive effect. However, appropriate security in transactions with customers is essential and at the same time, it is necessary to make statistics of unusual transactions in the system when affecting the use of customers.

Contrary to the Privacy Concern factor, the Customer Interest factor has a positive impact on the perception of privacy meaning that the greater the benefit the customer receives, the better the decision to provide information. The Pizzi and Scarpi's study (2020), which quantified the scope of benefits that consumers perceive from the new technology, encouraged merchants to perform comprehensive market research before introducing new technologies in their businesses. Retailers may be able to avoid unanticipated unfavorable reactions to the technology and/or the retailer by taking into account the consumer perspective (Pantano, 2016). This procedure might prevent some businesses from ignoring customers' privacy concerns in favor of an overly enthusiastic focus on a technology's technical capabilities (Grewal, Roggeveen, & Nordfält, 2017). What retailers need to do is show customers the positive feedback of previous customers and handle customer problems when providing information in the fastest and safest way.

Due to various difficulties, the project still has some limitations in the implementation process. First, the topic is only done with people living in Ho Chi Minh City. Second, this study was evaluated based on only 05 factors. Third, the sampling takes place only online, making it difficult to reach those who do not use the Internet. Fourth, the proposed assessments are based solely on the individual nature and results of the research team's findings.

For the next research direction, the team will expand the survey scope to people living in cities that have access to digital technology even more and add many other factors to bring more assessment angles. In addition, the team will conduct both online and field surveys using the probabilistic sampling method to make the results more general.

5. Conclusions

Following previous studies on customer perception of privacy in the digital transformation period for the retail industry, the team's study set out to measure the factors already in the research papers. Previous research examines factors that influence consumers' perceptions of privacy. From there, find out the relationship between these factors and the customer's perception of privacy during the digital transformation period in Ho Chi Minh City.

The research team clarified the concepts of customer perception of privacy and the retail industry when adopting digital transformation in this research paper. Cronbach's Alpha test helps do the quantitative research method; the factors are measured by SEM linear structure model.

Research results show that the level of impact of variables on Perception, in order from strong to weak, are the variables that Experience Invasion of Privacy, Retailer Reliability, and Rights Concerns. Privacy, Customer benefit. Which the variable Experience of intrusive privacy has the opposite effect on Perception; the higher the privacy-infringing experience, the lower the perception of privacy.

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