

THE INFLUENCE OF ONLINE IMPULSE BUYING ON GENERATION Z: A SYSTEMATIC LITERATURE REVIEW APPROACH

Mardiana¹

Universitas Sembilanbelas November Kolaka, Indonesia
mradianaaa04@gmail.com

Ismanto²

Universitas Sembilanbelas November Kolaka, Indonesia
ismanto.asran@gmail.com

Hanif Kurniadi³

Universitas Sembilanbelas November Kolaka, Indonesia
18kurniadihanif@gmail.com



Abstract

The development of e-commerce and social commerce has driven increased online impulse buying behavior, particularly among Generation Z, who have a high level of digital technology usage. This study aims to synthesize empirical findings related to factors influencing online impulse buying behavior among Generation Z through a Systematic Literature Review (SLR) approach. A literature search was conducted on English-language publications published between 2018 and 2025 through the Science Direct, Google Scholar, and ProQuest databases. The selection process followed PRISMA guidelines and resulted in 13 articles meeting the inclusion criteria. The review results indicate that Generation Z's online impulse buying behavior is influenced by various digital stimuli, such as platform quality, scarcity-based promotions, digital figure characteristics, price perception, and shopping lifestyle. These influences are generally mediated by psychological and affective mechanisms, including flow experience, shopping enjoyment, perceived enjoyment, arousal, pleasure, and consumer trust. These findings confirm that Generation Z's impulsive buying decisions are not solely driven by rational considerations, but also by digital experiences and emotional engagement shaped by the online shopping environment. This study provides a conceptual contribution by presenting a structured mapping of the determinants of online impulse buying in Generation Z as well as practical implications for the development of digital marketing strategies based on user experience and sustainable social interactions.

Keywords: Online impulse buying; Generasi Z; E-commerce; Social commerce; Systematic literature review.

INTRODUCTION

The development of digital technology has brought about fundamental changes in people's consumption patterns, particularly in e-commerce activities. Online shopping is now a key driver of global digital economic growth because it can expand market access and increase the intensity of cross-regional transactions (Suhendra, 2025). This digital transformation is reflected in the increasing value of global e-commerce sales, which by 2022 is estimated to reach nearly US\$27 trillion in 43 countries, representing approximately three-quarters of global GDP, demonstrating the significant role of digitalization in strengthening economic contributions through platform-based commercial activities (UNCTAD, 2024). Correspondingly, the global digital economy is projected to continue growing at an average rate of approximately 6.9% per year until 2028 and contribute an increasingly large proportion of global GDP (Forrester, 2024). Thus, the digitalization of trade strengthens the digital economy's contribution to driving sustainable global economic growth.

With these rapid developments, particularly in the context of e-commerce, consumers are increasingly relying on digital information when evaluating products and services. A UNCTAD report (2021) shows that increasing internet penetration and e-commerce adoption are encouraging consumers to actively seek information before making a purchase. In practice, consumers no longer rely solely on descriptions provided by sellers but also pay attention to the experiences, opinions, and ratings of other users widely available on digital platforms (Fernandes et al., 2022). This shift in information-seeking patterns has positioned user-driven content as an increasingly dominant reference source in the online shopping environment.

Consumers' reliance on information generated by fellow users makes online consumer reviews an increasingly essential element in the e-commerce landscape. In online shopping, consumers' limited ability to directly assess product quality means that digital reviews serve as quality cues that help reduce uncertainty and perceived risk. Recent studies have shown that experiences and ratings shared by other users contribute to shaping consumers' perceptions of product quality, value, and credibility (Ismagilova et al., 2020). Therefore, online consumer reviews not only serve as a rationale-based source of information but also play a crucial role in shaping consumers' emotional states in the digital shopping environment.

