

THE INFLUENCE OF MARKETING MIX ON PURCHASING DECISIONS ON E-COMMERCE LIVE STREAMING PLATFORMS

Rizky Nanda Verina¹, Rininta Nurrachmi², Afif Zaerofi³

Institut Agama Islam Tazkia, Indonesia

rizkynanda.verina@gmail.com

Article Info:

Submitted:	Revised:	Accepted:	Published:
Mar 1, 2023	Mar 20, 2023	Mar 23, 2023	Mar 26, 2024

Abstract

This study aims to examine the influence of marketing mix (product, price, promotion, people, and process) on purchasing decisions on E-commerce Live streaming platforms such as Shopee Live and Tiktok Live. The population of this study is consumers in Indonesia who have shopped through Live streaming commerce. The type of research used is quantitative research. Data analysis techniques using Structural Equation Modeling (SEM) and data processing using Partial Least Square (PLS) analysis with Smart PLS 3.2.9 applications. The research sample was 252 respondents, data were obtained using questionnaires with a Likert scale of 1-6. The results showed that price, promotion and people had a positive and significant effect on purchasing decisions. While products and processes do not have a significant effect on purchasing decisions in live streaming commerce.

Keywords: Marketing mix, Purchasing decisions, Sharia Business Ethics, Live streaming commerce

INTRODUCTION

The Covid-19 pandemic that has hit all countries has also changed existing policies, especially in Indonesia itself, where this policy has resulted in a change in behavior where consumers are more likely to choose to shop from home rather than go directly to the store. This behavior encourages sellers to adopt an approach that uses online media as a distribution channel to increase sellers in live streaming commerce (LSC). In the age of social commerce, marketers are using live streaming commerce (LSC) as a buying and selling channel. LSC has several advantages, namely, making it easy for consumers to make purchasing decisions, shortening the supply chain by eliminating intermediaries and realizing sales in direct interaction with hosts (Hu & Chaudhry, 2020).

Sellers are leveraging marketplace platforms like Shopee and social media platforms like Tik-Tok to reach a wider audience and increase sales. In the past, the majority of people used conventional methods in shopping. Sellers in conventional *e-commerce* display products through text, images, and videos (Zhang & Zhang, 2020). Traditional online stores are slowly losing popularity, making room for more sophisticated and interactive social platforms where people are more willing to share knowledge about products and services, rather than relying solely on images and text such as likes, ratings, and comments (Ho & Rajadurai, 2019).

There is an explanation for this change in shopping behavior. Studies conducted Madrigal Moreno et al. (2016) revealed that internet technology has changed human lifestyles by providing increased welfare through various product choices, lower prices, unlimited access to information, and expanding distribution channels. Other studies have also shown that shopping through technology can be done without the need for direct meetings between sellers and buyers (Ha et al., 2015), thereby reducing obstacles in the transaction process (Öztamur & Karakadılar, 2014)

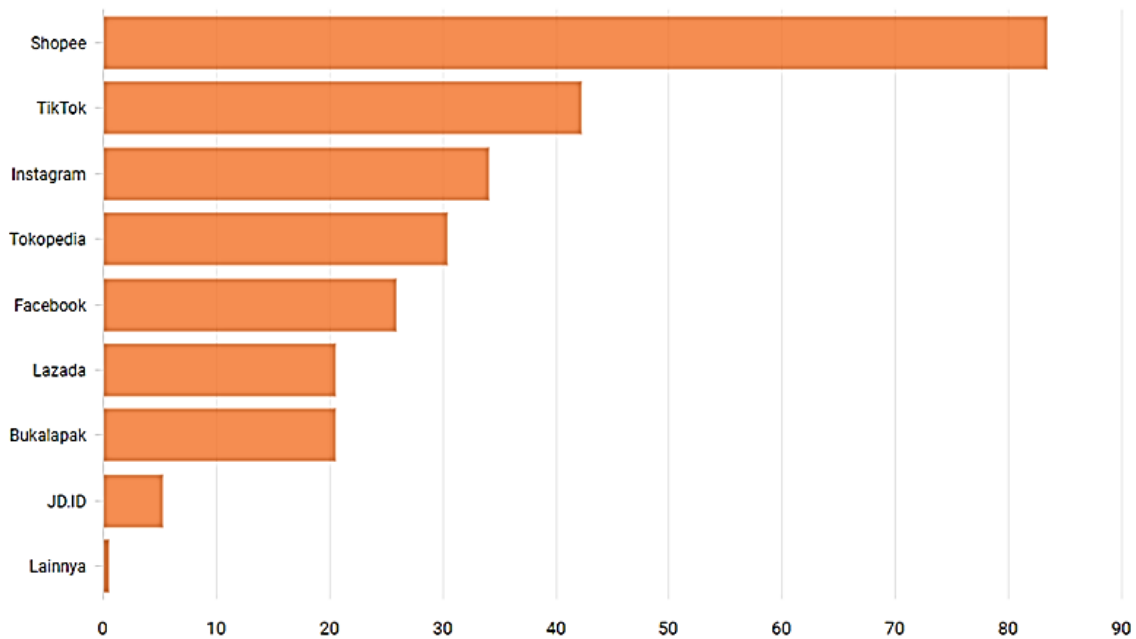


Figure 1. Features of Live streaming commerce in Indonesia

As many as 83.7% of Indonesians have watched live shopping through online shopping features. Shopee is the platform with the most live shopping users, reaching 83.4%, followed by TikTok with a percentage of 42.2%. Instagram is used by 34.1% of respondents for live shopping. Tokopedia and Facebook ranked fourth and fifth, with a percentage of live shopping users of 30.4% and 25.9% respectively. Furthermore, Lazada and Bukalapak were used by 20.5% of respondents, respectively, while JD.ID and other platforms were used by 5.2% and 0.5% of respondents. In live shopping, the most popular products to watch included clothing (82.6%), beauty products (47.2%), homewares (39.3%), food (30.7%), plants (9.8%), and other categories (4.9%). In this survey, 55% of respondents reported having purchased goods through live shopping, 45% of others have never purchased (Jakapat Survey, 2022).

When viewed in terms of age, the majority of people in charge or owners of e-commerce businesses in 2022 are in the range of 35-44 years (34.47 percent) and 25-34 years (23.37 percent). This age belongs to the Millennial Generation, the majority of whom interact with the rapid development of technology including e-commerce. When viewed in terms of gender, the results of the 2022 e-commerce survey show that 53.85 percent of business persons and workers have a male gender (BPS, 2022).

LSC increases confidence in digital marketing because it engages consumers in conversations in real time with online stores, which encourages consumers to pay more

attention to the products being promoted. In addition, LSC also provides opportunities to small retailers to build closer relationships with consumers. It is important to remember that closer engagement with online stores plays an important role in purchasing decision making (Ho & Rajadurai, 2019).

