

The Relationships between Web Design, Reliability, Privacy, Service Quality, and Purchase Intention of Customers at E-commerce Business: An Empirical Study

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Abstract. *Of the many e-commerce players in Indonesia, Zalora is one of the main online shopping. However, there is a decrease rank in Zalora where in 2018 Zalora was ranked 7th but dropped to 10th in 2019. Therefore, the research aims to predict purchase intentions through Zalora which are influenced by perceptions of web design, perceptions of reliability, privacy, and customer service. This research uses quantitative methods, and data collection techniques are carried out by distributing questionnaires to the non-probability sampling method. Samples taken were 40 respondents for preliminary tests and 200 respondents for actual tests, with the criteria of ever shopping at Zalora. Data obtained in the preliminary study were tested by testing the reliability and validity. Data obtained from actual research is tested by testing the reliability, validity, and classical assumption tests. Next, the data are analyzed with Structural Equation Modeling (SEM) to test hypotheses and draw conclusions. Thus, the results show that the nine research hypotheses are supported. This study also provides theoretical implications, managerial implications, and recommendations for further research.*

Keywords: *Purchase intention, web design, reliability, privacy, customer service*

Abstrak. *Dari sekian banyak pemain e-commerce di Indonesia, Zalora adalah salah satu belanja online utama. Namun, ada penurunan peringkat di Zalora di mana pada 2018 Zalora berada di peringkat 7 tetapi turun ke 10 di 2019. Oleh karena itu, penelitian ini bertujuan untuk memprediksi niat beli melalui Zalora yang dipengaruhi oleh persepsi desain web, persepsi keandalan, privasi, dan pelayanan pelanggan. Penelitian ini menggunakan metode kuantitatif, dan teknik pengumpulan data dilakukan dengan menyebarkan kuesioner dengan metode pengambilan sampel non-probabilitas. Sampel yang diambil adalah 40 responden untuk tes pendahuluan dan 200 responden untuk tes aktual, dengan kriteria pernah berbelanja di Zalora. Data yang diperoleh dalam studi pendahuluan diuji dengan menguji reliabilitas dan validitas. Data yang diperoleh dari penelitian aktual diuji dengan menguji reliabilitas, validitas, dan uji asumsi klasik. Selanjutnya, data dianalisis dengan Structural Equation Modeling (SEM) untuk menguji hipotesis dan menarik kesimpulan. Dengan demikian, hasilnya menunjukkan bahwa sembilan hipotesis penelitian didukung. Studi ini juga memberikan implikasi teoritis, implikasi manajerial, dan rekomendasi untuk penelitian lebih lanjut.*

Kata kunci: *Niat membeli, desain web, keandalan, privasi, layanan konsumen*

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Introduction

Technology is one main factor in enhancing the business globalization. Moreover, consumers are getting smarter, they utilize the internet to find, share and exchange information about products and services. Extensive uses of the internet affect business models, such as e-commerce (Turban, Whiteside, King, & Outland, 2017). Reported in Internet Worlds Stats (2019), the internet users reached over 1.97 billion users in 2010 and hit 4.42 billion of users in 2019. Indonesian users also have a high rate, where in 2010 reached over 30 million users, then increased by 143 million of Indonesian users in 2019. Therefore, a company should be able to develop and utilize its resources to adapt the technological changes.

The inclining of internet users make the e-commerce business appears and contribute in economic growth. Thus, e-commerce has a positive effect on increasing a business operations' effectiveness (Rofiq, Mula, & Scott, 2011). Modern e-commerce typically uses the World Wide Web or website as a media in selling products or services (Kutz, 2016). This research uses one of the top online shops in Indonesia, specifically Zalora as the research object. Although Zalora is a big and famous company, they still have few problems to deal with, such as the declining of Zalora's website visitors shown in Table 1 and Table 2.

Table 1.
Ranking of E-commerce in 2018

Rank	Online shop	Monthly Web Visit
1	Tokopedia	168,000,000
2	Bukalapak	116,000,000
3	Shopee	67,677,900
4	Lazada	58,288,400
5	Blibli	43,097,200
6	JD ID	16,978,200
7	<i>Zalora</i>	5,518,600
8	Sale Stock	4,627,600
9	Elevenia	3,938,000
10	iLotte	3,517,400

Source: Iprice Insight (The Map of E-commerce Indonesia, 2019)

Table 2.
Ranking of E-commerce in 2019

Rank	Online shop	Monthly Web Visit
1	Tokopedia	140,414,500
2	Shopee	90,705,300
3	Bukalapak	89,765,800
4	Lazada	49,620,200
5	Blibli	38,453,000
6	Orami	9,813,100
7	Bhinneka	7,678,900
8	JD ID	7,102,300
9	Blanja	5,511,600
10	<i>Zalora</i>	5,218,300

Source: Iprice Insight (The Map of E-commerce Indonesia, 2019)

Table 1 showed that Zalora was in the seventh rank in 2018, and decline into the tenth rank in 2019 shown in Table 2. It might be happened because the presence of many online shops at this moment. It is making competition in the business field more stringent and stronger. In addition, there were consumers complained about the product cancellation from Zalora because the product is out of stock, but the stock information in the website was still available (Triopin, 2019), services not as promised, the product was not appropriate with the product ordered, and disappointed customer service (Wijaya, 2018), the information provided in the website is not consistent, and the product color and size does not match to the actual (Lukman, 2014). Zalora has to pay attention on this issue, since e-commerce companies have to compete to become the biggest and best company in Indonesia.

