

Distributing Goods and Information Flow: Factors Influencing Online Purchasing Behavior of Indonesian Consumers*

Karilla MAIDIANA¹, Z. HIDAYAT²

Received: April 15, 2021. Revised: June 07, 2021. Accepted: July 05, 2021

Abstract

Purpose: The distribution of goods and the flow of information, determined by consumer behavior toward online shopping, is drastically popular worldwide. This study examines some factors such as brand trust, online sales promotion, consumer personality, delivery service, quality assurance, information search, and online consumer satisfaction influence online shopping behavior. Research design, data, and methodology: A constructed questionnaire in an online survey was conducted with 241 random cluster respondents in the greater Jakarta Area. Structure equation model was utilized to analyze and verify all the data. Results: Research finding indicates online sales promotion, delivery service, quality assurance, and online consumer satisfaction positively influence information search. Meanwhile, brand trust, quality assurance, and information search positively influence online shopping behavior. However, the result illustrates that consumer personality negatively influences both information search and online shopping behavior. Conclusions: To influence online shopping behavior, the most important factors that need to be considered by marketplaces are quality assurance. It positively motivates Indonesia's citizens to collect information and make unplanned purchases. The study finding can be a reference for brands to maintain and build outstanding product quality, an informational website, and an excellent marketing strategy so that customers can meet their expectations. Besides, it also broadens both companies' and individuals' knowledge about the digital revolution on consumer behavior.

Keywords: Consumer behavior, Distribution, Factors of online shopping, Indonesian consumers, Purchasing behavior

JEL Classification Code: D12, D30, M21, M31

1. Introduction

In recent years, the advancement of technology is proliferating. This digital transformation forces companies

* This paper is supported by Binus University as an Independent

to switch their business model from traditional to the current market trend, the electronic method. There has been an acceleration in the flow of goods distribution and the flow of information with advanced technology. To illustrate, it has become the choice of people across the globe for online purchasing, particularly in Indonesia, causing the rise of marketplaces. Because of this 'new' trend, several marketplaces, such as Tokopedia and Bukalapak, have reached a valuation of \$1 billion, which is possible due to the increasing number of electronic transactions or online shopping carried out by Indonesians. The number of online shoppers in Indonesia stood up at roughly 20 million from 2017 to 2020 and demonstrated a significant jump of 65 million in 2020 (Nurhayati-Wolff, 2020).

Moreover, consumer shopping habit has had a significant change since then. Online business development has an impact on lifestyles and consumer behaviors in

Research.

1 First Author. Graduate student, Communication Department, Master of Strategic Marketing Communication, Binus Graduate Program, Binus University, Indonesia 11480. Email: karilla.maidiana001@binus.ac.id

² Corresponding Author or Second Author, Senior Lecturer, Communication Department, Master of Strategic Marketing Communication, Binus Graduate Program, Binus University, Indonesia 11480, Email: z.hidayat@binus.edu

[©] Copyright: The Author(s)

This is an Open Access article distributed under the terms of the Creative Commons

Attribution Non-Commercial License (http://Creativecommons.org/licenses/by-nc/4.0/)

which permits unrestricted noncommercial use, distribution, and reproduction in any

medium, provided the original work is properly cited.

making purchasing decisions. They are no longer reliant on physical cash for the transaction. Instead, they prefer digital money, particularly in the Coronavirus outbreak. Bhatti et al. (2020) said that the overall sale of e-commerce illustrated a drastic jump because of coronavirus. People prefer to stay at home, keep a safe distance, work from home, and shop from home. Walmart's online sales, for example, have risen significantly to 74 percent. Based on the previous research, online purchasing brings some benefits for both brands and consumers.

Another research also finds that online shopping has some advantages for both parties. According to Vinerean et al. (2013), one of the merits is that brands could grasp a capacity audience to survey, select, and purchase products and services from the global market. Chung (2017) said the great benefit of online purchasing is a wide choice of alternatives. The internet can improve consumer efficiency by facilitating consumers' access, making the transmission of information faster, effortless, and accessible. To illustrate, seller in the marketplace usually updates regularly and put detail description about their products. It is timesaving to read it online instead of going to an offline store. Thus, people become accustomed to purchasing digitally. The convenience of surfing the internet facilitates free search and selection of products and triggers commercial transactions.

Simanjuntak and Musyifah (2016) said several factors influence online shopping behavior, one of which is a recommendation. It could happen since consumers constantly interact with peer groups and provide mutual recommendations. Advice and recommendation can influence customer's purchase intention, online shopping, and online shopping satisfaction. It is undeniable that millennials and generation Z prefer to utilize internet technology more than the conventional one (Kavya & Nagabhushanam, 2018), and they often interact virtually on the brand's social media or shopping website. According to Banarjee (2016), electronic word of mouth is effective in many research studies. However, although digital business seems promising, especially when looking at a healthy profit that several renowned companies earn, some others fail to grow up. Thus, e-channel distribution needs to acknowledge consumer sensitivity. Various studies have attempted to find what aspects that cause online shopping behavior. This research focuses on examining determinant elements that influence purchase and repurchase decisions.

Based on the first previous research, perceived enjoyment, social norms, and preference influence customer loyalty (Hsu & Lu, 2005). The second previous study found that adolescent boys and girls have a difference in online shopping. Adolescent boys tend to appreciate choice, availability of information, sociality lacking, and cost savings. Besides, they also represent a high utilitarian value related to online purchasing. It was

discovered that adolescent boys and girls had similar hedonistic value motivations (Sramova & Pavelka, 2018). The third former study found an identical path among the groups (Chinese and Canadian). On the one hand, it was shown that site or application appearance that is practical and amiable is highly significant (a dominance) for Canadian consumers. On the other hand, effective site or application is the dominant factor with the Chinese (Mazaheri et al., 2011).

Moreover, those various previous studies have discussed consumers' attitudes to online purchases by examining several factors that may affect them and only explore mostly the adolescent group. Meanwhile, this study provides wider attention by examining some new variables that may have gone unnoticed. Besides, it not only focuses on teenagers but also older individuals. In addition, due to the cultural, shopping websites, and income differentiation between the previous research countries and Indonesia, the study will lead to different results. By empirical approach, this study examined the way brand trust, online sales promotion, consumer personality, delivery service, quality assurance, information search, and online consumer satisfaction influence online shopping behavior in the Greater Jakarta area, Indonesia. A framework was developed to support the purpose of this research, and the questionnaire was distributed to 241 internet shoppers. All the answers were verified by applying Structural Equation Modeling-Partial Least Square (SEM-PLS).