These psychological influences become even more significant when linked to impulse buying behavior in the context of online shopping, as the digital environment, filled with rapid information flow, engaging visual elements, and easy transaction processes, creates conditions for consumers to be more easily triggered emotionally. In this environment, research shows that external factors such as product visualization, social interactions, and exposure to reviews and information from other users can increase consumers' emotional responses and accelerate the emergence of impulse purchases (Ngo, Nguyen, Nguyen, Mai, Mai, & Hoang, 2025). Other findings also note that this phenomenon is growing rapidly among Generation Z, where situational pressures such as limited-time promotions, social recommendations, and dynamic content amplify the tendency to make purchases without prior planning (Thamara, Syarif, & Suyono, 2025). Thus, impulse buying in e-commerce is not only driven by rational considerations but is also increasingly influenced by emotional experiences and intense situational stimuli in the online shopping environment.

This tendency is becoming increasingly prominent among Generation Z, a consumer group that grew up alongside advances in digital technology and has a high level of e-commerce platform usage. This generation is known to be highly adaptable to online information and often seeks out the experiences, opinions, and reviews of other users before making impulse purchases. Recent research shows that electronic word of mouth (e-WOM) in the form of digital reviews and recommendations has a positive and significant influence on Generation Z's impulse buying behavior in e-commerce, as these reviews serve as a trusted source of social information and can strengthen the impulse to spontaneous purchases (Kholida & Puspita Rini, 2025).

Recent literature suggests that the influence of online reviews on impulse buying does not occur in isolation, but rather depends on the characteristics of the reviews themselves, such as consistency, information quality, and user engagement, which can strengthen consumer engagement and impulse buying tendencies. Findings from studies examining the role of review consistency and product information quality indicate that consistent and informative reviews can increase consumer engagement, which in turn contributes to impulse buying tendencies in online shopping environments (Toding et al., 2024). Furthermore, other research in the context of online reviews and social influence also found that online reviews have a significant influence on consumer impulsive buying through trust and engagement mechanisms, although moderating variables such as self-control also influence this relationship (Kumala, Santoso & Widhianingrum, 2025). Thus, digital review characteristics such as content quality and source credibility have been shown to be important factors in strengthening the effect of online reviews on consumer impulse buying behavior.

Although research on impulse buying continues to develop and highlights various mechanisms of its influence on consumer behavior, Hanifah, Susilaningih, & Sabandi (2024) noted that some studies emphasize trust and information quality, while others focus on the role of emotions and social influence in digital environments. Furthermore, studies specifically integrating the influence of online reviews on impulse buying among Generation Z are still relatively limited and do not provide a comprehensive picture of the relationship patterns between these variables. For example, Kholida & Puspita Rini (2025) found that consumer reviews contribute significantly to triggering impulse buying behavior among Generation Z, with a strong psychological role. Other research suggests that the combination of user reviews and digital marketing strategies such as viral marketing can strengthen spontaneous purchasing impulses on e-commerce platforms (Putri Ayu Wanda et al., 2025). Furthermore, empirical experimental studies have found that online reviews significantly influence impulsive buying tendencies in marketplace environments, although social influence does not always directly moderate (Kumala et al., 2024). Research on live commerce platforms also confirms that online review characteristics and interactivity elements such as interactivity and consumer trust levels have a positive effect on impulse buying behavior among Shopee Live users, indicating that the user review experience in a live streaming environment can strengthen the urge to buy spontaneously (Masitoh et al., 2024).

A review of the existing literature shows that research on impulse buying in the digital context continues to expand, but remains relatively scattered and has yet to provide a comprehensive synthesis of existing empirical findings. Several studies have identified factors that trigger impulse buying behavior, including the contribution of platform visual

elements, social influence, and consumer motives emerging in e-commerce environments (Thamara, Syarif, & Suyono, 2025). In such situations, the Systematic Literature Review (SLR) approach becomes relevant because it allows researchers to systematically collect, assess, and integrate previous research findings through a transparent, structured, and replicable procedure. This approach is considered more rigorous than conventional narrative literature reviews and is widely recommended in modern consumer behavior and marketing research for building comprehensive and reliable knowledge.

