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The Role of Live Streaming towards Customer Engagement in Online Shopping

Sharmella Abdul Zaini[1] & **Siti Aisyah Salim**[1,*]

[1]Department of Technology Management, Faculty of Technology Management and Business, Universiti Tun Hussein Onn Malaysia, 86400 Batu Pahat, Johor, MALAYSIA.

*Corresponding Author

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Abstract: Live streaming is a video broadcast happens in real time and has been used as direct selling tools especially among small businesses. This online tool has become quite popular as it could improve the sales performance as well as build customer engagement. Most past studies have just focus on the relationship between online shopping and customer engagement and there is still a lack of studies that looked into live streaming towards customer engagement in Malaysia context. Thus, this study aims to examine the role of live streaming towards customer engagement in online shopping. The Stimuli- Organisms- Responses (SOR) and Uses and Gratifications Theory (UGT) has been adopted as the theoretical foundation in this research. This study has collected data from 141 respondents of Malaysian online shopping users among Gen Z. Quantitative research has been used in this research, where online surveys has been distributed to Malaysian online shopping users among Gen Z. All the collected data were analyzed using Statistical Package for Social Science (SPSS). From the analysis, all the variables towards customer engagement show a positive significant relationship towards customer engagement with the correlation coefficient 0.645. This study can provide the importance of live streaming usage towards customer engagement in online shopping and these findings will help future researchers and acquire knowledge through this research.

Keywords: Online Shopping, Customer Engagement, Live Streaming, Gen Z

1. Introduction

Social networking sites (hereafter will be named as SNS) such as Instagram, Facebook and Twitter becoming very popular among customers as these platforms provide quick information as well as other online activities (Wongkitrungrueng & Assarut, 2018). There are several reasons for SNS to become popular such as able to do live streaming, online reviews, engage with customers and more (Haimson *et al*., 2018). According to a report by Statista (2020), more than 7.8 billion people worldwide which is equal to 26 percent can be considered as online shoppers. This number keep increasing and has proven

*Corresponding author: aisyahs@uthm.edu.my

that world population has moved towards online shopping activities (Statista, 2020). Through online platform, customers could do shopping activities more convenient and engage with the seller if there are any enquiries related with the product (Lin *et al*., 2020). While customer engagement refers to an emotional bonding that a customer experiences when interacting with an online seller on a regular and ongoing basis (Bansal & Chaudry, 2017). According to Kosiba *et al*. (2020), customer tend to be more engaged with seller in real time chats during live streaming, which encourages them to pay attention to the focal product. To encourage more customer to engage, some companies have invested in their company to do their marketing through live streaming such as Live stream, Twitter, Instagram, Facebook and other (Forbes *et al*., 2018).

Online shopping is referring as a process of buying products and services from the others over the internet (Andrian *et al*., 2020). Most past studies have just focus on the live streaming has been discussed especially study on live streaming phenomenon in social media and gaming away from Business to Customer (B2C) digital platforms (Bruce *et al*., 2018). For instance, previous research by Kaur *et al*. (2020) have been utilized UGT theory to study customers' purchase intention and loyalty toward live- streaming services, respectively. There are few studies that looked into the relationship between online shopping and customer engagement such as Van *et al*. (2014) have investigated engagement through multiple perspectives on customer engagement. In addition, Al-Dmour *et al*. (2019) studied on the positive behaviors and significant impact of customer engagement on customer satisfaction. Due to the increasing popularity of live streaming in online shopping, several studies look into how lives streaming affects customer purchase intension (Yu *et al*., 2018). While live streaming shopping has been shown to increase customer engagement, but it is still unclear whether live streaming will have a positive impact on customer purchasing intention in social commerce (Wongkitrungrueng and Assarut, 2018). Thus, according to Lin *et al*. (2021) few studies have been conducted into intentions to live streamed broadcasts and the factors affecting the live streaming but it is still indefinite. Most past studies have discussed related to live streaming and online shopping, however there is still a lack of studies focused on live streaming towards customer engagement in online shopping in the context of Malaysia. Therefore, this research is aimed to identify the usefulness of live streaming towards customer engagement in online shopping among Gen Z in the context of Malaysia to fill this research gap.