The previous study found that quality assurance is the only variable with a strong positive relationship with information search and online shopping behavior. Besides, Indonesians perceived that brand trust is also essential for increasing online shopping behavior. Online sales promotion has a positive effect on information search as well. It is revealed that Indonesians enjoy browsing information about marketplaces' marketing campaigns, products, after-sales service, order confirmation, and search for satisfaction. However, consumer personality has a negative impact on information search and online shopping behavior. These findings can be a reference for brands to build great technological innovation to have a better online shopping experience and provide information about online consumer behavior, online market, and brand research.

2. Literature Review

2.1. Online Shopping Behavior and Goods Distribution

Online shopping becomes the leading distribution channel when physical access is limited for people to visit

stores. In addition to interactions, transactions or values flow through online shopping applications, and reciprocal information flows between sellers and buyers. Thus, there has been a drastic change; online shopping has become a proliferate trend, making companies adapt to re-assess their digital offerings to build the best experience possible. Individual, family, and community experiences for online shopping have further strengthened the flow of online distribution. According to Ling et al. (2010), online shopping is defined as purchasing activity that customers do through the internet. It allows customers to search and compare several products or service alternatives from different online shops worldwide. According to customers, online shopping has several advantages. They are convenient, with selection, price, and services that only available online. Customers also think that special attention is given by marketers when online shopping, making it one of the benefits. Also, it is easy, provides countless access, and has more privacy. They do not have to be followed by the salesperson all the time. Holzwarth et al. (2015) said that avatar affects shopping experiences just as the human commercial agent does. It shoots up retailer satisfaction, increases attitudes toward products sold by the retailer, and enhances consumers' intention to buy. Javadi et al. (2012) said online shopping does not require people to travel and wait in lines. Not only it opens all the time, but it also is accessible anytime and anywhere. Consumers were able to get the more detailed information regarding products and services. Online shopping also has some online means to help customers compare and make purchase decisions on various products and services. However, despite the advantages, the online store also has many demerits compared to brick-and-mortar stores.

Furthermore, since it was done virtually, customers are likely to develop low trust and perceive elevated risk highly. Intention affects consumer attitudes. According to Ahuja et al. (2003), customers use the internet to provide product details, 42 percent for travel information, and 24 percent for buying. They added online consumer behavior as several activities, including collecting information from advertising, browsing, selecting, and purchasing specific goods and services. Hence, the retailers must comprehend consumers' purchasing behavior to be successful. Karimi et al. (2014) said it is essential for companies to comprehend how online customers construct purchase decision-making, including needing recognition, information search, evaluation of alternatives, purchase, and post-purchase stages.

2.2. Information Search and Behavior

Before purchasing, information search is a significant stage in the consumers' buying process, particularly in highly involving products and services (Mourali et al., 2005). Buyers independently seek information about products of interest by browsing product knowledge and looking for similar products. Cho et al. (2012) said social network site shoppers share some information about purchasing, such as selling products, prices, quality, and discounts. It looks for an alternative product so that potential customers can make the right decision. They can engage in internal and external information searches. Accordingly, customers will get relevant information and buy the goods on the internet. Huang (2016) explained that people who are buying with hedonic motives enjoy searching for product information. He added that consumers could buy in large quantities of the product varieties or purchase them early. In addition, according to Chao and Gupta (1995), it was expected that individuals who have a higher level of education do more information search since they are more likely to engage in a meaningful search for information. Therefore, they are contributing to a higher level of search.

In addition, the collection of information can be carried out not only on the company's website but also from repeat customers. Customers usually share their experiences and even advise their peer group. "Customers who have experience with a brand will be willing to share information about the goodness of a brand" (Budi et al., 2021: 116). Thus, it is useful for potential customers when they need specific information about the brand. In addition, Thaichon (2017) also explained that customers could seek information about product details by asking customer service staff through virtual support assistance.

2.3. Consumer Personality and Behavior

Personality is an internal factor about how an individual thinks and feels, interpersonal strategies that illustrate people's behaviors, and unique and relatively steady patterns of behaviors, thoughts, and emotions demonstrated by them (Hogan et al., 1996). Attitude change, social influence, and purchasing behavior were connected to personality (Kassarjan, 1971). Meanwhile, according to Moon (2002), personality is a set of characteristics that makes every person different. It can be perceived by utilizing cluster and factor analytic techniques. Dominant (extraversion) and submissive individuals respond to messages and other stimuli in numerous contexts differently. Moon (2002) found that dominant people follow message suggestions when the message style is dominant more than submissive individuals. Personality traits can influence a person's buying attitude. According to Yoo and Gretzel (2011), consumer behavior research has found that people's personality is a significant predictor of brand preference and product choice. Kim and Jeong (2015) said that people's beliefs, attitudes, and behavior connected to internet usage might vary due to their personality traits.

Moreover, it is essential to give necessary information and detailed product description to the consumers to help them make a well-informed decision (Lee & Shin, 2014; Luc et al., 2020). Detail product description plays a critical role since it brings the goods more visible. According to Thaichon (2017), information and product details that were given by online customer service can reduce shopping risk. It creates a shopping environment for abundant customers as well.

2.4. Brand Trust and Behavior

Ling et al. (2010) said trust is consumers' willingness to accept weakness in a transaction based on their positive expectations about future online store behavior. Trust plays a vital part in creating the desired result in an online transaction. They conclude that the higher the customers' trust, the greater online purchase intention they will show. Garrouch and Timoulali (2020) explained that uncertainty could be overcome by trustworthiness, leading to optimistic expectations of desired benefits. They consider trust as a factor that influences electronic transactions. Lee (2017) said trustworthy and detailed information is crucial since customers commonly use the online market to collect the necessary information.

Moreover, there are three aspects of trust: security, privacy, and reliability, according to Ling et al. (2010). Firstly, security is described as consumers' trustworthiness to pass their confidential information on the internet to do business transactions. It has a crucial role in affecting customer behavior and purchase intentions since they release their data credit card numbers across the internet. Secondly, Chen and Barnes (2007) explained that privacy is customers' trust regarding other parties while doing a market transaction or consumption behavior. Lee and Turban (2001) said, since information sharing likely leads to posing a risk, a high degree of security and privacy in the online purchasing experience positively affects customer trust. Thirdly, company reliability influenced online customers' trust and purchase intention (Koufaris & Hampton-Sosa, 2004). Therefore, brand trust can be considered a significant part of the relationship between consumers and businesses since they tend to take advantage of trusted brands.