Based on these conditions, it can be concluded that although research on online reviews and impulse buying has shown significant growth, the existing findings are still fragmented and do not provide a comprehensive picture, especially in the context of Generation Z consumer behavior. Variations in research focus, methodological approaches, and differences in digital platform contexts have resulted in the relationship between online review characteristics and impulse buying tendencies not being systematically mapped. Therefore, the Systematic Literature Review (SLR) approach is relevant to unify and synthesize the results of previous research in a structured, transparent, and replicable manner. Through SLR, researchers can identify patterns of relationships between variables, explore dominant factors that influence impulse buying, and uncover open research gaps, thereby strengthening the conceptual foundation and providing a clearer direction for the development of empirically evidence-based digital marketing research and strategies (Hartono & Ingriana, 2025).

REVIEW OF LITERATURE

In the development of studies on customer service and interpersonal communication, various studies have explored the complexity of the relationship between service quality and customer satisfaction in the context of the telecommunications industry. Rapid digital transformation has changed the paradigm of interaction between service providers and consumers, creating the need for a deeper understanding of the role of responsive empathy and interpersonal communication in shaping the customer experience.

RESEARCH METHOD

To gain a deeper understanding of online impulse buying behavior among Generation Z, this study applies a Systematic Literature Review (SLR) approach through a systematic and structured literature search process. The search was conducted on scientific publications published between 2018 and 2025, a period reflecting the rapid development of e-commerce, digital platforms, and changes in the characteristics of young consumers in the online shopping environment. This time span was chosen to capture the dynamics of the evolution of Generation Z's impulse buying behavior along with the increasing intensity of digital interactions and the use of platform-based technologies. The literature search was conducted through several reputable scientific databases that provide multidisciplinary coverage and broad access to open access publications, namely ScienceDirect, Google Scholar, and ProQuest. The use of these various databases aims to minimize publication bias and ensure the breadth and depth of coverage of literature relevant to the research topic.

The search strategy was designed to be inclusive yet selective by using a combination of key keywords such as “online impulse buying”, “online impulsive buying”, “impulse purchase”, “marketplace”, “e-commerce”, “social commerce”, and “Generation Z” or “Gen Z”. All searches were limited to English-language publications to ensure consistency of terminology and academic quality. Boolean operators were used to optimize search results and filter the literature most relevant to the research focus. The literature analysis not only focused on the research theme but also examined the diversity of methodological designs used in previous studies, including quantitative, qualitative, and mixed methods approaches. This cross-design and cross-context approach allowed researchers to capture the variety of psychological, social, and digital mechanisms that influence Generation Z’s impulsive buying behavior in online shopping environments.

This research specifically focuses on the online impulse buying behavior of Generation Z. Therefore, the articles analyzed were selectively selected based on their relevance to the characteristics of this generation, including the intensity of digital technology use, social media exposure, and sensitivity to online stimuli. The articles reviewed included both primary and secondary data-based studies to produce a comprehensive literature synthesis on the factors driving online impulse buying.

The data collection process was carried out systematically by extracting important information including titles, abstracts, and keywords to build a consistent, coherent, and relevant body of literature to the research focus. This stage aims to ensure that the collected publications are directly related to the study topic and meet established academic standards. Furthermore, duplication elimination was carefully implemented to avoid data redundancy and improve the accuracy and efficiency of the analysis process. After that, the initial screening stage was carried out through a critical evaluation of titles and abstracts, excluding publications that did not align with the research scope, both in terms of topic, study object, and methodological context.

Next, articles that passed the initial screening stage were analyzed through full -text review to ensure their substance met the inclusion criteria. The literature deemed most relevant was then compiled and analyzed in depth to identify patterns of findings, dominant factors, and remaining research gaps.