Most of the research on the attractiveness of advertising is on influencers as attractive human resources (Sompel & Vermeir, 2016). Some researchers use Influencers to explain the attractiveness of advertising, emphasizing persuasive ability to communicate (Deshields et al., 1996), individual behavior (Sompel & Vermeir, 2016), culture (Liu & Brock, 2011), and body shapes that can change the general view (Bower, 2001). In addition, the influence of influencers in marketing activities can have a positive effect on purchasing decisions. Influencers tend to use their expertise within specific markets to differentiate the products they recommend to the target market (Hudders & Lou, 2022). However, the use of influencers in marketing can also have a negative impact, especially on consumer behavior and also the credibility and reputation of these influencers (Leban et al., 2021).

One of the problems in Live streaming commerce (LSC) is the cancellation of unilateral buying and selling and is often done from the consumer. This is usually influenced by impulse buying conditions. Some of these include sellers encouraging viewers to make impulse purchases, and sometimes cooperation between creators and merchants can present inaccurate information to sellers. At LSC, creators are dominant in the shopping process, but information from third parties has less influence on sellers. All of this can lead content creators to pass on false information for additional benefits (Yi, 2020).

In addition, the problem that often arises is about how information is conveyed to many people at once. Although this method can make streamers more efficient in providing information to buyers, the information received by all buyers is the same. This is important because time saved is a key factor in how we shop, but experienced shoppers may find information repetitive and wasted time. In addition, repeated product sales in live streaming can also reduce buyer interest in shopping (Koyuncu & Bhattacharya, 2004; Heijden et al., 2003).

It is important for all parties to remain careful, conscientious and responsible in using the LSC platform to minimize any negative impacts that may occur. In addition, the

variety of products that are suitable but the goods obtained vary in quality, so the LSC feature is used to demonstrate products, answer customer questions in real time and to encourage customers to buy at the store during LSC (Lu et al., 2018).

Some negative impacts that can be felt by both sellers and buyers. Negative impacts for sellers include intense competition, reduced prices, and difficulty differentiating products. Meanwhile, negative impacts for buyers include addiction, impulse purchases, fraud, and product quality that does not match expectations. Prophet Muhammad (peace be upon him) also stressed that sellers should not mix good quality products with poor quality products, and they should sell products only after knowing everything about their quality. This shows that honesty and the provision of high-quality products are essential in achieving consumer satisfaction from an Islamic perspective.

In the hadith of the Prophet Muhammad, Allah SWT will not speak to those who commit perjury in the hereafter. The Prophet Muhammad said: It means *"There are three classes that God will not speak to on the Day of Judgment: those who exaggerate the gifts they give, those who sell their wares with perjury, and those who scabbard"* (H.R. Muslim).

Uncertainty in online transactions poses a potential risk to customers. To combat this, companies must take precautions by building trust. Before making a purchase decision, customers might assess the extent of an ad's attractiveness (Kergoat et al., 2017; Munnukka et al., 2016), anyone who is an influence in marketing and they might do a review of existing catalogs (Ha et al., 2015; Senecal & Nantel, 2004). In addition, customers may face uncertainty while making online transactions. For example, customers may worry that the virtual disclosure of personal information will be misused by others (Zhong, 2019), as well as products that do not meet expectations. From these considerations, customers will assess the integrity of online companies (Mukherjee & Nath, 2007). Thus, it can be seen that in conditions of uncertainty and risk, the integrity of online companies is essential in helping customers gain trust in online activities.

Based on the background and previous research found many problems and various research results found (research gap), this study focuses on the influence caused by product, price, promotion, people and process in Live streaming commerce (LSC), on purchasing decisions.

METHODS

This research is an empirical study that uses a quantitative approach to explain certain events or occurrences through descriptive research. The study population is users of live streaming commerce platforms (Shopee Live and TikTok Live) in Indonesia aged between 25 to 45 years who have shopped through the LSC feature. With job status as students, housewives, private employees, civil servants, employees of SOEs and entrepreneurs. The educational background is from high school to undergraduate, while the geographical scope of this study is the domicile area of Indonesia which is not limited by islands, provinces, cities or certain regions. The study respondents were divided into three groups of Indonesian regions, namely Jabodetabek domicile (Jakarta, Bogor, Depok, Tangerang and Bekasi), Java (Non-Jabodetabek) and outside Java.

Primary data is data collected directly from users of LSC ecommerce features and potential buyers. The data needed in the study 'The Effect of Marketing Mix on Purchasing Decisions on Live Streaming Commerce Platforms Streaming E-commerce, comes from primary data sources. Primary data collection techniques that can be used include interviews, questionnaires, observations, and experiments. The data used in this study were primary data collected through questionnaires. It uses six Likert scales to measure questionnaire responses. Some data collection techniques that can be used in this study are by conducting questionnaires. Questionnaires can be sent via email or distributed online through survey platforms such as Google Forms. Questionnaires may contain structured or open-ended questions related to respondents' experiences and perceptions of LSC ecommerce features.

Table 1. Research Variables

No	Research Variables	Source	Indicators
1	<i>Purchase Decision</i>	Nicosia & Mayer; Guan (2021)	1. Purchasing decisions I make based on brand. 2. Purchasing decisions are taken. based on price considerations. 3. Purchasing decisions are based on trust. 4. Ease of shopping. 5. Good Live Quality. 6. Price according to benefits.

No	Research Variables	Source	Indicators
2	<i>Quality of Product</i>	Nguyen et al. (2018)	1. Products reflect fashion trends. 2. Merchandise is sold exclusively through live streaming shopping. 3. Products have a good price and high quality. 4. Useful products. 5. Halal products. 6. The product does not contain harmful ingredients.
3	<i>Price</i>	Saleem et al. (2018); Singh (2019)	1. Holiday discounts (for example, certain special dates). 2. Discounted prices are only available during live shopping. 3. The price is lower than the market price. 4. Pricing does not hurt consumers. 5. Fair price competition.
4	<i>Promotion</i>	Sohn & Kim (2020); Singh (2019)	1. Some promotional activities (e.g., free gift with purchase, free shipping, buy one get one free). 2. Limited time flash sale) launched. 3. Special discounts on Live. 4. Adequate commodity information is provided (such as materials, commodity market price, initial bid price, highest bid price). 5. The broadcast time was announced in advance. 6. Not exaggerating without being comparable to the quality of the product.
5	<i>People (Host)</i>	Xu et al. (2020); Kuswaha et al. (2015)	1. The host has good presentation skills to showcase the product. 2. The host is knowledgeable about the product. 3. Host good looking. 4. The host's outfit matches the mood of the product. 5. Famous host. 6. The host tells the truth about the product.
6	<i>Process</i>	Hou et al. (2020); Ming et al. (2017); Wilson (2012)	1. Pay attention to customer privacy and security. 2. Various payment methods. 3. Perseverance in the buying and selling process. 4. Perseverance in the buying and selling process. 5. Avoid usury payments.

