



## Research Article

# Exploring TikTok Live Shopping: How Uses and Gratifications Theory, Network Size, and Digital Celebrities Drive Continuous Purchase Intentions

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**Abstract:** This study aims to analyze the influence of Uses and Gratifications Theory (U&G Theory) dimensions, including hedonic gratification (perceived enjoyment), utilitarian gratification (perceived utility and self-presentation), and social gratification (social presence), as well as perceived network size on continuous purchase intention. In addition, the study explores the mediating role of perceptions of digital celebrities in the context of live streaming shopping for modest fashion products on TikTok. A quantitative approach was employed using a survey method involving 429 TikTok users who had purchased modest fashion items through live streaming. The data were analyzed using covariance-based Structural Equation Modeling (SEM) with AMOS software. The findings reveal that perceived utility, self-presentation, and social presence positively influence continuous purchase intention, whereas perceived enjoyment shows no significant effect. Furthermore, perceived network size has a significant impact on perceived enjoyment, perceived utility, and social presence. The study also demonstrates that perceptions of digital celebrities mediate the relationship between perceived network size and all dimensions of U&G Theory. These results enrich the literature on consumer motivation and behavior in live streaming commerce and offer strategic implications for businesses in designing relevant content and collaborations to foster customer loyalty.

**Keywords:** Live Streaming Shopping; Uses and Gratification Theory; Perceived Network Size; Perceptions of Digital Celebrities; Continuous Purchase Intention

## 1. Introduction

Live streaming shopping is emerging as a key trend in the digital retail space, offering consumers an interactive and real-time shopping experience. In Indonesia, this format has grown rapidly. According to IPSOS (2022) [1] 71% of Indonesians have accessed live streaming shopping, and 56% have made purchases through it. For businesses, the benefits are clear: visitor traffic has increased by 40%, and daily orders by 29% [2], and revenue by 73%, while promotional costs have dropped by 64% [3].

TikTok Live is now one of the most commonly used platforms for live shopping in Indonesia (Jakpat, 2024), especially among Gen Z users aged 18–34 [4]. With the help of an algorithm that delivers personalized recommendations based on user behavior [5] TikTok achieves conversion rates as high as 50% [6]. Among its most successful product categories is modest fashion, a style that blends religious values with modern aesthetics. TikTok supports this trend through Muslim creators and key opinion leaders [7]. The Indonesian modest fashion market is projected to expand, with a value of 1.8 billion rupiah, supported by government initiatives aimed at establishing the country as a global modest fashion hub [8].

Despite growing interest in live shopping, research on what drives consumers to make repeat purchases in this setting remains limited. Statista (2024) [9] reports that Indonesian consumers are motivated mainly by product quality assurance (54%) and discounts (53%). Other factors include interactivity (31%), entertainment and product information (26%), and

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influence from digital figures (10–20%). These factors may initiate purchases, but they do not fully explain ongoing consumer loyalty.

To understand sustained engagement, scholars have used the Uses and Gratification Theory (U&G Theory), which identifies motivations such as hedonic gratification (perceived enjoyment), utilitarian gratification (perceived utility and self-presentation), and social gratification (social interaction and social presence) [10][11]. However, its application to continuous purchase behavior, especially in live streaming contexts, remains underexplored [12][13].

Beyond internal motives, external factors also play a significant role. Perceived network size may enhance satisfaction and support prolonged use [14][15]. Likewise, perceptions of digital celebrities often hosted in live sessions have been found to influence both purchase intention and user gratification [10][11][16].

Based on this background, the present study aims to examine how U&G Theory, Perceived Network Size, and Perceptions of Digital Celebrities interact to influence continuous purchase intention in the context of TikTok live streaming shopping. The research aims to fill theoretical and empirical gaps in the literature while offering practical guidance for marketers and digital commerce strategists in identifying key drivers of sustainable consumer behavior in the digital marketplace.

## 2. Literature Review and Hypothesis

### Live Streaming Shopping

Live streaming shopping has emerged as an innovation in online retail, offering consumers a more engaging experience by combining real-time interaction with digital commerce. Cai et al. [17] noted that live streaming allows for direct social engagement, creating a shopping environment that feels immediate, interactive, and dynamic. Luo et al. [13] further describe this format as a blend of live video technology and social interaction, resulting in a distinctive and appealing user experience. In the same line, Wang & Oh [19] highlight live streaming shopping as a progression from conventional e-commerce, where the integration of social media features, entertainment elements, and commercial functions offers a deeper and more immersive shopping experience [18].

### Uses and Gratification Theory

The Uses and Gratification Theory (U&G Theory) is widely used to understand how individuals select media to satisfy specific social and psychological needs [20]. Originally introduced by Katz and Blumler in the 1940s [21], the theory explores user motivations, the types of needs addressed, and the satisfaction gained from media consumption. In the context of live streaming commerce, Luo et al. [13] state that U&G Theory has been applied to identify why consumers engage with platforms for entertainment, real-time interaction, and access to information. According to Ma [10] and Kelly & Febriyantor [11], users engage in live streaming shopping activities seeking hedonic, utilitarian, and social gratification. The theory has also helped clarify what motivates continued platform use, known as continuance intention [22][23]. Wang & Oh [19] expand on this by showing how different forms of gratification influence users' continuous purchase intention. Given the interactive nature of digital commerce platforms, U&G Theory continues to be relevant for analyzing both initial motivations and the factors that sustain consumer behavior over time.

### Hedonic Gratification (Perceived Enjoyment)

Cai et al. [17] state that hedonic gratification in the context of live streaming shopping refers to the pleasure and enjoyment experienced by consumers when participating in such activities. Hossain & Kim [24] further explain that hedonic gratification includes users' hedonic expectations, such as seeking entertainment, spending leisure time in enjoyable ways, escaping from daily routines, and engaging in fantasy. Ma [10] highlights perceived enjoyment as the most influential aspect of hedonic gratification affecting continuous purchase intention in live streaming shopping. It represents the degree to which individuals feel entertained and derive pleasure during their engagement, and is a significant predictor of purchase intention. Supporting this view, several studies have found that perceived enjoyment positively influences purchase intention in the context of live streaming shopping in Indonesia [11][25][16]. Similarly, Wang & Oh [19] emphasize that hedonic gratification, reflected in the joy and emotional satisfaction consumers experience when using TikTok live streaming features, contributes to continuous purchase intention among consumers in China.

