



INVESTIGATION INTO M-COMMERCE CONSUMERS HEDONIC BROWSING AND THE IMPACT ON URGE TO BUY IMPULSIVELY

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Abstract

One way to buy online is through m-commerce. In the discussion of consumer behavior to make a purchase, there are many influences that underlie a person in making purchasing decisions. The theory of motivation has become a reference for many researchers to understand and know the motivation of users and the responses that occur to various stimuli. This research was conducted on consumers who have made purchases using m-commerce in Indonesia. The purpose of this study is to analyze the correlation between interpersonal influence, visual appeal, and portability, with urge to buy impulsively and urge to buy impulsively through hedonic browsing. The data was analyzed using Structural Equation Modelling. The results shows that interpersonal influence has a significant effect on urge to buy impulsively, visual appeal has a significant effect on urge to buy impulsively, portability has a significant effect on the urge to buy impulsively, interpersonal influence has a significant effect on hedonic browsing, visual appeal has a significant effect on hedonic browsing, portability has a significant effect on hedonic browsing, hedonic browsing has a significant effect on the urge to buy impulsively, hedonic browsing mediates the influence of interpersonal influence on urge to buy impulsively, hedonic browsing mediates the effect of visual appeal on urge to buy impulsively, and hedonic browsing mediates the effect of portability on the urge to buy impulsively.

Keywords: *Urge to Buy Impulsively, Visual Appeal, Portability, Interpersonal Influence, Hedonic Browsing*

A. Introduction

Mobile technology has developed very quickly which enables consumers to buy products in many ways, one of which is online shopping such as electronic commerce, mobile commerce, online stores and so on (Liang and Wei, 2004). Previous research has investigated the correlation between consumer purchasing method to their behavior (Marriott, Williams, and Dwivedi, 2017; Shareef, Dwivedi, Kumar, and Kumar, 2017; Slade, Williams, and Dwivedi, 2013; Yang, Asaad, and Dwivedi, 2017). This earlier research findings are helpful for understanding consumer behavior on different purchasing method. The reason consumers choose a particular way is because the characteristics of the method meet the needs of the individual (Maity & Dass, 2014).

One way to do online shopping is through m-commerce. The evolutions of wireless networks and mobile technology advancements have made buying and selling via mobile devices to be one of the most popular choices for online shopping (Wu and Wang, 2005).

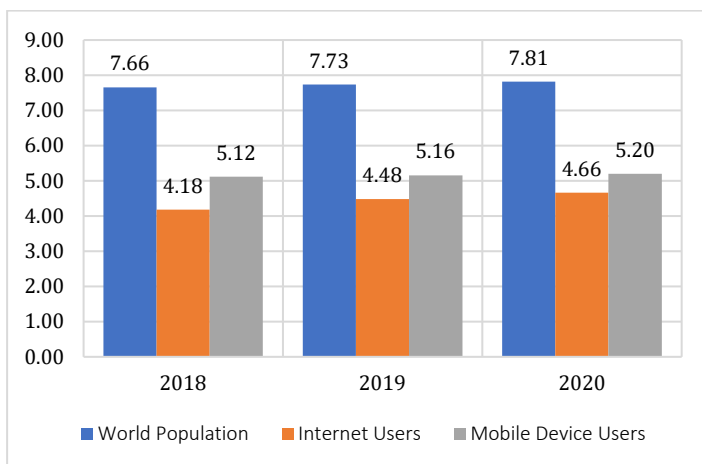


Figure 1. World Digital Growth Chart
Source: Wearesocial

Data released by We Are Social showed that in 2018 the total world population reached 7.66 billion people with 4.18 billion internet users and 5.12 billion mobile device users. This figure continues to increase every year so that in 2020 the world population will be at 7.81 billion people. Likewise with internet users and cellular devices, in 2020 internet users will reach 4.66 billion and mobile device users will reach 5.20 billion users.

Table 1. World Mobile Device Usage by Category in January 2020

No	Apps Category	Users Percentage
1	Messaging	89%
2	Social Media	89%

No	Apps Category	Users Percentage
3	Shopping	66%
4	Entertainment	65%
5	Maps/Navigation	65%
6	Music	52%
7	Games	47%
8	Banking	35%

Source: Wearesocial

Mobile devices are used for various activities including to access shopping applications, and the number of mobile devices used for shopping ranks third just below the number of mobile devices used to access social media in January 2020.

As of December 2017, there were 82% of people in the United States who used mobile devices for shopping with sales totaling over 156 billion dollars compared to about forty-two billion dollars in 2013. The published report also shows that m-commerce has contributed for 23% of total online sales during the end of 2017 (www.statista.com).