In this study, the Structural Equation Modeling (SEM) analysis method was used through Smart PLS. SEM is used to test effects in relationships that have been described in assumptions or research questions (Cheung & Rensvold, 2002). The hypothesis in this study is that product, price, promotion, people, and process have a positive influence on purchase decisions. The results of SEM analysis will provide a deeper understanding of how product, price, promotion, people, and process variables affect purchase decisions in the context of live streaming commerce business. It can be used to design more effective marketing strategies, identify factors that need improvement or improvement, and optimize purchase decision making.

RESULTS AND DISCUSSION

Descriptive analysis of respondents' responses was carried out to determine respondents' responses to the questionnaire given. From this analysis, it is known whether respondents can understand the contents of the research questionnaire and are able to fill it out properly. At this stage, respondents can also provide responses or comments about the research questionnaire if one of the question items is found to be irrelevant. The descriptive analysis of respondents' responses in this study was carried out using the Likert scale in measuring each respondent's answer item.

$$IK = \frac{STt - STr}{JK}$$

Information:

IK : Class Interval

STt : Highest Score is 6

STr : Lowest Score is 1

JK : Number of Classes is 6

So based on the formula above, the calculation becomes:

$$IK = \frac{6 - 1}{6}$$

Thus it is known that the class interval is 0.83. Then the criteria for assessing the average answers of respondents by Sugiyono (2016) were compiled, as presented in Tables 2 below:

Table 2. Variable Class Interval

Interval	Category	Value Weighting
1 - 1,83	Strongly Disagree	1
1,84 - 2,67	Disagree	2
2,68 - 3,50	Disagree Less	3
3,51 - 4,33	Simply Agree	4
4,34 - 5,17	Agree	5
5,18 - 6,00	Totally Agree	6

A recapitulation of the results of respondents' responses is shown in the table in Appendix 3. with the following discussion on.

Table 3. Recapitulation of Respondents' Responses

No	Product Quality (PRD)	SS (6)	S (5)	CS (4)	KS (3)	TS (2)	STS (1)	N	Mean
1	Products reflect fashion trends	95	93	55	7	2	0	252	5,08
2	Merchandise is sold exclusively through live streaming shopping	89	115	43	2	3	0	252	5,13
3	Products have a good price and high quality	106	103	43	0	0	0	252	5,25
4	Useful products	89	96	61	3	2	1	252	5,05
5	Halal products	107	110	32	3	0	0	252	5,27
6	The product does not contain harmful ingredients	107	96	42	5	2	0	252	5,19

No	Product Quality (PRD)	SS (6)	S (5)	CS (4)	KS (3)	TS (2)	STS (1)	N	Mean
1	Holiday discounts (for example, certain special dates)	112	92	40	5	3	0	252	5,21
2	Discounted prices are only available during live shopping	117	98	32	3	2	0	252	5,29
3	The price is lower than the market price	102	107	38	3	2	0	252	5,21
4	Pricing does not hurt consumers	85	124	34	7	2	0	252	5,12
5	Fair price competition	86	116	42	7	1	0	252	5,11
No	People (PEO)	SS (6)	S (5)	CS (4)	KS (3)	TS (2)	STS (1)	N	Mean
1	The host has good presentation skills to showcase the product	110	109	29	3	0	1	252	5,28
2	Host good looking	70	83	75	11	6	7	252	4,71
3	The host is knowledgeable about the product	107	102	41	2	0	0	252	5,25
4	The host's outfit matches the mood of the product	97	103	43	6	0	3	252	5,12
5	Famous host	40	117	71	15	6	3	252	4,64
6	The host tells the truth about the product	101	112	32	3	3	1	252	5,20

No	Product Quality (PRD)	SS (6)	S (5)	CS (4)	KS (3)	TS (2)	STS (1)	N	Mean
1	Purchasing decisions I make based on brand	100	116	33	1	2	0	252	5,23
2	Purchasing decisions are taken. based on price considerations	103	125	22	0	2	0	252	5,30
3	Purchasing decisions are based on trust	132	107	13	0	0	0	252	5,47
4	Ease of shopping	94	120	35	3	0	0	252	5,21
5	Good Live Quality	89	121	39	2	1	0	252	5,17
6	Price according to benefits	96	117	37	2	0	0	252	5,22
No	Promotion (PRM)	SS (6)	S (5)	CS (4)	KS (3)	TS (2)	STS (1)	N	Mean
1	Limited time flash sale launched	107	95	43	3	4	0	252	5,18
2	Some promotional activities (e.g., free gift with purchase, free shipping, buy one get one free)	14	142	81	9	4	2	252	4,58
3	Adequate commodity information is provided (such as materials, commodity market price, initial bid price, and highest bid price)	90	120	39	2	1	0	252	5,17

No	Product Quality (PRD)	SS (6)	S (5)	CS (4)	KS (3)	TS (2)	STS (1)	N	Mean
4	The broadcast time was announced in advance	86	105	55	2	3	0	252	5,07
5	Not exaggerating without being comparable to the quality of the product	102	105	39	4	2	0	252	5,19
6	Special discounts on Live	106	107	35	2	2	0	252	5,24
No	Process (PRO)	SS (6)	S (5)	CS (4)	KS (3)	TS (2)	STS (1)	N	Mean
1	Pay attention to customer privacy and security	99	115	38	0	0	0	252	5,24
2	Various payment methods	115	96	39	2	0	0	252	5,29
3	Perseverance in the buying and selling process	106	106	38	1	0	1	252	5,25
4	Honest buying and selling transactions	99	120	32	1	0	0	252	5,26
5	Avoid usury payments	110	106	35	1	0	0	252	5,29

Based on the table, the results of respondents' responses to product quality variables generally agree with the statements on the questionnaire distributed. The highest indicator is in the 5th statement indicating consumers avoid products that are doubtful of halal, with an average value of 5.27 then respondents strongly agree with both statements. While the lowest indicator is in the 4th statement, namely the exclusivity of products that are still questioned by consumers with an average value of 5.05, indicating respondents agree with the statement.

The results of respondents' responses to the price variable generally agreed with the statements on the questionnaire distributed. The highest indicator is in the 2nd statement stating consumers like special discounts during live with an average value of 5.29, so respondents strongly agree with this statement. While the lowest indicator is in the 5th statement, namely fair price competition which is still questioned by consumers with an average value of 5.11, indicating respondents agree with this statement.

The results of respondents' responses to the promotion variable generally agreed with the statements on the questionnaire distributed. The highest indicator is in the 6th statement, indicating consumers buy products when there is a special discount during the live with an average value of 5.24, so respondents strongly agree with this statement. While the lowest indicator is in the 2nd statement, namely lucky draw during the live, consumers are still questionable with an average value of 4.58 which shows respondents agree with this statement.

Based on the table, the results of respondents' responses to the people variable generally agree with the statements to the questionnaire distributed. The highest indicator is in the 1st statement, namely consumers feel the host is friendly and enthusiastic with an average value of 5.28, so respondents strongly agree with this statement. While the lowest indicator is in the 5th statement, which is a well-known host that is still questioned by consumers with an average value of 4.64 which shows respondents agree with the statement.

