

Impulse Buying Behaviour in Live Streaming Shopping Using the Stimulus-Organism-Response Framework

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Abstract

The aim of this study is to identify the influence between individual characteristics variables, situation stimulus, social media, digital marketing, which influence the implicit purchasing behaviour variable (Y) in live streaming shopping with hedonistic motivation. (Z). Samples were taken from as many as 150 respondents, processing data using Smart PLS. The results of the t (significance) test show that individual characteristics, situation stimuli, and digital marketing have a positive and significant influence on implicit purchasing behaviour in live streaming purchases, social media have a negative and significant impact on implied buying behaviour in steaming live purchases. Results of the analysis of variables show hedonistic motivation can affect individual characteristic, incentives in situations, social media, digital marketing on the results of implicit buying behaviours in live stream purchases have a significant positive influence, and hedonist motivations can affect the perception of facility for implicit shopping behaviours in live streaming purchases with a positive, significant impact.

Keywords: Live Streaming, Hedonist Motivation, Impulsive Buying Behaviour.

1. Introduction

In this era of rapid technological advancement, the internet has revolutionised the way people conduct business, interact, exchange information, and shape behaviours and lifestyles. This technological innovation opens up opportunities for everyone to communicate without the barriers of distance and time, thus breaking the boundaries of space and time. Advances in technology and the internet have simplified the shopping process for consumers, leading to an increase in consumptive behaviour among Indonesians. As a result, this trend has made the country a very attractive product marketing ground and has great potential for various e-commerce companies looking to expand.

The ease with which consumers can shop today has given rise to an interesting trend in society, where the accessibility and convenience of online shopping platforms significantly influence consumer behaviour. This trend manifests as impulse buying, as individuals make unplanned purchases, fuelled by the availability and appeal of products online. As a result, online shopping has evolved from a mere convenience to a necessity, deeply integrated into people's daily lives and routines. Frequent

promotions offered by marketplaces can attract people to make instant and easy transactions through their mobile phones, which inadvertently encourages impulse buying behaviour in society (Aulia et al., 2023).

This encourages deeper research into consumer behaviour and various influential factors, including: individual characteristics, situational stimuli, social media, digital marketing, hedonic motivation in impulsive buying behaviour in live streaming shopping on e-commerce. In the research conducted, a number of factors used for research variables for live streaming in e-commerce will be analysed using the SOR (stimulus-organism-response) framework. (Irimia, et al., 2023).

The market place that will be studied is Shopee. The adaptation of SOR theory can be widely used due to its flexibility and adaptability. In the context of this theory, the concept of 'stimulus' can be interpreted from various aspects, just as organisms and responses can be seen from various perspectives. A number of previous studies have used SOR theory to assess online consumer behaviour, demonstrating its effectiveness in understanding complex consumer interactions (Dinanti et al., 2023).

The purpose of conducting this research is as a forum for analysing the various factors that influence Impulse buying behaviour through the use of e-commerce in live streaming shopping services. Because the research carried out chose Shopee as the focus of the e-commerce studied. The description of this background underlies the implementation of research by the author entitled 'Impulse Buying Behaviour in Live streaming Shopping Using the Stimulus-Organism-Response Framework' from the findings obtained, the author hopes to be able to provide additional data sources and be able to complement future research.

2. Theoretical Foundation

The research framework serves as the basis for research, which basically identifies the relationship between key variables to answer specific research questions. Below is a conceptual model of the research conducted:

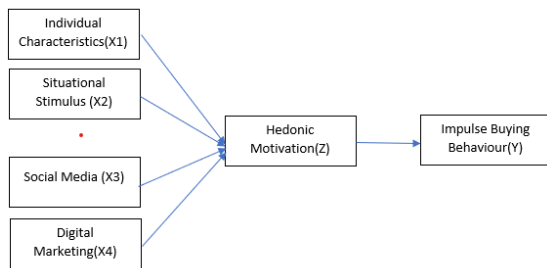


Figure 1. Conceptual Framework

Research variables can be defined as concepts of varying value (Sugiyono, 2021). To measure the research variables in this study, an instrument is used, which is a set of statement items designed to collect data regarding impulsive buying behaviour and live streaming shopping.

