

Formation of Consumer Impulsive Buying in MSMEs through Online Shopping Activities

Pembentukan Pembelian Impulsif melalui Aktivitas Berbelanja secara Daring pada UMKM

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Abstract

Electronic commerce that continues to grow has created a fairly tight competition between business actors. However, this competition can help the sustainability of MSMEs in formulating strategies and switching to selling their products online. Various strategies can be used in e-commerce, one of which is the flash sale countdown timer program. Social media activities and flash sales promotions were able to boost sales figures after the product launch. MSME actors who enter the world of e-commerce also interact with potential buyers by holding live streaming with the aim of utilizing technological developments to reach consumers more broadly. Thus, being able to bring changes to consumer habits, they prefer to shop from home because it is easy, practical, and there are many attractive promos. Therefore, this study was made with the aim of examining the relationship between flash sale countdown timer, live streaming e-commerce on the formation of impulsive buying which is strengthened or weakened by the presence of in-home shopping tendency. Hypothesis testing is done by analyzing Partial Least Square – Structural Equation Modeling (PLS-SEM) with SmartPLS software. The results showed that flash sale countdown timer and live streaming e-commerce had a positive effect on impulsive buying, also in home shopping tendency as a moderating variable has a positive effect.

Keywords: flash sale countdown timer, impulsive buying, in home shopping tendency, live streaming

Abstrak

Perniagaan secara elektronik yang terus berkembang memunculkan persaingan yang cukup ketat antar pelaku usaha. Namun, persaingan tersebut dapat membantu keberlangsungan UMKM dalam menyusun strategi dan beralih menjual produknya secara online. Para pelaku UMKM memanfaatkan adanya perkembangan teknologi ini untuk memperkuat daya saingnya melalui berbagai strategi. Berbagai strategi dapat dilakukan

dalam Perniagaan secara elektronik, salah satunya penawaran program *flash sale countdown timer*. Aktivitas media sosial dan promosi *flash sales* mampu mendongkrak angka penjualan setelah peluncuran produk. Para pelaku UMKM yang memasuki dunia *e-commerce* juga melakukan interaksi dengan para calon pembelinya dengan mengadakan *live streaming* dengan tujuan memanfaatkan perkembangan teknologi untuk menjangkau konsumen secara lebih luas. Sehingga, mampu membawa perubahan terhadap kebiasaan konsumen lebih senang berbelanja dari rumah karena mudah, praktis, dan terdapat banyak promo yang menarik. Oleh karena itu, penelitian ini dibuat dengan tujuan untuk menguji pengaruh *flash sale countdown timer*, *live streaming e-commerce* terhadap pembentukan *impulsive buying* yang diperkuat atau diperlemah dengan adanya *in home shopping tendency*. Pengujian hipotesis dilakukan dengan analisis *Partial Least Square – Structural Equation Modeling* (PLS-SEM) dengan *software* SmartPLS. Hasil penelitian menunjukkan bahwa *flash sale countdown timer* dan *live streaming e-commerce* berpengaruh positif kepada *impulsive buying*, serta *in home shopping tendency* sebagai *variabel moderasi* memiliki pengaruh yang positif.

Kata Kunci: *flash sale countdown timer*, kecenderungan berbelanja dari rumah, pembelian impulsif, streaming langsung

Introduction

Electronic commerce or e-commerce that continues to grow has led to tight competition between business actors. This competition can help the sustainability of MSMEs in formulating strategies and switching to selling their products online (Pratama *et al.*, 2021).