Based on the table, the results of respondents' responses to process variables generally agree with the statements to the questionnaire distributed. The highest indicator is in the 5th statement, namely consumers avoid payment transactions containing riba with an average value of 5.29, so respondents strongly agree with this statement. While the lowest indicator is in the 1st statement, namely consumer privacy which is still questionable with an average value of 5.24 which shows respondents strongly agree with the statement.

Based on the table, the results of respondents' responses to the purchase decision variables generally agree with the statements on the questionnaire distributed. The highest indicator is in the 3rd statement, namely consumers feel the seller can be trusted with an average value of 5.47, so respondents strongly agree with this statement. While the lowest indicator is in the 5th statement, namely the quality of Live which is still questioned by

consumers with an average value of 5.17 which shows respondents agree with the statement.

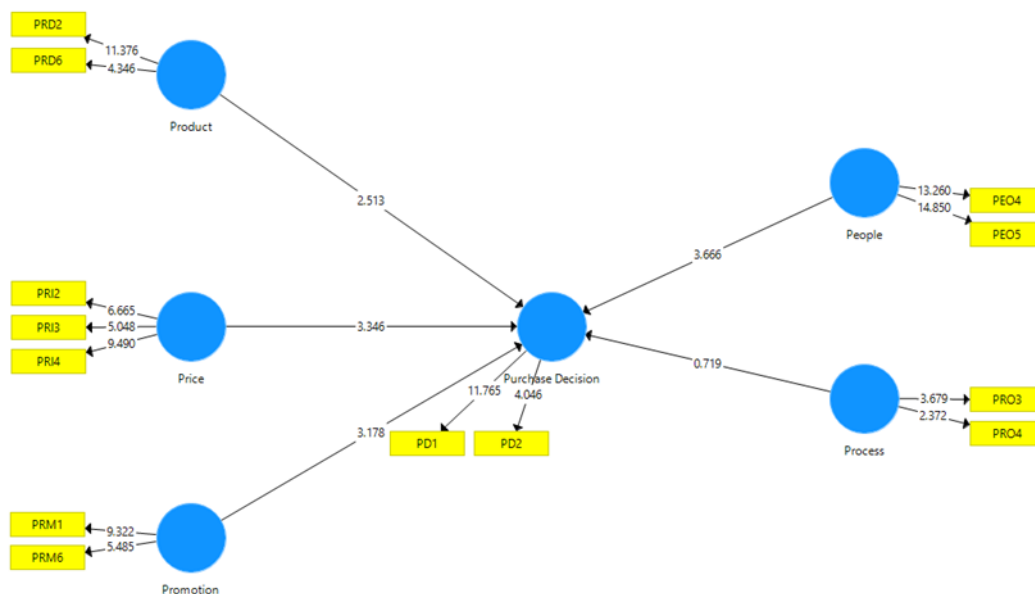
The significance of the estimated parameters provides very useful information regarding the relationship between the research variables. Since the number of observations usually exceeds this threshold, the normal quantile (Gaussian) can be used to determine critical t values (or theoretical t values) for significance testing. When the size of the resulting T-Statistics value is at least 1.960, it can be assumed that the path coefficient is significant from zero at a significance level of 5% because $\alpha = 0.05$ with a 2-tailed test. Researchers who choose a significance level of 5%, the p value must be smaller than 0.050 to make a relationship that is considered significant (Hair et al., 2017, p. 168).

The basis used in testing the hypothesis is the value contained in the output of the Path Coefficients in tables 4 below.

Tables 4. Hypothesis Testing Results

Hypothesis	<i>Original Sample (O)</i>	<i>Standard Deviation (STDEV)</i>	<i>T Statistics (O/STDEV)</i>	<i>P Values</i>	Information
<i>Quality of Product -> Purchase Decision</i>	0,156	0,062	2,513	0,012	H1 has a significant positive effect and H0 is rejected
<i>Price -> Purchase Decision</i>	0,277	0,083	3,346	0,001	H2 has a significant positive effect and H0 is rejected
<i>Promotion -> Purchase Decision</i>	0,211	0,066	3,178	0,002	H3 has a significant positive effect and H0 is rejected
<i>People -> Purchase Decision</i>	0,252	0,069	3,666	0,000	H4 has a significant positive effect and H0 is rejected
<i>Process -> Purchase Decision</i>	-0,049	0,068	0,719	0,473	<i>H5 has no effect and H0 is accepted</i>

Based on table 4 above, from the results of processing the questionnaire data distributed, analytical conclusions can be drawn to determine the truth of each hypothesis in the framework that has been made. Such information is very useful to see the influence between construct variables, with the basis used in testing hypotheses is correlation value and probability value.



Figures 2. Hypothesis Testing Results

Hypothesis 1, Hypothesis 2, Hypothesis 3, and Hypothesis 4 show that the hypothesis is supported by data so that the hypothesis is accepted because it has a significant effect so that these results are positive findings in this study. Hypothesis 5 indicates that the hypothesis is not supported by data so the hypothesis is rejected because there is no relationship.

Based on the results of the analysis of the relationship coefficient between quality of product and purchase decisions when shopping through live streaming commerce is 0.156 and the T-Statistics value of $2.513 < 1.960$ and the P-Values value of $0.012 > 0.050$ it indicates that the quality of product has a positive and significant effect on shopping decisions using the live streaming commerce feature. Regression results showing positive and significant results between product quality and purchasing decisions in the respondent profile above can be explained by several factors, including the characteristics of the majority of respondents consisting of the younger generation with undergraduate

education backgrounds, middle income levels, and the dominance of the Jabodetabek area which demands higher standards and expectations for products, so that the products offered must meet quality expectations and higher benefits to significantly influence purchasing decisions.

The following paragraph teaches the importance of doing legitimate and honest business, so that in the context of live streaming commerce, sellers must advertise products honestly and not deceive consumers.

"Men of faith, do not eat one another's property in a foolish way, except by consensual business among you" (Quran, Surah An-Nisa : 29).

The concept of products carried out by Muhammad SAW always explains well to buyers the advantages and disadvantages of the products he sells Muhammad SAW said, in (HR Muslim; Hakim bin Hizam RA):

"Two people who buy and sell each have the right to vote (to continue the trade or not) as long as they have never separated. If both of them are honest and frankly explaining (the state of the goods being traded), then both will get a blessing from their buying and selling but if they lie and hide defects, their trade is gone".

This above hadith emphasizes the importance of honesty in trading and reminds sellers not to lie or deceive buyers when selling products in live streaming commerce.

Based on the results of the analysis of the relationship coefficient between price and purchase decisions when shopping through live streaming commerce is 0.277 and the T-Statistics value is $3.346 > 1.960$ and the P-Values value is $0.001 < 0.050$, it indicates that price has a positive and significant effect on shopping decisions using the live streaming commerce feature (LSC). Based on these results, it can be concluded that consumer purchasing decisions depend on the price of the product. If the price of the product is in accordance with the ability or reasonable for the consumer, then most likely the consumer is willing to make a purchase. E-commerce live streaming platforms usually offer many discounts for their viewers so they tend to have a big impact on consumer purchasing decisions. The results of this study are in line with the results of Rares & Jorie (2015) research that price has a very significant role in every aspect of marketing, and is an important tool to influence the purchase decision of a desired product or service.