As a methodological foundation, this study adopted the systematic review reporting guidelines developed by Page et al. (2021) to ensure transparency, rigor, and replicability across all stages of a systematic review. These guidelines build on the previous version and provide more comprehensive reporting recommendations, along with detailed operational guidance for the study identification, literature selection, methodological quality assessment, and synthesis of research findings. The approach proposed by Page et al. (2021) is designed to minimize potential selection bias and enhance reporting clarity through a systematic framework, which includes a checklist of reporting items and a structured flowchart of the literature selection process. The framework consists of four main stages: identification, screening, eligibility assessment, and inclusion, visualized in the systematic flowchart (Figure 1). During the identification stage, the literature search yielded a number of publications from the ScienceDirect, Google Scholar, and ProQuest databases. A search strategy using Boolean operators and search strings tailored to each database was applied to ensure relevant and comprehensive search results.

In the Sciencedirect database, a search was carried out using the string "impulse buying" OR "online impulsive buying" OR "impulse purchase" OR "impulsive purchase" AND e-commerce OR "social commerce" OR marketplace" AND Generation Z. Next, the Google Scholar search string used the phrase "impulse buying" OR "impulsive buying" OR "impulse purchase" "Generation Z" OR "Gen Z" e-commerce OR "social commerce" OR marketplace filetype:pdf. ProQuest used the string ("online impulse buying" OR "online impulse buying" OR "impulsive buying") AND ("Generation Z") AND ("e-commerce").

A systematic literature search yielded a total of 1,727 publications sourced from ScienceDirect, Google Scholar, and ProQuest databases. All publications were then subjected to a duplication identification process, eliminating 51 duplicate articles. A subsequent screening phase revealed that 1,676 articles did not fall within the thematic scope of the study and were therefore excluded from further analysis. This literature curation process was based on rigorous inclusion criteria designed to ensure that only publications relevant to the research focus—the influence of online impulse buying on Generation Z in the context of online shopping—were included in subsequent analysis.

Articles were considered for analysis if they met the following criteria: (1) Discussed online impulse buying or impulsive purchase behavior in the context of online shopping. (2) Involved Generation Z respondents or provided relevant findings to interpret Gen Z behavior. (3) Presented empirical data or systematic analysis. (4) Provided extractable information related to the research objectives, methods, research context, and factors influencing impulsive buying behavior. Of the 1,727 identified publications, a systematic selection process resulted in 167 articles in the initial stage, and subsequently 13 articles met the inclusion criteria and were analyzed for their relevance in explaining the factors influencing online impulse buying behavior in Generation Z.