2. Literature Review

2.1 Online shopping

Online shopping refers as the acquisition and sale of products and services over the internet (Kasuma *et al*., 2020). In Malaysia, several online shops have been established, such as Shopee, Zalora and Lazada (Sari, 2017). These online platforms enable customers to purchase the products or services they need at any time they like, and this also has led to customer engagement (Agyapong, 2017). Meire *et al*. (2019) have studied customer engagement with online shopping and customer value was the main concern. This study focused on social media customer engagement and found that customer emotions are an excellent marketing tool that can have a positive impact on marketing strategies. Enginkaya and Esen (2014) collected data from online shoppers to measure and evaluate online customer engagement. According to Hirschman and Holbrook (1982), customers engage in online shopping for utilitarian and hedonic reasons.

2.2 Customer engagement

Customer engagement refers as the connection of sensible and emotional bonds by examining which such bonds may develop new versus customer loyalty of a different brand provider (Mehmood *et al*., 2020). The techniques can be used for engaging with customers which include optimizing viewers, showing creativity, allowing direct contact between the product and viewers, and achieving cost efficiency when compared to other video strategies during live streaming (Alex, 2020). Among the most important indicators of live streaming engagement is the time spent (exposure) watching live streams. Bergel and Brock (2019) found that price has a major effect on how customer engagement

refers to purchasing intent in customer-experienced live streaming marketing. There are many studies

that related to customer engagement such as influence of trust, customer engagement increasing of customer loyalty, effect of brands influence customer engagement and others, but in this research context, this study will focus into live streaming. Live streaming is one of the few ways for sellers to engage and communicate with their online customers through live products promotion and simultaneous customer interactions (Wang & Wu, 2019).

2.3 Live Streaming

Live streaming is the real-time way of gathering, distributing and viewing video information simultaneously via the Internet online communication and transmission; E-commerce is a method of selling products that combines live stream and e-commerce (Wang, 2017). Chen *et al*. (2018) found the following factors to influence audiences' willingness to watch live streaming events, namely the attitude, perceived value and intention to see where attitude plays a mediating part between entertainment and intent on watching. Hilvert *et al*. (2018) studied the motivation for live streaming viewers based on the size of the live streaming platform. The greater the motivation, including social communication, a sensibility to the community, approaching people, entertainment, knowledge and additional support, the more engagement you have, such as feelings, connectivity, observation, subscription and donation.

2.4 Gen Z

Gen Z is a generation born between 1995 and 2010, which means that the oldest generation is in the early 20s and the present college population; (Arora, 2020). Gen Z is already a significant part of society and the major customer in the near future (Duffett, 2017). Generation Z is also called collaboration and relationship generation, they engage in activities groups online, prefer online games, interact with others and share information using the internet. They communicate and share views on companies, brands, services and products through social networking (Vieira *et al*., 2020). Generation Z is expected to be the new generation in the future to manage e-commerce (Monaco, 2018).

2.5 The relationship between live streaming and customer engagement

Live streaming is a latest kind of media that combines broadcasting of business on a real time basis with cross modal video communication (Recktendwald, 2017). Kahn (2017) found that customers engage more in video than in text and motionless pictures because visual information contributes customers to concentrate on the real, useful and emotional aspects of the product. Live streaming has transformed entertainment and social trade in the way that more individuals see others engaging in live-streaming activities than do the activity on its own (Kaytoue *et al*., 2019). Wongkitrungrüng and Assarut (2018) identified that live streaming can develop customer engagement by showing value and trust to their customers. Another research by Hu *et al*. (2020) studied how to enhance consumer engagement in ecommerce live streaming through relational bonds. According to Yu *et al*. (2018), therefore customer engagement in live streaming had a strong impact on users purchasing online gifts.

2.6 Theory in Relation to Customer Engagement

There are several theories have been used to explain the extant literature regarding customer engagement such as (Katz *et al*.,1973), Theory of Planned Behavior (TPB) (Ajzen, 1991), Stimuli-Organisms-Responses (SRO) (Mehrabian and Russell, 1974) and Theory of Reasoned action (Ajzen and Fishbein, 1975). These theories have been used to explain different scenarios of customer engagement.

(a) Stimuli-Organisms-Responses (SOR)

Model The SRO model identifies affectionate responses to stimulus on three dimensions such as pleasure, excitement and domination (Mehrabian and Russell, 1974). According to the model, environmental indicators work as stimuli for the affective and cognitive reactions of an individual which in turn affect behavior (Mehrabian & Russell, 1974). The SOR model is commonly perceived as the theoretical basis for research on consumer behavior. It suggests that stimuli affect and influence the attitude, responses and emotions of a consumer, which leads to customer behavior or intention as a response (Mehrabian and Russell, 1974).