Building on the findings outlined above, this study aims to investigate the influence of perceived enjoyment on consumers' continuous purchase intention within the context of TikTok live streaming shopping in Indonesia. Given that TikTok integrates entertainment and shopping through interactive, real-time experiences, perceived enjoyment may play a key role in encouraging sustained consumer loyalty. Accordingly, the study puts forward the following hypothesis:

H1: Perceived Enjoyment has a positive and significant effect on Continuous Purchase Intention

### **Utilitarian Gratification (Perceived Utility & Self-presentation)**

Utilitarian gratification refers to the satisfaction derived from fulfilling practical and goal-oriented needs through media use or shopping [26]. Kelly & Febriyantoro [11] and Ma, [10] describe it as the belief that live streaming shopping can meet consumers' practical goals such as obtaining quality products, affordable prices, and saving time and effort. Flavi et al., [27] argue that both utilitarian and hedonic values contribute to positive behavioral intentions, including repeat purchases. Similarly, Wang & Oh [19] identify utilitarian gratification as a major factor in driving continuous purchase intention.

Within the live streaming shopping context, perceived utility and self-presentation are seen as key components of utilitarian gratification [10][28]. Perceived utility supports consumers' goals, like finding valuable products at fair prices. [10]. Moreover, perceived utility, reflecting the evaluation of a purchase's benefits in meeting functional needs, has been shown to significantly shape consumer attitudes and purchase intentions [29] [30]. Prior studies also confirm that perceived utility has a significant influence on purchase intentions in live streaming shopping environments [16], [25].

Song et al. [31] said that the concept of self-presentation introduced by Goffman (1947), involves shaping one's image to create a favorable impression. Gan & Li [23] describe it as a strategy for influencing others' perceptions. Similarly, Kim & Jun [32] assert that self-presentation is the process by which individuals shape and manage how others perceive them by controlling the self-images they project. In live streaming, it reflects how users present their digital persona to gain recognition [28], and it has been found to significantly impact purchase intention [10][28].

However, limited research has investigated how these two factors jointly contribute to sustaining consumer behavior over especially in Indonesia's growing modest fashion and live streaming markets. To address this gap, the following hypotheses are proposed:

H2: Perceived Utility has a positive and significant effect on Continuous Purchase Intention

H3: Self-presentation has a positive and significant effect on Continuous Purchase Intention

### **Social Gratification (Social Presence)**

Stafford et al., [33] define social gratification as the individual's motivation to engage in interpersonal interaction through relationships facilitated by technology. Raji et al. [34] add that social gratification includes emotional and psychological rewards gained from active participation in social media communities. In the context of live streaming shopping, Ma [10] explains that social gratification refers to the emotional satisfaction that arises from social interaction and social presence experienced during the shopping process, including interaction with streamers and fellow viewers, which fosters a sense of togetherness and enjoyment.

Social presence is a subjective perception of psychological closeness, warmth, and social interaction within a virtual environment [35]. In the context of live streaming shopping, it is formed through direct communication between streamers and audiences, creating a sense of togetherness and real-time interaction [36][37]. This enhances consumer engagement, trust, and purchase intention [38]. Social presence itself represents a form of social gratification that significantly influences continuous purchase intention on TikTok live streaming in China [19]. This aligns with Hou et al. [39], who found that social gratification (social presence) affects individuals' sustained intention to watch and shop. To investigate this relationship, the following hypothesis is proposed:

H4: Social Presence has a positive and significant effect on Continuous Purchase Intention

### Perceived Network Size

Network effect refers to the externality in which the perceived value of a product or service increases as more people use it [40]. It enhances both economic and affective-cognitive value [41]. Perceived network size, defined as an individual's perception of other users on the same platform [42], plays a crucial role in live streaming contexts. A larger perceived network fosters value perception, trust, and purchase decisions [25]. As user numbers grow, platforms become more valuable by enhancing opportunities for interaction, entertainment, and social recognition [43].

Pang et al. [15] found that perceived network size influences dimensions of U&G theory, including hedonic, utilitarian, and social gratification. Similarly, Helen et al. [25] showed that perceived network size significantly affects perceived enjoyment, perceived utility, and self-presentation. Meanwhile, Ma [10] Revealed that perceived network size positively impacts perceived enjoyment, perceived utility, social interaction, and social presence.

Although perceived network size has shown potential in influencing digital consumer behavior, its role across the full range of U&G dimensions remains underexplored, particularly in the context of TikTok live shopping in Indonesia. To address this gap, the following hypotheses are proposed:

H5: Perceived Network Size has a positive and significant effect on Perceived Enjoyment

H6: Perceived Network Size has a positive and significant effect on Perceived Utility

H7: Perceived Network Size has a positive and significant effect on Self-presentation

H8: Perceived Network Size has a positive and significant effect on Social Presence

### Perception of Digital Celebrities

According to Ma [10], perceptions of digital celebrities refer to individuals' evaluations of a digital celebrity's trustworthiness, popularity, and attractiveness, positioning them as opinion leaders in live streaming shopping. Digital celebrities act as credible sources of information and valuable purchase advisors [44]. Li [45], defines digital celebrities as those with followers, high interactivity, and promising business value. Fang [46] adds that in live streaming e-commerce, celebrities influence consumer decisions through direct recommendations. Their large fanbase helps build trust, increase brand awareness, and drive sales. [47] highlights that perceptions of digital celebrities affect endorsement effectiveness, shaping customer attitudes and purchase intentions.

Furthermore, several studies have shown that perceptions of digital celebrities influence the effectiveness of live streaming within the framework of the U&G Theory [11][16]. However, this study refers to [10], who posits that digital celebrities function as a mediating mechanism that strengthens the relationship between perceived network size and the expected forms of gratification. Through this role, digital celebrities indirectly enhance consumers' tendency to make purchases during live streaming sessions. To investigate this relationship, the following hypothesis is proposed:

H9: Perceptions of Digital Celebrities significantly mediate the relationship between Perceived Network Size and Perceived Enjoyment.

H10: Perceptions of Digital Celebrities significantly mediate the relationship between Perceived Network Size and Perceived Utility.

H11: Perceptions of Digital Celebrities significantly mediate the relationship between Perceived Network Size and Self-presentation.

H12: Perceptions of Digital Celebrities significantly mediate the relationship between Perceived Network Size and Social Presence.

Informed by the theoretical foundations and the development of research hypotheses discussed above, the proposed research model is adapted from Ma [10] and Wang & Oh, [19], and is depicted in Figure 1.