China spent \$ 676.7 billion on mobile shopping in 2017, compared to only \$ 1.4 billion in 2001. The data released also suggest that m-commerce will account for 70.8% of China's e-commerce commerce in 2017 (www.limedia.cn). Given the rapid and widespread development of mobile technology and platforms for m-commerce, the service providers and sellers need to understand better how consumers behave in m-commerce.

User mobility makes m-commerce dynamically dependent on the location where the mobile user operates, as stated by Schneiderman (2002) that unlike e-commerce which usually requires a desktop computer to connect to the Internet, m-commerce provides additional benefits in the form of mobility that makes activities business and buying and selling via the Internet has become an activity that can be done anytime and anywhere.

In contrast to the conventional online shopping experience, m-commerce can provide completely new features and experience, such as precise location, item/product recognition, and delivery facilities (Kourouthanassis and Giaglis, 2012). The following are some of the m-commerce service providers in Indonesia that are officially registered with iDEA (Indonesian E-commerce Assocation) and their respective rankings on the Playstore and Appstore in the fourth quarter of 2021 (iprice.co.id).

Table 2. M-Commerce Service Providers in Indonesia

No	M-Commerce Apps	Playstore Rank	Appstore Rank
1	Shopee	1	1
2	Lazada	2	3
3	Sociolla	3	5
4	Tokopedia	4	2
5	Blibli	5	8
6	JD ID	6	7
7	Bukalapak	7	6
8	Zalora	8	4
9	Sephora	9	10
10	My Hartono	10	11

Source: iprice.co.id

In the discussion of consumer behavior to make a purchase, there are many influences that underlie a person in making purchasing decisions. According to Kristiono (2015), consumer behavior is also often initiated and influenced by many external stimuli. The stimulus is then processed in accordance with personal characteristics before a purchase decision is finally made. One of the characteristics of consumers used to process these stimuli is consumer motivation. The theory of motivation has become a reference for many researchers to understand and know the motivation of users and the responses that occur to various stimuli. (Koo, Chung, and Nam, 2015; Lin and Lu, 2011). From previous research, it was found that motivation has an influence on how consumers behave, such as buying. Kim, H. et al. (2007) support this illustration and propose that certain behaviors of individuals are the result of their motivation to obtain information or pleasure from activities. Therefore, this study views hedonic motivation as the main driver of consumers with impulsive buying behavior.

Hedonic motivation is motivation that refers to emotional desires such as happiness, enjoyment, and fantasy that are felt when buying a product. Thus, it can be concluded that a strong hedonic motivation refers to the pleasure obtained when buying rather than the usefulness of the product purchased. The longer the time spent looking at products and the more stimulation, the greater a person's hedonic motivation (Parsons, 2002). This study adopts hedonic motivation as the basis for examining hedonic behavior in m-commerce users, so that one of the variables used is hedonic browsing.

Hedonic browsing can be seen from the average time spent browsing a site and the average page visited. The following is the data published by similarweb regarding the time spent by users surfing e-commerce sites in Indonesia at the end of 2021.

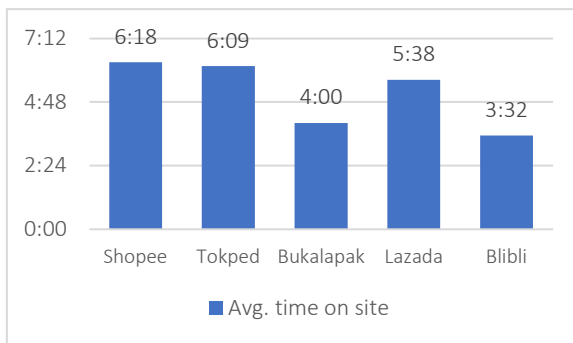


Figure 2. Average Time per Visit on Each E-Commerce Chart
Source: Similarweb.com

The graph above shown the average time spent by consumers browsing the Shopee application is 6 minutes 18 seconds, Tokopedia is 6 minutes 9 seconds, Bukalapak is 4 minutes, Lazada is 5 minutes 38 seconds, and Blibli is 3 minutes 32 seconds. In addition, Similarweb also displays data on the number of pages that are opened by someone every time he/she uses an online shopping application.