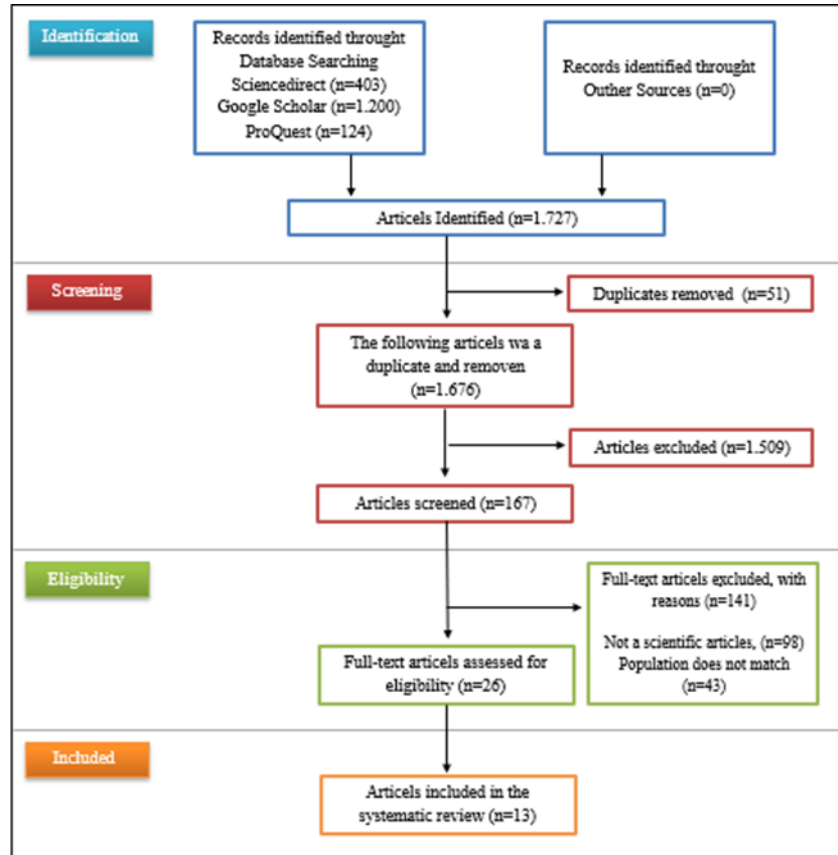


Figure 1. Prism Flowchart
 Source: Research Data, 2026

The selected articles provide relevant empirical evidence to identify key variables, methodological approaches, and conceptual frameworks used in the study of online impulse buying behavior among Generation Z. These findings serve as the basis for formulating a conceptual model of the factors influencing online impulse buying. The literature selection and evaluation process is visualized through the PRISMA flowchart in Figure 1, which systematically depicts the stages of identification, screening, and feasibility assessment.

Further analysis of the selected articles focused on mapping publication trends, geographic distribution of research, citation patterns, methodological approaches, and the variables used, including the role of digital consumption behavior as an implicit element in the Generation Z behavior prediction model.

RESULTS AND DISCUSSION

Generation Z Research Publication

The literature search process was carried out systematically, focusing on scientific articles published between 2018 and 2025. From the initial identification stage, 26 potential articles were obtained. Furthermore, through a tiered selection process based on predetermined inclusion criteria, 13 articles were declared suitable for further analysis. All selected articles were written in English, with 2024 recorded as the period with the highest number of publications, with five articles. A summary of the characteristics of the articles

analyzed is presented in Table 1, including information on the research title, institution or journal publisher, country of publication, and year of publication. Meanwhile, Figure 2 displays a visualization of the publication trend of scientific articles during the period 2018–2025, illustrating the dynamics and increase in research activity, as well as indicating the direction of development of studies on the research topic.

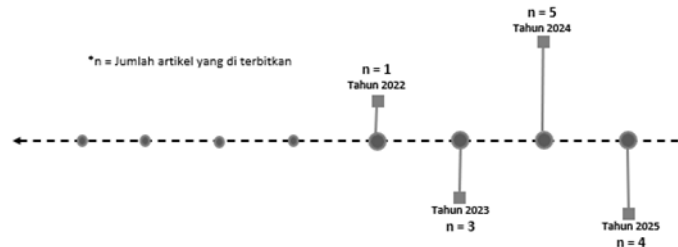


Figure 2. Number of articles published
 Source: Research Data, 2026

The literature analysis revealed the involvement of researchers from nine countries, with Indonesia and Vietnam contributing the most publications to studies on online impulse buying among Generation Z. The dominance of publications from Indonesia and Vietnam demonstrates the high academic attention paid to the phenomenon of online impulse buying among Generation Z. The strong contributions from these two countries reflect the intensity of research on the digital consumption behavior of the younger generation along with the increasing use of e-commerce platforms and social media. In addition to Indonesia and Vietnam, the articles analyzed also came from several other countries, thus presenting a diversity of perspectives, methodological approaches, and research contexts. This geographical diversity enriches the understanding of the patterns and mechanisms of online impulse buying among Generation Z and strengthens the generalizability of findings across contexts. Details regarding the distribution of articles, publication characteristics, and supporting information for each study are presented in Table 1 as a basis for further analysis.

Table 1. Selected Articles for Systematic Literature Review

Writer	Year Published	Country Published	Journal
CC Hoang, BT Khoa	2022	Vietnamese	Journal of Logistics, Informatics and Service Science
M Mijoska, KT Blagoeva, M Trpkova-Nestorovska	2023	North Macedonia	Case of North Macedonia
T Hermawan, R Dermawan	2023	Indonesia	Indonesian Journal of Business Analytics (IJBA)
PDA Septiane, BB Purmono	2023	Indonesia	Journal of Economics, Management, Business and Accounting (JEMBA)