In the context of live streaming commerce, merchants must set reasonable prices and not disappoint consumers. The following verse warns against manipulating prices or engaging in unfair practices in trading.

"And do not eat of the treasures of your neighbors in a vanity way, and do not give up some of the treasures of others to the judge (to be eaten) by you with (the intent) that you may eat some of the treasures of men with sin, when you know" (Quran, Surah Al-Baqarah : 188).

Hadith from Abdullah bin Umar, the Prophet (peace be upon him) said, *"Indeed, the most blessed merchandise is the easiest price and payment"* (HR. Ahmad).

This above hadith emphasizes the importance of maintaining a balance in fair pricing and easy payment for buyers in commercial transactions.

Based on the results of the analysis of the relationship coefficient between promotion and purchase decisions when shopping through live streaming commerce is 0.211 and the T-Statistics value is $3.178 > 1.960$ and the P-Values value is $0.002 < 0.05$, it indicates that promotion has a positive and significant effect on shopping decisions using the live streaming commerce feature. This means that consumers will want to buy products through e-commerce live streaming platforms that offer many promotions, such as discounts from stores or discounts from e-commerce itself. Usually, these promos can only be claimed if consumers watch live streaming from e-commerce platforms. In a hadith it is stated: Ibn Umar said: A man complained to the Prophet, *"I have been deceived in buying and selling"* So he said, Say to the person with whom you are trading, *"You must not cheat!"* Since then, if he transacts buying and selling, he says so. (HR. Bukhari). The hadith can be used as a guideline for promotional efforts carried out by the company, both in the context of marketing products or services to the public with the aim of conveying honest and appropriate information, so as not to contain elements of fraud that can harm consumers or customers.

Based on the results of the analysis, the coefficient of relationship between people and purchase decisions when shopping through live streaming commerce is 0.252 and the T-Statistics value is $3.666 > 1.960$ and the P-Values value is $0.000 < 0.050$, indicating that people have a positive and significant influence on shopping decisions using the live streaming commerce feature. These results show that in purchase decisions, consumers tend to consider the store or seller of the product they want. Consumers usually look for live streaming from stores that have a good image, or branding that is popular in the

market. In the case of e-commerce live streaming platforms, the people element is not only defined as a seller or store, but also a talent or host in the live stream being broadcast. Usually, stores will look for famous influencers to host their live streams to attract a lot of consumer interest.

CONCLUSION

Based on the results of research analysis and discussions that have been carried out, there are several conclusions about the influence of variables on purchase decisions when shopping through live streaming commerce. Variables that have a positive and significant influence on purchasing decisions are quality of product, price, promotion, people. However, there is an interesting finding that process variables do not have a significant influence on purchasing decisions through live streaming commerce.

Product aspects, such as the quality and characteristics of products offered through live streaming commerce, are proven to have a positive and significant influence on purchasing decisions. This suggests that in the live streaming shopping experience, product factors may be the dominant factor in influencing purchase decisions. Other factors, such as interaction with the host or promotional offers, may have an influence as well.

Second, the price factor has an important impact on purchasing decisions. This positive and significant influence indicates that the price set in live streaming commerce has a crucial role in influencing customer purchase decisions. Discounts, special offers, and competitive prices can be the main factors influencing customers in making purchases.

Third, the promotional aspect has also been shown to have a positive and significant influence on purchasing decisions. The implication is that effective promotional strategies, such as exclusive offers or special incentives for live streaming purchases, have the potential to drive customer interest in making purchases.

Fourth, the variable of social interaction between customers and hosts (people) in live streaming commerce has a positive and significant influence on purchasing decisions. Interpersonal factors, such as social relationships and personal influences, may play an important role in persuading customers to make a purchase.

Fifth, although the stages of the transaction process in live streaming commerce (process) are not shown to have any effect, this does not indicate that the purchase process is irrelevant. However, these results suggest that customers' attention may be more focused on other factors in influencing their purchasing decisions. Taken together, these findings affirm the importance of pricing strategies, effective promotions, and social interaction in influencing purchasing decisions in a live streaming commerce environment.

Nonetheless, product characteristics and transaction processes may have a lower or insignificant impact on customer purchase decision making in this context. The implication is that companies and live streaming commerce platforms can use these findings to direct their marketing efforts more effectively, with the goal of improving customer effectiveness and shopping experience.

Limitations that can be identified in the preparation of this thesis include limitations of this research data may be limited to primary data obtained through surveys or interviews. Secondary data or data captured from a particular live streaming platform may not cover the entire picture of live streaming commerce practices.

REFERENCES

- Agnihotri, R., Rapp, A., & Trainor, K. (2009). Understanding the role of information communication in the buyer-seller exchange process: Antecedents and outcomes. *Journal of Business and Industrial Marketing*, 24(7), 474–486. <https://doi.org/10.1108/08858620910986712>
- Ali, Z. M. (n.d.). *Etika Jual Beli Online Dalam Islam Online Business Ethics in Islam*. www.jurnal.ugm.ac.id
- Al-Salem, S. M. (2019). Influential parameters on natural weathering under harsh climatic conditions of mechanically recycled plastic film specimens. *Journal of Environmental Management*, 230, 355–365. <https://doi.org/10.1016/j.jenvman.2018.09.044>
- Amir, I., & Widiyanti, A. (n.d.). *Celebgram Endorsement And Product Quality, How Does It Influence The Interest To Shop Online?*
- Andreti, J., Zhafira, N. H., Akmal, S. S., & Kumar, S. (n.d.). *The Analysis of Product, Price, Place, Promotion and Service Quality on Customers' Buying Decision of Convenience Store: A Survey of Young Adult in Bekasi, West Java, Indonesia*. 2. www.managementjournal.info
- Arief, M., Mustikowati, R. I., & Chrismardani, Y. (n.d.). *Why customers buy an online product? The effects of advertising attractiveness, influencer marketing and online customer reviews*. <https://doi.org/10.1108/LBSJMR-09-2022-0052>
- Booms, B. H., & Bitner, M. J. (n.d.). *Marketing Services by Managing the Environment How hospitality managers can combine current service-marketing strategies with environmental-psychology theories to satisfy their customers*.