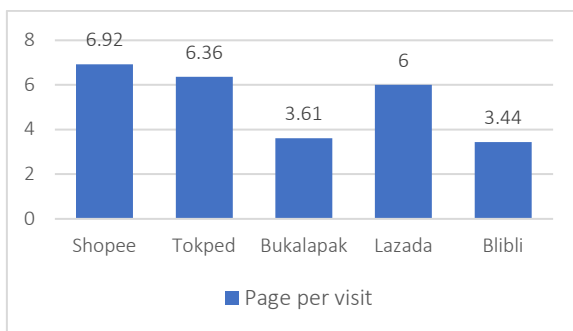


Figure 3. Average Pages per Visit on Each E-Commerce Chart
Source: Similarweb.com

The data above shows that the average page opened for each visit to the Shopee application is 6.92 pages, Tokopedia is 6.36 pages, Bukalapak is 3.61 pages, Lazada is 6 pages, and Blibli is 3.44 page. Of the total users who surf on e-commerce sites, most of them use mobile devices.

Besides hedonic browsing, there are also other factors that can affect a person's motivation to shop through m-commerce. According to Okazaki and Mendez (2003) visual appeal and portability are two features that are appreciated by consumers. These

two factors are very important to be considered by consumers in choosing the e-commerce services they will use.

Visual appeal is associated with elements such as the use of color, graphics, and layout. It is also related to the first impression when someone accesses a website (Lindgaard et al. 2006; Phillips and Chaparro 2009; Reinecke et al. 2013). Display aesthetics, also referred to as visual appeal, has to do with the art or beauty of the web. Several researchers have confirmed that display aesthetics is prominent in forming a favorable first impression of a website (Reinecke et al. 2013; Phillips and Chaparro 2009; Kim and Fesenmaier 2008; Lindgaard et al. 2006). In addition, research conducted by Parboteeah et. al, (2009), asserted that the appearance of the website (web) acts as a stimulus that affects the cognitive and affective reactions of online users when interacting with the website, which in turn affects their desire to buy impulsively. Furthermore, Fang et al. (2017) mentions that visual appeal will be an essential element that influences an individual's purchase intention.

The literature on m-commerce suggest an overview of the key features that are highly appreciated by users, namely the portability and visual appeal of the m-commerce applications used. According to Okazaki and Mendez (2003) portability is the property of an object that is light enough to carry, which is a physical characteristic of the device (Kim et al., 2010; Bruner and Kumar, 2005).

Portability, which is analogous to mobility, provides the ability to access services on the move. Users can bring the device to make transactions from anywhere within the cellular network area, which ultimately determines the portability of the mobile device (Kim et al., 2010).

Another important factor that influences a person's intentions is interpersonal influence. This is in accordance with research conducted by Lee and Kacen, (2008) which says that interpersonal influences have an important effect on individual buying behavior, especially in collectivist countries such as Singapore and China, where the influence of the surrounding environment such as friends, family and general view of society influences a person in making a purchase.

B. Method

This research was conducted on consumers who have made purchases using m-commerce in Indonesia. The objects of research are interpersonal influence, visual appeal, portability, hedonic browsing, and urge to buy impulsively.

The data collection used in this research is using a personal questionnaire. The data was analyzed using SEM (Structural Equation Modeling) with the AMOS 23 program. SEM is a statistical technique that could analyze the pattern of relationships between latent constructs and their indicators, latent constructs with each other, as well as direct measurement errors (Sofyan, 2011). The choice of SEM as a data analysis tool is because SEM can describe the pattern of relationships between latent constructs and indicator variables.

In this study, the variable constructs consist of three exogenous constructs, namely interpersonal influence, visual attractiveness, and portability, a mediating variable construct, namely hedonic browsing, and an endogenous variable construct, namely the urge to buy impulsively. The structural equation formulated to express the relationship between causality between various constructs is as shown in figure 1.4.

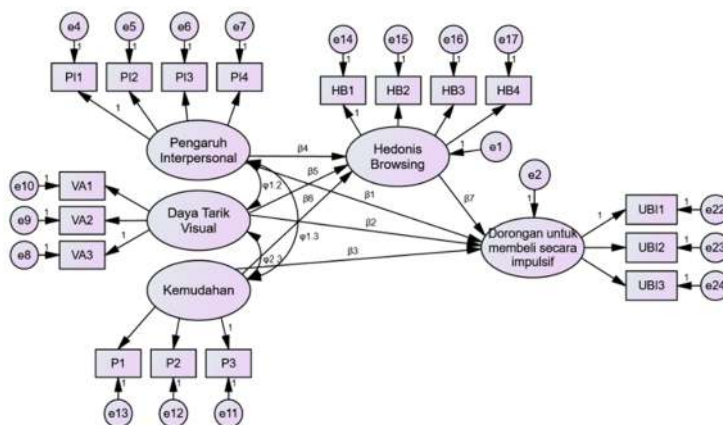


Figure 4. Structural Equation Model
Source: AMOS 23

C. Finding and Discussion

Based on the results of data processing sourced from 210 respondents using m-commerce applications, there are forty-seven people or 22.4% male respondents and 163 people or 77.6% female respondents, thus respondents who have used and made purchases using m-commerce, female respondents dominate m-commerce in Indonesia.