Previous studies shows important variables that influence consumers shopping online are as follows: online privacy (e.g, Aziz & Wahid, 2018; Bashir et al., 2015; Mekovec & Hutinski, 2012), reliability (e.g., Jiradilok et al., 2014; Karim, 2011; Alam & Yasin, 2010), customer service (e.g, Biswas et al., 2019; Cao et al., 2018) and website design (e.g, Raad et al., 2018; Cho & Kim, 2012; Karim, 2011; Alam & Yasin, 2010; Ganguly et al., 2010).

Thus, this research was based on the research conducted by Dang and Pham (2018) which integrated model that incorporates important decision factors that influence consumers' online shopping. The integrated model will contribute to the better understanding of decision factors in influencing consumers' online shopping. Therefore, the purpose of this study is to examine the influences of perception of web design, perception of reliability, perception of customer service, and perception of privacy towards purchase intention.

Digital Marketing

The use of digital media, information and software to help advertising campaigns has led to a confounding array of labels and terminology being generated by academics and professionals alike. Social advertising, internet marketing, e-marketing and online marketing have been named. Digital marketing focuses on controlling digital presence types such as company websites, mobile apps and client social media pages, and social media marketing. This approach is used to promote the purpose of acquiring new customers and supplying existing customers with services that help customer retention through customer relationship management (Chaffey & Chadwick, 2019).

Still from Chaffey and Chadwick (2019), "Going to the shop" is a well-understood concept in the physical world, but less is known about the range of triggers and influences that can shape a shoppers' journey and inform their buying decision. The same basic principle is true in the digital world, but online consumers find many more touch points that influence their decision-making. As digital technology increasingly being used, the online touchpoint expanded beyond digital channels and can affect buying decisions before, during and after shopping experiences. It is the responsibility of modern marketers to make the best choice to promote their brands and provide relevant content at every point of the consumer journey to help this decision-making process.

Perception

Perception can be described as the consciousness and understanding of the real world of the purchaser. In this sense, perception refers to a subjective reality, while the objective of fact is what really happens in the world (Babin & Harris, 2010).

According to Solomon (2016), we normally trust our sensory receptors to give us a detailed account of the external environment, new technology makes the connection between our senses and reality more uncertain. Nonetheless, we are mostly influenced by the capacity of advertisers to control specific sensory inputs through five distinct networks until that point.

Inter-variable Relationships

Web Design towards Reliability

Reliability is determined by the effects of accessibility (e.g. reliability, ease of use and usefulness) and institutional structures (e.g. formal assurances, situational normality, and feedback mechanisms) that are part of the website design itself (Kim & Park, 2013). Consumers who react favorably to the usability and layout view the website as more appealing, and this strengthens the website's reputation (King, Schilhavy, Chowa, & Chin, 2016).

There are ten previous studies that have shown a significant relationship between website design and reliability: Karimov, Brengman, and Hove (2011), Luo and Lee (2011), Dickinger and Stangl (2013), Selcuk (2013), Green and Pearson (2011), Al-Debei, Akroush, and Ashouri (2015), Visinescu *et al.* (2015), Nevarez and Hyman (2012), Bilgihan and Bujisic (2015), Alanezi, Kamil, and Basri (2010), Rolland and Freeman (2010), Pearson, Tadisina, and Griffin (2012). The hypothesis in this study can be conveyed as follows:

H₁: The better perception of web design quality could make customers have a better perception of the website reliability

Web Design towards Customer Service

The main factors influencing initial confidence on e-commerce websites are systemic reliability and data quality, while perceived utility is significantly affected by information performance and process quality (Zhou, 2011). As a result, customer service has become a major source of online retailer's competitive advantage (Kotler and Armstrong, 2016). Increasing the quality of online services to meet customer needs has always been the key to success in the operation of shopping websites. Moreover, if the quality demands of Internet customers cannot be recognized, it is impossible to actually improve the quality of the website (Kuo & Chen, 2011).

There are ten previous studies that have shown a significant relationship between website design and customer service: Luo and Lee (2011), Selcuk (2013), Green and Pearson (2011), Papadomichelaki and Mentzas (2009), Ladhari (2010), Alanezi, Kamil, and Basri (2010), Rolland and Freeman (2010), Pearson, Tadisina, and Griffin (2012), Tsang, Lai, and Law (2010), Bhattacharya, Gulla, and Gupta (2012). Based on the explanation above, the hypothesis developed is as follows:

H₂: The better perception of web design quality could increase the quality of customer service perceived by customers

Web Design towards Privacy

The appealing visual design of the website should therefore reinforce user expectations about the page and have a negative impact on perceived annoyance. Focusing on appearance, content, usability, navigation, security and privacy could achieve a high level of website quality design (Huang & Benyoucef, 2013). Kotler and Armstrong (2016) claim that privacy and protection are often associated with high internet transaction risks. The perceived lack of privacy and protection is an obstacle in the online purchasing process (Udo, Bagchi, and Kirs 2010. Confidentiality would affect the system's web design and implementation (Koops, Hoepman, & Leenes, 2013).