TABLE 1
OPERATIONAL DEFINITION OF VARIABLES

Variable	Definition	Dimensions
Individual Characteristics (X1)	Individual characteristics that are a factor in purchasing decisions.	1. Ability 2. Values 3. Attitude 4. Interest (Hanifah, 2019)
Situational Stimuli (X2)	Situations are stimuli that influence consumers when buying.	1. Social influence 2. Time availability 3. Availability of money 4. Debit card facilities (Novitasari, et al., 2022)

Social Media (X3)	Social media is defined as a device that connects consumers to exchange information, which is one of the factors influencing hedonic motivation	1. Ease 2. Trust 3. Information quality (Deborah et al., 2022)
Digital Marketing (X4)	Digital marketing acts as a marketing strategy that utilizes digital media which is one of the factors influencing hedonic motivation.	1. Incentive Program 2. Site Design 3. Cost 4. Interactive (Nurul Huda et al., 2021)
Hedonic Motivation (Z)	Every individual must have their own differences, which is one of the factors influencing hedonic motivation.	1. Adventure shopping 2. Gratification shopping 3. Role shopping 4. Social shopping 5. Idea shopping 6. Value shopping (Deborah et al., 2022)
Impulse Buying Behaviour (Y)	Buying behaviour that occurs without planning and is influenced by a hedonic lifestyle.	1. Purchase without prior planning. 2. Purchase without thinking about the consequences. 3. Purchases influenced by emotional states 4. Purchases influenced by attractive offers. (Evelina et al., 2021)

3. Methods

Primary data was obtained by distributing questionnaires, which is a method for gathering information through distribution a series of statements or questions to respondents that must be answered (Sugiyono, 2019). The questionnaire was distributed online through the Google Forms service provider to users of the Shopee e-commerce platform in Indonesia. After being distributed, respondents were asked to provide feedback or evaluate the questions presented through the Google Forms service. The study's sampling strategy is non-probability quota sampling type. In this study, the number of samples determined to be studied was 150 samples according to the specified number.

4. Results And Discussion

1. Respondent Characteristics

In practice, the collected data was obtained using questionnaires from 150 respondents, which included various demographic characteristics such as gender, age, and income. The majority of respondents identified were female, with 68 respondents (45%) being male, while 82 respondents (55%) were female. In terms of age distribution, the largest group was 23-27 years old (110 respondents, 73%), followed by 28-32 years old (28 respondents, 18%), 18-22 years old (10 respondents, 7%), and very few in the older age categories. For income levels, the majority earned >4,000,000 (53 respondents, 35%), followed by 2,500,000 - 4,000,000 (45 respondents, 30%), 1,000,000 - 2,500,000 (25 respondents, 17%), and <1,000,000 (27 respondents, 18%).

2. Convergent Validity

Based on data processing, Consistency in the measurement model's validity is determined by analysing the correlation between the item/instrument score and the construct score, also known as the loading factor. The measurement model's convergent validity is determined when the loading factor of each instrument is greater than 0.70 (Ghozali & Latan, 2015).

TABLE 2
TEST FACTOR LOADING BASED CONVERGENT VALIDITY
(N=150)

Variable	Indicator	Outer Loading		Note
Individual Characteristics (X1)	X1.1	0,845	0,70	Valid
	X1.2	0,836		Valid
	X1.3	0,821		Valid
	X1.4	0,745		Valid
Situational stimuli (X2)	X2.1	0,839	0,70	Valid
	X2.2	0,863		Valid
	X2.3	0,738		Valid
	X2.4	0,855		Valid
Social Media (X3)	X3.1	0,855	0,70	Valid
	X3.2	0,849		Valid
	X3.3	0,897		Valid
Digital Marketing (X4)	X.4.1	0,765	0,70	Valid
	X.4.2	0,775		Valid
	X.4.3	0,782		Valid
	X.4.4	0,864		Valid

Hedonic Motivation (Z)	Z1	0,881	0,70	Valid
	Z2	0,914		Valid
	Z3	0,894		Valid
	Z4	0,915		Valid
	Z5	0,874		Valid
	Z6	0,907		Valid
Impulse Buying Behaviour (Y)	Y1	0,932	0,70	Valid
	Y2	0,938		Valid
	Y3	0,928		Valid
	Y4	0,843		Valid

In light of table 2, data processing shows that the loading factor calculation results are above 0.70, so that the indicators have fulfilled the convergent validity conditions and have the validity required based on the rule of thumb used in accordance with what has been tested before. Discriminant Validity

Examining the cross-loading value is how reflecting indicators are used to verify discriminant validity. Every variable's value needs to be higher than 0.70 (Ghozali & Latan, 2015).