Figure 1: Overview of the Adoption and Use of Connected Device and Services
Source: DataReportal (2022)

Figure 1 shows the percentage of cellular network users in Indonesia reaches 133.3%, exceeding the total population of Indonesia. Therefore, sales through e-commerce in Indonesia have a tremendous opportunity. This opportunity has begun to be explored by Indonesian MSMEs, with the number of MSMEs that have entered the digital ecosystem have already reached 12 million as of June 2021 (Ministry of Cooperatives and SMEs of the Republic of Indonesia, 2021). Kannan *et al.* (2016) proved that social media activities and flash sales promotions boosted sales figures after the product launch. With

marketing activities used properly, it can also increase the ease of interaction between customers and products. Disseminated marketing content must be in accordance with the current needs or current trends and be informative for the consumer (Clarence & Keni, 2021). Flash sale is a popular e-commerce marketing model where a brand sells its new product at a discount for a particular time before returning to the regular sales period (Zhang *et al.*, 2018). According to Kaur (2017), flash sales have several dimensions, including coupons, buy one get one free, and price discounts. The use of flash sale countdown timer and live streaming as marketing media is often used in the world of e-commerce to motivate impulsive buying behavior in consumers who tend to have high price sensitivity. The limited offer of this flash sale strategy aims to create a sense of urgency in consumers and trigger impulse buying (IB) (Chan *et al.*, 2017).

The forming of impulsive buying behavior helps indirectly maintain the sustainability of MSMEs in obtaining maximum profits. According to research by Fitriyani *et al.* (2021), the live streaming feature on e-commerce can encourage increased sales because users of e-commerce applications can directly buy the desired product when the seller performs live streaming so that all e-commerce users can access it anywhere, anytime. This also triggers a change in consumer habits to shop from home.

Through to our research with the title ‘Formation of Consumer Impulsive Buying in MSMEs through Flash Sale Countdown Timer, Live Streaming E-commerce and In Home Shopping Tendency’, we presented some answer from our research question: Is there any effect of flash sale countdown timer, live streaming e-commerce, in-home shopping tendency on the sustainability of MSMEs? With our research results, we expected to be used as reference material for MSMEs executive and other researchers in implementing, developing, also conducting research of marketing strategies as well as providing an understanding of the impact of flash sale countdown timer live streaming e-commerce and in-home shopping tendency on impulsive buying on MSMEs sustainability of MSMEs.

Flash Sale Countdown Timer

In the interest of literature review on this research, theory overview has been used are: for Flash Sale Countdown Timer theory, we used theory by Wijaya and Teguh (2012), “flash sale countdown timer is an online promotional tool that provides massive discounts and is limited by time with the aim of attracting consumer interest. It can also be used to increase awareness and brand image of the business being promoted, resulting in a significant increase in sales”.

Live Streaming E-Commerce

For Live Streaming E-Commerce, we used theory by Farman (2019), “live streaming is one of the results of technological advances that sellers use as a means to sell online while explaining the usefulness of the product. This allows consumers to be more familiar with the products being marketed while listening to broadcasters who explain the uses of the product” and theory by Hu *et al.* (2017), “In general, these activities involve broadcasters who upload videos in real time

with the aim of providing perspectives on the products being sold, as well as encouraging viewers to make purchases”.

Impulsive Buying

For Impulsive Buying, we used theory by Loudon and Bitta (2014), “Impulsive buying or unplanned purchases are purchases that occur spontaneously because of a strong desire to buy immediately”, theory by Abbasi (2017), “this behavior occurs when potential customers are faced with an instant, affective, and fast-oriented purchase”, theory by Khachatryan *et al.* (2018), “relevant point-of-sale attributions, such as packaging, appearance, attractiveness, price, and promotional signs significantly encourage customers to indulge in impulse purchases”, and theory by In Chan *et al.* (2017), “impulse buying has four types, namely 1) pure impulse buying, 2) reminder impulse buying, 3) suggestion impulse buying, and 4) planned impulse buying”.

In Home Shopping Tendency

For In Home Shopping Tendency, we used theory by Hertanto and Sulhaini (2020), “In home shopping tendency is the attitude of individuals who like to buy without leaving the house” and theory by Kusuma and Septarini (2013), “shopping orientation has seven dimensions, namely 1) shopping enjoyment or pleasure when shopping, 2) brand/fashion consciousness or awareness of brands or fashion fashion, 3) price consciousness or awareness of prices, 4) shopping confidence or trust in the ability to shop, 5) convenience/time consciousness or awareness of time and convenience when shopping, 6) the tendency to buy from home, and 7) brand/store loyalty or loyalty to brands and stores when shopping”.