2.5. Online Sales Promotion and Behavior

Bhagat (2020) defined sales promotion as an activity aiming to stimulate customer demand and enhance sellers' marketing performance. It includes means for consumer promotion, such as giving away free vouchers, cashback,

and warranties. Moreover, trade promotions, like merchandise and ads, and sales-force promotions, such as bonuses, are counted. According to Ye and Zhang (2013), online sales promotion has similar objectives, characteristics, and activities with conventional sales promotion, although implemented within a distinct environment. It can be defined as an activity that uses all types of inducements to stimulate the target audience and accelerate their purchase of goods or services (Pathak et al., 2010). An online marketer is likely to adopt several promotion methods to gain buyers' interest and make sales.

Furthermore, Shamout (2016) said that it is easier to attract occasional customers when the same brand offers seasonal discounts instead of getting the new one to purchase the discounted goods. Crespo-Almendros and Del Barrio-García (2016) explained that providing different promotional incentives can increase customers' ability to acquire the product and repeat purchases. The primary type of incentive is discounts. They added that sales promotion could be effective depends on the product benefit offerings. To illustrate, it helps the customer maximize the utility, efficiency, or value-for-money of their purchase and bring fun, entertainment, or self-esteem. Raghubir (1998) said, when the promotional discount is high, it makes the saving higher, leading to a higher probability of purchasing goods or services. Karbasivar and Yarahmadi (2011) described that discount encourages higher expressions of willingness to purchase unrelated goods. Previous research also discussed that sales promotion using coupons and cost reduction significantly impact customer purchasing decisions (Gorji & Siami, 2020). Promotion can be done using several tools and strategies to understand consumers' preferences and boost their sales.

"In online communication, when a consumer sees a banner ad or online promotion, it can attract their attention and stimulate their interest for these specific products from advertisements" (Vasic et al., 2019: 71).

For example, organic banners, pop-up messages, e-mail messages, social media ads, and text-based hyperlinks to websites helped customers make purchase decisions.

2.6. Delivery Service and Behavior

The advancement of communication and information technology experiences a significant adjustment for conceptualization, development, delivery, and use of eservices (Ltifi, 2013). Delivery service was invented to facilitate customers who do not want to bring their goods alone. According to Jongen (2018), delivery is one of the steps in the consumer journey. It consists of home delivery, pick-up points, delivery information, as well as return

policies. For example, furniture and home accessories provide this service to shop easily without having difficulty bringing the products. This strategy can affect impulse buying and the volume of sales (MacLennan, 2011). Moreover, besides customer service, the central element of product/service experience quality is delivery service (Izogo & Jayawardhena, 2018).

In addition, Morganti et al. (2014) current surveys and market analyses illustrate that one of the most crucial factors which influence online customers' decision to shop is delivery service. Therefore, brands need to improve service quality to encourage shoppers to do online purchasing.

2.7. Online Consumer Satisfaction and Behavior

By purchasing goods or services online, people experience both pleasure and disappointment. It defines consumers' evaluation of a product or service concerning their needs and expectations (Bai et al., 2008). According to Chen and Lin (2019), behavior change, and purchase intention were influenced by satisfaction. The purchase step includes recognizing, searching for information, evaluating alternatives, and post-purchase behavior. Also, if individuals get valuable experience with a particular online store, they can make repeat purchases and loyal. Particularly in the digital situation, increasing website performance can be one way to achieve customer satisfaction.

Additionally, Stoian and Tugulea (2016) described several levels of components that influence online consumer satisfaction. Firstly, when customers have a good relationship with the seller. If the seller pays personal attention, understanding the specific needs, and offering excellent service to the consumers, it will increase their satisfaction scale. Secondly, guarantee security. Since consumers need to fill in their data, the online shop must guarantee their data safety. Thirdly, brands must concentrate on graphic styles, such as images, image size, image quality, color, and animations. They are considered essential components in assessing the quality of a website. Clients will be satisfied if they can get all the information on the website. In addition, according to Lee et al. (2020), the experience of customers affects their satisfaction in several areas such as retail, service, and online.

2.8. Quality Assurance and Behavior

Quality of Product is described as good and or service characteristics that can meet given requirements. It is essential since product quality affects companies' purchasing decisions and profitability. According to Alex and Thomas (2012), customers perceive worthy transaction

when product specification fits their expectation. Moreover, not only goods but service quality is also one of the central aspects of consumer behavior. It is defined as a space between what the clients want and the actual service they receive. They stated that a study has proved that excellent service quality encourages customer purchase behavior to repurchase, promoting customer retention and even customer engagement (Auditya & Hidayat, 2021). To sum up, the overall quality of online products' buying experience was essential for both attitudes towards shopping online and intention to buy (Koufaris, 2002).

3. Research Methods and Materials

3.1. Research Model and Hypotheses

This study aims to examine the determinant of online consumer behavior in Indonesia. The conceptual framework in this research is developed based on several previous studies explained in the literature review.

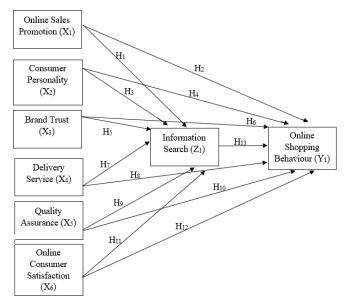


Figure 1: Hypothesized Variables

Specifying the research hypotheses is one of the essential steps in planning a scientific quantitative research study. Thus, below are the proposing output hypotheses:

H₀: Information search was not influenced by online sales promotion.

H₁: Information search was significantly influenced by online sales promotion.

Ho: Online sales promotion did not influence online consumer behavior.

H2: Online sales promotion significantly influenced online consumer behavior.

H₀: Information search was not influenced by customer personality.

H₃: Information search was significantly influenced by customer personality.

H₀: Customer personality did not influence online consumer behavior.

H4: Customer personality significantly influenced online consumer behavior.

H₀: Information Search was not influenced by brand trust.

H₅: Information search was significantly influenced by brand trust.

Ho: Brand trust satisfaction did not influence online consumer behavior.

H₆: Brand trust satisfaction significantly influenced online consumer behavior.

Ho: Information search was not influenced by delivery service

H7: Information search was significantly influenced by delivery service.

H₀: Delivery service did not influence online consumer behavior.

Hs: Delivery service significantly influenced online consumer behavior.