(b) Uses and Gratifications Theory

Uses and Gratifications Theory is a common approach for comprehending mass communication. The theory focuses on the consumer, or audience, rather than the message itself, by focusing on what people do with media instead of what media does to them (Katz, 1959). It presumes that audience members are also not inactive, and they actively participate in perceiving and incorporating the media. The theory suggests that audiences will choose the media to serve their needs. According to the approach, people are using media to satisfy targeted satisfactions. This theory will then assume that the media performs for the attention of audiences with the other sources of information (Katz *et al*., 1974).

2.6 Model Development: The Relationship between Live streaming and Customer Engagement

The development of the proposed research framework was collaborated between theory Stimuli-Organisms Responses Model (Mehrabian and Russell, 1974) and Theory of Reasoned action (Ajzen and Fishbein, 1975) have been selected to discuss and explain live streaming towards customer engagement. Further, the combination of this theory was further elaborated and specified into the customer engagement aspect. Three specific dimensions of customer engagement are utilitarian value, hedonic value, and symbolic value will be explained in the few sections.

(a) Utilitarian Value

Utilitarian value is characterized as an assessment (judgment) of utilitarian benefits and tradeoffs. Purchase consideration (i.e., considering the item, benefit, and cost highlights some time recently making a buy) may be a task-specific utilization of online shopping where utilitarian value is significant (Hoffman and Novak, 1996). In spite of the fact that this concept is comparable to wick *et al.* (2001) active source of outward value for Internet shopping, it is important to recognize utilitarian value from hedonic value.

(b) Hedonic Value

Hedonic value is defined as a comprehensive approach (judgment) of perceptual positive benefits and trade-offs, such as entertainment and escape. Consumers often purchase for the pleasure of the experience rather than to complete a goal (Babin *et al*., 1994). Hedonic value dimensions appear to be the subject of extensive research in the literature on in-store purchasing, and they're beginning to be recognized as key parts of internet purchasing as well (Babin & Attaway, 2000).

(c) *Symbolic Value*

Shopping can provide utilitarian, hedonic, and symbolic value, according to Wongkitrungrueng & Assarut (2018). In addition to utilitarian and hedonic value, shopping can bring symbolic value. Thus, shopping is a social activity in which customers can construct symbolic meanings, social codes, relationships, as well as their own sense of self and identity (Firat & Venkatesh, 1993). While according to (Belk *et al*., 1989), rituals are acts and interactions defined by a sequential process that is repeated on a regular basis and may include a symbolic element.

2.6 Conceptual Framework

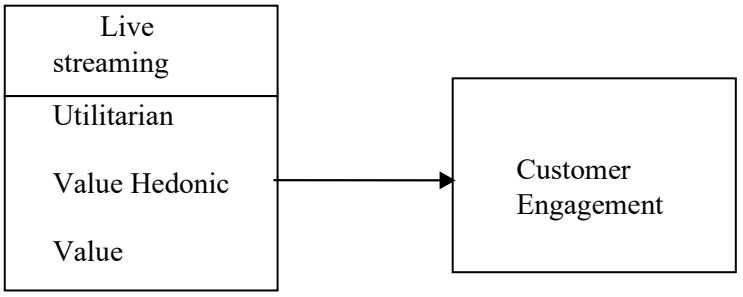

Figure 1: Conceptual Framework

2.7 Hypothesis

H_1: There is a significant relationship between utilitarian value and customer engagement.

H_2: There is a significant relationship between hedonic value and customer engagement.

H_3: There is a significant relationship between symbolic value and customer engagement.

3. Research Methodology

The quantitative method was used as the primary methodology in this study. The process that was followed in conducting this research was explained in the research methodology.

3,1 Research Design

In this study, the research design has been used. Research design known as the overall strategy used to carry out research that defines a concise and logical plan to address established research questions through data collection. Thus, the research methods used are descriptive research and quantitative research in this research. Descriptive research refers to theory-based design methods developed through data collection, analysis and presentation. Figure 3.1 shows the research flowchart for this study.

3.2 Sampling Method

This study has set a total of 384 respondents from the Malaysian online shopping user among Gen Z to answer the questionnaires that was distributed based on the sample size for the study, which was determined using the Krejcie and Morgan Sample Size in determining the sample from the population.