Relationship Between Variables

The relationship between flash sale countdown timer and impulsive buying

Based on the research of Herlina *et al.* (2021), flash sale countdown timer as a promotional media can affect consumer psychology when consumers buy cheap products with limited time. As a result, it increases consumers' desire to own the product and make a purchase immediately. This is related to impulsive buying behavior which is understood as a buying attitude with a lack of rational judgment, low cognitive control. and spontaneous behavior. Impulsive buying encourages individuals to immediately buy quickly without thinking deeply about the need for the product to be purchased (Song *et al.*, 2017). Thus, H1 can be formulated as follows:

H1: Flash sale countdown timer will have an effect on increasing impulsive buying behavior.

The relationship between live streaming e-commerce and impulsive buying

E-commerce has gradually developed into social commerce where consumers are increasingly exposed to information and social interactions that strengthen purchase stimuli and eventually lead to impulsive buying (Lee & Chen, 2021). In his research, Ming *et al.* (2021) found that live streaming e-commerce strengthened the likelihood of consumers experiencing positive feelings and

stimulated impulsive buying behavior. Other results from the study also show that live streaming e-commerce forms consumer trust which positively affects impulsive buying behavior. Based on the description above, the formulation of the research hypothesis (H2) is as follows:

H2: Live streaming e-commerce will have an effect on increasing impulsive buying behavior.

In home shopping tendency to moderate flash sale countdown timer against impulsive buying

Impulsive buying consumers who want to buy products spontaneously without seeking information about product attributes first Hashmi *et al.* (2019). The tendency of consumer behavior to shop online continues to increase along with the promotional offers offered (Hertanto & Sulhaini, 2020). Discount offers through flash sale countdown timers have the effect of encouraging consumers who like to shop from home to make purchases immediately. The formulation of the research hypothesis (H3) is:

H3: In home shopping tendency will strengthen the effect of flash sale countdown timer on impulsive buying.

In home shopping tendency to moderate live streaming e-commerce against impulsive buying

According to research by Atulkar and Kesari (2018), the tendency of shopping enjoyment has a significant and positive effect on impulsive buying. In live streaming e-commerce, operators initiate segments such as giving consumers special price offers or discount coupons, to motivate viewers to engage in live streaming activities. Thus, live streaming fosters authenticity, visualization, and interactivity in online shopping. When consumers shop from home (in home shopping tendency), excessive consumer behavior can develop into impulsive buying. Thus, the hypothesis H4 can be formulated:

H4: In home shopping tendency will strengthen the effect of live streaming e-commerce on impulsive buying. Based on the hypotheses above, the research model of this study is as follows:

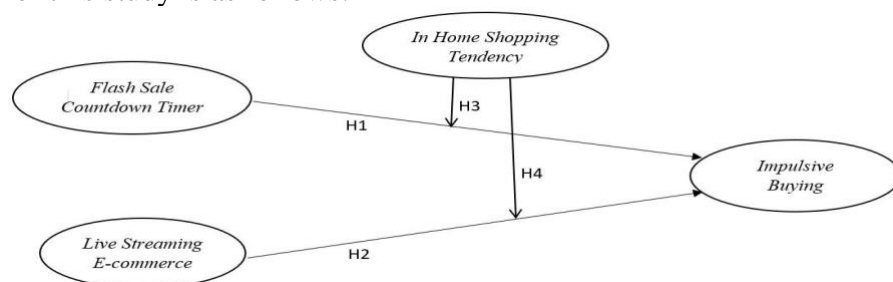


Figure 2: Research Model

Research Methods

This study uses a quantitative descriptive approach where the data is in the form of numbers and the analysis uses statistics. This study uses primary data collected directly by the researcher. This study uses a cross-sectional design, where data is only taken once in a certain period of time. The type of data used is empirical research data using offline and online survey methods. Sampling using non-probability sampling technique on 172 respondents using a questionnaire instrument google form. This study uses a 5-point Likert scale, including: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree. Based on the data collected. The majority of respondents are female (70%), aged 17 – 20 years (66%), High school education graduate (80%), the majority work as students (82%) and have a monthly expenditure of less than Rp 3.000.000 (78%).