Ho: Information search was not influenced by quality assurance.

H9: Information search was significantly influenced by quality assurance.

H₀: Quality assurance did not influence online consumer behavior.

 \mathbf{H}_{10} : Quality assurance significantly influenced online consumer behavior.

H₀: Information Search was not influenced by online consumer satisfaction.

H₁₁: Information search was significantly influenced by online consumer satisfaction.

H₀: Online consumer satisfaction did not influence online consumer behavior.

H₁₂: Online consumer satisfaction significantly influenced online consumer behavior.

H₀: Information Search was not influenced by brand trust

H₁₃: Information search was significantly influenced by online shopping behavior.

3.2. Data Collection and Research Method

A quantitative approach was conducted to data gathering and analysis (Creswell, 2009; Neuman, 2013). This study used a constructed questionnaire with 241 random individuals through an online survey in the Greater Jakarta, Indonesia. This research aims to determine people's responses through an online questionnaire. Therefore, the

post-survey adjustment method is applied to non-probability sampling, particularly purposive sampling, which can generalize the sample that is being studied (Sanap, 2017). Specific respondents are selected based on researchers 'criteria and research objectives.

Nowadays, it is undeniable that people are reluctant to purchase offline, particularly when the coronavirus strikes. Consumers change their shopping behavior to digital solutions. According to Hasanat et al. (2020), e-commerce is the leading platform for individuals to fulfill the necessities required for survival. Based on the data, the respondents are men and women who meet several specifications. They are 18 to >45 years old individuals who live in the Greater Jakarta, Indonesia, and have basic monthly expenses start from below USD338 to USD690. The researchers did not have thorough knowledge about the number of subjects to be sampled. The population of this study is internet shoppers. Meanwhile, this research did not have to determine the sample size directly by employing the purposive technique. Two hundred fortyone respondents completed the online questionnaire via Google Form, which was distributed through Instagram.

In this research, Structural Equation Modelling and Smarts 3.0. are used to process the data (Kaplan, 2009). Building a questionnaire, then collected all the answers based on online sales promotion, customer personality, brand trust, delivery service, quality assurance, online consumer satisfaction, information search, and online consumer behavior. Each of these was divided into three types of variables, and they are independent variables (X), dependent variable (Y), and controlled variable (Z). Independent variable includes online sales promotion (X_1) , customer personality (X_2) , brand trust (X_3) , delivery service (X_4) , quality assurance (X_5) , online consumer satisfaction (X_6) . The dependent variable will be online shopping behavior (Y_1) , and the controlled variable is information search (Z_1) . The perceptual measures were rated based on a five-point Likert scale (1= strongly agree, 2= agree, 4= disagree, 5= strongly disagree).

4. Result and Discussion

4.1. Descriptive Information

The questionnaire result illustrated the outcome survey of individual's responses regarding online consumer behavior in the Greater Jakarta Area. It was conducted among 241 people. Overall, according to the charts, most respondents are male, which accounted for precisely 57.7 percent, while only 43.2 percent of females filled out the questionnaire. Young adults between the age of 18-24 years old are over-represented in this survey, which made

up 66.8 percent. The percentage of adult respondents between the age of 25-31 years old and 32-38 years old accounted for 21.2 percent and 5 percent, respectively. Respondents between the age of 39-45 years old were slightly represented in this survey, which made up 7.1 percent. The outcome demonstrates that adolescents in the Greater Jakarta Area between the age of 18-24 years old enjoy online purchasing through their marketplace preferences.

4.2. Evaluation of Measurement Model

According to Henseler et al. (2015), three measurement criteria are needed to assess the outer model: convergent validity, discriminant validity, and composite reliability.

4.2.1. Convergent Validity

When indicators need to be specified to measure the loading factor, it is necessary to test the measurement model's convergent validity. If each indicator has around 0.6 loading factors, it means the latent variables' indicators should explain at least half of the criterion construct's variance. Therefore, this research applies a loading factor limit of 0.6. The model was analyzed in SmartPLS software, as shown in Figure 2.

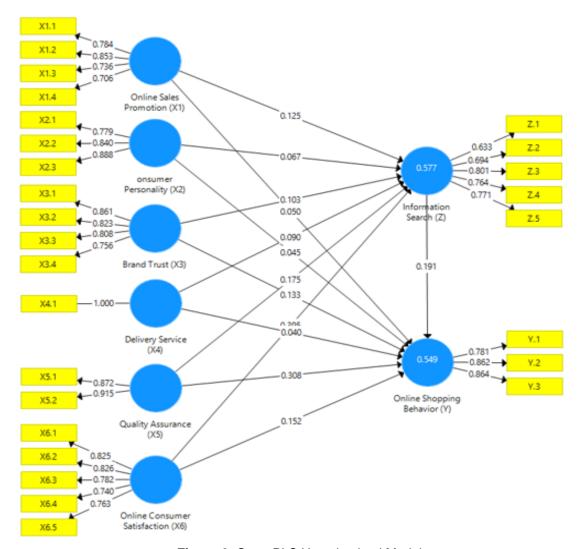


Figure 2: SmartPLS Hypothesized Model

Based on the graph, the AVE value of online sales promotion (X1) is 0,596. Meanwhile, the value of customer personality (X2) and brand trust (X3) AVE made up for 0,7

and 0,66, respectively. Delivery service (X4) experiences a higher AVE value, which accounted for 1. The AVE value of quality assurance (X5) and online consumer satisfaction

(X6) are 0,799 and 0,621. The value of online shopping behavior (Y1) AVE made up for 0,7 as well. While information search (Z1) AVE value shows 0,54, which managed to exceed 0.5. Furthermore, the loading factor

range is between 0,63 to 1. The graph demonstrates that the data can reach the loading factor standard. Therefore, it means that each indicator meets the standard criteria, as shown in Table 1.