3.3 Research Instrument

A questionnaire is a research instrument consisting of a set of questions (items) intended to capture responses from respondents in a standardized manner. Thus, the questionnaire is content into three sections that consist of sections A, B and C. For section A, this section described the respondent's background while Section B asked a question on live streaming towards customer engagement. Lastly, Section C asked about utilitarian value, hedonic value and symbolic values. The question will be used and was founded on the previous study by Wongkitrungrueng and Assarut (2018) on The Role of Live Streaming in Building Consumer Trust and Engagement with Social Commerce Seller.

3.4 Measurement Scale of Questionnaire

This research used the questionnaire's measurement scale, which split into various types of question, such as multiple question, dichotomous questions, and Likert style questions. The question of dichotomy can be answered by two possible answers. Dichotomous questions are typically used in a survey which asks for an answer of Yes/No, True/False, Fair/Unfair or Unfair. Instead, the most popular survey type is multiple choice questions. You allow respondents to choose a list of answers from one or more options you choose. The dichotomous and multiple questions was used in Section A. The question type used in section B and C is a question of a Likert style. A Likert scale is a 5-point scale question. Likert Scale is, moreover, a psychometric scale commonly used in questionnaires for research. It is the most common approach in survey research to scale responses.

Table 1: Likert Scale (source from Armstrong, 1995)

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

3.5 Data Collection

The collection of data is a systematically determined process for collecting and evaluating information about the variables of interest, enabling you to answer stated research questions, test hypotheses and evaluate results (Zabir, 2016). Data collection was divided into two main and secondary data collection categories (Business Dictionary, 2017). The primary data collection is a process which is highly involved while the secondary process of collecting data is fast and easy (Ajayi, 2017).

3.6 Data Analysis

The practice of systematically using statistical and logical tools to explain and demonstrate, condense and recap, and assess data is known as data analysis. Various analytic processes provide a technique of drawing inductive inferences from data and differentiating the signal (the phenomena of interest) from the noise (statistical fluctuations) existent in the data (Shamoo and Resnik, 2003). The descriptive analysis approach and correlation analysis was used to assess the data collected from primary sources, which was a questionnaire.

(a) Primary Data

Primary data is gathered in order to solve the problem at hand. On the other hand, primary data sources include surveys, observations, experiments, questionnaires, personal interviews, and so on (Ajayi, 2017). Primary data refer to collected data with the research project in mind, directly from primary sources (Harry, 2019). Survey questionnaire is the best choice to examine the response from respondents about the role of live streaming towards customer engagement in online shopping.

(b) Secondary Data

Secondary data is information gathered by another party who is unrelated to the research project but gathered the information for a different purpose and at a different time in the past. Thus, secondary data is gathered for reasons. Secondary data sources include government papers, websites, books, journal papers, and internal records, among others (Ajayi, 2017).

3.7 Descriptive Analysis

Almost every empirical publication and report includes descriptive analyses, whether the purpose is to discover and characterize trends and variation in populations, generate new measures of key phenomena, or simply describe samples in studies aimed at discovering causal effects (Loeb *et al*., 2017). The researcher will utilize descriptive and inferential analysis in this study to figure out how to get population information from the sample. Thus, the SPSS software was utilized to examine the data for this study's statistical analysis approach.

4. Results and Discussion

4.1 Results and Discussion

This chapter describes the data and findings of the study and analysis used in this study. This chapter begins with a discussion of response rates. This is followed by a description of both independent and dependent variable reliability tests and descriptive analysis. Lastly, normality tests and correlation analysis were performed using the Statistical Packages for Social Sciences (SPSS).

4.2 Response rate

A total of 384 sets of questionnaires have been distributed to Malaysian online shopping users among Gen Z but only 141 sets were getting back. The response rate is 36.72%.

Table 2: Questionnaire response rate

		Frequency	Percentage (%)	Valid Percentage	Cumulative Percentage
Valid	Malay	93	66.0	66.0	66.0
	India	3	2.1	2.1	68.1
	Chinese	1	0.7	0.7	68.8
	Others	44	31.2	31.2	100
	Total	141	100	100	

4.3 Reliability Test

Cronbach's Alpha method will be used to determine the validity and reliability of data that had been collected by questionnaire. If the Conbach's Alpha value is close to 1.0, it indicates that the data collection is extremely reliable (Bonett & Wright, 2014). If the Cronbach's Alpha value is less than 0.5, the data collection is considered unacceptable (Bonett & Wright, 2014).

4.4 Pilot Test

A total of 384 questionnaires have been distributed to the Malaysian online shopping users among Gen Z respondents and the result questionnaire has been analyzed using the SPSS. The table below shows the reliability test of pilot study.