After the data has been processed and met the loading factor value, also has met the SEM assumptions, then the structural equation model test is carried out.

1. The effect of Interpersonal Influence on the urge to buy impulsively

The first hypothesis test suggest that interpersonal influence has a significant effect on the urge to buy impulsively in Indonesia. The results show that the interpersonal

influence beta coefficient is 0.163 with a critical ratio value of 2.124 at a significance level of 0.034. This shows that interpersonal influence has a significant effect in increasing the urge to buy impulsively by 16.3%. High interpersonal influence will increase the urge to buy impulsively on the m-commerce platform.

These results are in accordance with the research of Luo (2005) and Putra et al., (2020) which explain that impulse buying is more likely to occur when someone is shopping with friends and the effect of the presence of the friend will be greater when the person is easily influenced.

2. The effect of Visual Appeal on the Urge to Buy Impulsively

The second hypothesis test suggest that visual appeal has a significant effect on the urge to buy impulsively in Indonesia. The visual appeal beta coefficient is 0.260 with a critical ratio value of 2.814 at a significance level of 0.005. This shows that visual appeal has a significant effect in increasing the urge to buy impulsively by 26%.

Previous research has also shown that visual appeal has an indirect effect on impulse buying mediated by factors such as user satisfaction and website quality (Loiacono & Hall, 2002). In the pre-purchase stage, visual appeal is important in attracting consumers to browse and helping consumers to find the information they need efficiently. In addition, he also mentions that visual appeal will be a crucial element that influences an individual's purchase intention (Fang et al., 2017).

3. The effect of portability on the urge to buy impulsively

The third hypothesis test suggest that portability has a significant effect on the urge to buy impulsively in Indonesia. The portability beta coefficient value is 0.170 with a critical ratio value of 2.563 at a significance level of 0.010. This shows that portability has a significant effect in increasing the urge to buy impulsively by 17%. The portability of electronic devices that are easy to carry will increase the urge to buy impulsively because they can access m-commerce anywhere.

4. The effect of Interpersonal Influence on the Hedonic Browsing

The fourth hypothesis test suggest that interpersonal influence has a significant effect on hedonic browsing. The beta coefficient of interpersonal influence is 0.3 with a critical ratio value of 3.344 at a significance level of 0.000. This shows that high interpersonal influence will increase someone's hedonic browsing motivation when going to shop. The test results are supported by the research of Arnold and Reynolds (2003) which says that a person's shopping attitude is influenced by the opinions of

people he trusts. In addition, in the proceedings written by V.P. Cecianti & S.R. Hijrah Hati (2022) shows how situational factors such as interpersonal influences, information fit-to-task, visual appeal, portability, and time pressure encourage consumer impulsive buying behavior in e-commerce in Indonesia.

5. The effect of Visual Appeal on the Hedonic Browsing

The fifth hypothesis test suggest that visual attractiveness has a significant effect on hedonic browsing. This is seen based on the value of the beta coefficient of visual attractiveness which is 0.29 with a critical ratio value of 2.759 at a significance level of 0.006.

According to Zhou (2007), consumers who have a hedonic motivation are more interested in visiting shopping sites that are well designed, easy to use, and have good visuals. Kim and Gupta (in Li, 2016) state that when a site can be used quickly and easily, browsing enjoyment will increase and increase pleasure in using the application.

6. The Effect of Portability on Hedonic Browsing

The sixth hypothesis test indicate that portability has a significant effect on hedonic browsing. The portability beta coefficient value is 0.247 with a critical ratio value of 3.283 at a significance level of 0.001.

With portable mobile devices, consumers can browse and search for the products they need and interact with merchants on m-commerce anywhere and anytime. This helps consumers find product information or buy the product they want without time delay (Anwar et al., 2021; Roy and Moorthi, 2017).

7. The Effect of Hedonic Browsing on Urge to Buy Impulsively

The seventh hypothesis test suggest that hedonic browsing has a significant effect on impulse buying in Indonesia. The beta coefficient value of hedonic browsing is 0.399 with a critical ratio value of 4.941 at a significance level of 0.000. This indicates that consumers who have a high hedonic nature will increase the urge to buy impulsively.