The data analysis technique used Structural Equation Modeling (SEM) analysis with the help of SmartPLS 3.0 computer software. SEM analysis consists of two models, namely using outer model measurement and inner model measurement. The analysis of the outer model measurement is carried out to test the validity and reliability of the data, while for the analysis of the inner model measurement there is an R-square test (R^2), a predictive relevance test (Q^2), an effect size test (f^2), a Goodness of Fit (Gof) test, path coefficient analysis, hypothesis testing analysis and Heterotrait-Monotrait Ratio (HTMT) analysis. On this research, validity analysis used 2 approaches, the value of convergent validity and discriminant validity. A measurement of convergent validity can be considered valid if a value of Average Variance Extracted (AVE) is >0.5 (Hair *et al.*, 2019) and a value of loading factor >0.5 . According to Hair *et al.* (2014), discriminant validity can be considered valid if a value of fornell-larcker criterion also loading factor in each indicator has a value more than 0.7 (>0.7). Reliability data analysis used the value of Cronbach's alpha and composite reliability (Hair *et al.*, 2019). According to Hair *et al.* (2017), the results can be considered if Cronbach's alpha has a value >0.6 and for a value of composite reliability should >0.7 (Garson, 2016). With the results, it concluded that all variables in this research can fulfill the criteria to be used. In addition, the criteria for the HTMT value must be less than (<0.9) to ensure discriminant validity between the two reflective constructs (Henseler *et al.*, 2015). In Table 2, HTMT, all variable values are at <0.9 so that they meet the criteria.

Table 1. Measurements

Items	Outer Loadings	AVE	Sources
Flash Sale Countdown Timer			
Flash sale countdown timer display on e-commerce attracts attention (FS1)	0.695	0.549	Hertanto and Sulhaini (2020)
I find it easy to buy MSMEs products during flash sales (FS2)	0.796		
I feel safe to shop for MSMEs products during flash sale (FS5)	0.728		
Live Streaming on E-Commerce			
I feel I can trust MSMEs shops in e-commerce after seeing the products displayed during live streaming (LS1)	0.652	0.508	Ming <i>et al.</i> (2021)
I get quick responses to questions related to MSMEs products through direct interaction on live streaming e-commerce (LS2)	0.774		
I like shopping for MSMEs products on live streaming e-commerce (LS3)	0.753		
I can receive special offers when transacting through e-commerce live streaming activities (LS4)	0.749		
Live streaming e-commerce activities help increase MSME sales. (LS5)	0.622		
In Home Shopping Tendency			
I often to buy MSMEs products from home (IH1)	0.756	0.523	Hertanto & Sulhaini (2020); Kusuma and Septarini (2013)
I prefer to buy MSMEs products from home (IH2)	0.786		
The existence of flash sale makes me prefer to buy MSMEs products from home (IH3)	0.671		
Live streaming on e-commerce makes me more convenient to get shopping at home (IH4)	0.672		

Impulsive Buying

Live streaming e-commerce makes me immediately decide to buy the MSMEs products offered (IB2)	0.680	0.586	Loudon and Bitta (2014); Abbasi (2017); Khachatryan <i>et al.</i> (2018); Chan <i>et al.</i> (2017)
I bought MSMEs products during flash sale without thinking profoundly (IB3)	0.781		
Live streaming e-commerce makes me buy MSMEs products quickly without thinking profoundly (IB4)	0.780		
I bought MSMEs products during a flash sale without doing any prior plan (IB5)	0.791		
Live streaming e-commerce makes me buy MSMEs products without doing any prior plan (IB6)	0.791		