Table 3: Cronbach's Alpha value for 10 respondents

Factors	Cronbach's Alpha	No. Item
Utilitarian Value	0.939	5
Hedonic Value	0.713	5
Symbolic Value	0.948	5
Customer Engagement	0.903	6

4.5 Descriptive Analysis (Demographic)

Table 4: Gender of Respondents

		Frequency	Percentage (%)	Valid Percentage	Cumulative Percentage
Female		98	69.5	69.5	69.5
Valid	Male	43	30.5	30.5	100
Total		141	100	100	

Table 4 shows the number of female respondents a total of 98 respondents while the total number of male respondents is 43 respondents out of 141.

Table 5: Races of Respondents

		Frequency	Percentage (%)	Valid Percentage	Cumulative Percentage
Malay		93	66.0	66.0	66.0
India		3	2.1	2.1	68.1
Valid	Chinese	1	.7	.7	68.8
Others		44	31.2	31.2	100
Total		141	100	100	

The result showed that most of the respondents were Malay which is 93 respondents. There are 44 respondents for others, while 3 respondents for Indian and only 1 respondent for Chinese. Thus, the percentage for India is 2.1 percent and Chinese respondents are 7 percent. While for others it comprises 31.2 percent.

Table 6: Age of Respondents

		Frequency	Percentage (%)	Valid Percentage	Cumulative Percentage
Valid	18-20 years	19	13.5	13.5	13.5
	21-22 years	37	26.2	26.2	39.7
	23-24 years	85	60.3	60.3	100
Total		141	100	100	

Table 6 shows the majority of respondents that answered the questionnaire in this study are aged within 23 to 24 years old with a total of 85 respondents. While the rest were from 18 to 20 years that consisted of 19 respondents and 21 to 22 years old consisted of 37 respondents.

Table 7: Respondent's Position

		Frequency	Percentage (%)	Valid Percentage	Cumulative Percentage
Valid	Student	109	77.3	77.3	77.3
	Job seeker	7	5.0	5.0	82.3
	Employee	23	16.3	16.3	98.6
	Others	2	1.4	1.4	100.0
	Total	141	100.0	100.0	

Table 7 shows the distribution of respondents based on their position. Based on the figure, it shows the position of students providing the highest response while for others providing the lowest response. The table shows the number of respondents for students is 109 respondents and the number of respondents for job seekers is 20 respondents. While the respondents for employees consist of 23 and respondents' others consist of only 2.

Table 8: Frequency of online shopping

		Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid	Everyday	4	2.8	2.8	2.8
	Once a week	41	29.1	29.1	31.9
	Once a month	86	61.0	61.0	92.9
	Once a year	10	7.1	7.1	100.0
	Total	141	100.0	100.0	

Table 8 shows the frequency of respondents towards their online shopping activities. The result showed that most of the respondents shop once a month which is 86 respondents while the lowest respondent is 4 for everyday to do shopping activities followed by once a year, 10 respondents. Thus, the rest of the respondents do their online shopping once a week.

Table 9: Respondent's Shopping Accounts

		Frequency	Percentage (%)	Valid Percentage	Cumulative Percentage
Valid	1.00	133	94.3	94.3	94.3
	2.00	8	5.7	5.7	100.0
	Total	141	100.0	100.0	

The result showed that most of the respondents have shopping accounts 133 while there are 8 respondents who do not have shopping accounts.

4.6 Descriptive Analysis

In this section, descriptive statistics are used to describe the basic characteristics of data in a study. They deliver concise summaries of the sample and measures. As a result, the researcher examined the data to describe the mean and standard deviation associated with all variables, which are utilitarian value, hedonic value, symbolic value, and customer engagement. Furthermore, this analysis is an effective method for differentiating each part of the mean distribution using a Likert Scale to assess the level of all independent and dependent variables. Table10 shows the level of measurement of each questionnaire question item.

Table 10: Level of Measurement

Average Mean Score	Level
1.00 – 2.33	Low
2.34 – 3.67	Medium
3.68 – 5.00	High

The mean or average interpretation scale based on the scale established by the previous researcher in the study. According to Table 11, if the level is between 1.00 and 2.33, the average mean value is low. Furthermore, if the mean average is between 2.34 and 3.67, it is considered moderate. Lastly, if the level value is between 3.68 and 5.00, the average mean range is high.