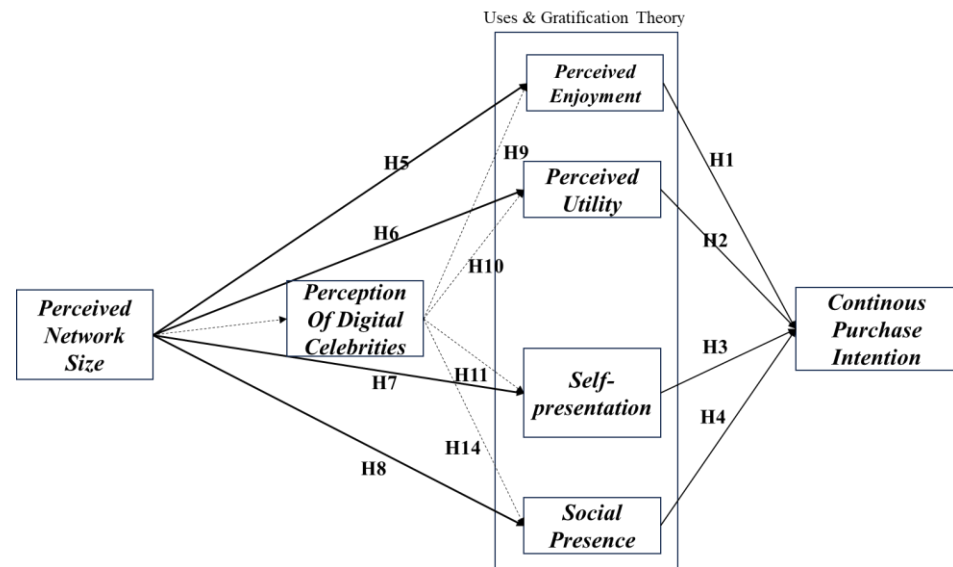


Figure 1 Theoretical framework and hypothesis formulation

### 3. Proposed Method

This study employs a quantitative, descriptive, and causal approach using a case study method, focusing on active TikTok users in Indonesia who have watched and purchased modest fashion products via live streaming. A non-probability purposive sampling technique was used to target respondents aged 18 and above who actively use TikTok, have viewed live shopping sessions, and have made relevant purchases. Primary data were collected through an online questionnaire distributed via WhatsApp, TikTok, Instagram, and Facebook. Data analysis involved descriptive statistics to outline respondent characteristics and inferential analysis using Structural Equation Modeling (SEM) with AMOS software. The analysis consisted of two stages: measurement model testing and structural model testing. The measurement model evaluated the validity and reliability of latent constructs through convergent validity (loading factor  $\geq 0.5$ ), discriminant validity, and construct reliability (CR and AVE). The structural model tested causal relationships among constructs using path estimates and significance values, with bootstrapping employed to assess estimate stability and model validity. In addition, the Sobel test was employed to assess the mediation effect.

### 4. Results and Discussion

Data collection for this study was conducted in March 2025 through an online survey using an electronic questionnaire distributed via Google Forms. A total of 429 respondents were successfully gathered, all of whom are active TikTok users with experience in purchasing modest fashion products through the live streaming shopping feature. The characteristics of the respondents in this study are presented in Table 1.

Table 1 Respondent Characteristics (n=429)

No	Characteristic	Description	Percentage
1.	Gender	Female	74,6%
		Male	25,4%
2.	Age	< 20 years	15,2%
		20-30 years	69,9%
		30-40 years	11,40%
		40-50 years	2%
		>50 years	1,5%

3.	Education	Junior Secondary School or Equivalent	3%
		Senior High School or Equivalent	41,3%
		College Diploma	10,5%
		Bachelor's Degree	40,8%
		Master's Degree	3%
		Doctoral Degree	0,2%
4.	Experience in Engaging with TikTok Live streaming Shopping	Less than 3 months	21,2%
		4-6 months	45,69%
		7-12 months	19,8%
		1-2 years	26,1
		More than 2 years	18,2
5.	Monthly Income	< Rp 1 million	38,9%
		Rp.1-3,5 million	35,9%
		Rp.3,5-7 million	17,7%
		Rp.7-10 million	4,2%
		> Rp10 million	3,3%
6.	Shopping Frequency	More than twice a week	13,5%
		Once a week	9,3%
		1–2 times per month	46,2%
		Once every six months or less	31%

Source: Authors' data collection via online questionnaire (2025)

### Validity and Reliability

The validity and reliability test results for each variable in this study are presented below. All items demonstrate factor loadings above 0.70, Average Variance Extracted (AVE) values greater than 0.50, and Construct Reliability (CR) values exceeding 0.70. These findings indicate that each indicator reliably and validly represents its underlying latent construct, making them suitable for further analysis (see Table 2). This ensures that the measurement model is robust and ready for testing the structural relationships.

The next step in evaluating validity involves assessing discriminant validity to ensure that each construct is clearly distinguishable from the others in the model. The analysis using the Fornell-Larcker criterion (see Table 3) shows that the square root of the Average Variance Extracted ( $\sqrt{\text{AVE}}$ ) for each construct is greater than its correlations with other constructs. This result demonstrates that each construct is empirically distinct and meets the requirements for discriminant validity.

The results of the Goodness-of-Fit analysis indicate that the SEM model exhibits an acceptable fit to the empirical data. Fit indices, including RMSEA (0.056), CFI (0.943), NFI (0.905), and TLI (0.933), all surpass the recommended thresholds for good model fit. Although the GFI value (0.886) falls within the marginal fit range, the overall pattern of fit indices supports the adequacy of the model. These results confirm that the model is appropriate for subsequent hypothesis testing. This provides confidence that the hypothesized relationships can be meaningfully examined.

*Table 2. Results of Convergent Validity and Reliability Analysis*

Constructs	Items	Unstd	S.E.	t-value	P	Std.	SMV	CR	AVE
PNS	PNS1	1,000				0,778	0,605	0,891	0,672
	PNS2	1,039	0,058	18,029	***	0,825	0,681		
	PNS3	1,073	0,057	18,836	***	0,857	0,734		
	PNS4	1,051	0,059	17,872	***	0,818	0,669		

PE	PE2	0,783	0,062	12,714		0,718	0,516	0,779	0,540
	PE3	1,061	0,079	13,346	***	0,771	0,594		
	PE4	1,000			***	0,715	0,511		
PU	PU1	1,000				0,735	0,540	0,827	0,545
	PU2	1,107	0,079	14,021	***	0,761	0,579		
	PU3	1,213	0,090	13,423	***	0,766	0,587		
	PU4	0,946	0,073	12,898	***	0,687	0,472		
SPRE	SPRE1	1,000				0,807	0,651	0,895	0,689
	SPRE2	0,538	0,039	13,829	***	0,567	0,321		
	SPRE3	1,213	0,050	24,291	***	0,940	0,884		
	SPRE4	1,184	0,048	24,542	***	0,949	0,901		
SP	SP1	1,000				0,790	0,624	0,854	0,594
	SP2	0,867	0,050	17,330	***	0,793	0,629		
	SP3	1,032	0,063	16,365	***	0,756	0,572		
	SP4	0,714	0,044	16,080	***	0,742	0,551		
PDS	PDS1	1,000				0,746	0,557	0,863	0,612
	PDS2	1,097	0,063	17,310	***	0,844	0,712		
	PDS3	0,835	0,056	14,839	***	0,725	0,526		
	PDS4	0,965	0,058	16,618	***	0,808	0,653		
CPI	CPI1	1,000				0,767	0,588	0,895	0,630
	CPI2	0,996	0,056	17,925	***	0,828	0,686		
	CPI3	0,871	0,055	15,771	***	0,741	0,549		
	CPI4	0,975	0,057	17,211	***	0,799	0,638		
	CPI5	1,124	0,062	18,037	***	0,829	0,687		