Table 2. Analysis Results *Heterotrait-Monotrait Ratio* (HTMT)

Variable	Flash Sale	Impulsive Buying	In Home Shopping Tendency
<i>Impulsive Buying</i>	0.445		
<i>In Home Shopping Tendency</i>	0.722	0.422	
<i>Live Streaming E-commerce</i>	0.840	0.449	0.698

Table 3. Result of Loading Factor Analysis

	Flash Sale	Live Streaming	In Home Shopping Tendency	Impulsive Buying
FS1	0.695			
FS2	0.796			
FS5	0.728			
LS1		0.652		
LS2		0.774		
LS3		0.753		

LS4	0.749
LS5	0.622
IH1	0.756
IH2	0.786
IH3	0.671
IH4	0.672
IB2	0.680
IB3	0.781
IB4	0.780
IB5	0.791
IB6	0.791

Table 4. Result of Reliability Analysis

Variable	Cronbach's Alpha	Composite Reliability
Flash Sale	0.632	0.784
Live Streaming	0.761	0.837
In Home Shopping Tendency	0.701	0.813
Impulsive Buying	0.823	0.876

Results and Discussion

The coefficient of determination test (R^2) aims to determine how much the independent variable contributes to a dependent variable (Widodo, 2021). The value of the coefficient of determination obtained is 18.90%. This result indicates that 18.90% of changes in impulsive buying can be explained by changes in Flash Sales Countdown Timer and Streaming E-Commerce, and the remaining 81.10% is explained by other variables.

The Q^2 test was conducted to assess whether the model has predictive relevance. If the value of $Q^2 > 0$, the model has predictive relevance. On the other hand, if the Q^2 value shows < 0 , it can be interpreted that the model lacks predictive relevance (Pinem & Mardiatmi, 2021). The data processing result showed the Q^2 value is 0.112, so it can be concluded that the model has predictive relevance.

Table 5. Results of Effect Size Testing (f^2)

Variables	Impulsive Buying
Flash Sale Countdown Timer	0.024
In-Home Shopping Tendency	0.029
Live Streaming E-Commerce	0.042
In-Home Shopping Tendency x Live Streaming E-Commerce	0.032
In-Home Shopping Tendency x Flash Sale Countdown Timer	0.051

Effect size (f^2) assesses the magnitude of the influence between variables (Wong, 2013). An f^2 value of 0.02 describes a small effect size, an f^2 value of 0.15 describes a medium effect size, and an f^2 value of 0.35 describes a large effect size (Hair *et al.*, 2019).

Table 6. Results of Bootstrapping Testing

Variables	Path Coefficient	t-statistics	p-values	Conclusion
FS → IB (H1)	0.225	2.304	0.022	Supported
LS → IB (H2)	0.234	2.639	0.008	Supported
IH x FS → IB (H3)	0.219	2.513	0.012	Supported
IH x LS → IB (H4)	0.175	2.140	0.033	Supported

Measurement of path coefficients aims to determine the significance and strength of the relationship between constructs and to test hypotheses. Path coefficients values range from -1 to +1. Suppose the value of the path coefficients is close to +1. In that case, the relationship between the two constructs is getting stronger, while the path coefficients close to -1 indicate that the relationship is negative (Sarstedt *et al.*, 2017).

Table 6 shows the value of the relationship between Flash Sale (FS) and Impulsive Buying (IB) is 0.225; Live Streaming (LS) and IB is 0.234; FS to IB moderated by in Home Shopping Tendency (IH) is 0.219; LS to IB moderated by IH is 0.175. All path coefficients are between 0 and +1, which means that the relationship between these variables is positive (unidirectional). The ideal t-statistics value is > 1.96 , so all relationships between variables are significant. Meanwhile, the p-values of all variables meet the criteria, namely < 0.05 , so that all relationships between variables are significant. Based on the calculations in Table 6, it can be concluded that all research hypotheses (H1, H2, H3, and H4) can be accepted (supported).