TI Putri, HJ Astuti	2024	Indonesia	International Journal of Management and Business Intelligence (IJBM)
H Nguyen-Van, T Le-Duy-Duc, A Nguyen-Duy, M Pham-Thi-Tra, D Ho-Ngoc, A Le-Hai	2024	Vietnamese	International Journal of Social Science Humanity & Management
SX Jing, G Phang	2024	Malaysia	International Journal of Accounting, Finance and Business (IJAFB)
B Rehman, S Ahmed, F Anwar	2024	Pakistan	Advances in Business and Commerce (ABC)
PDP Van Tuan, PA Ha, PX Anh, LN Minh	2024	Vietnamese	Journal of Finance & Accounting Research
MI OTEGBADE	2025	Nigeria	International Journal of Social Sciences and Management Review
A Andika, M Najmudin, AA Nasution, TN Anisah, DN Luthfiana, N Nadia	2025	Serbia	TEN Journal
XJ Siow, G Phang	2025	Taiwan	International Journal of Electronic Commerce Studies
TTA Ngo, HLT Nguyen, HTA Mai, HP Nguyen, THT Mai, PL Hoang	2025	United States of America	PLOS One

Source: Research Data, 2026

Table 2 summarizes the citation distribution of the articles analyzed between 2018 and 2025. Of all these publications, the study by CC Hoang and BT Khoa, entitled " Impulse Buying Behavior of Generation Z Customers in Social Commerce: Flow Theory Approach, " published in the Journal of Logistics, Informatics, and Service Science, showed the highest citation visibility among the articles analyzed. This article received a total of 26 citations, with an average of 8.67 citations per year, reflecting its high academic relevance in the context of related research. On the other hand, three articles published in 2024 and 2025 have not yet shown citation data in the Google Scholar database. Furthermore, several articles are relatively recent publications, so citation data is not yet consistently available in open databases. Nevertheless, all these studies remain relevant for inclusion because they present the latest empirical findings that have the potential to enrich the analysis at the discussion stage.

Table 2. Total Citations for Selected Articles (2018-2025)

Writer	Title	Source	Total Citation	Citation/Year
--------	-------	--------	----------------	---------------

CC Hoang, BT Khoa	Impulse Buying Behavior of Generation Z customers in Social Commerce: Flow Theory Approach	Journal of Logistics, Informatics and Service Science	26	8.67
M Mijoska, KT Blagoeva, M Trpkova-Nestorovska	DETERMINANTS OF ONLINE IMPULSE BUYING BEHAVIOR OF GENERATION Z	Case of North Macedonia	2	1
T Hermawan, R Dermawan	The Effect of Price Perception and Shopping Lifestyle on Impulse Buying at TikTok Shop among Generation Z in Surabaya City	Indonesian Journal of Business Analytics (IJBA)	11	5.5
PDA Septiane, BB Purmono	THE INFLUENCE OF WEBSITE QUALITY AND PAY-LATER PAYMENT ON ONLINE IMPULSE BUYING WITH SHOPPING ENJOYMENT AS A MEDIATION VARIABLE (CASE ON GENERATION Z INDONESIAN SHOPEE CUSTOMERS)	Journal of Economics, Management, Business and Accounting (JEMBA)	2	1
TI Putri, HJ Astuti	Impulsive Buying in Gen Z: How Online Customer Reviews, Sales Promotion, and Conformity Influence Impulsive Buying through Consumer Trust (Study on E-Commerce Users in Purwokerto)	International Journal of Management and Business Intelligence (IJBM)	5	5
H Nguyen-Van, T Le-Duy-Duc, A Nguyen-Duy, M Pham-Thi-Tra, D Ho-Ngoc, A Le-Hai	Impact of Flash Sale on Impulse Buying on E-Commerce Platforms of Gen Z Consumers in Vietnam	International Journal of Social Science Humanity & Management	6	6
SX Jing, G Phang	EXPLORING THE EFFECT OF ANCHOR CHARACTERISTICS ON IMPULSE BUYING AMONG	International Journal of Accounting, Finance and Business (IJAFB)	1	1