Source: Data Processed by the Authors (2025)

*Table 3. Discriminant Validity Results*

	AVE	PNS	PE	PU	PRE	SP	PDS	CPI
PNS	0,672	<b>0,820</b>						
PE	0,540	0,508	<b>0,735</b>					
PU	0,545	0,600	0,659	<b>0,738</b>				
PRE	0,689	0,265	0,501	0,304	<b>0,830</b>			
SP	0,594	0,621	0,710	0,606	0,630	<b>0,771</b>		
PDS	0,612	0,577	0,581	0,617	0,371	0,714	<b>0,782</b>	
CPI	0,630	0,467	0,610	0,566	0,599	0,719	0,554	<b>0,794</b>

Source: Data Processed by the Authors (2025)

### Structural Model Assessment

This study examined eight hypotheses addressing the direct relationships among the independent, dependent, and mediating variables. A summary of the findings is provided in Table 4. The results for hypotheses H1 through H4 reveal that utilitarian gratifications namely perceived utility and self-presentation as well as social gratification, represented by social presence, exert a positive and significant influence on continuous purchase intention. In contrast, perceived enjoyment, reflecting hedonic gratification, does not demonstrate a significant effect on continuous purchase intention.

Furthermore, the results for hypotheses H5 to H8 indicate that perceived network size significantly and positively affects perceived enjoyment, perceived utility, and social presence. However, it does not have a significant influence on self-presentation

*Table 4. Hypothesis Testing*

Hypothesis	Direct Effect	Estimate	S.E.	C.R.	P	Conclusion
H1	PE → CPI	0,065	0,070	0,929	0,353	Rejected H1
H2	PU → CPI	0,329	0,079	4,171	***	Accepted H2
H3	SPRE → CPI	0,180	0,035	5,132	***	Accepted H3
H4	SP → CPI	0,298	0,061	4,875	***	Accepted H4
H5	PNS → PE	0,273	0,075	3,656	***	Accepted H5
H6	PNS → PU	0,325	0,052	6,214	***	Accepted H6
H7	PNS → SPRE	0,128	0,108	1,189	0,235	Rejected H7
H8	PNS → SP	0,420	0,075	5,610	***	Accepted H8

Source: Data Processed by the Authors (2025)

### Mediating Test

This study also evaluated four additional hypotheses (H9–H12), which explored the mediating role of Perceptions of Digital Celebrities in the relationship between Perceived Network Size and the core constructs of the U&G Theory. Mediation analysis was performed using the Sobel test. The results demonstrate that Perceptions of Digital Celebrities significantly and positively mediate the relationships between Perceived Network Size and the U&G Theory elements, specifically perceived enjoyment, perceived utility, self-presentation, and social presence. Detailed results are presented in Table 5. These findings highlight the strategic importance of digital celebrities in enhancing user engagement through various forms of gratification within social commerce platforms.

*Table 5. Mediation Test Results Using the Sobel Method*

Hypothesis	Mediation Path	a (NS → PDS)	Sa	b (PDS → ...)	Sb	Z Sobel	P Value	Conclusion
H11	NS → PDS → PE	0,616	0,061	0,517	0,077	5,591	0,000	Accepted H11
H12	NS → PDS → PU	0,616	0,061	0,306	0,050	5,234	0,000	Accepted H12
H13	NS → PDS → SPRE	0,616	0,061	0,623	0,110	4,940	0,000	Accepted H13
H15	NS → PDS → SP	0,616	0,061	0,719	0,079	6,761	0,000	Accepted H15

Source: Data Processed by the Authors (2025)



## 5. Discussion

### The Influence of U&G Theory on Continuous Purchase Intention

The results of this research demonstrate that the primary dimensions of U&G Theory, specifically perceived enjoyment, perceived utility, self-presentation, and social presence, exhibit distinct contributions to sustainable purchase intention within the realm of live streaming shopping for modest fashion products on TikTok.

The results show that perceived enjoyment does not significantly affect continuous purchase intention ( $CR = 0.929$ ;  $p = 0.353$ ). This finding contrasts with prior studies that identify enjoyment as a key predictor of repeated purchasing in live commerce [18][48][49]. While a larger social network may enhance enjoyment through a lively and interactive atmosphere [25], it can also trigger negative effects such as social pressure, reduced trust, or information overload [50][51]. In the modest fashion segment, purchase decisions tend to reflect identity and practicality over entertainment [52]. This aligns with the profile of Gen Z respondents, who often prioritize utility in their digital consumption [53].

In contrast, *perceived utility* has a strong and significant influence ( $\beta = 0.329$ ;  $CR = 4.171$ ;  $p < 0.001$ ), making it the most powerful driver of CPI. This suggests that consumers place greater emphasis on transactional value and efficiency rather than hedonic gratification enjoyment [54][55]. This result is consistent with previous studies [30][56][57] which emphasizes that utility value, product quality, and relevant information foster sustained purchase intention. In the context of modest fashion, utility is enhanced through live demonstrations, real-time interaction, and clear product feature presentation [58][59]. Thus, the practical value derived from live streaming plays a central role in shaping consumer satisfaction and loyalty.

Another utilitarian gratification, self-presentation, also shows a significant positive effect ( $\beta = 0.180$ ;  $CR = 5.132$ ;  $p < 0.001$ ). This finding is consistent with previous studies [28][11]. In the context of modest fashion, self-presentation serves as an important means for Muslim women to express both their religious and fashionable identities simultaneously [60][61]. Alongside Perceived Utility, this utilitarian motivation strengthens consumers' tendency to continue purchasing through platforms like TikTok.

Lastly, social presence significantly impacts continuous purchase intention ( $\beta = 0.298$ ;  $CR = 4.875$ ;  $p < 0.001$ ). This aligns with prior studies highlighting the role of social gratification in driving CPI [19][56]. Warm interactions between users, hosts, and communities foster trust and emotional engagement [62]. In modest fashion, shared beliefs and inclusive environments are key to purchasing decisions [7]. Thus, fostering active interaction and familiarity is crucial, especially for Muslim women who value social connection.

### The Influence of Perceived Network Size on U&G Theory

First, *Perceived Network Size* has a positive and significant effect on *Perceived Enjoyment* ( $\beta = 0.273$ ;  $CR = 3.656$ ;  $p < 0.001$ ). Users who perceive themselves as part of a larger network tend to experience more enjoyment while engaging in live streaming. This supports the findings of [15] who observed that broader social contexts enhance hedonic gratification. Ma (2021) and Helen et al. (2024) emphasize that a large network contributes to a vibrant and interactive environment, boosting user enjoyment.

