

Live Streaming Of Skincare Products: The Role Of Celebrity Endorsements On Impulsive Buying

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ARTICLE INFO

Article history

Received

Revised

Accepted

Keywords

Live Streaming,
Celebrity Endorsers,
Impulsive Buying,
Skincare Product

ABSTRACT

The purpose of this study is to identify the influence of live streaming and celebrity endorsers on impulse buying among skincare users. This research was conducted to the users of skincare products with a total sample of 130 respondents using purposive sampling techniques and applying descriptive quantitative-based research methods with data processing involving the use of statistical analysis methods through the SEM-PLS programme. The results of this study reveal that the live streaming variable ($\beta = 0.242$, p -value <0.01) has a positive and significant effect on impulse buying among users of the skincare products and celebrity endorsers ($\beta = 0.418$, p -value <0.01) have a positive and significant effect on impulse buying among users of the skincare products. Thus, H1 and H2 are accepted. From a theoretical point of view, the results provide a new angle that combines live streaming content and celebrity endorsers in increasing customers' impulse buying, where the more often audiences see, hear, and absorb information about skincare products delivered by celebrities, the more likely they are to make impulse buying

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1. Introduction

During the COVID-19 pandemic, many consumers have chosen to shop online without leaving their homes as e-commerce has become a favorite among consumers to gather information about products. (Li et al., 2021). The advancement of e-commerce in Indonesia, in general, has resulted in a change in consumer behavior, with many people preferring to shop online due to the convenience offered by e-commerce services (Supriyanto et al., 2023). In addition, thanks to advances in internet technology the online shopping experience has evolved from just text and images to a multimedia experience. (Lee & Chen, 2021) E-commerce development is experiencing applications in various types of innovative applications that aim to increase customer engagement and achieve greater economic value (Chen et al., 2017). One of them is live streaming, an interactive multimedia platform that has become very popular since 2011. (Xu et al., 2020)

Live streaming is real-time and highly interactive with consumers. Streamers show off the appearance, functions, and advantages of the product, so consumers can ask about product prices, shipping, and other questions. (Lee & Chen, 2021). Live streaming can provide content-based answers, which can influence consumer behavior. Thus, live streaming has become one of the important aspects of the dynamic changes in the way consumers shop and interact with products in the current digital era. (Chen et al., 2017). Live streaming can occur in three types: (1) live streaming platforms that incorporate commercial activities (e.g., TikTok), (2) E-commerce marketplace sites (e.g., Shoppe, Lazada, Tokopedia), or mobile apps that integrate live streaming features, and (3) social media that add live streaming features (e.g., Facebook Live, Instagram, etc.) to facilitate sales (Wongkitrungrueng & Assarut, 2020). This phenomenon triggers impulse buying among consumers, as they can see the product or service live and get an instant response. (Lo et al., 2022).



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Research results have shown that direct experience with products or content presented live by streamers can increase impulse purchase tendencies (Lo et al., 2022). According to Liu and Walsh (2019), impulsive online shopping has become an epidemic due to the rapid expansion of e-commerce and advances in information technology (Jie et al., 2022). This is because the market for e-commerce is becoming more crowded, so merchants are expanding into live-streaming commerce is essential for online retailers to differentiate themselves in a crowded online market (Suhyar & Pratminingsih, 2023). Furthermore, it is also known that the more trusted a source is, the more influence it has on the audience. This finding is consistent with Chung & Cho's (2017) study which concluded that a trusted source could create effective attitudes, and the trust held by an influencer or celebrity endorser influences consumer engagement (Berne-Manero & Marzo-Navarro, 2020). Endorsements by celebrities have been recognized as an effective advertising approach to increase consumer loyalty and interest (Al Mamun et al., 2023).

On social media sites, following celebrities is one of the most popular activities, and harnessing the power of celebrities by engaging them for endorsements has become a powerful tool for businesses to promote their products or brands. In this highly competitive market, businesses and brands must endeavor to build a solid consumer base. (Singh & Banerjee, 2021). Celebrity endorsements can become more attractive and increase market penetration, which significantly affects consumer attitudes towards the endorsed product or brand. (Roy, 2018). therefore, more likely to engage in impulse buying behavior. (Chetioui & El Bouzidi, 2023).