Consumers who constantly experience the urge to make purchases when shopping cannot resist these urges, even though they try to control them as much as possible (Baumeister et al., 2002; Dholakia, 2000). Rook's (1987) research indicates that after consumers browse, they suddenly feel a strong urge to buy.

8. The Effect of Interpersonal Influence on Urge to Buy Impulsively through Hedonic Browsing

The eighth hypothesis test results show that hedonic browsing mediates the influence of interpersonal influence on the urge to buy impulsively. The critical ratio value is 2.538 at a significant level of 0.011. This indicates that consumers who are hedonic and think about the opinions of others in making purchasing decisions will increase the urge to buy impulsively.

Previous research conducted by Xiabing et.al (2019) suggested that hedonic browsing influences how interpersonal influence affect urge to buy impulsively in Taobao m-commerce users.

9. The Effect of Visual Appeal on Urge to Buy Impulsively through Hedonic Browsing

The ninth hypothesis test results show that hedonic browsing mediates the effect of visual attractiveness on the urge to buy impulsively. This is seen based on the critical ratio value of 1.977 at a significant level of 0.048. These results indicate that consumers who are hedonic and influenced by attractive visual appearances in making purchasing decisions will affect the urge to buy impulsively.

10. The Effect of Portability on Urge to Buy Impulsively through Hedonic Browsing

The results of tenth hypothesis test show that hedonic browsing mediates the effect of portability on the urge to buy impulsively. The critical ratio value is 2.886 at a significance level of 0.004. This indicates that consumers who are hedonic and depend on the portability of the device in making purchasing decisions will affect the urge to buy impulsively.

11. Research Implication

Based on the results of the tests that have been carried out previously, the following is a recapitulation of the hypothesis tests results which have been analyzed by Structural Equation Modeling (SEM) using the AMOS analysis tool, as shown in the following table:

Table 3. Recapitulation of Hypothesis Test Results

No	Hypothesis	Estimate	Std.	S.E.	CR	P	Hypothesis
1	H _{a1}	--	--	--	--	--	Accepted
2	H _{a2}	0,163	0,077	2,124	,034		Accepted
3	H _{a3}	0,260	0,092	2,814	,005		Accepted
4	H _{a4}	0,170	0,066	2,563	,010		Accepted
5	H _{a5}	0,300	0,090	3,344	***		Accepted

No	Hypothesis	Estimate Std.	S.E.	CR	P	Hypothesis
6	Ha6	0,290	0,105	2,759	,006	Accepted
7	Ha7	0,247	0,075	3,283	,001	Accepted
8	Ha8	0,399	0,081	4,941	***	Accepted
9	Ha9	--	0,043	2,538	,011	Accepted
10	Ha10	--	0,047	1,977	,048	Accepted
11	Ha11	--	0,038	2,886	,004	Accepted

Source: AMOS Tests Result

Table 3 shows the standard estimate value that describes the magnitude of the relationship between exogenous variables and endogenous variables as shown in Figure 5.

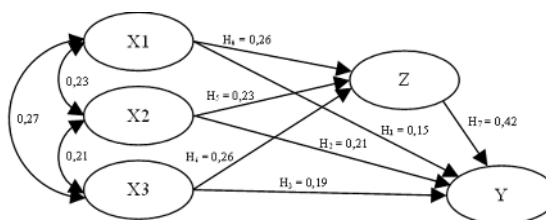


Figure 5. Relationships Between Variables in Flowcharts

D. Conclusion

From the test results that has been reported previously, we can draw the following conclusions:

1. Visual appeal and portability that occurs in m-commerce are good even though the urge to buy impulsively, hedonic browsing, and interpersonal influences that occur in m-commerce are not good enough.
2. Interpersonal influence has a significant influence on impulse buying in m-commerce.
3. Visual appeal has a significant influence on impulse buying in m-commerce.
4. Portability has a significant influence on impulse buying in m-commerce.
5. Interpersonal influence a significant effect on hedonic browsing in m-commerce.
6. Visual appeal has a significant influence on hedonic browsing on m-commerce.
7. Portability has a significant influence on hedonic browsing in m-commerce.
8. Hedonic browsing has a significant effect on urge to buy impulsively in m-commerce.
9. Interpersonal influence has a significant effect on urge to buy impulsively through hedonic browsing in m-commerce.

10. Visual appeal has a significant influence on urge to buy impulsively through hedonic browsing in m-commerce.
11. Portability has a significant effect on urge to buy impulsively through hedonic browsing in m-commerce.

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