Table 1: Reliability and Confirmatory Factor Analysis

Constructs	Indicators	Loading Factor	Average Variance Extracted (AVE)	Composite Reliability
Online Sales Promotion (X ₁)	X ₁ .1	0.784		0.854
	X ₁ .2	0.853	0.500	
	X ₁ .3	0.736	0.596	
	X ₁ .4	0.706		
Consumer Personality (X ₂)	X ₂ .1	0.779		0.875
	X ₂ .2	0.840	0.700	
	X ₂ .3	0.888]	
Brand Trust (X ₃)	X ₃ .1	0.861		0.886
	X ₃ .2	0.823	1	
	X ₃ .3	0.808	0.660	
	X ₃ .4	0.756		
Delivery Service (X ₄)	X ₄ .1	1.000	1.000	1.000
Quality Assurance (X ₅)	X ₅ .1	0.872	0.700	0.888
	X ₅ .2	0.915	0.799	
	X ₆ .1	0.825		0.891
	X ₆ .2	0.826]	
Online Consumer Satisfaction (X ₆)	X ₆ .3	0.782	0.621	
	X ₆ .4	0.740]	
	X ₆ .5	0.763]	
Online Shopping Behavior (Y)	Y.1	0.780		0.875
	Y.2	0.862	0.700	
	Y.3	0.864]	
Information Search (<i>Z</i>)	Z.1	0.633		0.854
	Z.2	0.694]	
	Z.3	0.801	0.540	
	Z.4	0.764]	
	Z.5	0.771]	

The Information search (Z) variable in the five constructs obtained a significant value of loading factor and average variance extracted (AVE), so composite reliability was relatively high, 0.854. Likewise, the dependent variable Online Shopping Behavior (Y) in the three constructs obtained the value of loading factor, AVE, and relatively high composite reliability. Thus, the two dependent variables (Z and Y) have significant composite reliability.

4.2.2. Discriminant Validity

Discriminant validity defines as an advancement to which a construct was different from the others by empirical standards. Thus, it can show the uniqueness of a construct and grasp a phenomenon not represented by others in the model by applying discriminant validity. By using SmartPLS, analysis can be done by looking at Fornell-Larcker Criterion and cross-loading.

Table 2: Fornell-Larcker Criterion

	X ₁	X ₂	X ₃	X ₄	X ₅	X ₆	Y	z
<i>X</i> ₁	0.772							
X_2	0.287	0.837						
X ₃	0.539	0.532	0.813					
X ₄	0.365	0.038	0.235	1.000				
X ₅	0.527	0.278	0.501	0.433	0.894			
X ₆	0.564	0.402	0.667	0.379	0.676	0.788		
Y	0.503	0.349	0.560	0.357	0.652	0.647	0.836	
Z	0.547	0.368	0.579	0.388	0.617	0.714	0.627	0.735

The table 2 demonstrates the Fornell-Larcker value among variables, which have a higher correlation with other variables than the square root value of AVE. Therefore, it shows that the data model tested in this study has met the requirements or criteria indicating discriminant validity.

4.2.3. Construct Reliability

Reliability defines as a consistent measurement that can be relied on. Cronbach Alpha is a way of measuring internal consistency. It can be considered highly reliable when the measurement produces similar results repeatedly. Composite reliability and Cronbach alpha are the methods used to assess each construction's reliability and internal consistency in this study. The reliability coefficient for the test should be 7.0 or higher to be "acceptable".

Based on the data, the Cronbach Alpha value is in the range of 0.750-1.000. The Composite Reliability value of

each variable is in the range of 0.854-1.000. This data can be seen in Table 1. This result indicates that all variables have a high value of Cronbach Alpha.

4.3. Evaluation of Structural Model

Based on the results of hypothesis testing, this study indicates that the variables Online Sales Promotion (X_1) , Delivery Service (X_4) , Quality Assurance (X_5) , and Online Consumer Satisfaction (X_6) have a significant effect on Information Search (Z) since they have a statistical t value greater than t critical 1.96. On the other hand, Consumer Personality (X_2) and Brand Trust (X_3) have no significant effect on Information Search (Z). The main reason is that the t value is smaller than a critical t of 1.96 and has an alpha value of more than 0,05.

Table 3: The hypothesis of the structural model

Constructs		T statistic	P Values	Hypotheses
Online Sales Promotion (X_1) -> Information Search (Z)	0.125	1.998	0.046	Significant
Consumer Personality (X ₂) -> Information Search (Z)	0.067	1.500	0.134	Not Significant
Brand Trust (X ₃) -> Information Search (Z)	0.103	1.594	0.111	Not Significant
Delivery Service (X_4) -> Information Search (Z)	0.090	2.001	0.046	Significant
Quality Assurance (X ₅) -> Information Search (Z)	0.175	2.614	0.009	Significant
Online Consumer Satisfaction (X_6) -> Information Search (Z)	0.395	5.587	0.000	Significant
Online Sales Promotion (X ₁) -> Online Shopping Behavior (Y)	0.050	0.741	0.459	Not Significant
Consumer Personality (X ₂) -> Online Shopping Behavior (Y)	0.045	0.872	0.384	Not Significant
Brand Trust (X ₃) -> Online Shopping Behavior (Y)	0.133	2.020	0.044	Significant
Delivery Service (X ₄) -> Online Shopping Behavior (Y)	0.040	0.584	0.559	Not Significant
Quality Assurance (X ₅) -> Online Shopping Behavior (Y)	0.308	4.268	0.000	Significant
Online Consumer Satisfaction (X ₆) -> Online Shopping Behavior (Y)	0.152	1.636	0.103	Not Significant
Information Search (Z) -> Online Shopping Behavior (Y)	0.191	1.982	0.048	Significant

4.4. Discussion

This study examines online purchasing behavior in the Greater Jakarta, online sales promotion, consumer personality, brand trust, delivery service, quality assurance, online consumer satisfaction, and information search to know the online shopping behavior. Based on the study results stated in the previous discussion, online shopping behavior is defined as buying goods or services that customers do through the internet. The data found that quality assurance is the most contributing factor in this research. Amron (2018) found that the quality of products positively affects purchasing decisions. Another previous research said, more information regarding a product is necessary for buying decisions (Park et al., 2019).

Moreover, several variables such as Online Sales Promotion, Delivery Service, and Online Consumer Satisfaction significantly affect Information Search. Satisfaction on retailer's online shopping experience has been a concern of similar research (Kim, 2017). Vasic et al. (2019) also said that one of the crucial factors of customer satisfaction is information quality before buying occurs. Pauwels et al. (2011) usually stated that price promotion is minimal, but it is the most important thing for an informational website. Additionally, according to Page-Thomas et al. (2006), the preliminary information that the customer needs during online purchasing are delivery pricing guides, delivery guarantees, and delivery schedules. They are helpful for the customer before considering shopping virtually. Furthermore, brand trust information search significantly influence online shopping behavior as Rahman et al. (2018) mention.