This finding is in line with the results of research from Tanpli (2020) and Amarilys et al. (2022) which indicate that the influence of celebrities in endorsing products has a highly significant positive influence on impulse buying (Tanpli, 2020). Simply put, the more influence a celebrity has, the more likely is to make an impulse purchase. This confirms that exposure to celebrity content significantly influences impulse-buying tendencies (Amarilys et al., 2022). The more often the audience sees, hears, and absorbs information about skincare products delivered by celebrities, the more likely they are to make impulse buying.

Impulse buying is a series of events in which individuals experience a sudden stimulus or trigger that influences them to make spontaneous product buying and is difficult to hold back (Supriyanto et al., 2023). Impulse buying occurs when an individual makes a purchase without prior planning, usually while in a physical store or on an online shopping platform. This unintentional purchase is triggered by a stimulus or series of stimuli observed in a store or while browsing an online shopping site (Supriyanto, Permatasari, et al., 2023).

In the last ten years, it has become very important for beauty and skincare cosmetics companies to consider the development of the digital world (Machecka et al., 2023). Nik Mud et al., (2020) stated that beauty and personal care products have been around for a long time, and with the expansion of the internet business, many marketing and advertising methods and initiatives must be created to assist companies in selling their products to existing and new customers (Ofori & Appiah-Nimo, 2019). One of them is using celebrity endorsers who are well-known and well-recognized people who help brands market products (Machecka et al., 2023).

This study provides a theoretical contribution to the literature by highlighting the effect of live streaming and celebrity endorsers on impulsive buying. There are only a few research papers on these variables. Live streaming and celebrity endorsers have been researched in a variety of product and organizational contexts. Over the last decade ranging from beauty industry (Machecka et al., 2023), sports (von Felbert & Breuer, 2022), beverages (Calvo-Porral et al., 2023) cosmetics (Al Mamun et al., 2023) and hospitality (Jattamart et al., 2023). So this research will focus on who are Skincare users.

2. Theoretical Framework And Hypotheses

2.1 Live streaming

Live streaming is an innovative and integrative social media phenomenon that combines various communication technologies and enables real-time interaction in diverse multimedia content on internet platforms, including audio and visual (Chen, 2021). Live streaming has also introduced innovations in the world of e-commerce, allowing users to participate live and interact in real-time through social media (Lee & Chen, 2021). In the context of e-commerce this is a relatively new method of shopping, which involves live streaming of products, demonstrations, and exclusive offers by individuals such as

social influencers, celebrities, or independent sellers to consumers directly during a streaming event (Sun et al., 2022). This is the latest form of e-commerce that combines video and interactivity to present product information and facilitate interaction between sellers and consumers (Jattamart et al., 2023). Live streaming is an internet-based interactive platform that allows streamers and users to connect in real-time in a variety of multimodal formats, including text, voice, and video (Lu et al., 2023). More than just a method of product marketing, it is the execution of e-commerce and live transactions through a live streaming platform (Ye et al., 2022). It includes aspects of social interaction in real-time with the use of live video and chat (Wongkitrungrueng et al., 2020). Live streaming also integrates various communication technologies, allowing streamers to deliver real-time audio and visual content to viewers through social media platforms, while enabling live communication through chat (Lv et al., 2022).