- Bower, A. B. (2001). Highly attractive models in advertising and the women who loathe them: The implications of negative affect for spokesperson effectiveness. *Journal of Advertising*, 30(3), 51–63. <https://doi.org/10.1080/00913367.2001.10673645>
- Cai, J., Wohn, D. Y., Mittal, A., & Sureshbabu, D. (2018). Utilitarian and hedonic motivations for live streaming shopping. *TVX 2018 - Proceedings of the 2018 ACM International Conference on Interactive Experiences for TV and Online Video*, 81–88. <https://doi.org/10.1145/3210825.3210837>
- Chen, C. C., & Lin, Y. C. (2018). What drives live-stream usage intention? The perspectives of flow, entertainment, social interaction, and endorsement. *Telematics and Informatics*, 35(1), 293–303. <https://doi.org/10.1016/j.tele.2017.12.003>
- Chetoui, Y., Benlafqih, H., & Lebdaoui, H. (2020). How fashion influencers contribute to consumers' purchase intention. *Journal of Fashion Marketing and Management*, 24(3), 361–380. <https://doi.org/10.1108/JFMM-08-2019-0157>
- Deshields, O. W. A. *, Kara, A., & Kaynak, E. (1996). Marketing Source effects in purchase decisions: The impact of physical attractiveness and accent of salesperson. In *II ELSEVIER Intern. J. of Research in Marketing* (Vol. 13).
- Fadhilla, F., & Farmania, A. (2017). E-commerce in Indonesia: Purchasing decision of shopping online. *ACM International Conference Proceeding Series, Part F128637*, 60–64. <https://doi.org/10.1145/3092027.3092043>
- Fondevila-Gascón, J. F., Polo-López, M., Rom-Rodríguez, J., & Mir-Bernal, P. (2020). Social media influence on consumer behavior: The case of mobile telephony manufacturers. *Sustainability (Switzerland)*, 12(4). <https://doi.org/10.3390/su12041506>
- Gorn, G., Pham, M. T., & Sin, L. Y. (2001). When Arousal Influences Ad Evaluation and Valence Does Not (and Vice Versa). *Journal of Consumer Psychology*, 11(1), 43–55. https://doi.org/10.1207/S15327663JCP1101_4
- Guo, J., Li, Y., Xu, Y., & Zeng, K. (2021). How Live Streaming Features Impact Consumers' Purchase Intention in the Context of Cross-Border E-Commerce? A Research Based on SOR Theory. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.767876>
- Ha, S. H., Bae, S. Y., & Son, L. K. (2015). Impact of online consumer reviews on product sales: Quantitative analysis of the source effect. *Applied Mathematics and Information Sciences*, 9(2), 373–387. <https://doi.org/10.12785/amis/092L12>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, Marko. (n.d.). *A primer on partial least squares structural equation modeling (PLS-SEM)*.
- Hanaysha, J. (2016). The Importance of Social Media Advertisements in Enhancing Brand Equity: A Study on Fast Food Restaurant Industry in Malaysia. *International Journal of Innovation, Management and Technology*, 7(2), 46–51. <https://doi.org/10.18178/ijimt.2016.7.2.643>
- Hanaysha, J. R. (2018a). An examination of the factors affecting consumer's purchase decision in the Malaysian retail market. *PSU Research Review*, 2(1), 7–23. <https://doi.org/10.1108/PRR-08-2017-0034>
- Hanaysha, J. R. (2018b). An examination of the factors affecting consumer's purchase decision in the Malaysian retail market. *PSU Research Review*, 2(1), 7–23. <https://doi.org/10.1108/PRR-08-2017-0034>

- Hanaysha, J. R. (2022). Impact of social media marketing features on consumer's purchase decision in the fast-food industry: Brand trust as a mediator. *International Journal of Information Management Data Insights*, 2(2). <https://doi.org/10.1016/j.jjimei.2022.100102>
- Heijden, H. Van Der, Verhagen, T., & Creemers, M. (2003). Understanding online purchase intentions: Contributions from technology and trust perspectives. *European Journal of Information Systems*, 12(1), 41–48. <https://doi.org/10.1057/palgrave.ejis.3000445>
- Herabadi, A. G., Verplanken, B., & Van Knippenberg, A. (2009). Consumption experience of impulse buying in Indonesia: Emotional arousal and hedonistic considerations. *Asian Journal of Social Psychology*, 12(1), 20–31. <https://doi.org/10.1111/j.1467-839X.2008.01266.x>
- Ho, C. I., Liu, Y., & Chen, M. C. (2022). Factors Influencing Watching and Purchase Intentions on Live Streaming Platforms: From a 7Ps Marketing Mix Perspective. *Information (Switzerland)*, 13(5). <https://doi.org/10.3390/info13050239>
- Ho, R. C., & Rajadurai, K. G. (2019). *Live Streaming Meets Online Shopping in the Connected World* (pp. 130–142). <https://doi.org/10.4018/978-1-5225-9697-4.ch008>
- Ho-Dac, N. N., Carson, S. J., & Moore, W. L. (2013). The Effects of Positive and Negative Online Customer Reviews: Do Brand Strength and Category Maturity Matter? *Journal of Marketing*, 77, 37–53.
- Hu, M., & Chaudhry, S. S. (2020a). Enhancing consumer engagement in e-commerce live streaming via relational bonds. *Internet Research*, 30(3), 1019–1041. <https://doi.org/10.1108/INTR-03-2019-0082>
- Hu, M., & Chaudhry, S. S. (2020b). Enhancing consumer engagement in e-commerce live streaming via relational bonds. *Internet Research*, 30(3), 1019–1041. <https://doi.org/10.1108/INTR-03-2019-0082>
- Hudders, L., & Lou, C. (2022). A new era of influencer marketing: Lessons from Recent Inquires and Thoughts on Future Directions. In *International Journal of Advertising* (Vol. 41, Issue 1, pp. 1–5). Taylor and Francis Ltd. <https://doi.org/10.1080/02650487.2022.2031729>
- Keeling, K., McGoldrick, P., & Beatty, S. (2010). Avatars as salespeople: Communication style, trust, and intentions. *Journal of Business Research*, 63(8), 793–800. <https://doi.org/10.1016/j.jbusres.2008.12.015>
- Kergoat, M., Meyer, T., & Merot, A. (2017). Picture-based persuasion in advertising: the impact of attractive pictures on verbal ad's content. *Journal of Consumer Marketing*, 34(7), 624–635. <https://doi.org/10.1108/JCM-01-2016-1691>
- Kim, H. W., Xu, Y., & Gupta, S. (2012). Which is more important in Internet shopping, perceived price or trust? *Electronic Commerce Research and Applications*, 11(3), 241–252. <https://doi.org/10.1016/j.elerap.2011.06.003>
- Köksal, Y., & Spahiu, O. (2014). The efficiency of monetary and non-monetary sales promotions on brand preference: a case of Albanian GSM companies *. *İstanbul Üniversitesi İşletme Fakültesi Dergisi Istanbul University Journal of the School of Business Cilt*, 43(2), 319–331. www.ifdergisi.org