There are ten previous studies that have shown a significant relationship between website design and privacy: Luo and Lee (2011), Selcuk (2013), Tsai and Yeh (2010), Alanezi, Kamil, and Basri (2010), Rolland and Freeman (2010), Pearson, Tadisina, and Griffin (2012), Tsang, Lai, and Law (2010), Meskaran, Ismail, and Shanmugam (2013), Li and Yeh (2010), Huang and Benyoucef (2013). The hypothesis in this study can be conveyed as follows:

H₃: The better perception of web design quality could increase the perceived customers' security of privacy

Web Design towards Purchase Intention

When the consumers perceive the high quality of a web design, they may show more favorable towards purchase intention. The quality of a web has a direct impact on behavioral intentions. Behavioral intentions include consumers repeat purchases, repeat visits to the website, recommend the website to others, and positive reviews about the website (Hausman & Siekpe, 2009).

There are ten previous studies that have shown a significant relationship between website design and purchase intention: Dedeke (2016), Hausman and Siekpe (2009), Shaouf, Lü, and Li (2016), Becerra and Korgaonkar (2010), Debei, Akroush, and Ashouri (2015), Kim, Kim, and Park (2010), Hasanov and Khalid (2015), Octavia and Tamerlane (2017), Putra and Noermijati (2017), Sam and Tahir (2009). The hypothesis can then be developed is as follows:

H₄: The better perception of web design quality could increase the customers' intention to purchase from the website

Reliability towards Customer Service

A good service quality creates the customer satisfaction, and when customers are satisfied, the customer will be loyal to the services provided. In service quality, it has reliability dimension. Reliability refers to the ability to deliver expected standard at all times and to carry out an accurate service with error free. Thus, it can be stated that customers tend to have a positive attitude towards customer service because the store is reliable.

There are ten previous studies that have shown a significant relationship between reliability and customer service: Omar, Saadan, and Seman (2015), Quddus and Hudrasyah (2014), Ali, Asmi, Rahman, Malik, and Ahmad (2017), Yee, Yeung, and Cheng (2010), Siddiqi (2011), Saunders and Petzer (2010), Saha and Theingi (2009), George and Kumar (2014), Rod, Ashill, Shao, and Carruthers (2009), Pakurár, Haddad, Nagy, Popp, and Oláh (2019). The research hypothesis can be conveyed then as follows:

H_5 : The better perception of the company's reliability could increase the quality of customer service perceived by customers

Reliability towards Purchase Intention

Purchase intention is believed as the main variable that can predict purchases. The intention of purchase itself is often influenced by many other factors such as perception of quality. The perception of quality itself is usually based on the main dimensions consisting of product quality, performance, brand, and reliability. So it can be stated that consumer purchases are the result when they believe that the store is reliable and credible. If stores provide products and services that are consistent with their promises, then it helps shape their purchase intentions.

There are ten previous studies that have shown a significant relationship between reliability and purchase intention: Wandebori and Wijaya (2017), Saleem, Ghafar, Ibrahim, Yousuf, and Ahmed (2015), Rajaguru (2016), Kim, Park, Choi, and Jun (2017), Choudhury (2013), Dang and Pham (2018), Kuo, Wu, and Deng (2009), Lee, Kim, Ko, and Sagas (2011), Jiradilok, Settapong, Madan, and Sivarakas (2014), Chimedtseren and Safari (2016). The hypothesis can then be developed is as follows:

H_6 : *The better perception of the company's reliability could increase the customers' intention to purchase from the website*

Privacy towards Customer Service

Customers may be worried that a website store might collect and analyze customer personal information and search behavior (Kotler & Armstrong, 2016). Companies should improve

product quality, improve customer service, improve internet privacy and security, and provide honest and accurate data about their products and their competitors, even if the products of competitors serve the needs and desires of customers better (Kardes, Cronley, & Cline; 2011). Consumers may also have negative opinions and feedback on the products or services of an online store and mistrust an online store if they buy online when they have privacy and security concerns.

There are ten previous studies that have shown a significant relationship between privacy and customer service: Dang and Pham (2018), Quach (2015), Thaichon, Lobo, and Mitsis (2013), Mekovec and Hutinski (2012), Tsai and Yeh (2010), Kim and Kim (2010), Santouridis, Trivellas, and Tsimonis (2012), Taherdoost (2017), Bhattacharya, Gulla, and Gupta (2011), and Wen, Prybutok, Blankson, and Fang (2014). The research hypothesis can be conveyed then as follows:

H_7 : *The more customers feel secure of their privacy could increase the quality of customer service perceived by customers*

Privacy towards Purchase Intention

According to Hoyer and MacInnis (2010), consumers are concerned that marketers know too much about them and that personal data, financial data and behavioral data can be sold or misused to other companies without their knowledge or consent. Consumers may be worried that their credit card information will be stolen and used for fraud in online shopping. When buying products online, customers tend to perceive privacy and security as the main types of threat. Perceived privacy risk influences the attitudes of customers towards online shopping and purchasing behavior. This will then result in customers being unable to trust online stores if they have a low perception of privacy and security.