TABLE 3
CROSS LOADING BASED DISCRIMINANT VALIDITY (N=150)

	X1	X2	X3	X4	Y	Z
X1.1	0,845	0,446	0,592	0,585	0,928	0,742
X1.2	0,836	0,363	0,838	0,476	0,612	0,654
X1.3	0,821	0,401	0,553	0,475	0,632	0,793
X1.4	0,745	0,624	0,867	0,647	0,577	0,616
X2.1	0,426	0,839	0,506	0,565	0,354	0,434
X2.2	0,555	0,863	0,576	0,632	0,545	0,557
X2.3	0,325	0,738	0,358	0,522	0,318	0,408
X2.4	0,497	0,855	0,573	0,595	0,424	0,527
X3.1	0,833	0,380	0,855	0,491	0,616	0,668
X3.2	0,632	0,574	0,849	0,550	0,452	0,532
X3.3	0,747	0,671	0,897	0,665	0,599	0,647
X4.1	0,483	0,523	0,446	0,765	0,480	0,438
X4.2	0,543	0,483	0,497	0,775	0,534	0,655
X4.3	0,490	0,627	0,538	0,782	0,429	0,476
X4.4	0,590	0,629	0,599	0,864	0,597	0,594
Y1	0,847	0,452	0,598	0,588	0,932	0,747
Y2	0,795	0,442	0,610	0,617	0,938	0,774
Y3	0,796	0,479	0,619	0,593	0,928	0,802
Y4	0,654	0,485	0,532	0,563	0,843	0,647
Z1	0,752	0,594	0,647	0,666	0,722	0,881
Z2	0,801	0,523	0,639	0,623	0,78	0,914
Z3	0,838	0,501	0,596	0,575	0,736	0,894

Z4	0,791	0,521	0,691	0,611	0,748	0,915
Z5	0,737	0,509	0,648	0,648	0,678	0,874
Z6	0,761	0,536	0,638	0,623	0,739	0,907

Table 3 above indicates that a few of the study variables' indicators possess cross-loading values that are lower than those of other variables, indicating the need for additional knowledge and observation. An alternative method of assessing discriminant validity involves calculating the average variance extracted (AVE) square root value. According to Hair et al. (2019), an appropriate AVE score is At least 50% of the variation of its constituents is explained by the construct if the coefficient is 0.50 or higher. The extracted average variance, or AVE.

Next, the discussion shifts to establishing convergent validity at the Average Variance Extracted (AVE) level, which was set at a threshold of 0.50 in this study. A higher AVE indicates stronger validity, indicating that the construct is acceptable and valid when it exceeds this threshold. So, it can be concluded that the indicators and variables used have fulfilled discriminant validity (Hair et al., 2019).

TABLE 4
TEST AVE (AVERAGE VARIANCE EXTRACTED)

Variable	AVE	
Individual Characteristics (X1)	0,660	valid
Situational stimuli (X2)	0,681	valid
Social Media (X3)	0,753	valid
Digital Marketing (X4)	0,636	valid
Hedonic Motivation (Z)	0,806	valid
Impulse Buying Behaviour (Y)	0,830	valid

All of the constructions in Table 4 above had constructs greater than 0.50, which suggests that each variable's Average Variance Extracted (AVE) is reliable. Each variable therefore has a high level of discriminant validity.

In exploratory research, the generally accepted rule of thumb for Cronbach's alpha is a minimum of 0.6, while composite reliability should ideally exceed 0.7. However, values lying between 0.6 and 0.7 are considered acceptable, as stated by Ghazali and Latan (2015).

TABLE 5
TEST CRONBACH ALPHA AND TEST COMPOSITE RELIABILITY (N=150)

Variable	Cronbach's Alpha	Composite Reliability
Individual Characteristics (X1)	0,829	0,886

Situational stimuli (X2)	0,843	0,895
Social Media (X3)	0,836	0,901
Digital Marketing (X4)	0,811	0,875
Hedonic Motivation (Z)	0,952	0,961
Impulse Buying Behaviour (Y)	0,931	0,951

Table 5 presents the results of the reliability test, which support the following findings: the Cronbach's alpha value on individual characteristics (X1) is 0.829 > 0.6; the value on situation stimuli (X2) is 0.843 > 0.6; the value on social media (X3) is 0.836 > 0.6; the value on digital marketing (X4) is 0.811 > 0.6; the value on impulsive buying behaviour (Y) is 0.931 > 0.6; and the hedonic motivation variable is 0.952 > 0.6. Individual characteristics (X1), situation stimuli (X2), social media (X3), digital marketing (X4), impulsive purchasing behaviour (Y) (0.951 > 0.7), and the hedonic motivation variable (0.961 > 0.7) all have composite reliability values that are 0.886 > 0.7. Cronbach's alpha and composite.