Second, *Perceived Network Size* also positively influences *Perceived Utility* ( $\beta = 0.325$ ;  $CR = 6.214$ ;  $p < 0.001$ ). This suggests that users within larger perceived networks derive greater practical value from the platform. It reflects the concept of network externalities, where increased participation enhances individual utility [14][63]. In live shopping, product understanding improves through not just host presentations but also peer comments and shared reviews [25]. Prior research has also shown that larger networks foster trust and facilitate information sharing [15] [64].

However, *Perceived Network Size* does not significantly affect *Self-presentation* ( $\beta = 0.128$ ;  $CR = 1.189$ ;  $p = 0.235$ ). This suggests that being part of a large network does not automatically motivate users to craft or maintain a digital identity. Ma (2021), argues that this effect is mediated through perceptions of digital celebrities. Similarly, Zhang et al. [65] highlight that self-presentation is shaped more by symbolic values and parasocial connections than by network size. In modest fashion, identity expression tends to be driven by personal values such as religiosity and lifestyle [61].

Finally, *Perceived Network Size* significantly enhances *Social Presence* ( $\beta = 0.420$ ;  $CR = 5.610$ ;  $p < 0.001$ ). This supports network size theory, which posits that broader networks increase opportunities for interaction and emotional bonding [66]. In live streaming contexts, this manifests through communication intensity, social support, and shared engagement [63][15]. Users who feel part of a large community tend to engage more actively, enhancing the experience of social presence [10]. Within the framework of modest fashion, this phenomenon cultivates a sense of belonging and affirms the stylistic values held by the community.

### The Mediating Role of Perceptions of Digital Celebrities

This study investigates the role of Perceptions of Digital Celebrities (PDS) as a mediator between Perceived Network Size and three dimensions U&G Theory: hedonic gratification (perceived enjoyment), utilitarian gratification (perceived utility and self-presentation), and social gratification (social presence).

First, PDS significantly mediates the relationship between Perceived Network Size and Perceived Enjoyment ( $Z = 5.591$ ;  $p < 0.001$ ). Enjoyment during live streaming is shaped not only by the size of perceived networks size but also by how they evaluate the digital celebrities involved. Authentic and relatable celebrities are more likely to form emotional connections that enhance enjoyment [10][11][16].

PDS also mediates the link between Perceived Network Size and Perceived Utility ( $Z = 5.234$ ;  $p < 0.001$ ). Users who view digital celebrities as credible are more inclined to trust the information presented during live sessions. These figures function as effective communicators, transforming social exposure into perceived utility. [67][44].

In the case of Self-presentation, a significant mediating effect is also observed ( $Z = 4.940$ ;  $p < 0.001$ ). Exposure to celebrities with distinctive styles or values can encourage users to reflect or reshape their digital identities. This process is often driven by social comparison or aspirational alignment with admired figures [10][68][69].

Finally, PDS mediates the relationship between Perceived Network Size and Social Presence ( $Z = 6.761$ ;  $p < 0.001$ ). Digital celebrities who actively engage through comments or livestream interaction foster a stronger sense of social connectedness. These interactions build emotional bonds and promote meaningful participation during live shopping sessions [70][71].

Overall, these findings underscore that the perception of digital celebrities functions as a cognitive-social bridge, transforming the structural influence of broad social networks into more meaningful user engagement within the live streaming shopping context. Digital celebrities, therefore, are not merely entertainers or endorsers, but central actors in shaping consumer perceptions, participation, and self-representation in the digital ecosystem.

## 6. Conclusions

This study explored how the U&G Theory influences Continuous Purchase Intention in TikTok live streaming shopping, examined the impact of Perceived Network Size on U&G Theory dimensions, and investigated the mediating role of Perceptions of Digital Celebrities (PDS). The results indicate that perceived utility, self-presentation, and social presence significantly promote continuous purchase intention, while perceived enjoyment does not. perceived network size has a positive effect on enjoyment, utility, and social presence but does not show a direct relationship with self-presentation. Additionally, PDS serves as an important mediating bridge, shaping user perceptions across emotional, practical, and social dimensions.

These insights suggest that marketers, especially those in modest fashion businesses on TikTok, should focus on enhancing functional value by delivering informative live streaming content with clear product details to support smart purchasing decisions. Content should also enable identity expression aligned with Islamic values through open interaction and community-based programs. Businesses are encouraged to build active online communities and pursue selective collaborations with credible digital celebrities who share the brand's values. Additionally, platforms like TikTok should strengthen interactive features to facilitate personal, two-way communication.

Academically, this research contributes to expanding the application of U&G Theory in value-based live streaming contexts, emphasizing the importance of perceived utility, self-presentation, and social presence in driving continuous purchase intention. It also confirms the crucial mediating role of PDS in linking social networks to the forms of gratification

sought by users. For future research, it is recommended to develop more comprehensive conceptual models by including additional variables such as trust, perceived risk, or brand experience as potential mediators or moderators. Mixed-method approaches can also be employed to explore the social and psychological meanings behind purchasing behavior for value-based products. Additionally, comparative studies across platforms, product categories, or demographic groups are encouraged to test the generalizability of these findings.