There are ten previous studies that have shown a significant relationship between privacy and purchase intention: Featherman, Miyazaki, and Sprott (2010), Ariffin, Mohan, and Goh (2018),

Pappas (2018), Zorotheos and Kafeza (2009), Lee, Eze, and Ndubisi (2010), Kim and Lennon (2009), Akhter (2014), Eastlick and Lotz (2010), Nisar, Hajli, Prabhakar, and Dwivedi (2019), and Chang, Chih, Liou, and Yang (2016). Based on the explanation above, the hypothesis developed is as follows:

H₈: The more customers feel secure of their privacy could increase the customers' intention to purchase from the website

Customer Service towards Purchase Intention

Customer service may be offered as a pure service or supported by tangible goods. Most online stores distinguish their services by building and maintaining more brand loyalty through customer service. Customer service has become a major source of online retailers' competitive advantage (Kotler & Armstrong, 2016; Levy & Weitz, 2016). Companies should build trusting relationships to retain their customers. Which is to provide consumers with expertise and high-quality offerings and customer service that would be appreciated by customers (Hoyer & MacInnis, 2010).

There are ten previous studies that have shown a significant relationship between customer service and purchase intention: Dang and Pham (2018), Raman (2018), Ha, Akamavi, Kitchen, and Janda (2013), Rahman, Hassan, Osman-Gani, Fattah, and Anwar (2017), Sharma (2012), Gounaris, Dimitriadis, and Stathakopoulos (2010), Choudhury (2013), Mazaheri, Richard and Laroche (2012), Carlson and O'Cass (2010), and Lee, Goh, and Noor (2019). Based on the explanation above, the hypothesis developed is as follows:

H₉: The better perception of customer service quality could increase the customers' intention to purchase from the website

Research Model

The research model in Figure 1 shows that consumers' perceptions of web design can influence perceptions of reliability, customer service and privacy as well as purchase intentions. Furthermore, the perception of consumer reliability also affects the perception of customer service and purchase intention.

Then, consumers' perceptions about privacy will affect customer service perceptions and purchase intentions. Finally, consumers' perceptions about customer service are hypothesized to influence purchase intentions.

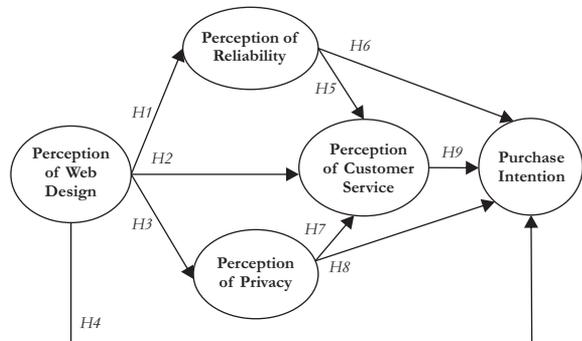


Figure 1. Research Model
Source: Dang and Pham (2018)

Research Methodology

Response rate.

This research distributed 200 questionnaires. From 200 questionnaires distributed, 200 questionnaires were returned by respondents. This number represents a response rate of 100%. From 200 questionnaires returned by respondents, 200 questionnaires can be used to conduct data analysis. This amount represents a usable response rate of 100%.

Research instrument. All research indicators in the research questionnaire were based on previous research. Specifically, indicators of perception of web design were based on Dennis, Al-Qeisi, and Alamanos (2014) and Rosen and Purinton (2004). Indicators for perception of reliability were based from Lee and Lin (2005) and Shergill and Chen (2005). Furthermore, research indicators of customer service perception were taken from Chuang and Liao (2010) and Yang, Jun, and Peterson (2004), and Wolfinbarger and Gilly (2003). Indicators for perception of privacy were based from Shergill and Chen (2005) and Wolfinbarger and Gilly (2003). Finally, measures for purchase intention were borrowed from Wu et al. (2014) and Phan and Mai (2016).

Reliability and Validity. In testing the reliability of the actual research, this study looked at Cronbach's alpha coefficient and corrected item-total correlations to test the internal consistency. All of the indicators are reliable because the corrected total item correlation is above 0.4 and the Cronbach's alpha is above 0.7. In testing the validity of actual research, it is still carried out using the EFA method and correlation. EFA and correlation tests are performed to meet the requirements of convergent validity and discriminant validity.

The use of loading factors in carrying out EFA testing depends on many research samples. All of the variables are valid because the EFA outer loading is grouped, structured and the value is above 0.6, the AVE is above 0.5, and the number in bold in correlation test are bigger than the values below and beside, and the values below are not exceeding 0.85. Table 3 and 4 presents the result of EFA outer loading and correlation test respectively.