(a) Utilitarian Value

Table 11: Mean and Standard Deviation Analysis for Utilitarian Variable

No	Utilitarian Value	Mean (M)	Std Deviation (SD)
1.	Products that sell through social media platforms seem to be genuine.	3.59	0.895
2.	Product that promotes through live streaming could visualize the appearance of the product.	3.93	0.842
3.	Products that promote through live streaming provide reliable information.	3.94	0.835
4.	Product inquiries can be answered right away during live streaming	3.91	8.886
5.	Product inquiries can be asked directly during live streaming.	4.04	0.861
	Total Average	3.88	0.748

Based on Table 11, it shows the value of mean and standard deviation for utilitarian value. From the table, the result shows that the highest mean value is for question 5 with the statement "*Product inquiries can be asked directly during live streaming*" (M=4.04, SD=0.861. While the lowest mean

score is question 1 (M=3.59, SD=0.895) through the statement "*Products that sell through social media platforms seem to be genuine*". In this study, the average mean value of utilitarian value is 3.88.

(b) Hedonic Value

Table 12: Mean and Standard Deviation Analysis for Hedonic Value

No.	Hedonic Value	Mean (M)	Std Deviation (SD)
1	Shopping through live streaming is entertaining and saves time.	3.50	1.067
2	Shopping through live streaming could relieve stress.	3.33	1.175
3	Shopping through live streaming could get a great deal from the seller.	3.67	0.874
4	Shopping through live streaming is a way to forget some problems.	3.13	1.148
5	Shopping through live streaming can give a sense of adventure.	3.52	1.086
	Total Average	3.43	0.864

Based on Table 12, it shows the value of mean, standard deviation and the level of agreement for each question for hedonic value. From the table, the result shows that the highest mean value is for question 3 with the statement "*Shopping through live streaming could get a great deal from the seller.*" (M=3.67, SD=0.874). While, the lowest mean value is question 3 "*Shopping through live streaming is a way to forget some problems*" (M=3.13, SD=1.148). In this study, the average mean value of hedonic value is 3.43.

(c) Symbolic Value

Table 13: Mean and Standard Deviation Analysis for Symbolic Variable

No.	Symbolic Value	Mean (M)	Std. Deviation (SD)
1	Shopping through live streaming can establish a good relationship with the seller.	3.75	0.904
2	Shopping through live streaming can make customers find products that suit their taste.	3.89	0.927
3	Shopping through a live streaming allows customers to share experience with friends and relatives.	3.84	0.920
4	Shopping through live streaming can indicate social acceptance of a product based on other customers' comments.	3.81	0.853
5	Shopping through live streaming is trendy.	3.94	0.888
	Total Average	3.85	0.787

Based on Table 13, it shows the value of mean, standard deviation and the level of agreement for each question for symbolic value. From the table, the result shows that the highest mean value is for question 5 with the statement "*Shopping through live streaming is trend*" (M=3.94, SD=0.888). While the lowest mean score is question 4 (M=3.75, SD=0.904) through the statement "*Shopping through live streaming can establish a good relationship with the seller*". In this study, the average mean value of symbolic value is 3.85.

(d) Customer Engagement

Table 14: Mean and Standard Deviation Analysis for Customer Engagement

No.	Customer Engagement	Mean (M)	Std. Deviation (SD)
1	Live streaming makes customers spend more time on the page shop.	3.86	0.930
2	Live streaming makes customers continue to follow the activities of online sellers.	3.89	0.863
3	Live streaming will make customers revisit the seller's social media page again.	3.91	0.866
4	Live streaming makes customers recommend the online sellers page to their friends.	3.93	0.842
5	Live streaming makes customers surely repurchase products from the same online seller.	3.79	0.852
6	Live streaming makes the online seller be the customer's first choice.	3.83	0.909
	Total Average	3.87	0.737

Based on Table 14, it shows the mean score, standard deviation and the level of agreement for each item for customer engagement. From the result, question 4 provides the highest mean value with the statement "*Live streaming makes customers recommend the online sellers page to their friends*" (M3.93, SD=0.842). While question 5 provides the lowest mean value with the statement "*Live streaming makes customers surely repurchase products from the same online seller*" (M=3.79, SD=0.852). In this study, the average mean value of customer engagement is 3.87.

