

# Quantifying Live-Streaming in Book Retail Sector: An Empirical Approach

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## ABSTRACT

This study explores the growing phenomenon of live-streaming in the book retail sector and its implications for consumer behavior and business performance. Using an empirical approach, specifically structural equation model, we analyze live-streaming as an innovative marketing strategy that combines real-time engagement with personalized content delivery. Drawing on data from online book retailers, we investigate key factors influencing the effectiveness of live-streaming, including viewer engagement, trust-building, and purchase intentions. Our findings reveal that live-streaming significantly enhances consumer trust and satisfaction, leading to increased sales and customer loyalty. Furthermore, we highlight the moderating role of product type and audience demographics in shaping live-streaming outcomes. The study provides valuable insights for book retailers seeking to leverage live-streaming as a competitive advantage in a dynamic e-commerce landscape. By bridging academic theory with industry practice, this research contributes to a deeper understanding of digital transformation in retail and offers actionable recommendations for practitioners.

**Keywords:** live-streaming, book retail, quantitative analysis, structural equation model.

## I. INTRODUCTION

The rapid advancement of technology has significantly transformed consumer behavior and business strategies, particularly in the digital era [1]. Technological innovations have simplified various human activities, including economic activities, by integrating internet-based trading features [2]. This shift has marked the transition from traditional to digital marketing, where face-to-face interactions have evolved into digital communication through screens [3].

E-commerce has emerged as a solution to leverage global opportunities provided by the internet. It refers to the sale or purchase of goods and services conducted online, facilitating transactions in a more efficient and accessible manner. Over the years, e-commerce has increasingly replaced traditional retail stores. According to Euromonitor, Indonesia has witnessed substantial growth in e-commerce, with online sales reaching USD 1.1 billion in 2014 [4].

The rise of e-commerce is evident from data by Statista, which shows a steady increase in e-commerce users in Indonesia, from 58.63 million in 2023 to a projected 99.1 million by 2029. This growth presents significant opportunities for businesses adopting e-commerce as a platform to enhance their sales and market reach [5]. Among Indonesia's leading e-commerce platforms, Shopee stands out with the highest number of visitors in the first quarter of 2023. Shopee's innovative features, particularly Shopee Live Streaming, have revolutionized online shopping experiences. Introduced on June 6, 2019, Shopee Live Streaming enables sellers to promote their products interactively, providing real-time engagement with consumers through video streams [6].

Shopee Live Streaming has gained popularity, with a 2024 survey by Jakpat showing 57% of respondents using the platform for live shopping. This feature is widely adopted across various product categories, including fashion, electronics, and books [7]. It allows consumers to obtain detailed product information, such as specifications, advantages, disadvantages, and pricing, which helps them make informed purchase decisions. In the book retail sector, Gramedia actively utilizes Shopee Live Streaming to market its products [8]. This feature not only facilitates real-time

interaction with consumers but also showcases Gramedia's offerings, such as books and stationery, in an engaging and informative manner [9]. By leveraging live streaming, Gramedia enhances consumer buying interest by providing a platform where they can assess products comprehensively and interact directly with sellers [10].

Live streaming has proven effective in influencing purchase decisions by addressing consumer needs for transparency and engagement. According to Indrasari (2019), a purchase decision involves choosing from available alternatives based on detailed consideration. With features like Shopee Live, consumers can objectively evaluate products, enhancing their confidence and satisfaction in making purchases. Based on the above context, this research aims to analyze the influence of Shopee Live Streaming on Gramedia product purchase decisions in Bandung. By exploring aspects such as product quality perception, host creativity, and promotional strategies, the study seeks to provide insights into the role of live streaming in shaping consumer behavior in the digital marketplace.

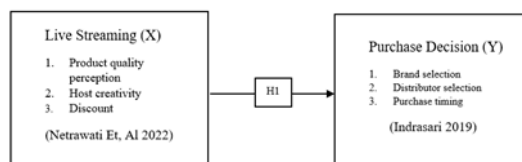
## II. LITERATURE REVIEW

**Digital marketing** is the process of preparing integrated communication to inform products or services that fulfill people's needs and desires. It aims to build relationships with key customers, create competitive advantages, and maximize shareholder returns. according to Kotler & Keller (2020), refers to websites with excellent visual presentation that help users select products, compare prices, and offer secure, efficient payment methods. Charlesworth (2018) adds that e-commerce encompasses all online business activities, including sales, marketing, recruitment, and logistics.

Live streaming refers to the real-time broadcasting of video or audio content over the internet. According to Singh et al. (2021), its history dates back to a live video broadcast by the band *Severe Tire Damage* on June 24, 1993, with earlier roots in "Muzak" from the 1910s. Initially used for music or daily activities, live streaming has evolved into a popular tool for product marketing. Xu and Ye (2020) describe live streaming as a social media platform delivering real-time video content with interactive features. Chandrruangphen et al. (2022) add that it involves online video broadcasts where the broadcaster is known as a streamer.

A purchase decision is the final choice made by a consumer to buy goods or services after considering various factors. Kotler et al. (2023) explain that it involves deciding on the preferred brand, and can lead to either the intention to purchase or an actual purchase. The decision-making process as a stage where consumers evaluate alternatives and choose the option that best meets their needs [8]. Purchase decisions are behaviors related to the final act of buying goods or services for personal consumption [9]. Indicators of consumer decisions to purchase a product include several decisions [10].