## References

- [1] IPSOS, "Livestream Selling in Indonesia Market is Growing," 2022. <https://www.ipsos.com/en-id/livestream-selling-indonesia-market-growing> (accessed Dec. 13, 2024).
- [2] J. Chew, "Live shopping: The next big step for ecommerce in Indonesia," *Tech in Asia*, 2021. <https://www.techinasia.com/live-shopping-big-step-ecommerce-indonesia>.
- [3] R. Nisaputra, "Live Streaming Jadi Daya Tarik Masyarakat Dalam Peta Persaingan E-Commerce di 2023," *Infobanknews.com*, 2024.
- [4] Databox, "Kelompok Anak Muda Jadi Pengguna Terbesar TikTok, Usia Berapa Mereka?," 2023. [Online]. Available: <https://databoks.katadata.co.id/media/statistik/3997760dd2e3fd3/kelompok-anak-muda-jadi-pengguna-terbesar-tiktok-usia-berapa-mereka>.
- [5] C. Adipradana, T. S. Pamungkas, A. W. Hidayat, P. Srentiyono, and Kusriani, "Analisis Spektrum Perintah Suara Berdasarkan Gender," *J. Tecnoscienza*, vol. 4, no. 1, pp. 141–160, 2019.
- [6] R. Honeybill, "TikTok Shop Statistics: 2023 Data Analysis," 2023. [https://rootdigital-co-uk.translate.goog/blog/tiktok-shop-statistics/?\\_x\\_tr\\_sl=en&\\_x\\_tr\\_tl=id&\\_x\\_tr\\_hl=id&\\_x\\_tr\\_pto=tc&\\_x\\_tr\\_hist=true](https://rootdigital-co-uk.translate.goog/blog/tiktok-shop-statistics/?_x_tr_sl=en&_x_tr_tl=id&_x_tr_hl=id&_x_tr_pto=tc&_x_tr_hist=true) (accessed Jan. 01, 2024).
- [7] Indarti and L. H. Peng, "Bridging local trend to global: Analysis of Indonesian contemporary modest fashion," *Proc. 2017 IEEE Int. Conf. Appl. Syst. Innov. Appl. Syst. Innov. Mod. Technol. ICASI 2017*, pp. 1710–1713, 2017, doi: 10.1109/ICASI.2017.7988267.
- [8] G. Aditya, "Modest Wear: Perkembangannya di Mata Dunia dan Indonesia," *Bazaar Indonesia*, 2021. <https://harpersbazaar.co.id/articles/read/5/2021/15182/modest-wear-perkembangannya-di-mata-dunia-dan-indonesia>.
- [9] Statista, "Leading reasons for participating in live commerce or live shopping events in Indonesia as of May 2024," 2024. [Online]. Available: <https://www.statista.com/statistics/1493472/indonesia-reasons-for-participating-in-live-commerce-or-live-shopping-events/>.
- [10] Y. Ma, "To shop or not: understanding chinese consumer live stream shopping intention from the prespective of uses and gratification, perceived network size, perceptions of digitals celebrities and shopping orientations," *Telemat. Informatics*, vol. 59, no. January, p. 101562, 2021, doi: 10.1016/j.tele.2021.101562.
- [11] Kelly and M. T. Febriyantoro, "Peranan Perception Of Digital Celebrities Terhadap Live-Stream Shopping Intentions," *J. Ecodemica J. Ekon. Manaj. dan Bisnis*, vol. 6, no. 1, pp. 33–44, 2022, doi: 10.31294/eco.v6i1.11766.
- [12] I. I. Mindiasari, D. Priharsari, and W. Purnomo, "Eksplorasi Pengaruh Teknologi Live Shopping terhadap Minat Beli Pelanggan dengan Systematic Literature Review," *J. Pengemb. Teknol. Inf. dan Ilmu Komput.*, vol. 7, no. 3, pp. 1039–1042, 2023, [Online]. Available: <https://j-ptiik.ub.ac.id/index.php/j-ptiik/article/view/12370>.
- [13] X. Luo, W. M. Lim, J. Cheah, X. Lim, and Y. K. Dwivedi, "Live Streaming Commerce : A Review and Research Agenda Live Streaming Commerce : A Review and Research Agenda," *J. Comput. Inf. Syst.*, vol.

- 00, no. 00, pp. 1–24, 2023, doi: 10.1080/08874417.2023.2290574.
- [14] H. Pang, “Do direct and indirect network externalities matter? Unpacking the causal antecedents of perceived gratifications and user loyalty toward mobile social media,” *Aslib J. Inf. Manag.*, vol. 76, no. 3, pp. 399–415, 2024, doi: 10.1108/AJIM-09-2022-0398.
- [15] H. Pang, Y. Qiao, Y. Li, and L. Wang, “Do network externalities and perceived gratifications boost WeChat continued use? Combining perspectives of network externalities and uses and gratifications,” *Acta Psychol. (Amst.)*, vol. 251, no. November, p. 104610, 2024, doi: 10.1016/j.actpsy.2024.104610.
- [16] A. Hartanto and Rodhiah, “The Impact of Perceived Digital Celebrities on Live-Stream Shopping Intention of Shopee Live Users in Jakarta,” *Int. J. Soc. Sci. Res. Rev.*, vol. 7, no. 4, pp. 1–11, 2024, doi: <https://doi.org/10.47814/ijssrr.v7i4.2055>.
- [17] J. Cai, D. Y. Wohn, A. Mittal, and D. Sureshbabu, “Utilitarian and Hedonic Motivations for Live Streaming Shopping,” *Proc. 2018 ACM Int. Conf. Interact. Exp. TV online video*, pp. 81–88, 2018, [Online]. Available: [https://www.researchgate.net/publication/326025845\\_Utilitarian\\_and\\_Hedonic\\_Motivations\\_for\\_Live\\_Streaming\\_Shopping](https://www.researchgate.net/publication/326025845_Utilitarian_and_Hedonic_Motivations_for_Live_Streaming_Shopping).
- [18] J. Wang and J. I. Oh, “Factors Influencing Consumers’ Continuous Purchase Intentions on TikTok: An Examination from the Uses and Gratifications (U&G) Theory Perspective,” *Sustain.*, vol. 15, no. 13, p. 10028, 2023, doi: 10.3390/su151310028.
- [19] J. Wang and J. I. Oh, “Factors Influencing Consumers’ Continuous Purchase Intentions on TikTok: An Examination from the Uses and Gratifications (U&G) Theory Perspective,” *Sustain.*, vol. 15, no. 13, 2023, doi: 10.3390/su151310028.
- [20] D. A. P. Sari, I. Febrilia, A. Kresnamurti, Sholikhah, P. D. Dirgantari, and H. Rachmahani, “Why do people shop? Understanding consumer e-commerce shopping intention in Indonesia: Mediating effect of shopping orientation,” *Nurture*, vol. 17, no. 2, pp. 81–92, 2023, doi: <https://doi.org/10.55951/nurture.v17i2.205>.
- [21] F. Kasirye, “The Importance of Needs in Uses and Gratification Theory,” 2022.
- [22] P. Kaur, A. Dhir, S. Chen, A. Malibari, and M. Almotairi, “Why Do People Purchase Virtual Goods? A Uses and Gratification (U&G) Theory Perspective,” *Telemat. Informatics*, vol. 53, p. 101376, 2020, doi: <https://doi.org/10.1016/j.tele.2020.101376>.
- [23] C. Gan and H. Li, “Understanding the effects of gratifications on the continuance intention to use WeChat in China: A perspective on uses and gratifications,” vol. 78, pp. 306–315, 2018, doi: 10.1016/j.chb.2017.10.003.
- [24] A. Hossain and M. Kim, “Can ‘Liking’ Behavior Lead to Usage Intention on Facebook? Uses and Gratification Theory Perspective,” *Sustainability*, vol. 11, no. 4, p. 1166, 2019, doi: 10.3390/su11041166.
- [25] Helen, R. B. Ikhsan, H. M. R. Wijanarko, and M. K. Adam, “What Customer Motive to Purchase Using Feature Live Shopping in E-Commerce?,” 2024, doi: 10.1109/IRASET60544.2024.10548358.
- [26] P. H. Silaban, A. D. K. Silalahi, E. Octoyuda, Y. K. Sitanggang, L. Hutabarat, and A. I. S. Sitorus, “Understanding hedonic and utilitarian responses to product reviews on youtube and purchase intention,” *Cogent Bus. Manag.*, vol. 9, no. 1, 2022, doi: 10.1080/23311975.2022.2062910.
- [27] C. Flavi, K. Akdim, and L. V Casal, “The role of utilitarian and hedonic aspects in the continuance intention to use social mobile apps,” *J. Retail. Consum. Serv.*, vol. 66, no. June 2021, 2022, doi: 10.1016/j.jretconser.2021.102888.
- [28] R. A. Qadri, F. A. Sinambela, and K. Marcella, “The Role of Perceived Social Interaction , Perceived Enjoyment , Perceived Utility , and Self-Presentation in Mediating Social Presence on Purchase Intention,” *J. Penelit. Ilmu Ekon.*, vol. 14, no. 2, pp. 246–260, 2024.