2.2 Celebrity endorser

Celebrity endorsements involve well-known individuals working with a company or entity to use their popularity to promote the company's products or services (Rocha et al., 2020). Celebrity endorser is widely recognized by the public and utilizes their fame to advertise consumer products by appearing in adverts (von Felbert & Breuer, 2022). The use of Celebrity Endorsers is a marketing strategy that leverages a person's fame and recognition in society to encourage the consumption, use, or sale of a product, service, or brand (Sun et al., 2022). Celebrity Endorsers are a common advertising practice, in which celebrities who have great appeal recommend products, services, or experiences to the public (Liu et al., 2023). Celebrity endorsement is an agreement between a widely recognized individual (celebrity) and a company or other entity (such as a brand) to use the celebrity's fame to promote that entity (Liu et al., 2023). Celebrity endorsement is a collaboration between a well-known individual (celebrity) and an entity (for example, a brand) to utilize the celebrity's fame in promoting that entity (Cocker et al., 2021). The practice of celebrity endorsers involves utilizing the public fame of a famous person to advertise a consumer product or experience through advertising (Legendre & Baker, 2021). Celebrity endorser deals are agreements between individuals who are widely recognized by society (endorsers) and they use their fame to represent products or brands in advertisements (Wang & Liu, 2023). A celebrity endorser is someone famous who is used as a representative of a product or brand in an advertisement, making it attractive to the public (Li et al., 2021). A celebrity endorser is an individual who is widely recognized by the public and uses his or her popularity to advertise consumer products by appearing in adverts alongside them (Schimmelpfennig, 2018).

2.3 Impulsive buying

Impulsive Buying is an act of buying that occurs without prior planning, whether it is to acquire a certain type of product or to meet a special need (Jie et al., 2022). Impulsive Buying behavior can be explained as a spontaneous reaction to a certain stimulus that triggers the desire to buy a particular product or brand, even without any prior intention or need to make the purchase (Jie et al., 2022). In the E-commerce era, Impulsive Buying is often triggered by the attractiveness of objects creates an emotional response in consumers, resulting in spontaneous or uncontrollable behavior, which ultimately drives buying without considering financial and other factors (Lee & Chen, 2021). Impulsive Buying arises because of influencing promotions and purchasing decisions taken without careful consideration by consumers before they start the shopping process ((Sofi & Najar, 2018). It is an act of purchase made without prior planning (Lo et al., 2022). Impulsive Buying can also be explained as an unplanned purchase that occurs when consumers compare alternative purchase intentions with actual outcomes. Related research focuses on comparing what consumers buy with what they previously wanted or planned to buy (Chan et al., 2017). Impulsive Buying is a sudden, often strong, and unexpected urge to buy products or goods immediately without prior planning or careful consideration (Zhao et al., 2021.). This purchase action occurs suddenly and without prior planning, whether it is to buy a certain type of product or to fulfill a certain shopping task, without any prior shopping intention (Zhao et al., 2021). It is an unplanned purchase action, made without careful consideration, and is often influenced by strong stimuli, without involving a rational decision-making process (Ahn & Kwon, 2022). Impulsive Buying is the potential to make unplanned, sudden, and spontaneous Buying in contrast to deliberate and considered purchasing behavior (Yi et al., 2023).

2.4 The effect of live commerce on impulse buying behavior

According to Ming et al. (2021), live streaming will stimulate the audience to make impulse purchases of marketed products. According to Gao et al. (2018) and Zhang et al. (2021), live commerce creates real-time interactions between viewers and broadcasters that can influence the attitudes and

behavior of consumers. This is because interaction and delivery of products by broadcasters can encourage emotions (affective) from the audience resulting in unplanned behavior by the audience. These emotions arise because in live commerce the audience can not only get detailed information about the products being marketed, but the audience can also interact directly with the broadcaster so that they better understand the function and value of the products marketed in the live commerce. This indirectly forms the audience's trust in the product being marketed. According to Ming et al. (2021), live commerce conducted by marketers to market products will encourage consumer impulse buying behavior. Based on the explanation above, the hypotheses in this study are:

H1: Live streaming (X1) has a positive effect on impulse buying behavior (Y).