### The Relationship between Live Streaming and Purchase Decision



Based on the research framework described above, the following hypotheses can be drawn:

- a)  $H_0$ : Shopee Live Streaming does not have an influence on Gramedia product purchase decisions in Bandung City.
- b)  $H_1$ : Shopee Live Streaming has an influence on Gramedia product purchase decisions in Bandung City.

## III. METHODOLOGY

The research methodology used in this study is quantitative. The study's demographic is made up of people between the ages of 17 and 30 who live in Bandung City, have a Shopee account, and have bought Gramedia items through Shopee live streaming. Purposive sampling was used to choose the sample, which had 100 responders in total. Primary data, which was acquired by distributing questionnaires to respondents, was the type of data used in this investigation. Structural Equation Modeling-Partial Least Squares (SEM-PLS) is the data analysis technique used. The information utilized includes secondary data gathered from literature reviews of books, national and international periodicals, and pertinent prior research, as well as primary data gathered via surveys.

#### IV. RESULTS

##### a. Convergent Validity

Indicator	Live Streaming (X)	Purchase Decision (Y)	Conclusion
LS 1	0.646		VALID
LS 2	0.780		VALID
LS 4	0.778		VALID
LS 6	0.756		VALID
LS 9	0.672		VALID
PD 1		0.775	VALID
PD 2		0.696	VALID
PD 4		0.700	VALID
PD 5		0.684	VALID
PD 6		0.651	VALID
PD 7		0.763	VALID
PD 8		0.738	VALID
PD 9		0.800	VALID

The table above shows that the outer loading above has a value  $>0.5$ , indicate that the indicators in this study have sufficient convergent validity. This means that the indicators are reliable and can be used in the research, and further analysis is required to validate the results.

##### b. Discriminant Validity

Variable	Indicator	Live Streaming (X)	Purchase Decision (Y)
Live Streaming (X)	LS 1	<b>0.646</b>	0.615
	LS 2	<b>0.780</b>	0.596
	LS 4	<b>0.778</b>	0.580
	LS 6	<b>0.756</b>	0.617
	LS 9	<b>0.672</b>	0.573
Purchase Decision (Y)	PD 1	0.613	<b>0.775</b>
	PD 2	0.631	<b>0.696</b>
	PD 4	0.541	<b>0.700</b>
	PD 5	0.558	<b>0.684</b>
	PD 6	0.617	<b>0.651</b>
	PD 7	0.591	<b>0.763</b>
	PD 8	0.566	<b>0.738</b>
	PD 9	0.643	<b>0.800</b>

Based on Table, the cross-loading estimates for each indicator are higher than the correlation values between variables. Discriminant validity is considered valid if an indicator's loading value is greater than the loading values of other variables (Susanto et al., 2020). Therefore, the variables in this study have good discriminant validity.

## c. Composite Reliability

Variable	Composite Reliability	Critical Value	Cronbach's Alpha	Critical Value	Model Evaluation
Live Streaming (X)	0.849	>0.50	0.776	>0.50	Reliable
Purchase Decision (Y)	0.899		0.872		Reliable

According to the table, each variable's Cronbach's Alpha and Composite Reliability scores are both higher than 0.50. Indrawati (2017) states that two techniques—Composite Reliability and Cronbach's Alpha—are used for reliability testing, with a threshold of 0.50 [11]. Thus, it may be said that the examined data is highly reliable.

**Inner Model**

## a. Coefficient of Determination

Variable	R Square	R Square Adjusted
Purchase Decision (Y)	0.675	0.672

Based on Table 4.8, the R-Square value for the Purchase Decision variable is 0.675. From this result, it can be concluded that the Purchase Decision variable falls into the "Strong" category ( $>0.675$ ) [12].

F-Square ( $F^2$ )

Indicator	Live Streaming (X)	Purchase Decision (Y)
Live Streaming (X)		2.079
Purchase Decision (Y)		

Based on the results of the Effect Size ( $F^2$ ) analysis, the Live Streaming (X) variable has an  $F^2$  value of 2.079, which falls into the large effect category [13]. This indicates that Live Streaming has a significant and strong influence on Purchase Decision.

## b. Hypothesis Results

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Live Streaming (X) -> Purchase Decision (Y)	0.822	0.813	0.071	11.560	0.000

Based on the table, it can be seen:

1. H1: Live Streaming (X) has an effect on Purchase Decision (Y).

With a T-value of 11.560 and a P-value of 0.000, the result is considered significant because the T-value is greater than 1.96 and the P-value is less than 0.05. Therefore, this hypothesis states that Live Streaming (X) has a significant effect on Purchase Decision (Y), and it is accepted.

## V. CONCLUSION

Based on the research conducted on "The Influence of Live Streaming on Purchase Decisions for Gramedia Products in Bandung City," it can be concluded that live streaming significantly influences purchase decisions. The study shows that live streaming, particularly in the context of Shopee's platform, positively impacts consumers' purchase decisions for Gramedia products. The results demonstrate that product quality perception, host creativity, and discounts are key factors that enhance the effectiveness of live streaming in driving purchase decisions.

Thus, it is recommended that Gramedia continue leveraging Shopee Live Streaming as a core marketing strategy. Additionally, future studies could explore the impact of other e-commerce platforms or variables to further enrich the understanding of live streaming's role in consumer purchasing behavior.

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