- [29] F. Zeln, W. Tao, H. Yu, Z. Wang, and Z. Li, "Words Should Be Spoken on the 'Knife Edge': Research on Online Review Data-Driven Live Streamer Product Recommendation Strategy," 2024, [Online]. Available: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4853712](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4853712).
- [30] A. Eddine, E. Moussaoui, and B. Benbba, "Determinants of consumer 's online shopping intention during COVID-19," *J. Electron. Bus. Digit. Econ.*, vol. 2, no. 1, pp. 69–88, 2023, doi: 10.1108/JEBDE-01-2023-0002.
- [31] S. Song, Y. Xu, B. Ma, and X. Zong, "Understanding How Streamer's Self-Presentation in E-Commerce Live Streaming Affects Consumers: The Role of Persuasion Knowledge," *J. Theor. Appl. Electron. Commer. Res.*, vol. 19, no. 3, pp. 1922–1942, 2024, doi: 10.3390/jtaer19030095.
- [32] Y. Kim and J. W. Jun, "Factors affecting sustainable purchase intentions of sns emojis: Modeling the impact of self-presentation," *Sustain.*, vol. 12, no. 20, pp. 1–14, 2020, doi: 10.3390/su12208361.
- [33] T. F. . Stafford, M. R. Stafford, and L. L. Schkade, "Determining Uses and Gratifications for the Internet," *Decis. Sci.*, vol. 35, no. 2, pp. 2259–288, 2004, doi: <https://doi.org/10.1111/j.00117315.2004.02524.x>.
- [34] R. A. Raji, O. A. Arikewuyo, A. S. Oladimeji Adeyemi, and M. R. Pahore, "Unveiling Social Gratifications Sought and Obtained from Social Media Utilization," *J. Messenger*, vol. 12, no. 2, p. 168, 2020, doi: 10.26623/themessenger.v12i2.1818.
- [35] K. Kreijns, K. Xu, and J. Weidlich, *Social Presence: Conceptualization and Measurement*, vol. 34, no. 1. Educational Psychology Review, 2022.
- [36] M. Li and Y. Hua, "Integrating Social Presence With Social Learning to Promote Purchase Intention: Based on Social Cognitive Theory," *Front. Psychol.*, vol. 12, no. January, pp. 1–13, 2022, doi: 10.3389/fpsyg.2021.810181.
- [37] M. Tao, F. Alam, E. Lahuerta-Otero, and C. Mengyuan, "Get Ready to Buy With Me: The Effect of Social Presence Interaction and Social Commerce Intention on S-commerce Live Streaming," *SAGE Open*, vol. 14, no. 1, pp. 1–24, 2024, doi: 10.1177/21582440241232751.
- [38] S. C. Lin and Y. Y. Lee, "Explaining the gift-giving intentions of live-streaming audiences through social presence: the perspective of interactive marketing," *J. Res. Interact. Mark.*, vol. 18, no. 5, pp. 945–969, 2024, doi: 10.1108/JRIM-01-2024-0030.
- [39] F. Hou, Z. Guan, B. Li, and A. Y. L. Chong, "Factors influencing people's continuous watching intention and consumption intention in live streaming: Evidence from China," *Internet Res.*, vol. 30, no. 1, pp. 141–163, 2019, doi: 10.1108/INTR-04-2018-0177.
- [40] H. Shi, Y. Wang, X. Gong, and F. Deng, "Which type of information's quality in live streaming commerce captures consumers' attention the most? Considering the moderating role of network size," *Asia Pacific J. Mark. Logist.*, 2024, doi: 10.1108/APJML-04-2024-0528.
- [41] L. Gao and X. Bai, "An empirical study on continuance intention of mobile social networking services: Integrating the IS success model, network externalities and flow theory," *Asia Pacific J. Mark. Logist.*, vol. 26, no. 2, pp. 168–189, 2014, doi: 10.1108/APJML-07-2013-0086.
- [42] L. Zhao and Y. Lu, "Enhancing perceived interactivity through network externalities : An empirical study on micro-blogging service satisfaction and continuance intention," *Decis. Support Syst.*, vol. 53, no. 4, pp. 825–834, 2012, doi: 10.1016/j.dss.2012.05.019.
- [43] E. Abu-Shanab, M. A. Al-Sharaf, and M. Al-Emran, "The Influence of Network Externality and Fear of Missing out on the Continuous Use of Social Networks: A Cross-Country Comparison," *Int. J. Hum. Comput. Interact.*, vol. 40, no. 15, pp. 4058–4070, 2024, doi: 10.1080/10447318.2023.2208990.
- [44] Y. Chetoui, H. Benlafqih, and H. Lebdaoui, "How fashion influencers contribute to consumers' purchase intention," *J. Fash. Mark. Manag.*, vol. 24, no. 3, pp. 361–380, 2020, doi: 10.1108/JFMM-08-2019-0157.
- [45] R. Li, "The secret of internet celebrities: A qualitative study of online opinion leaders on Weibo," in