3. R-Square

The R-Square (R2) value in SEM-PLS analysis measures the structural model's ability to predict the criteria indicate that an R2 value of around 0.75 indicates strong predictive power, while 0.5 is moderate, and 0.25 indicates weak (Ghozali & Latan 2015).

TABLE 6
TEST R-SQUARE (R2)

Variable	R Square	R Square Adjusted
Impulse Buying Behaviour (Y)	0,670	0,668
Hedonic Motivation (Z)	0,797	0,791

Results from Table 6. The table shows, the R square value of the influence of the Individual characteristics variable (X1), situational stimuli (X2), social media (X3), digital marketing (X4) on impulsive buying behaviour (Y), namely with an R Square value of 0.670 > 0.05, indicating that it is considered moderate. And the R influence of individual characteristics variables (X1), situational stimuli (X2), social media (X3), digital marketing (X4) on hedonic motivation (Z) has a value of 0.797 > 0.7 also indicates that it is considered strong.

4. Path Analysis

Based on Figure 2, the path analysis above shows that the variables of individual characteristics (X1), situation stimuli (X2), social media (X3), digital marketing (X4) are independent variables. Independent variables issue arrows and do not receive arrows. For the variable impulsive purchasing behaviour (Y) is the dependent variable of receiving

arrows. And the hedonic motivation variable (Z), is a mediating variable by accepting arrows from the independent variables (X1, X2, X3, X4) and releasing arrows to the dependent variable (Y).

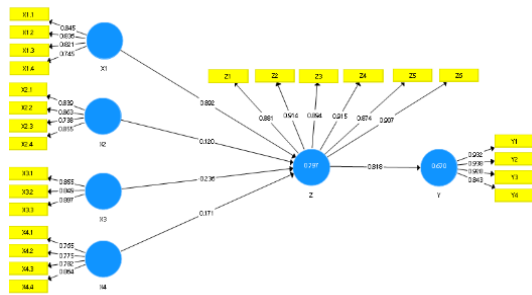


Figure 2. Path Analysis

5. Hypothesis Testing

To determine the significance and direction of each latent variable's connection, this test applies bootstrapping approaches to the t-test. In this test, the t-value or t-statistic is compared to a threshold of 1,96 and a p-value with a significance level not higher than 0.05. (As per Ghozali and Latan 2015), the independent variable has an impact on the dependent variable if the t-statistic is greater than 1,96 and the p-value is below 0.05. This table presents the path coefficient results and the t-statistic value obtained from the SmartPLS bootstrapping output:

TABLE 7
TEST HYPOTHESIS

	Original Sample	T Statistics	P Values	
Individual Characteristic s-> Hedonic Motivation	0,892	10,923	0,000	accepted
Situational stimuli -> Hedonic Motivation	0,120	1,998	0,047	accepted
Social Media -> Hedonic Motivation	-0,236	2,954	0,004	accepted
Digital marketing -> Hedonic Motivation	0,171	2,695	0,008	accepted
Hedonic Motivation-> Impulse Buying Behaviour	0,818	21,232	0,000	accepted

Based on table 7. Then the test results can be concluded with the following hypothesis:

First Hypothesis Testing Results (H1)

The analysis shows that the t-statistic for the impact of individual characteristics on hedonic motivation is 10,923, exceeding the threshold of 1.96, and the p-value of 0,000 is smaller than 0,05. Thus, there is an indication of the significance of the effect of individual characteristics on hedonic motivation. Based on these findings, Hypothesis 1, which states that individual characteristics influence hedonic motivation, is accepted. The positive original sample value of 0,892 illustrates that there is a significant positive influence of individual characteristics on hedonic motivation in shopping via live streaming.

Second Hypothesis Testing Results (H2)

The analysis shows that the influence of t-statistic for situational stimuli on hedonic motivation is 1,998, exceeding the limit number of 1,96, and the p-value of 0,047 is smaller than 0,05. This illustrates the significance of the influence of situational stimuli on hedonic motivation. Based on these findings, Hypothesis 2, which states that situational stimuli influence hedonic motivation, is accepted. The positive original sample value of 0,120 indicates that situational stimuli have a positive impact on hedonic motivation in the context of live streaming shopping.

Third Hypothesis Testing Results (H3)

Based on the analysis, the t-statistic for the impact of social media stimulation on hedonic motivation is 2,954, exceeding the critical threshold of 1,96, and the p-value of 0,004 is smaller than 0,05. This figure confirms the significance of the effect of social media stimulation on hedonic motivation. Therefore, Hypothesis 3, which proposes that social media stimulation affects hedonic motivation, is accepted. The negative original sample value of -0,236 indicates that social media stimulation negatively influences hedonic motivation in the context of live streaming shopping.