2.5 The effect of celebrity endorsers on impulse buying behavior

According to Roy, (2018) Celebrity endorsements can become more attractive and increase market penetration, which significantly affects consumer attitudes towards the endorsed product or brand. Therefore, it is more likely to engage in impulsive buying behavior. Research results from Tanpli (2020) and Amarilys et al. (2022) indicate that the influence of celebrities in endorsing products has a very significant positive influence on impulse purchases (Tanpli, 2020, Chetioui & El Bouzidi, 2023). Simply put, the more influence a celebrity has, the more likely Generation Z is to make an impulse purchase. This confirms that exposure to celebrity content significantly influences impulse-buying tendencies (Amarilys et al., 2022). Based on the explanation above, the hypotheses in this study are:

H2: Celebrity endorsers (X2) have a positive effect on impulsive buying behavior (Y)

3. Method

This research applies a quantitative-based research method, which is research that is closely related to statistics or numbers that allow researchers to describe phenomena numerically and can also help determine the correlation between two or more variables (Stockemer, 2018). Furthermore, this research will be explained using a descriptive statistical strategy to explain and summarize the conditions, situations, and various variables that arise in the community that is used as the object of research, as well as to enable research to focus on a certain unit that is very in-depth that can refer to the research target (Bungin, 2018). The population of this study consists of skincare users who were collected using a non-probability method. Convenience sampling was applied as described by Kumar & Aaker (2018). Respondents in this study are consumers who were screened as the users of the skincare products. The data analysis used in this research is Partial Least Squares Structural Equation Modelling (PLS-SEM) using the Smart PLS computer program, with three test stages: 1) the initiation stage (determining the initial model); 2) the estimation stage (testing the reliability, validity, collinearity of the structural model, the significance and relevance of the structural model relationships, as well as, the explanatory power of the model); and 3) the finalization stage (research hypothesis testing) ((Hair et al., 2019). The questionnaire was used as a survey tool and was self-completed via Google Forms. A Likert scale from 1 to 5 was used to assess the level of agreement, where 5 stated "strongly agree," 4 for "agree," 3 for "fairly agree," 2 for "disagree," and 1 for "strongly disagree."

4. Results and Discussion

4.1 Descriptive statistics and outer model evaluation

As a result of the PLS-SEM analysis, this study followed the recommendations made by Hair et al. (2019) where the load indicators were evaluated to test item reliability. As shown in Table 3 and Figure 2. Internal consistency evaluation is assessed through construct reliability (CR), where the range of 0.70 - 0.90 is considered to have met the eligibility standards. All indicators in this study are declared valid, this is because the loading factor value of each indicator is > 0.7 . Table 3 shows that the CR value ranges from 0.911 to 0.924 (higher than 0.50). In addition, Cronbach's alpha for all constructs > 0.70 indicates that the items formed in the measurement model have adequate internal consistency (Hair et al., 2019). Next, evaluate convergent validity based on the average variance extracted (AVE) val

According to Hair et al. (2019), convergent validity can be qualified if the AVE is 0.50 or higher. All AVE values (Table 3) are above the 0.50 threshold. Thus, all items used in this study have fulfilled convergence in forming latent variables. For the evaluation of the measurement model is the discriminant validity shown in Table 3. The comparison between the square root value of AVE and the correlation between latent variables is the basis for the criteria used to evaluate which is shown in Table 3. The comparison between the square root value of AVE and the correlation between latent variables is the basis for the criteria used to evaluate discriminant. The results show that all the squared correlation coefficients between variables are less than the square root of the AVE, which indicates that discriminant validity is acceptable (Hair et al., 2019). In addition, as shown in Table 3, none of the HTMT values exceed the threshold value of 0.90 therefore, discriminant validity in this model has been met (Henseler et al., 2015).