- Koo, D. M., Kim, J. J., & Lee, S. H. (2008). Personal values as underlying motives of shopping online. *Asia Pacific Journal of Marketing and Logistics*, 20(2), 156–173. <https://doi.org/10.1108/13555850810864533>
- Kowalczyk, C. M., & Pounders, K. R. (2016). Transforming celebrities through social media: the role of authenticity and emotional attachment. *Journal of Product and Brand Management*, 25(4), 345–356. <https://doi.org/10.1108/JPBM-09-2015-0969>
- Koyuncu, C., & Bhattacharya, G. (2004). The impacts of quickness, price, payment risk, and delivery issues on on-line shopping. *Journal of Socio-Economics*, 33(2), 241–251. <https://doi.org/10.1016/j.socec.2003.12.011>
- Ladhari, R., Massa, E., & Skandrani, H. (2020). YouTube vloggers' popularity and influence: The roles of homophily, emotional attachment, and expertise. *Journal of Retailing and Consumer Services*, 54. <https://doi.org/10.1016/j.jretconser.2019.102027>
- Leban, M., Thomsen, T. U., von Wallpach, S., & Voyer, B. G. (2021). Constructing Personas: How High-Net-Worth Social Media Influencers Reconcile Ethicality and Living a Luxury Lifestyle. *Journal of Business Ethics*, 169(2), 225–239. <https://doi.org/10.1007/s10551-020-04485-6>
- Lee, C. H., & Chen, C. W. (2021). Impulse buying behaviors in live streaming commerce based on the stimulus-organism-response framework. *Information (Switzerland)*, 12(6). <https://doi.org/10.3390/info12060241>
- Lien, C. H., Wen, M. J., Huang, L. C., & Wu, K. L. (2015). Online hotel booking: The effects of brand image, price, trust and value on purchase intentions. *Asia Pacific Management Review*, 20(4), 210–218. <https://doi.org/10.1016/j.apmr.2015.03.005>
- Liu, M. T., & Brock, J. L. (2011). Selecting a female athlete endorser in China: The effect of attractiveness, match-up, and consumer gender difference. *European Journal of Marketing*, 45(7), 1214–1235. <https://doi.org/10.1108/03090561111137688>
- Lo, P. S., Dwivedi, Y. K., Wei-Han Tan, G., Ooi, K. B., Cheng-Xi Aw, E., & Metri, B. (2022). Why do consumers buy impulsively during live streaming? A deep learning-based dual-stage SEM-ANN analysis. *Journal of Business Research*, 147, 325–337. <https://doi.org/10.1016/j.jbusres.2022.04.013>
- Lou, C., & Yuan, S. (2019). Influencer Marketing: How Message Value and Credibility Affect Consumer Trust of Branded Content on Social Media. *Journal of Interactive Advertising*, 19(1), 58–73. <https://doi.org/10.1080/15252019.2018.1533501>
- Lowry, P. B., G. J., & M. G. D. (2015). (n.d.). *SSRN-id2534937 (1)*.
- Lu, Z., Xia, H., Heo, S., & Wigdor, D. (2018). You watch, you give, and you engage: A study of live streaming practices in China. *Conference on Human Factors in Computing Systems - Proceedings, 2018-April*. <https://doi.org/10.1145/3173574.3174040>
- Ma, E., Liu, J., & Li, K. (2023). Exploring the mechanism of live streaming e-commerce anchors' language appeals on users' purchase intention. *Frontiers in Psychology*, 14. <https://doi.org/10.3389/fpsyg.2023.1109092>
- Madrigal Moreno, S., Alfaro Calderón, G. G., & Madrigal Moreno, F. (2016). Social Media Marketing Perspectives in the Organization in Morelia, Mexico. *International Journal of Marketing Studies*, 8(2), 128. <https://doi.org/10.5539/ijms.v8n2p128>

- Marriott, H. R., & Williams, M. D. (2018). Exploring consumers perceived risk and trust for mobile shopping: A theoretical framework and empirical study. *Journal of Retailing and Consumer Services*, 42, 133–146. <https://doi.org/10.1016/j.jretconser.2018.01.017>
- Mehrabian, A. (1996). Analysis of the big-five personality factors in terms of the PAD temperament model. *Australian Journal of Psychology*, 48(2), 86–92. <https://doi.org/10.1080/00049539608259510>
- Mertzanis, C. (2016). The absorption of financial services in an Islamic environment. *Journal of Economic Behavior and Organization*, 132, 216–236. <https://doi.org/10.1016/j.jebo.2016.10.025>
- Ming, J., Jianqiu, Z., Bilal, M., Akram, U., & Fan, M. (2021). How social presence influences impulse buying behavior in live streaming commerce? The role of S-O-R theory. *International Journal of Web Information Systems*, 17(4), 300–320. <https://doi.org/10.1108/IJWIS-02-2021-0012>
- Moser, C., Schoenebeck, S. Y., & Resnick, P. (2019, May 2). Impulse buying: Design practices and consumer needs. *Conference on Human Factors in Computing Systems - Proceedings*. <https://doi.org/10.1145/3290605.3300472>
- Mukherjee, A., & Nath, P. (2007). Role of electronic trust in online retailing: A re-examination of the commitment-trust theory. *European Journal of Marketing*, 41(9–10), 1173–1202. <https://doi.org/10.1108/03090560710773390>
- Munnukka, J., Uusitalo, O., & Toivonen, H. (2016). Credibility of a peer endorser and advertising effectiveness. *Journal of Consumer Marketing*, 33(3), 182–192. <https://doi.org/10.1108/JCM-11-2014-1221>
- Nafees, L., Cook, C. M., Nikolov, A. N., & Stoddard, J. E. (2021a). Can social media influencer (SMI) power influence consumer brand attitudes? The mediating role of perceived SMI credibility. *Digital Business*, 1(2). <https://doi.org/10.1016/j.digbus.2021.100008>
- Nafees, L., Cook, C. M., Nikolov, A. N., & Stoddard, J. E. (2021b). Can social media influencer (SMI) power influence consumer brand attitudes? The mediating role of perceived SMI credibility. *Digital Business*, 1(2). <https://doi.org/10.1016/j.digbus.2021.100008>
- Nguyen, D. H., de Leeuw, S., & Dullaert, W. E. H. (2018). Consumer Behaviour and Order Fulfilment in Online Retailing: A Systematic Review. In *International Journal of Management Reviews* (Vol. 20, Issue 2, pp. 255–276). Blackwell Publishing Ltd. <https://doi.org/10.1111/ijmr.12129>
- Nurhandayani, A., Syarief, R., Syarief, R., & Najib, M. (2019). The Impact of Social Media Influencer and Brand Images to Purchase Intention. *Universitas Bravijaya Journal of Applied Management (JAM)*, 17(4), 650–661. <https://doi.org/10.21776/ub.jam.2019.017.04.09>
- Ozmen, E. S., ÖNer, M. A., Khosrowshahi, F., & Underwood, J. (2014). Smes' purchasing habits: A procurement maturity model for stakeholders. *SAGE Open*, 4(2). <https://doi.org/10.1177/2158244014536405>
- Öztamur, D., & Karakadılar, İ. S. (2014). Exploring the Role of Social Media for SMEs: As a New Marketing Strategy Tool for the Firm Performance Perspective. *Procedia - Social and Behavioral Sciences*, 150, 511–520. <https://doi.org/10.1016/j.sbspro.2014.09.067>