Table 3.
EFA Outer Loading of the Actual Test

Indicators	Components				
	1	2	3	4	5
PoW1	0,884				
PoW3	0,920				
PoW4	0,894				
PoR1		0,809			
PoR2		0,801			
PoR3		0,861			
PoC1			0,802		
PoC2			0,821		
PoC3			0,841		
PoC4			0,824		
PoP1				0,772	
PoP2				0,807	
PoP3				0,845	
PoP4				0,807	
PI1					0,857
PI2					0,851
PI3					0,835
PI4					0,886

Source: Data analysis (2019)

Table 4.
Correlation of Actual Test

	PWD	PR	PCS	PP	PI
PWD	0,900				
PR	0,675	0,824			
PC	0,674	0,651	0,822		
PP	0,612	0,530	0,703	0,808	
PI	0,704	0,696	0,738	0,714	0,858

Note: PWD (Perception of Web Design), PR (Perception of Reliability), PP (Perception of Privacy), PI (Purchase Intention), PCS (Perception of Customer Service)

Source: Data analysis (2019)

Measurement Model.

In measuring the model, the researchers need to test the reliability and validity, using Cronbach's alpha, corrected item-total correction, construct reliability, AVE and VIF. The whole results of reliability and validity is shown in Table 5. Multicollinearity test is done first.

There are two indications of multicollinearity testing which are Variance Inflation Factor (VIF) and tolerance value. If the indicator has a VIF value of more than 5 then there is multicollinearity. In other words, the indicator is no longer needed.

Table 5.
Result of Measurement Model

Variables	Indicators	Outer Loading	Cronbach's Alpha	Composite Reliability	AVE	VIF	Conclusion
Perception of Web Design	PoW1	0,884	0,882	0,927	0,809	2,260	Fit
	PoW3	0,920				2,972	Fit
	PoW4	0,894				2,465	Fit
Perception of Reliability	PoR1	0,809	0,763	0,864	0,679	1,435	Fit
	PoR2	0,801				1,589	Fit
	PoR3	0,861				1,774	Fit
Perception of Customer Service	PoC1	0,802	0,840	0,893	0,676	1,662	Fit
	PoC2	0,821				1,891	Fit
	PoC3	0,841				2,037	Fit
Perception of Privacy	Pop1	0,772	0,822	0,883	0,653	1,640	Fit
	PoP2	0,807				1,821	Fit
	PoP3	0,845				2,071	Fit
Purchase Intention	PoP4	0,807	0,879	0,917	0,735	1,713	Fit
	PI1	0,857				2,248	Fit
	PI2	0,851				2,140	Fit
	PI3	0,835				2,020	Fit
	PI4	0,886				2,605	Fit

Source: Data analysis (2019)

Structural Model. In measuring the structural model, the researchers need to test the R value and path coefficients significance. Figure 2, table 6, and table 7 presents the path model, results of R value, and structural model respectively. The research can find the value of R² and path coefficient obtained to assess the inner model. R² is to assess the size of endogenous constructs can be approved by exogenous constructs, and R² values expected between 0 and 1.

Path coefficients close to + 1 shows a strong positive relationship, while the closer to 0, the weaker the relationships. In addition, a path coefficient that is closer to -1 indicates that the relationship is negative. Paths that are significant supports a hypothesis and those that are not significant will not support a hypothesis.

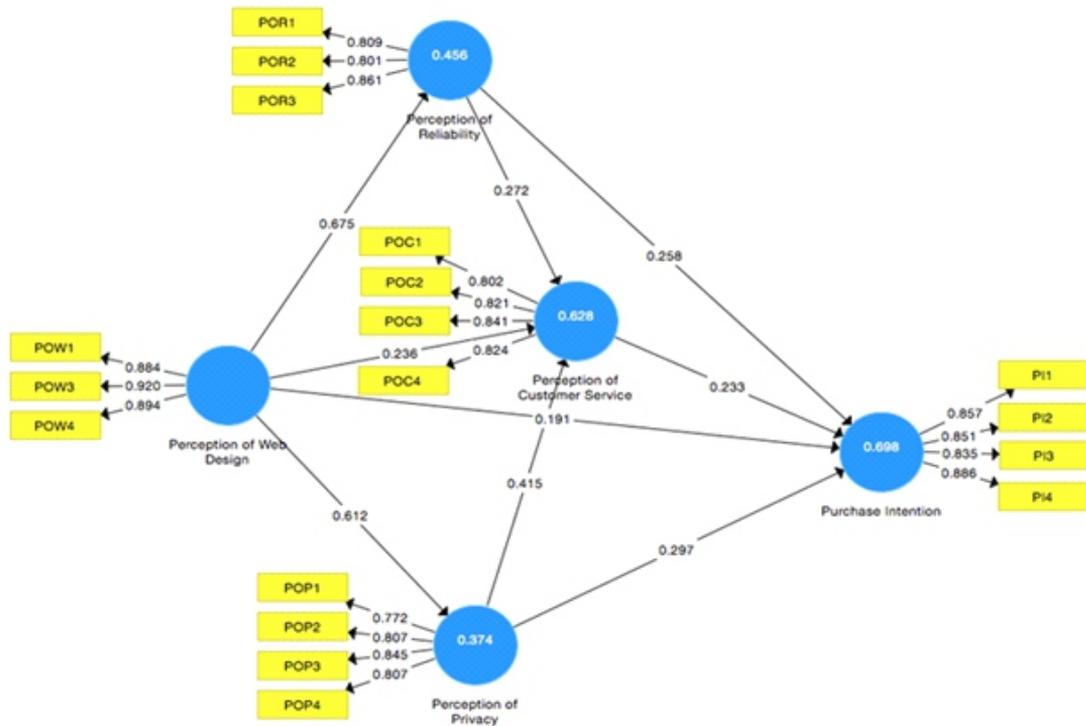


Figure 2. Path Model

Source: Data analysis (2019)