Based on the results of the analysis that has been carried out, it can be concluded that the impact of flash sale countdown timer on impulsive buying has a positive and significant effect, live streaming e-commerce has a positive impact on consumers' impulsive buying, the effect of flash sale countdown timer on impulsive buying moderated by in home shopping tendency has a positive and significant impact, and the effect of live streaming e-commerce on impulsive buying moderated by in home shopping tendency has a positive and significant effect.

This study was conducted to determine the role of flash sale countdown timer and live streaming e-commerce in influencing consumer impulsive buying with in home shopping tendency as a moderating variable. Based on the results obtained, all hypotheses are supported, where flash sale countdown timers and live streaming e-commerce significantly affect consumer impulsive buying. In addition, the in home shopping tendency significantly and positively moderates the effect of flash sale countdown timer and live streaming e-commerce on impulsive buying.

Flash sale countdown timer can be understood as a strategy that is widely applied by e-commerce companies in Indonesia, where the company will usually inform that they will hold a promo in the form of a discount for a certain period of time. In this case, consumers who buy certain products during the flash sale period are entitled to buy at special prices which are usually much lower than the normal price. Meanwhile, after the flash sale program ends, consumers no longer have the opportunity to get these products at special prices.

This strategy indirectly fosters a feeling or intuition in the minds of consumers that they must react quickly to obtain products at low prices, even though consumers do not really need these products. However, because it is offered at a much lower price and the offer is only valid for a certain period of time, consumers will subconsciously be "lured" to make a purchase. These conditions make the flash sale countdown timer strategy tend to be able to drastically increase the company's sales (or the number of transactions made on the e-commerce page) in that time period, given that this strategy is able to foster impulsive buying from within consumers.

Furthermore, live streaming e-commerce can significantly influence consumer impulsive buying. Live streaming e-commerce can be understood as a strategy that aims to showcase various products that are being offered by e-commerce companies. Through this strategy, the live streaming host will directly answer various questions from the public, as well as interact with the public, viewers or consumers virtually.

Similar to flash sales, this strategy can indirectly increase consumer confidence in the products offered, given that one of the weaknesses of e-commerce is that potential consumers cannot directly see or confirm the shape of the product directly. As a result, this strategy is able to minimize these weaknesses, which in turn can increase purchase intention. In addition, sales promotions (such as price discounts) that are only valid during live streaming are also able to encourage people to react quickly by buying the product that is being displayed to get the discount.

Conclusion

Based on the results obtained in this study, digital marketing strategy which is the independent variable, namely flash sale countdown timer (X1) and live streaming e-commerce (X2) proved to have a positive and significant effect on impulsive buying behavior (Y) that consumers apply when shopping online. online in e-commerce. The moderating variable in this study, namely in home shopping tendency, has also been shown to strengthen the effect of flash sale countdown timers and live streaming e-commerce on impulsive buying by consumers when shopping online. Flash sale countdown timers and live streaming e-commerce are promotional strategies that are widely applied by e-commerce companies in Indonesia, where companies will usually inform that they will hold a promo in the form of a discount for a certain period. This strategy indirectly fosters a feeling or intuition in the minds of consumers that they must react quickly to get a product at a low price, even though consumers do not really need the product, but because it is offered at a much cheaper price and the offer is only valid for a certain period of time, consumers are unconsciously "lured" to make a purchase.

The implication of this research is that it aims to help MSMEs know the effect of strategies that can be done to trigger consumer impulsive buying, but this research has not fully covered the opinions and preferences of consumers to trigger impulsive buying behavior. There are still limitations in this study, such as the limited number of respondents, the location of respondents who still tend to be in the Jakarta area and its surroundings, which still do not fully represent the voices and opinions of millions of online shopping consumers throughout Indonesia. We hope that further studies in the future will be able to conduct research on a larger scale, develop more varied variables and a greater number of sources representing all elements of consumers needed, especially in terms of impulsive buying behavior which will increase sales and profits by MSMEs.

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