4.2 Inner model evaluation and hypothesis testing

In evaluating the inner model, namely by assessing R square and Q square to assess the feasibility of the model in general. Based on Hair et al. (2019), R square is used to measure the variance and explanatory power of exogenous variables on endogenous variables. The R square value obtained from the analysis results is 0.477. Furthermore, Q square is used to assess the accuracy of the prediction model. The Q square value obtained is 0.469 for the impulsive buying model. From Table 4, the R-Square value is 0.477, this indicates that the live streaming and celebrity endorser variables affect the impulsive buying variable by 47.7 percent, while the remaining 52.3 percent is influenced by other variables outside of the variables in this study. F square or effect size is used to measure the strength of the coefficient path, it can be stated that the effect size generated for the live streaming model on impulsive buying is 0.149, and celebrity endorsers are 0.210. In practice, effect size can be used as a consideration for researchers to eliminate analysis paths that are considered insubstantial (Hair et al., 2019). Table 4 presents the findings of the analysis and summarizes all hypotheses. Firstly, it was found that celebrity endorsers positively influence impulsive buying ($\beta = 0.418$, p-value <0.01) and live streaming ($\beta = 0.352$ p-value <0.01). Thus, H1 and H2 are accepted.

Table 1. Respondents' Characteristics in This Study

	Frequency	Percent
Gender		
Male	45	74.1%
Female	129	25.9%
Age		
< 15 years	0	0%
15 - 20 years	65	60.9%
21 - 26 years	105	50%
27-33 years	4	0.6%
> 33 years	0	0%
Use of skincare		
< 6 month	24	14.4%
6 month – 1 years	35	20.1 %
> 1 years	115	66.5 %

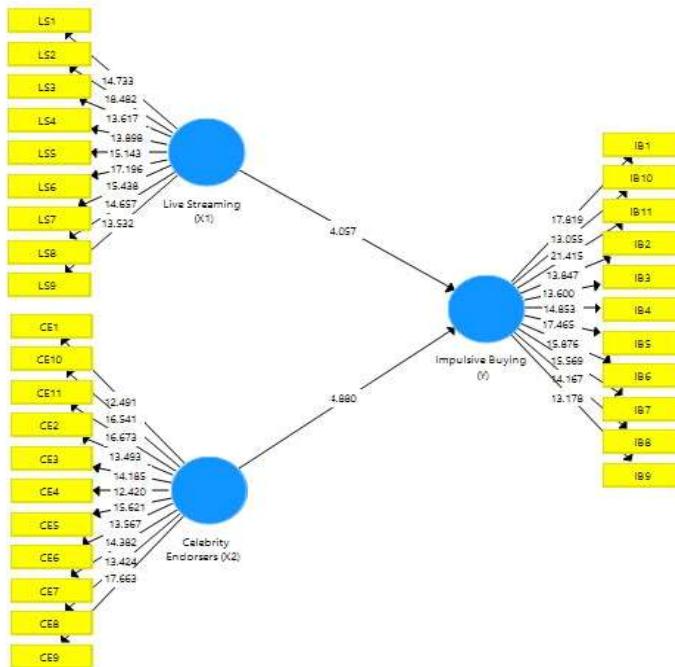


Fig. 1. SmartPLS 3 Results for the Measurement Model (Chetioui & El Bouzidi, 2023).

Table 2. Validity (Convergent and Discriminant) and Measurement Items

Code	Measurement Items	Loading Factor
VARIABLE (X1, LIVE STREAMING): $\alpha = 0.891$, CR = 0.911, AVE = 0.533		0.514
DIMENSION-1: Streamer's credibility		
LS1	"I tend to be more interested in skincare products promoted by streamers that I find attractive."	0.750
LS2	"I tend to seek advice from streamers who are considered to have specialized expertise in skincare."	0.749
LS3	"A streamer's positive reputation influences my decision to follow or buy the skincare products they recommend"	0.712
DIMENSION-2: Media richness		
LS4	"I feel more confident in purchasing skincare products after interacting directly with the streamer through comments or live chat"	0.718
LS5	"Live streaming gives me the opportunity to see skincare products in a real-life situation, which makes me feel more confident in my purchasing decision."	0.741
LS6	"Streamers who are able to explain skincare products in an easy-to-understand and relevant language make me feel more connected to their content."	0.741
DIMENSION-3: Interactivity		
LS7	"I feel that skincare streamers often communicate actively during skincare product live streaming sessions."	0.717
LS8	"I can communicate directly with other customers during the broadcast."	0.722
LS9	"I consider the advice and recommendations from skincare streamers to be very valuable in making skincare product purchase decisions"	0.720
VARIABLE (X2, CELEBRITY ENDORSER: $\alpha = 0.906$, CR = 0.921, AVE = 0.514		
DIMENSION-1: Expertise		
CE1	"Celebrity endorser has in-depth knowledge about skincare."	0.712
CE2	"Celebrity endorser has used this skincare product and had a positive experience with it."	0.799
CE3	"Celebrity endorser has strong qualifications to recommend skincare products."	0.722
CE4	"Celebrity endorser has good skills in promoting skincare products convincingly."	0.708
CE5	"The celebrity endorser gives the impression that she has in-depth knowledge of the ingredients and components in this skincare product."	0.703
DIMENSION-2: Trustworthiness		
CE6	"I believe that this celebrity endorser gives honest reviews about this skincare product."	0.722
CE7	"This celebrity endorser gives me confidence that this skincare product is reliable and provides consistent results."	0.706
CE8	"Skincare products seem more trustworthy because they get recommendations from celebrity"	0.721