- PB Lowry, J. G. G. M. (n.d.). *SSRN-id2534937* (3).
- Peukert, C., Pfeiffer, J., Meißner, M., Pfeiffer, T., & Weinhardt, C. (2019). Shopping in Virtual Reality Stores: The Influence of Immersion on System Adoption. *Journal of Management Information Systems*, 36(3), 755–788. <https://doi.org/10.1080/07421222.2019.1628889>
- Prasetyono, A. S., Suyono, J., Artaya, P., & Faviandhi, Q. (n.d.). *The Impact of Promotion and Price on Purchase Decision Consumers at Marketplace Shopee*.
- Qing, C., & Jin, S. (2022). What Drives Consumer Purchasing Intention in Live Streaming E-Commerce? *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.938726>
- Rares, A., & Jopie Jorie, R. (2015). *The Effect Of The Price, Promotion, Location, Brand Image And Quality Products Towards The Purchase Decision Of Consumers At Bengkel Gael Store Manado Town Square*. 3(2), 592–604.
- Razzaque, M. A., & Chaudhry, S. N. (2013). Religiosity and Muslim consumers' decision-making process in a non-Muslim society. *Journal of Islamic Marketing*, 4(2), 198–217. <https://doi.org/10.1108/17590831311329313>
- Rohmah, Y. M., Zaero fi, A., & Rachmawaty, R. (n.d.). IDEAS: Journal of Management and Technology The Impact Of Viral Marketing On Consumer's Trust And Purchasing Decision. *Ideas: Journal of Management and Technology*, 1(2), 22–27. <http://e-journal.president.ac.id/presunivojs/index.php/IDEAS>
- Ryu, E. A., & Han, E. K. (2021). Social media influencer's reputation: Developing and validating a multidimensional scale. *Sustainability (Switzerland)*, 13(2), 1–18. <https://doi.org/10.3390/su13020631>
- Saleem, M., Mateen Khan, M., Ekhlaque Ahmed, M., Ali Neha Shah, S., Rafiq Surti, S., & Khan, M. (2018). Online Grocery Shopping and Consumer Perception: A Case of Karachi Market in Pakistan. *Journal of Internet and E-Business Studies*, 2018. <https://doi.org/10.5171/2018>
- Santoso, A., & Sispradana, A. (2021). Analysis toward purchase decision determinant factors. *Asian Management and Business Review*, 1(2), 155–164. <https://doi.org/10.20885/ambr.vol1.iss2.art7>
- Senggetang, V., Mandey, S. L., Moniharapon, S., & Lokasi..., P. (2019). Pembelian Konsumen Pada Perumahan Kawanua Emerald City Manado The Influence Of Location, Promotion And Price Perception To Consumer Purchase On Kawanua Emerald City Manado Housing. *Jurnal EMBA*, 7(1), 881–890.
- Shiu, J. Y., Liao, S. T., & Tzeng, S. Y. (2023). How does online streaming reform e-commerce? An empirical assessment of immersive experience and social interaction in China. *Humanities and Social Sciences Communications*, 10(1). <https://doi.org/10.1057/s41599-023-01731-w>
- Singh, R. (2019). Why do online grocery shoppers switch or stay? An exploratory analysis of consumers' response to online grocery shopping experience. *International Journal of Retail and Distribution Management*, 47(12), 1300–1317. <https://doi.org/10.1108/IJRDM-10-2018-0224>
- Song, C., & Liu, Y.-L. (n.d.). *Standard-Nutzungsbedingungen*. <http://hdl.handle.net/10419/238054>

- Tien, D. H., Amaya Rivas, A. A., & Liao, Y. K. (2019). Examining the influence of customer-to-customer electronic word-of-mouth on purchase intention in social networking sites. *Asia Pacific Management Review*, 24(3), 238–249. <https://doi.org/10.1016/j.apmr.2018.06.003>
- Van de Sompel, D., & Vermeir, I. (2016). The influence of source attractiveness on self-perception and advertising effectiveness for 6- to 7-year-old children. *International Journal of Consumer Studies*, 40(5), 575–582. <https://doi.org/10.1111/ijcs.12302>
- Wang, Y., Lu, Z., Cao, P., Chu, J., Wang, H., & Wattenhofer, R. (2022a). How Live Streaming Changes Shopping Decisions in E-commerce: A Study of Live Streaming Commerce. *Computer Supported Cooperative Work: CSCW: An International Journal*, 31(4), 701–729. <https://doi.org/10.1007/s10606-022-09439-2>
- Wang, Y., Lu, Z., Cao, P., Chu, J., Wang, H., & Wattenhofer, R. (2022b). How Live Streaming Changes Shopping Decisions in E-commerce: A Study of Live Streaming Commerce. *Computer Supported Cooperative Work: CSCW: An International Journal*, 31(4), 701–729. <https://doi.org/10.1007/s10606-022-09439-2>
- Wongkitrungrueng, A., & Assarut, N. (2020). The role of live streaming in building consumer trust and engagement with social commerce sellers. *Journal of Business Research*, 117, 543–556. <https://doi.org/10.1016/j.jbusres.2018.08.032>
- Xie, Y., Du, K., & Gao, P. (2022). The influence of the interaction between platform types and consumer types on the purchase intention of live streaming. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.1056230>
- Xu, X., Li, Q., Peng, L., Hsia, T. L., Huang, C. J., & Wu, J. H. (2017). The impact of informational incentives and social influence on consumer behavior during Alibaba's online shopping carnival. *Computers in Human Behavior*, 76, 245–254. <https://doi.org/10.1016/j.chb.2017.07.018>
- Zainul, N., Osman, F., & Mazlan, S. H. (2004). E-Commerce from an Islamic perspective. *Electronic Commerce Research and Applications*, 3(3), 280–293. <https://doi.org/10.1016/j.elerap.2004.01.002>
- Zhang, S., & Zhang, J. (2020). Agency selling or reselling: E-tailer information sharing with supplier offline entry. *European Journal of Operational Research*, 280(1), 134–151. <https://doi.org/10.1016/j.ejor.2019.07.003>
- Zheng, Q., Chen, J., Zhang, R., & Wang, H. H. (2020). What factors affect Chinese consumers' online grocery shopping? Product attributes, e-vendor characteristics and consumer perceptions. *China Agricultural Economic Review*, 12(2), 193–213. <https://doi.org/10.1108/CAER-09-2018-0201>
- Zhong, G. (2019). E-Commerce Consumer Privacy Protection Based on Differential Privacy. *Journal of Physics: Conference Series*, 1168(3). <https://doi.org/10.1088/1742-6596/1168/3/032084>
- Zhu, A., & Tan, J. (n.d.). *Title Effectiveness of blog advertising: Impact of communicator expertise, advertising intent, and product involvement: ICIS 2007 breakthrough ideas in information technology*. <http://scholarbank.nus.edu.sg/handle/10635/42660>