The previous study also stated that customers trust a brand when they recognize the brand image. It acts as an intermediary to induce customers' shopping behavior in the future (Cha & Seo, 2019). However, despite having a valid indicator, customer personality negatively significant towards information search and online shopping behavior. However, the previous study found otherwise. Types of personality play an important role in consumers' decisions to buy online (Wu et al., 2018).

5. Conclusions

This study tried to predict brand trust, online sales promotion, consumer personality, delivery service, quality assurance, information search, and how online consumer satisfaction influences online shopping behavior. Besides, the purpose is also to find direct and indirect influence between the variables. The hypotheses were tested by using SEM-PLS. It involved five independent variables: online sales promotion, customer personality, brand trust, delivery

service, quality assurance, and online consumer satisfaction. Based on the result, quality assurance is the only variable with a strong positive relationship with information search and online shopping behavior. It means that brands should build products that meet customer expectations and provide detailed information on the website. Besides, Indonesians perceived that brand trust is also essential for increasing online shopping behavior. If brands are gaining customer trust, they will consider a specific name when considering shopping virtually.

Moreover, online sales promotion has a positive effect on information search. It shows that Indonesians enjoy browsing information about the marketplaces' marketing campaigns. The research also found that when Indonesians browse the preferred marketplace, they will look at the delivery section to seek free shipping information. Before purchasing virtually, the marketing communication campaigns filled information regarding the product, aftersales service, rewards offer, and order confirmation.

On the other hand, consumer personality has a negative impact on information search and online shopping behavior. This result means Indonesians' personality traits do not influence online shopping behavior. Also, they prefer buying unique goods or seeking product variety.

5.1. Implication and Limitation

The results and findings of this study bring some valuable contributions for both academic and non-academic fields. This research provides information about online consumer behavior, online market, and brand research in the Greater Jakarta Area, Indonesia. Furthermore, it provides valuable insight into online shopping behavior, brand trust, online sales promotion, consumer personality, delivery service, quality assurance, information search, and online consumer satisfaction.

In the non-academic field, the research references brands to build an outstanding product quality to trigger their online shopping behavior, resulting in earning customer loyalty. Since this result presents that online sales promotion positively impacts information search, brands should create an informational website and excellent marketing strategy to attract purchasing behavior. Besides, this study also gives knowledge about the digital revolution on consumer behavior. It enables brands to compete and build great technological innovation to give customers a better online shopping experience.

Furthermore, despite such scholarly and practical contributions, there are some limitations found in this research. Firstly, this study was done by utilizing a single method, which is quantitative research. The analysis could be done by using mix method in order to find detailed information regarding all variables. Secondly, the

participants in this study were only focused on the Greater Jakarta Area, Indonesia. It is better to assign individuals in a different region to find different results.

References

- Ahuja, M., Gupta, B., & Raman, P. (2003). An empirical investigation of online consumer purchasing behavior. *Communications of the ACM*, 46(12), 145-151. DOI: https://doi.org/10.1145/953460.953494
- Alex, D., & Thomas, S. (2012). Impact of product quality, service quality, and contextual Experience on customer perceived value and future buying intentions. *European Journal of Business and Management*, 3(3), 305-318. DOI: http://dyuthi.cusat.ac.in/purl/4657
- Amananah, D., & Harahap, D. A. (2018). Examining the effect of product assortment and price discount toward online purchase decision of university student in Indonesia. *Jurnal Manajemen dan Kewirausahaan*, 20(2), 99-104. DOI: https://doi.org/10.9744/jmk.20.2.99-104
- Amron, A. (2018). The influence of brand image, brand trust, product quality, and price on consumers' buying decisions of MVP cars. *European Scientific Journal*, 14(13), 288-239. DOI: 10.19044/esj.2018.v14n13p228
- Auditya, A., & Hidayat, Z. (2021). Netflix in Indonesia: Influential Factors on Customer Engagement among Millennials' Subscribers. *Journal of Distribution Science*, 19(1), 89-103. DOI: https://doi.org/10.15722/jds.19.1. 202101.89
- Bai, B., Law, R., & Wen, I. (2008). The impact of website quality on customer satisfaction and purchase intentions: Evidence from Chinese online visitors. *International Journal of Hospitality Management*, 27, 391-402. DOI: https://doi.org/10.1016/j.ijhm.2007.10.008
- Banerjee, S. (2016). Moderating effect of the peer group environment on consumer predisposition towards premium promotions: A study on young urban consumers in India. *IIMB Management Review*, 1-10. DOI: https://doi.org/10.1016/j.iimb.2016.10.002
- Bhagat, P. (2020). Advertising and sales promotion. Agra: SBPD Publishing House.
- Bhatti, A., Akram, H., Basit, H.M., Khan, A.U., Naqvi, S.M.R., & Bilal, M. (2020). E-commerce trends during COVID-19 Pandemic. *International Journal of Future Generation Communication and Networking*, 13(2), 1449-1452. Link: http://www.sersc.org/journals/index.php/IJFGCN/article/view/24523
- Budi, S. C., Hidayat, Z., & Mani, L. (2021). The effect of experience and brand relationship to brand satisfaction, trust, and loyalty shopping distribution of consumer philips lighting product Indonesia. *Journal of Distribution Science*, 19(1), 115-124. DOI: https://doi.org/10.15722/jds.19.1.202101.115
- Cha, S-S., & Seo, B-K. (2019). The effect of brand trust of a home meal replacement on repurchasing in online shopping. *The Journal of Business Economics and Environmental Studies*, 9(3), 21-26. DOI:
 - https://doi.org/10.13106/jbees.2019.vol9.no3.21