endorsers"	DIMENSION-3: Attractiveness		
CE9	"I believe that this celebrity endorser gives honest reviews about this skincare product."	0.708	
CE10	"This celebrity endorser gives me confidence that this skincare product is reliable and provides consistent results."	0.716	
CE11	"Skincare products seem more trustworthy because they get recommendations from celebrity endorsers"	0.725	
VARIABLE (Y, IMPULSIVE BUYING): $\alpha = 0.921$, CR = 0.924, AVE = 0,525			
	DIMENSION-1: Impulsive Buying Tendency		
IB1	"I often buy skincare products spontaneously without prior planning."	0.741	
IB2	"I rarely consider deeply before buying skincare products."	0.708	
IB3	"I will still buy skincare products that I find attractive even though I will regret it in the end."	0.705	
IB4	"I will buy products that I find attractive even though I don't need them."	0.714	
IB5	"I buy skincare products without considering the price"	0.754	
	DIMENSION-2: Regret		
IB6	"I will regret if I miss the opportunity to buy the skincare product I want."	0.727	
IB7	"I will lose if I do not buy the skincare product I want during the promotion."	0.720	
IB8	"I will feel sad if I don't buy the skincare product I want during the promotion."	0.718	
	DIMENSION-3: Rejoice		
IB9	"I feel happy and excited when I successfully buy and use the skincare products I want."	0.702	
IB10	"I feel satisfied and happy with my decision after buying the skincare products I want."	0.707	
IB11	"Discount offers or special promotions are often the reason I buy the skincare products I want."	0.774	

Table 3. Outer Model Evaluation (Validity and Reliability)

	Loading	Mean	SE	VIF
Live Streaming (X1)				
LS1	0.75	3	1.488	2.311
LS2	0.749	2.8	1.526	1.971
LS3	0.712	2.715	1.296	2.058
LS4	0.718	2.785	1.544	1.921
LS5	0.741	2.6	1.557	1.839
LS6	0.741	2.638	1.579	1.894
LS7	0.717	3.015	1.549	1.807
LS8	0.722	2.531	1.469	1.902
LS9	0.72	2.962	1.59	1.958
Celebrity Endorsers (X2)				
CE1	0.712	2.708	1.526	1.972
CE2	0.799	2.623	1.242	2.304
CE3	0.722	2.869	1.427	1.912
CE4	0.708	2.954	1.513	2.057
CE5	0.703	2.954	1.369	2.073
CE6	0.722	2.754	1.359	2.019
CE7	0.706	2.815	1.188	1.958
CE8	0.721	2.808	1.359	1.891
CE9	0.708	2.7	1.434	2.073
CE10	0.716	2.808	1.504	2.01
CE11	0.725	2.646	1.413	2.16
Impulsive Buying (Y)				
IB1	0.741	2.685	1.436	1.906
IB2	0.708	2.446	1.489	1.851
IB3	0.705	2.692	1.533	2.395
IB4	0.714	2.638	1.452	2.088
IB5	0.754	2.715	1.469	2.332
IB6	0.727	2.923	1.225	1.991
IB7	0.72	2.831	1.313	1.87
IB8	0.718	2.777	1.443	2.033
IB9	0.702	3.062	1.587	1.791
IB10	0.707	3.123	1.539	1.951
IB11	0.774	2.869	1.526	2.403