4.7 Normality Test

Before moving on to the next test, which is correlation analysis, normality analysis must be completed. The normality test is run with a predefined significance level in mind, and a conclusion about normality is reached. The strength of the test is defined as the proportion of correct denials of the normal hypothesis. This approach, developed in the 1960s by Shapiro, Wilk, and Chen, has been widely used to evaluate the effectiveness of various normality tests (Hernandez, 2021). According to Asghar and Saleh (2006), the normality test is used to determine whether or not the study population is normally distributed. If the data is normally distributed, the data parametric test is used by running the Pearson correlation test. Thus, if the data is not normally distributed, the non-parametric test will be performed using the Spearman correlation test. The researcher must decide whether to use the Kolmogrov-Smirnov or Shapiro-Wilk tests to determine the normality of the data distribution**.**

Table 15: Normality Test Analysis

Variables	Kolmogrov-Smirnov			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Utilitarian Value	0.121	141	.000	0.956	141	.000
Hedonic Value	0.140	141	.000	0.972	141	.006
Symbolic Value	0.146	100	.000	0.939	141	.000
Customer Engagement	0.145	141	.000	0.949	141	.000

Table 15 shows the results of normality test using Kolmogrov-Smirnov and Shapiro-Wilk test. The analysis included 141 respondents, and Kolmogrov-Smirnov values were used because the sample size exceeded 50. This analysis demonstrates that all of the variables have p values <0.005, which are

0.000 and 0.006. As a result, this data is not normal, and a non-parametric Spearman's Rho correlation test will be used to describe the relationship between two variables and achieve the study's objectives

4.8 Correlation Analysis

This study has used Spearman Rho's correlation to measure the relationship between two variables. According to Dancy and Reidy (2004), if the correlation coefficient is between 0.1 and 0.3, the correlation is weak. If the correlation value is between 0.4 and 0.6, the correlation strength is considered moderate. The strength of the relationship is considered strong if the correlation coefficient is between 0.7 and 0.9.

Table 16: Interpretation of Spearman Rho Correlation Coefficient

Correlation	Strength of Relationship
1	Perfect
0.7 - 0.9	Strong
0.4 – 0.6	Moderate
0.1 – 0.3	Weak

(a) The relationship between (Utilitarian (U) and Customer Engagement (CE).

Table 17: Correlation between Utilitarian Value and Customer Engagement

		Customer Engagement
Utilitarian Value	Correlation Coefficient tailed)	0.645** Sig. (2- 0.000
	N	141

** . Correlation is significant at the 0.01 level (2-tailed)

Based on Table 17, there is a significant strong and positive correlation between utilitarian value and customer engagement (r=0.000, p<0.1). The relationship is stated as 0.645 which is a moderate relationship between the independent variable and dependent variable and their significance value is 0.000, which is less than 0.05 ($P < 0.05$).

(b) The relationship between (Hedonic Value (HV) and Customer Engagement (CE).

Table 18: Correlation between Hedonic Value and Customer Engagement

		Customer Engagement
Hedonic Value	Correlation Coefficient tailed)	0.597** Sig. (2- 0.000
	N	141

** . Correlation is significant at the 0.01 level (2-tailed)

Based on Table 18, there is a significant positive correlation between hedonic value and customer engagement (r=0.000, p<0.1). The relationship is stated as 0.597 which is a moderate relationship between the independent variable and dependent variable and their significance value is 0.000, which is less than 0.05 ($P < 0.05$).

(c) The Level of Correlation

Table 19: Level of Coefficient Correlation

Item	Correlation Coefficient	Level
Correlation between Utilitarian Value (UV) and Customer Engagement (CE).	0.645**	Moderate
Correlation between Hedonic Value (HV) and Customer Engagement (CE).	0.597**	Moderate
Correlation between Symbolic Value (SV) and Customer Engagement (CE).)	0.499**	Moderate

Based on Table 19, all the independent variables which are utilitarian value, hedonic value and symbolic value do correlate with dependent variable, customer engagement. The result in Table 4.21 shows the level of correlation between independent variables and dependent variables. As a result, the correlation coefficient is good between utilitarian value, hedonic value and symbolic value do correlate with dependent variable, customer engagement.

5. Conclusion

5.1 Research Question 1: What is the level of live streaming in online shopping among Gen Z?

In this study, descriptive analysis has been used to describe the average mean score. The finding shows that the level of live streaming in online shopping among Gen Z. Based on these three dimensions of live streaming, the level of utilitarian value and symbolic value are at high level while the level of hedonic value are at medium level. The results that have analyzed significantly confirm the hypotheses that have been set.

The result shows the utilitarian value and symbolic values are strong factor that influence customer engagement in online shopping. The findings was consistent with the study of Firat & Venkatesh (1993) that showed utilitarian and hedonic value, shopping can bring symbolic value, where shopping is a social activity in which customers can construct symbolic meanings, social codes, relationships, as well as their own sense of self and identity.