- Proceedings of the Annual Hawaii International Conference on System Sciences*, 2018, vol. 2018-Janua, pp. 533–542, doi: 10.24251/hicss.2018.068.
- [46] Z. Fang, “Exploring The Celebrity Effect on Live-Streaming E-Commerce : A Comprehensive SWOT Analysis of Influencer Marketing Strategies,” *Highlights Business, Econ. Manag.*, vol. 41, pp. 348–353, 2024.
- [47] J. F. Gräve, “Exploring the perception of influencers vs. Traditional celebrities: Are social media stars a new type of endorser?,” *ACM Int. Conf. Proceeding Ser.*, vol. Part F1296, pp. 1–5, 2017, doi: 10.1145/3097286.3097322.
- [48] Z. Liu, J. Li, X. Wang, and Y. Guo, “How search and evaluation cues influence consumers’ continuous watching and purchase intentions: An investigation of live-stream shopping from an information foraging perspective,” *J. Bus. Res.*, vol. 168, no. August, p. 114233, 2023, doi: 10.1016/j.jbusres.2023.114233.
- [49] A. Pebrita, “Online Repurchase Intention Ditinjau dari Perceived Enjoyment pada Konsumen Shopee,” *J. Soc. Ind. Psychol.*, vol. 11, no. 2, pp. 123–129, 2022, doi: 10.15294/sip.v11i2.64804.
- [50] X. Li, X. Guo, and Z. Shi, “Bright sides and dark sides: Unveiling the double-edged sword effects of social networks,” *Soc. Sci. Med.*, vol. 329, no. 28, p. 116035, 2023, doi: 10.1016/j.socscimed.2023.116035.
- [51] S. J. Wang, “Analysis Of the Influence of Social Networks on Consumption Decisions and Behaviors,” *Highlights Business, Econ. Manag.*, vol. 23, pp. 1125–1130, 2023, doi: 10.54097/ydbakx17.
- [52] A. Audrezet and B. Parguel, “Unpacking nontarget majority consumers ’ responses to modest fashion : how market controversy perpetuates marketplace exclusion,” *J. Mark. Manag.*, vol. 39, no. 13–14, pp. 1302–1330, 2023, doi: 10.1080/0267257X.2023.2217821.
- [53] R. A. Utamanyu and R. Darmastuti, “budaya belanja online generasi z dan generasi milenial di jawa tengah ( Studi Kasus Produk Kecantikan di Online Shop Beauty by ASAME ),” *J. Scriptura*, vol. 12, no. 1, pp. 58–71, 2022, doi: 10.9744/scriptura.12.1.58-71.
- [54] A. Wongkitrungrueng and N. Assarut, “The role of live streaming in building consumer trust and engagement with social commerce sellers,” *J. Bus. Res.*, vol. 117, no. September 2018, pp. 543–556, 2020, doi: 10.1016/j.jbusres.2018.08.032.
- [55] X. Hu, Z. Chen, R. M. Davison, and Y. Liu, “Charting consumers’ continued social commerce intention,” *Internet Res.*, vol. 32, no. 1, pp. 120–149, 2022, doi: 10.1108/INTR-07-2020-0397.
- [56] Y. Wu and H. Huang, “Influence of Perceived Value on Consumers’ Continuous Purchase Intention in Live-Streaming E-Commerce—Mediated by Consumer ‘Trust,” *Sustain.*, vol. 15, no. 5, 2023, doi: 10.3390/su15054432.
- [57] A. Monica and L. A. M. Nelloh, “Analisis Pengaruh Authenticity Perception, Hedonic, Perceived Value terhadap Repurchase Intention Suvenir di Bali,” *Indones. J. Entrep.*, vol. 5, no. 1, 2019.
- [58] M. F. Najib, T. Fauziah, T. Djatnika, D. Saefulloh, and D. Purnamasari, “Impact of Utilitarian and Hedonic Values on Hijab Buying Intentions: Evidence from Indonesia,” *J. Mark. Innov.*, vol. 2, no. 2, pp. 154–168, 2022, doi: 10.35313/jmi.v2i2.48.
- [59] R. A. Rahmi and M. Ariyanti, “The Influence of Product Quality and Price On Customer Satisfaction At Shopataleen Fashion Brand,” *J. Ilm. MEA (Manajemen, Ekon. dan Akuntansi)*, vol. 6, no. 3, pp. 472–487, 2022, doi: 10.47353/ecbis.v1i2.9.
- [60] M. Durrotul, “The Impact Of Social Media On Indonesian Muslim Women’s Consumption Of Islamic Fashion,” *J. Sociol. Refleks.*, vol. 12, no. 1, pp. 179–192, 2018.
- [61] N. Shalihin, Darmaiza, M. Sholihin, and M. Yusuf, “Muslim millennials fashion self-congruity:How the religiosity and spiritual well-being affect?,” *Cogent Soc. Sci.*, vol. 9, no. 1, 2023, doi: 10.1080/23311886.2023.2194110.
- [62] T. Yan, J. Wu, and H. Meng, “The effect of digital fashion visual symbol perception on consumer

- repurchase intention: a moderated chain mediation model,” *J. Fash. Mark. Manag.*, vol. 28, no. 4, 2023, doi: 10.1108/JFMM-08-2023-0202.
- [63] C. M. Chang, “Understanding social networking sites continuance: The perspectives of gratifications, interactivity and network externalities,” *Online Inf. Rev.*, vol. 42, no. 6, pp. 989–1006, 2018, doi: 10.1108/OIR-03-2017-0088.
- [64] T. V. Gloria and A. Achyar, “Effects of Externalities and Flow on Perceived Usefulness, Satisfaction, and Loyalty in Mobile Instant Messaging Promotion,” *ASEAN Mark. J.*, vol. 8, no. 2, p. 1, 2018, doi: 10.21002/amj.v8i2.9261.
- [65] T. Zhang, B. Li, and N. Hua, “Live-Streaming Tourism: Model Development and Validations,” *J. Travel Res.*, vol. 64, no. 3, pp. 559–575, 2025, doi: 10.1177/00472875231223133.
- [66] A. J. Lim, C. Lau, N. P. Li, G. P. Ingram, P. K. Jonason, and J. Cameron, “The Moderating Role of Social Network Size on Social Media Use and Self-Esteem: An Evolutionary Mismatch Perspective,” *Front. Psychol.*, vol. 12, no. September, pp. 1–9, 2021, doi: 10.3389/fpsyg.2021.734206.
- [67] R. N. Rutter, S. J. Barnes, S. Roper, J. Nadeau, and F. Lettice, “Social media influencers, product placement and network engagement: using AI image analysis to empirically test relationships,” *Ind. Manag. Data Syst.*, vol. 121, no. 12, pp. 2387–2410, 2021, doi: 10.1108/IMDS-02-2021-0093.
- [68] P. Shi, X. Lu, Y. Zhou, C. Sun, L. Wang, and B. Geng, “Online Star vs. Celebrity Endorsements: The Role of Self-Concept and Advertising Appeal in Influencing Purchase Intention,” *Front. Psychol.*, vol. 12, no. November, pp. 1–15, 2021, doi: 10.3389/fpsyg.2021.736883.
- [69] H. D. Tran and P. P. U. Diep, “Me, myself, and I: Self Presentation, self-esteem, and uses and gratification on Facebook, LinkedIn, and TikTok,” *Firs*, 2025.
- [70] W. Novita and F. Laij, “How Do Digital Influencers And Social Presence Impact Customer ’ S Purchase Intention In Live Streaming Commerce , Considering The Mediating Role Of Customer Trust ?,” *J. Bisnis Net*, vol. 7, no. 2, pp. 654–660, 2024.
- [71] M. T. Febriyantoro *et al.*, “The role of perception of digital celebrities on live stream shopping intention through social interaction in Indonesia,” *Cogent Bus. Manag.*, vol. 11, no. 1, 2024, doi: 10.1080/23311975.2024.2336637.