Table 6. R² Values of Actual Test

Variables	R ²
Perception of Reliability	0,456
Perception of Customer Service	0,628
Perception of Privacy	0,374
Purchase Intention	0,698

Source: Data analysis (2019)

Table 7. Result of Structural Model

H	Variable Relationship	Path Coefficient	Critical Value	P-Value	Conclusion
H ₁	PWD → PR	0,675	12,742	0,000	Supported
H ₂	PWD → PCS	0,236	2,748	0,006	Supported
H ₃	PWD → PP	0,612	9,459	0,000	Supported
H ₄	PWD → PI	0,191	2,555	0,011	Supported
H ₅	PR → PCS	0,272	3,590	0,000	Supported
H ₆	PR → PI	0,258	4,105	0,000	Supported
H ₇	PP → PCS	0,415	6,627	0,000	Supported
H ₈	PP → PI	0,297	3,797	0,000	Supported
H ₉	PCS → PI	0,233	2,921	0,004	Supported

Note: PWD (Perception of Web Design), PR (Perception of Reliability), PP (Perception of Privacy), PI (Purchase Intention), PCS (Perception of Customer Service)

Source: Data analysis (2019)

Results and Discussion

According to hypothesis testing by involving 200 respondents in actual test indicates that all the nine hypotheses are supported. Hypothesis 1 showed that there is a positive relationship between perception of web design and perception of reliability because of three reasons.

First, the average value of each indicator in the perception of web design and perception of reliability indicates that most respondents in the questionnaire chose "agree". Second, consumers who react well to usability and layout see the website as more attractive, and this reinforces the reputation of the website (King, Schilhavy, Chowa, & Chin, 2016). Third, hypothesis 1 is also supported by the previous research: Karimov, Brengman, and Hove (2011), Luo and Lee (2011), Dickinger and Stangl (2013), Selcuk (2013), Green and Pearson (2011), Al-Debei, Akroush, and Ashouri (2015), Visinescu et al (2015), Nevarez and Hyman (2012), Biligihan and Busijic (2015), Alanezi, Kamil, and Basri (2010), Rolland and Freeman (2010), Pearson, Tadisina, and Griffin (2012).

Hypothesis 2 showed that there is a positive relationship between perception of web design and perception of customer service because of three reasons. First, the average value of each indicator in the perception of web design and perception of customer service indicates that most respondents in the questionnaire chose "agree". Second, improving the quality of online services is always the key to success in operating a shopping website. Third, hypothesis 2 is also supported by the previous research: Luo and Lee (2011), Selcuk (2013), Green and Pearson (2011), Papadomichelaki and Mentzas (2010), Ladhari (2010), Alanezi, Kamil, and Basri (2010), Rolland and Freeman (2010), Pearson, Tadisina, and Griffin (2012), Tsang, Lai, and Law (2010), (Bhattacharya, Gulla, and Gupta (2012).

Hypothesis 3 showed that there is a positive relationship between perception of web design and perception of privacy because of three reasons. First, the average value of each indicator in the perception of web design and perception of privacy indicates that most respondents in the questionnaire chose "agree". Second, Focusing on appearance, content, usability, navigation, security and privacy can achieve high levels of website design quality (Huang & Benyoucef, 2013).

Lack of privacy and perceived protection are obstacles in the online purchasing process (Udo, Bagchi, & Kirs, 2010). Third, hypothesis 3 is also supported by the previous research: Luo and Lee (2011), Selcuk (2013), Tsai and Yeh (2010), Alanezi, Kamil, and Basri (2010), Rolland and Freeman (2010), Pearson, Tadisina and Griffin (2012), Tsang, Lai, and Law (2010), Meskaran, Ismail, and Shanmugam (2013), Li and Yeh (2010), Huang and Benyoucef (2013).

Hypothesis 4 showed that there is a positive relationship between perception of web design and purchase intention because of three reasons. First, the average value of each indicator in the perception of web design and purchase intention indicates that most respondents in the questionnaire chose "agree". Second, Visual content is the colors, images and logos on the website that affect customer intentions (Kuo, Zhang, & Cranage, 2015).

Therefore, when consumers feel the high quality of web design, they might show more favorable towards purchase intentions. Third, hypothesis 4 is also supported by the previous research: Dedeke (2016), Hausman and Siekpe (2009), Shaouf, Lü, and Li (2016), Becerra and Korgaonkar (2010), Debei, Akroush, and Ashouri (2015), Kim, Kim, and Park (2010), Hasanov and Khalid (2015), Octavia and Tamerlane (2017), Putra and Noermijati (2017), Sam and Tahir (2009).