Table 4. Hypothesis Testing Results

		Path Coefficient	Standard Deviation	T Statistics	P Values	f Square
H2	CE > IB	0.418	0.086	4.841	0.000	0.210
H1	LS > IB	0.352	0.089	3.942	0.000	0.149
R Square	IB	0.477				
Q²	IB	0.469				

The research findings outlined above, live streaming has a favorable and important impact on impulse buying. The results of this investigation corroborate research by Rahma et al. (2022), Tumanggor et al. (2022), and Xiaohan et al. (2022). These three studies show that live streaming has a positive influence on impulse buying.

This is because the market for e-commerce is becoming more crowded, so merchants expanding into live streaming commerce is essential for online retailers to differentiate themselves in a crowded online marketplace (Marshall et al., 2012). Furthermore, it is also known that the more trustworthy a source is, the more influence it has on the audience. This finding is consistent with Chung & Cho's (2017) study which concluded that a trusted source could create an effective attitude, and the trust held by an influencer or celebrity endorser influences consumer engagement (Berne-Manero & Marzo-Navarro, 2020).

This finding is in line with the results of research from Tanpli (2020) and Amarilys et al. (2022) which indicate that the influence of celebrities in endorsing products has a highly significant positive influence on impulse buying (Eldian Tanpli, 2020.). In simple terms, the more influence a celebrity has, the more likely the users of skincare products is to make an impulse purchase. This confirms that exposure to celebrity content significantly influences the users of skincare products impulse-buying tendencies (Amarilys et al., 2022). The more often audiences see, hear, and absorb information about skincare products delivered by celebrities, the more likely they are to make impulse buying. This study also reinforces previous findings which show that the users of skincare products is easily influenced to make impulse buying due to the motivation to emulate their role models and their tendency to trust promotions and product information presented (Amarilys et al., 2022)

5. Conclusion

Education Based on data processing, data analysis, and discussion of the influence of live streaming and celebrity endorsers on impulsive buying among the users of skincare products: (i) There is a positive and significant effect of live streaming on impulsive buying the users of skincare products and (ii) There is a positive and significant effect of celebrity endorsers on impulsive buying among the users of skincare products

The findings of this study can assist live-streaming trading platforms and suppliers in identifying elements for the promotion of impulsive buying urges and impulsive buying behavior, with the goal of increasing sales conversion. Moreover, given the time-sensitive nature of live streaming, where it relates to streaming time that is sometimes limited to eight hours, impulse buying is critical to its functionality. Impulsive buying in live-streaming commerce has the highest relevance, as the findings can increase vendors' knowledge about buyers' attitudes and behaviors, thus improving their business operations in live-streaming commerce (Suhyar & Pratminingsih, 2023). From a theoretical point of view, the results provide a new angle that combines live-streaming content, and celebrity endorsers in increasing customers' impulse buying (Xue et al., 2020). The more frequently audiences see, hear, and absorb information about skincare products delivered by celebrities, the more likely they are to make impulse buying. This research also reinforces previous findings which show that the users of skincare products are easily influenced to make impulse buying due to the motivation to emulate their role models and their tendency to trust promotions and product information presented (Amarilys et al., 2022).

Apart from the theoretical and practical contributions, this study has several limitations that need to be considered for future research, namely expanding the coverage of respondents based on gender, age, and occupation in areas that have a larger population, so that this is expected to increase

the accuracy of the research results. The findings of this study can serve as additional empirical evidence for future studies or marketing theories that establish the relationship between live streaming and celebrity endorsers with impulse purchases. The results and new findings of this study can be used as a basis for future research that may have similarities with this study.

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