Fourth Hypothesis Testing Results (H4)

The effect of digital marketing on hedonic motivation gets a t-statistic with a value of 2,695 > 1,96, and a p-value of 0,008 is smaller than 0,05. the conclusion is that digital marketing has a significant effect on hedonic motivation. Based on these findings, H4, which states that digital marketing has a significant effect on hedonic motivation, can be accepted. The effect of digital marketing on hedonic motivation is positive, because the original sample value obtained is 0,171. Thus, digital marketing has a significant positive effect on hedonic motivation in live streaming shopping.

Fifth Hypothesis Testing Results (H5)

The effect of hedonic motivation on intrusive buying behaviour produces a t-statistic of 21,232 > 1,96, and a p-value of 0,004 is smaller than 0,05. These results indicate that hedonic motivation has a significant influence on impulsive buying behaviour. Based on these results, H5, which suspects that hedonic motivation has a significant influence on intrusive buying behaviour, can be accepted. The effect of hedonic motivation on impulse buying behaviour is positive, as seen in the original sample value of 0,818. Based on these results, hedonic motivation will have a significant effect on impulsive purchasing behaviour in live streaming shopping.

6. Mediation Result

TABLE 8
MEDIATION RESULT

	T Statistics	P Values	
Individual Characteristics -> Hedonic Motivation -> Impulse Buying Behaviour	8,779	0,000	accepted
Situational stimuli -> Hedonic Motivation -> Impulse Buying Behaviour	2,059	0,041	accepted
Social Media -> Hedonic Motivation -> Impulse Buying Behaviour	2,915	0,004	accepted
Digital marketing -> Hedonic Motivation -> Impulse Buying Behaviour	2,687	0,008	accepted

Based on table 8. Then the results of mediation testing can be concluded with the following hypothesis.

Hypothesis Testing Results (H6a)

The results of tests conducted on the individual characteristics variable that affects impulsive buying behaviour through hedonic motivation as a mediating factor show a t-statistic value of 8,779 and a p-value of 0,000. These findings support the acceptance of Hypothesis 6a, because the t-statistic exceeds 1.96 and the p-value does not exceed 0,05, which indicates statistical significance. Thus, H6a is accepted. With that, the conclusion is that the hedonic motivation variable can significantly mediate the individual characteristics variable on impulsive buying behaviour.

Hypothesis Testing Results (6b)

Based on the results of testing the situation stimulation variable on impulsive buying behaviour through hedonic motivation as a mediating variable with a t-statistic obtaining a value of 2,059 and a p-value of

0,041, it can be concluded that H6b can be accepted, because the t-statistic exceeds the value of 1.96 and the p-value does not exceed 0,05. With that, the conclusion is that the hedonic motivation variable can significantly mediate the individual characteristics variable on impulsive buying behaviour.

Hypothesis Testing Results (H6c)

According to the test results, the social media variable that affects impulsive buying behaviour through hedonic motivation as a mediating factor shows a t-statistic of 2,915 with a p-value of 0,004. This finding supports the acceptance of Hypothesis 6c, as the t-statistic exceeds 1,96 and the p-value does not exceed 0,05, indicating statistical significance. With that, the conclusion is that the hedonic motivation variable can significantly mediate the individual characteristics variable on impulsive buying behaviour.

Hypothesis Testing Results (H6d)

Referring to the test results, the digital marketing variable that affects impulsive buying behaviour through hedonic motivation as a mediating factor shows a t-statistic of 2,687 with a p-value of 0,008. This finding supports the acceptance of Hypothesis 6d, as the t-statistic exceeds 1,96 and the p-value does not reach 0,05, indicating statistical significance. Thus, the conclusion is that hedonic motivation significantly mediates the effect of digital marketing on impulse buying behaviour.

5. Conclusion

This researcher concludes that in the context of live streaming shopping done by all ages, individual characteristics, situational stimuli, social media and digital marketing are the four stimuli studied here, with hedonic motivation as the organism in shaping consumer behaviour in the context of live streaming shopping and impulse buying behaviour as the response.

In this context, individual characteristics, situational stimuli, social media and digital marketing have a positive and significant impact on hedonic motivation in live streaming shopping. Meanwhile, the results of mediation testing in this study confirm that it is evident that hedonic motivation mediates impulse buying behaviour.

It has further been established that hedonic motivation serves as an important precursor to impulse buying behaviour. These insights collectively highlight the complex interactions between various factors in the field of live streaming shopping, thus offering valuable implications for industry practitioners and researchers.

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