Hypothesis 5 showed that there is a positive relationship between perception of reliability and perception of customer service because of three reasons. First, the average value of each indicator in the perception of reliability and perception of customer service indicates that most respondents in the questionnaire chose "agree". Second, Companies must perform the promised service reliably and accurately (Quddus & Hudrasyah, 2014). Hence, customers tend to have a positive attitude towards customer service when they consider that the store is reliable (Dang & Pham, 2018). Third, hypothesis 5 is also supported by the previous research: Omar *et al.* (2015), Quddus and Hudrasyah, (2014), Ali, Asmi, Rahman, Malik, and Ahmad (2017), Yee, Yeung, and Cheng (2010), Siddiqi (2011), Saunders and Petzer (2010), Saha and Theingi (2009), George and Kumar (2014), Rod, Ashill, Shao, and Carruthers (2009), Pakurár, Haddad, Nagy, Popp, and Oláh (2019).

Hypothesis 6 showed that there is a positive relationship between perception of reliability and purchase intention because of three reasons. First, the average value of each indicator in the perception of reliability and purchase intention indicates that most respondents in the questionnaire chose "agree". Second, if a store provides products and services that are in accordance with their promises, then consumers have a positive attitude (Bhatnagar, Misra, & Rao, 2009).

Customers provide reviews by accessing reliable and accurate information intending to purchase intentions (Filier, McLeay, & Tsui 2017). Third, hypothesis 6 is also supported by the previous research: Wandebori and Wijaya (2017), Saleem *et al.* (2015), Jiradilok, Settapong, Madan, and Sivaraks (2014), Chimedtseren and Safari (2016), Rajaguru (2016), Kim, Park, Choi, and Jun (2017), Choudhury (2013), Dang and Pham (2018), Kuo, Wu, and Deng (2009), Lee, Kim, Ko, and Sagas (2011).

Hypothesis 7 showed that there is a positive relationship between perception of perception of privacy and perception of customer service because of three reasons. First, the average value of each indicator in the perception of privacy and perception of customer service indicates that most respondents in the questionnaire chose "agree". Second, consumers would have negative opinions and feedback about products or services from online stores and distrust online stores if they buy online when they have privacy and security issues. Third, hypothesis 7 is also supported by the previous research: Dang and Pham (2018), Quach (2015), Thaichon, Lobo, and Mitsis (2013), Mekovec and Hutinski (2012), Tsai and Yeh (2010), Kim and Kim (2010), Santouridis, Trivellas, and Tsimonis (2012), Taherdoost (2017), Bhattacharya, Gulla, and Gupta (2011), and Wen, Prybutok, Blankson, and Fang (2014).

Hypothesis 8 showed that there is a positive relationship between perception of privacy and purchase intention because of three reasons. First, the average value of each indicator in the perception of privacy and purchase intention indicates that most respondents in the questionnaire chose "agree". Second, customers might also not trust online stores if they have privacy and security issues when they buy online. Third, hypothesis 8 is also supported by the previous research: Featherman, Miyazaki, and Sprott (2010), Ariffin, Mohan, and Goh (2018), Pappas (2018), Zorotheos and Kafeza (2009), Lee, Eze, and Ndubisi (2010), Kim and Lennon (2009), Akhter (2014), Eastlick and Lotz (2010), Nisar, Hajli, Prabhakar, and Dwivedi (2019), and Chang, Chih, Liou, and Yang (2016).

Hypothesis 9 showed that there is a positive relationship between perception of customer service and purchase intention because of three reasons. First, the average value of each indicator in the perception of customer service and purchase intention indicates that most respondents in the questionnaire chose "agree".

Second, most online stores differentiate their services by building and maintaining more brand loyalty through customer service, thus companies must build a trusting relationship to retain their customers, and the customers will value based on the services provided. Third, hypothesis 9 is also supported by the previous research: Dang and Pham (2018), Raman (2018), Ha, Akamavi, Kitchen, and Janda (2013), Rahman, Hassan, Osman-Gani, Fattah, and Anwar (2017), Sharma (2012), Gounaris, Dimitriadis, and Stathakopoulos (2010), Choudhury (2013), Mazaheri, Richard and Laroche (2012), Carlson and O'Cass (2010), and Lee, Goh, and Noor (2019).

First, the results of the study show that consumers' perceptions about web design have a positive impact on perceptions of reliability, privacy and customer service, and purchase intentions. Thus, it can be stated that web design is an important factor for online retail. Previous research studies also show that web design determines how consumers see, feel and buy products and services online (Demangeot and Broderick, 2010). Therefore our results are consistent with previous research, which shows that web design is one of the main considerations when consumers decide whether to shop via the internet. Also, website features, such as visual interface design that is uncomplicated, pleasant, and provide sufficient and high-quality information, can attract and enhance consumers' positive perception of a website. This is because consumers tend to rely on website features to assess internet retailer's products and services (Wells et al., 2011).

Second, the results of this study indicate that the perception of reliability by consumers is positively related to the perception of customer service. Thus, these results indicate that consumers feel happy when online stores fulfill their obligations to customers. Furthermore, the perception of consumer reliability is related to purchase intentions, indicating that consumers feel more confident in buying products online if the store is reliable.