5.2 Research Question 2: What is the level of customer engagement in online shopping among Gen Z?

Table 20: The level of customer engagement in online shopping among Gen Z

No	Customer Engagement	Average Mean Score	Level
1.	Live streaming makes customers spend more time on the page shop.	3.86	High

2.	Live streaming makes customers continue to follow the activities of online sellers.	3.89	High
3.	Live streaming will make customers revisit the seller's social media page again.	3.91	High
4.	Live streaming makes customers recommend the online sellers page to their friends.	3.93	High
5.	Live streaming makes customers surely repurchase products from the same online seller.	3.79	High
6.	Live streaming makes the online seller be the customer's first choice.	3.83	High

Table 20 illustrates the findings for level of customer engagement in online shopping among Gen Z. The findings show the overall level of customer engagement in online shopping among Gen Z is at high level. The results show that utilitarian, hedonic and symbolic values are strong factors that influence customer engagement in online shopping among Gen Z. The findings were consistent with the study of Wongkitrungrueng & Assarut (2018), that showed utilitarian value, hedonic value and symbolic value are the factors that influence customer engagement.

5.3 Research Question 3: What is the relationship between live streaming and customer engagement in online shopping among Gen Z?

Table 21: Hypothesis of the relationship between independent variables and dependent variable

No	Customer Engagement	Average Mean Score	Level
1.	Live streaming makes customers spend more time on the page shop.	3.86	High
2.	Live streaming makes customers continue to follow the activities of online sellers.	3.89	High
3.	Live streaming will make customers revisit the seller's social media page again.	3.91	High
4.	Live streaming makes customers recommend the online sellers page to their friends.	3.93	High
5.	Live streaming makes customers surely repurchase products from the same online seller.	3.79	High
6.	Live streaming makes the online seller be the customer's first choice.	3.83	High

Based on table 5.3, the result shows that there is a positive significant relationship between utilitarian, hedonic and symbolic value with customer engagement in online shopping among Gen Z. As a whole, one hypothesis has the highest correlation coefficient which is H_1, stated as 0.645. This proved that the relationship between all the variables has a positive significant relationship towards customer engagement. The findings were consistent with the study of Kaytoue *et al*. (2019) that showed live streaming has transformed entertainment and social trade in the way that more individuals see others engaging in live-streaming activities than do the activity on its own.

5.4 Limitation of Study

Just like other studies, this study also has its own limitations in order to complete this research. First limitation is the selection of the respondents. Since this study has chosen respondents which are Malaysian online shopping users among Gen Z, the result will not represent the whole Malaysian because it just includes Gen Z, this study focused on Gen Z only while not other generations that are available. Another limitation is that this study used only a quantitative method, not a qualitative method, so that the respondents cannot express their opinions because they only need to select the information and answer options that have already been prepared for the questionnaire. Lastly, the limitation of

limited time period for data collection, where gathering data information from a large number of people in a short period of time.

5.5 Recommendation for Future Research

There are some suggestions for future research to improve the model and the results. The first recommendation is that the target population of respondents should not be limited to Malaysian internet shopping among Gen Z but should be broadened to include people of all ages or open to everyone. For future research, the researchers can employ different methodologies, such as the qualitative method, to investigate the role of live streaming in increasing customer engagement in online shopping. Furthermore, the time period for data collection can be extended in order to obtain more information from respondents as a result, researchers may simulate similar studies involving online shoppers to determine differences in various areas. Lastly, the questionnaire questions distributed to respondents should be simple and easy for respondents to be able to answer the questionnaire more easily.

5.6 Conclusion

Live streaming plays an important role in online shopping as it will influence customer engagement. The objectives of the study are to investigate the level of security toward intention of adoption among Gen Z as well as to examine the level of intention towards online shopping among Gen Z.

As a conclusion, the result shows that there is a positive significant relationship between utilitarian, hedonic value and symbolic value with customer engagement in online shopping among Gen Z. As a whole, one hypothesis has a highest correlation coefficient which is H_1, stated as 0.645. This proved that the relationship between all the variables has a positive significant relationship towards customer engagement. Therefore, all three objectives that have been stated in the early of this study have been achieved. Hence, this research can contribute to enhancing the knowledge for the future researcher to understand the respondents' perceptions on the role of live streaming towards customer engagement in online shopping among Gen Z.

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