- Chao, P., & Gupta, P. B. (1995). Information search and efficiency of consumer choices of new cars. *International Marketing Review*, 12 (6), 47 59. DOI: https://doi.org/10.1108/02651339510102958
- Chen, Y., & Barnes, S. (2007). Initial trust and online buyer behavior. *Industrial Management & Data Systems*, 107 (1), 21-36. DOI: https://doi.org/10.1108/02635570710 719034
- Chen, S. C., & Lin, C. P. (2019). Understanding the effect of social media marketing activities: The mediation of social identification, perceived value, and satisfaction. *Technological Forecasting and Social Change*, 140, 22-32. DOI: https://doi.org/10.1016/j. techfore.2016.04.012
- Cho, Y., S., Heo, J., Y., & Youn, M., K. (2012). Korean Customer Attitudes Towards SNS Shopping. *Journal of Distribution Science*, 10 (8), 7-14. Link: https://www.koreascience.or.kr/article/JAKO20121716066744 4.page
- Chung, J., B. (2017). Internet shopping optimization problem with delivery constraints. *The Journal of Distribution Science*, 15(2), 15-20. DOI: https://doi.org/10.15722/jds.15.2.201702.15
- Crespo-Almendros, E., & Barrio-García, S. B. (2016). Online airline ticket purchasing: Influence of online sales promotion. *Journal of Air Transport Management*, *53*, 23-34. DOI: https://doi.org/10.1016/j.jairtraman. 2016.01.004
- Creswell, J. W. (2009). Research design: Qualitative, quantitative, and mixed methods approach. New York: SAGE Publications.
- Garrouch, K., & Timoulali, E. (2020). Mobile shopping intentions: Do trustworthiness and culture matter? *Journal of Distribution Science*, 18(11), 67-77. DOI: https://doi.org/10.15722/jds.18.11.202011.69
- Gorji, M., & Siami, S. (2020). How sales promotion display affects customer shopping intentions in retails. *International Journal of Retail & Distribution Management*. DOI: https://doi.org/10.1108/IJRDM-12-2019-0407
- Hasanat, M.W., Hoque, A., Shikha, F.A., Anwar, M., Hamid, A.B.A., & Tat, H.H. (2020). The impact of coronavirus (COVID-19) on e-Business in Malaysia. *Asian Journal of Multidisciplinary Studies*, 3(1), 85-90. Link: https://asianjournal.org/online/index.php/ajms/article/view/219
- Henseler, J., Ringle, C.M., & Sarstedt, M. (2015). Testing measurement invariance of composites using partial least squares. *International Marketing Review*, 33 (3), 405-431. DOI: https://doi.org/10.1108/IMR-09-2014-0304
- Hogan, R., Hogan, J., & Roberts, B. (1996). Personality measurement and employment decisions: Questions and answers. *American Psychologist*, 51, 469–477. Link: https://psycnet.apa.org/buy/1996-04443-002
- Holzwart, M., Janiszewski, C., & Neumann, M. (2006). The influence of avatars on online consumer shopping behavior. *Journal of Marketing*, 70, 19-36. DOI: https://doi.org/10.1509/jmkg.70.4.019
- Hsu, C.-H., & Lu, P.-H. (2005). Consumer behavior in online game communities: A motivational factor perspective. *Computers in Human Behavior*, 23, 1642-1659. DOI: https://doi.org/10.1016/j.chb.2005.09.001
- Huang, L. (2016). Flow and social capital theory in online impulse buying. *Journal of Business Research*, 69(6), 2277-2283. DOI: https://doi.org/10.1016/j.jbusres. 2015.12.042

- Izogo, E.E., & Jayawardhena, C. (2018). The online shopping experience in an emerging e-retailing market. *Journal of Research in Interactive Marketing*, 12(2), 193-214. DOI: https://doi.org/10.1108/JRIM-02-2017-0015
- Javadi, M. H. M., Dolatabadi, H. R., Nourbakhsh, M., Poursaeedi, A., & Asodallahi, A. R. (2012). An analysis of factors affecting on online shopping behaviors of consumers. *International Journal of Marketing Studies*, 4(5), 81-98. DOI: 10.5539/ijms.y4n5p81
- Jongen, W. (2018). End Of Online Shopping, the: The Future Of New Retail In An Always Connected World. Singapore: World Scientific Publishing Co. Ltd.
- Kaplan, D. (2009). Structural equation modeling: Foundations and extensions. London: Sage Publications.
- Karbasivar, A., & Yarahmad, H. (2011). Evaluating effective factors on consumer impulse buying behavior. Asian Journal of Business Management Studies, 2 (4), 174-181. Link: https://www.idosi.org/ajbms/ajbms/2(4)11.htm
- Karimi, S., Papamichail, K. N., & Holland, C. P. (2014). Purchase Decision Processes in the Internet Age. Business Information Processing, 57-66. DOI: https://doi.org/10.1007/978-3-319-11364-7 6
- Kassarjan, H. H. (1971). Personality and consumer behavior: A review. *Journal of Marketing Research*, 8, 409-418. DOI: https://doi.org/10.1177/002224377100800401
- Kavya, S. K. M., & Nagabhushanam, M. (2018). Consumer behavior in the new digital Era: A paradigm shift. International Journal of Management Studies, 3(7), 2231-2528.
- Kim, J. J. (2017). The Effects of Elderly (Senior) Buying Factors and Satisfaction on Retailer's Online Shopping. *The Journal of Distribution Science*, 15(7), 43-52. DOI: https://doi.org/10.15722/jds.15.7. 201707.43
- Kim, Y., & Jeong, J.S. (2015). Personality predictors for the use of multiple internet functions. *Internet Research*, 25(3), 399-415. DOI: https://doi.org/10.1108/IntR-11-2013-0250
- Koufaris, M. (2002). Applying the technology acceptance model and flow theory to online consumer behavior. *Information systems research*, 13(2), 205-223. Link: https://pubsonline.informs.org/doi/abs/10.1287/isre.13.2.205.8
- Koufaris, M., & Hampton-Sosa, W. (2004). The development of initial trust in an online company by new customers. *Information & Management*, 41(3), 377-397. DOI: https://doi.org/10.1016/j.im.2003.08.004
- Lee, H., J. (2017). The differential factors influencing online & mobile shopping behavior. *The Journal of Distribution Science*, 15(9), 27-36. DOI: https://doi.org/10.15722/jds.15.9.201709.27
- Lee, E. J., & Shin, S. Y. (2014). When do consumers buy online product reviews? Effects of review quality, product type, and reviewer's photo. *Computers in Human Behavior*, *31*, 356-366. DOI https://doi.org/10.1016/j.chb.2013.10.050
- Lee, M.K.O., & Turban, E. (2001). A trust model for consumer internet shopping. *International Journal of Electronic Commerce*, 49 (1), 75-91. DOI: https://doi.org/10.1080/10864415.2001.11044227
- Lee, S., H., Kwak, M., K., & Cha, S., S. (2020). Consumers' choice for fresh food at online shopping in the time of