Third, the perception of privacy is considered important by consumers. Specifically, perception of privacy has a positive effect on customer service perception. This shows that consumers tend to have a positive attitude towards customer service when they feel that online stores provide security and protection for their personal information. Furthermore, these results are consistent with the results of previous studies that show security and privacy as the main concern for consumers in online transactions.

Fourth, the results of the study indicate that consumers' perceptions of customer service are positively related to purchase intentions. As such, it can be stated that customer service is one of the main factors not only for physical stores but also for online stores. Good service from the store makes consumers tend to buy products from the store.

The results of the study indicate that customer perceptions of positive web design can influence customer perceptions about reliability, privacy, and customer service and purchase intentions. Thus, it can be stated that attention and enhancement to website design features is an absolute must for marketers. Thus, features that are visually pleasing and uncomplicated, and capable of providing adequate information can be interesting and also increase positive perceptions of the website. Online retailers should therefore invest considerable effort in the creation of an excellent website. An excellent website may increase customers' ability to have a better perception of the company's reliability, privacy security, customer service, and ultimately increase their intention to buy from the website.

The results of the study that show that customer reliability perceptions are positively related to customer perceptions about customer service and purchase intentions. This results indicate that customers will rate the online store positively, especially when the store fulfills their commitments to customers.

Thus, the reliability of the marketer or online store is a requirement in providing the best commitment for customers. Online stores, for instance, must deliver products and services in compliance with their agreements, provide consumers with items of the right quality and quantity at the right time and in the right place, and meet all obligations as stated on the website. Reliability is therefore an important basis for building consumer trust and confidence in online retailing.

Third, this study focuses on the importance of customers' perception of the security of their privacy towards their perception of customer service and purchase intention. Customers will have a positive attitude towards customer service when they feel that online stores provide security and protection for their personal information. Thus, management at the online store must develop strategies to reduce questions about consumer privacy which often makes them uncomfortable.

For example, online retailers must announce their structured privacy policies to customers openly and explicitly, incorporate advanced technology and security systems to protect customers, introduce a secure payment method to protect and maintain financial security for customers, and provide strategies for increasing and removing consumer complaints about a bad purchase decision.

Lastly, this relational study has placed an emphasis on the importance of building customers' better perception of the company's customer service towards purchase intention. Managers should therefore adopt policies that provide consumers with excellent customer services. Online retailers, for instance, can provide timely delivery and instant answers to feedback and requests from consumers. The overall managerial implication was presented in the Table of Managerial Implication in the appendix.

Conclusion

The purpose of this research is to answer research questions about factors that influence purchase intention. According to the result and discussion, this can be concluded that all the nine hypotheses are supported, which is perception of web design towards perception of reliability is the most significant.

There are two limitations after conducting this research. The first limitation is this research focuses on website of Zalora. Therefore, the subject of this research does not represent to the other subject or other companies in the same industry, such as Berrybenka. Second, since this research is non-probability sampling used with judgement sampling technique, this means not all individuals in the population were selected to become a respondent. Entirety population in non-probability sampling does not get the same probability to become respondent in this research. Therefore, the result obtained is not able to generalize a whole population of Zalora's customers.

Based on the limitations, this research has three recommendations. First, in the future research should use probability sampling, then the result obtained is able to represent a whole population of Zalora customers. Second, in the future research should perform in the various countries, especially where Zalora is operating, such as Singapore, Hongkong, or Philippine. Then the researcher can understand the differences in consumer perception in online shopping outside of Indonesia. Third, in the future research should use dyads, organizations, or culture as the unit analysis to get a new perspective and able to be generalized.

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Table of Managerial Implications

Variables	Prioritized Indicators	Customer Needs	Current Situation	Company's Recommended Actions
Perception of Web Design	Organization of the Zalora Website	Zalora Website look organized	- Fonts are excessively large on promotions and too vague on product details	- Using more suitable font types and sizes
Perception of Reliability	Accuracy of the products represented by Zalora	Receive products that represented accurately by Zalora	- Detailed products information and care are provided - Size guides provided are quite general for different products and brands - Products are sometimes not delivered or cancelled by Zalora because of the products availability are not updated	- Products information and care can be added by pictures or illustrations Providing more accurate size guides for each product and brand - Products availability should be updated as soon as possible and delivering the products by the time and place promised
Perception of Privacy	Safety of transactions with Zalora	Feel safe in transactions with Zalora	- New payment methods are not yet included	- Adding a more diverse and safe payment method (e.g.: mobile payment)
Perception of Customer Service	Promptness of inquiries and complaints answered and responded by Zalora	Inquiries and complaints to be answered and responded promptly by Zalora	- New communication methods are not yet included - There are no personalized and after-sales service	- Provide a new way to communicate with customers (e.g.: video call) - Provide personalized and after-sales service
Purchase Intention	Customers' intention to shop at Zalora	Have the intention to shop at Zalora	- The website design can still be improved - Zalora still has a lot of customer complaints and dissatisfactions - The website security and payment methods can still be improved	- Create a more organized website design - Create a more trusted and reliable image - Continuously improve the security of the

Source: Developed for the purpose of this study (2019)