- Covid19. The Journal of Distribution Science, 18(9), 45-53. DOI: https://doi.org/10.15722/jds.18.9.202009.45
- Ling, K.C., Chai, L.T., & Piew, T.H. (2010). The effects of shopping orientations, online trust, and prior online purchase experience toward customers' online purchase intention. *International Business Research*, 3 (3), 63-76. DOI: 10.5539/ibr.v3n3p63
- Ltifi, M. (2013). Antecedents and effect of commitment on the impulse buying by internet. *Journal of Internet Banking and Commerce*, 18(1), 2-22.
- Luc, M. H., Tsang, S. W., Thrul, J., Kennedy, R. D., & Moran, M. B. (2020). Content analysis of online product descriptions from cannabis retailers in six US states. *International Journal of Drug Policy*, 75, 102593. DOI: https://doi.org/10.1016/j.drugpo.2019.10.017
- Mazaheri, E., Richard, M. O., & Laroche, M. (2011). Online consumer behavior: Comparing Canadian and Chinese website visitors. *Journal of Business Research*, 64(9), 958-965. DOI: https://doi.org/10.1016/j.jbusres.2010. 11.018
- Moon, Y. (2002). Personalization and Personality: Some Effects of Customizing. *Journal of Consumer Psychology*, 12(4), 313-325. DOI: https://doi.org/10.1016/S1057-7408(16)30083-3
- Morganti, E., Seidel, S., Blanquart, C., Dablanc, L., and Lenz, B. (2014). The impact of e-commerce on final deliveries: Alternative parcel delivery services in France and Germany. *Transportation Research Procedia*, 4, 178-190. DOI: https://doi.org/10.1016/j.trpro.2014. 11.014
- Moriuchi, E., & Takahashi, I. (2016). Satisfaction trust and loyalty of repeat online consumers within the Japanese online supermarket trade. *Australasian Marketing Journal*, 1-11. DOI: https://doi.org/10.1016/j.ausmj. 2016.02.006
- Mourali, M., Laroche, M., & Pons, F. (2005). Antecedents of relative consumer preference for interpersonal information sources in pre-purchase search. *Journal of Consumer Behaviour*, 4(5), 307-318. DOI: https://doi.org/10.1002/cb.16
- Neuman, W. L. (2013). Social research methods: Pearson new international edition: Qualitative and quantitative approaches. London: Pearson.
- Nurhayati-Wolff, H. (2020, April 20). Numer of online shoppers in indonesia in 2017 and 2022 (in millions). *Statista*. https://www.statista.com/statistics/971411/ indonesia-number-online-shoppers/
- Page-Thomas, K., Moss, G., Chelly, D., & Yabin, S. (2006). The provision of delivery information online: A missed opportunity. *International Journal of Retail & Distribution Management*, 34(4)/(5), 258-277. DOI:
 - https://doi.org/10.1108/09590550610660224
- Park, S., Chung, S., & Lee, S. (2019). The effects of online product reviews on sales performance: Focusing on number, extremity, and length. *The Journal of Distribution Science*, 17(5), 85-94. DOI: https://doi.org/10.15722/jds.17.5.201905.85
- Pathak, B., Garfinkel, R., Gopal, R.D., Venkatesan, R., & Yin, F. (2010). Empirical analysis of the impact of recommender systems on sales. *Journal of Management Information Systems*, 27(2), 159-188. DOI: https://doi.org/10.2753/MIS0742-1222270205
- Pauwels, K., Leeflang, P.S.H., Teerling, M.L., & Huizingh, K.R.E. (2011). Does online information drive offline revenues? Only

- for specific products and consumer segments! *Journal of Retailing*, 87(1), 1-17. DOI: https://doi.org/10.1016/j.jretai.2010.10.001
- Raghubir, P. (1998). Coupon value: a signal for the price? *Journal of Marketing Research*, 35 (3), 316-324. DOI: https://doi.org/10.1177/002224379803500303
- Rahman, M.A., Islam, M.A., Esha, B.H., Sulatan, N., & Chakravorty, S. (2018). Consumer buying behavior towards online shopping: An empirical study on Dhaka city, Bangladesh. *Cogent Business & Management*, 5(1), 1-22. DOI: https://doi.org/10.1080/23311975.2018. 1514940
- Sanap, J. (2017). Pros and cons of different sampling techniques. *International Journal of Applied Research*, 3(7), 749-752.
- Shamout, M. D. (2016). The impact of promotional tools on consumer buying behavior in the retail market. *International Journal of Business and Social Science*, 7 (1), 75-85.
- Simanjuntak, M., & Musyifah, I. (2016). Online shopping behavior on generation Y in Indonesia. *Global Business & Finance Review*, 2 (1), 33-45. DOI: doi:10.17549/gbfr. 2016.21.1.33
- Sramova, B. & Pavelka, J. (2018). Gender differences and wellbeing values in adolescent online shopping. *International Journal of Retail & Distribution Management*, 47(6). DOI: https://doi.org/10.1108/ IJRDM-08-2017-0173
- Stoian, C. L., & Tugulea, O. (2016). What are the dimensions of online satisfaction? Review of Economics and Business Studies, 9(2), 45-59.
- Thaichon, P. (2017). Consumer socialization process: The role of

- age in children's online. *Journal of Retailing and Consumer Services*, 34, 38-47. DOI: https://doi.org/10.1016/j.jretconser.2016.09.007
- Vasic, N., Kilibarda, M., & Kaurin, T. (2019). The influence of online shopping determinants on customer satisfaction in the Serbian market. *Journal of Theoretical and Applied Electronic Commerce Research*, 14(2), 70-89. DOI: http://dx.doi.org/10.4067/S0718-18762019 000200107
- Vinerean, S., Luliana, C., Dumitrescu, L., & Tichindelean, M. (2013). The effect of social media marketing on online consumer behavior. *International Journal of Business Management*, 8(14), 65-79.
- Wu, W., Ke, C., & Nguyen, P. (2018). Online shopping behavior in electronic commerce: An integrative model from utilitarian and hedonic perspectives. *International Journal of Entrepreneurship*, 22(3), 1-16.
- Ye, L.R., & Zhang, H. (2014). Sales promotion and purchasing intention: Applying the technology acceptance model in consumer-to-consumer marketplaces. *International Journal of Business, Humanities, and Technology*, 4(3), 1-5.
- Yoo, K., & Gretzel, U. (2011). Influence of personality on travelrelated consumer-generated media creation. *Computers in Human Behavior*, 27, 609–621. DOI: https://doi.org/10.1016/j.chb.2010.05.002
- Zhang, B., & Kim, J. (2013). Luxury fashion consumption in china: Factors affecting attitude and purchase intent. *Journal* of *Retailing and Consumer Services*, 20, 68-79. DOI: https://doi.org/10.1016/j.jretconser.2012.10.007