	GENERATION Z IN LIVE STREAMING ON SHORT-FORM VIDEO APPS			
B Rehman, S Ahmed, F Anwar	Situational Stimuli Influencing Impulse Buying Behavior Among Generation Z in the E-commerce Setting: A Study on the Apparel Sector	Advances in Business and Commerce (ABC)	0	0
PDP Van Tuan, PA Ha, PX Anh, LN Minh	THE IMPACT OF PERCEIVED ENJOYMENT ON URGE TO BUY IMPULSIVELY AMONG GENERATION Z IN HANOI: A CASE STUDY OF AFFILIATE MARKETING ON SHORT-FORM VIDEO PLATFORMS	Journal of Finance & Accounting Research	0	0
MI OTEGBADE	INFLUENCE OF ONLINE CONVENIENCE ON GENERATION Z ONLINE IMPULSIVE BUYING BEHAVIOR IN THE FASHION INDUSTRY IN NIGERIA	International Journal of Social Sciences and Management Review	0	0
A Andika, M Najmudin, AA Nasution, TN Anisah, DN Luthfiana, N Nadia	Enhancing Impulse Buying Among Generations Z Through Social Presence in E-Commerce Live Streaming	TEN Journal	7	7
XJ Siow, G Phang	Impact of Anchor Characteristics on Impulsive Buying Among Generation Z in Live Streaming on Short-Form Video Apps: The Moderating Role of Gender	International Journal of Electronic Commerce Studies	1	1
TTA Ngo, HLT Nguyen, HTA Mai, HP Nguyen, THT Mai, PL Hoang	Analyzing the role of customers' experiences and emotional responses in shaping Generation Z's impulse buying behavior on Shopee video platform	PLOS One	18	18

Source: Research Data, 2026

Characteristic Patterns and Study Methodology

Table 3 presents an overview of the bibliometric characteristics of the journals that served as sources for the articles in this study, including citation scores, impact factors, and H-indexes. The table shows that most of the articles analyzed were from open-access journals and national or regional journals that are not yet indexed in international databases such as Scopus or Web of Science. This situation results in the unavailability of standard bibliometric metrics, including H-indexes and impact factors, in most of the journals studied.

Despite limitations in the availability of bibliometric metrics, all analyzed journals and articles were retained in this study because they presented relevant and up-to-date empirical findings. These articles substantially discuss impulse buying among Generation Z, both in terms of psychological factors, digital platform characteristics, and the dynamics of consumer interactions in the e-commerce environment. This diversity of publication sources not only enriches the methodological and substantive perspectives in the systematic literature review but also strengthens a comprehensive understanding of the mechanisms of online impulse buying among Generation Z. These findings provide a strong foundation for further analysis and the development of a conceptual model in this study.

Table 3. H-Index, Impact Factor and Citation Score

Journal Name	Score Quote	Factor Impact	Index-H	Information
Journal of Logistics, Informatics and Service Science	3	No There is	No There is	Open-access international journal, citations obtained from Google Scholar
Case of North Macedonia	1	No There is	No There is	International open-access journal, citations based on Google Scholar
Indonesian Journal of Business Analytics (IJBA)	2	There isn't any	No There is	Open-access national articles, citations based on Google Scholar
Journal of Economics, Management, Business and Accounting (JEMBA)	1	No There is	No There is	Open-access national articles, citations based on Google Scholar
International Journal of Management and Business Intelligence (IJBM)	2	No There is	No There is	International Journal, indexed by Google Scholar
International Journal of Social Science Humanity & Management	2	No There is	No There is	International Journal, indexed by Google Scholar
International Journal of Accounting, Finance and Business (IJAFB)	1	No There is	No There is	Early-stage research

Advances in Business and Commerce (ABC)	No There is	No There is	No There is	No metric data available
Journal of Finance & Accounting Research	No There is	No There is	No There is	No metric data available
International Journal of Social Sciences and Management Review	No There is	No There is	No There is	No metric data available
TEN Journal	2	No There is	No There is	International Journal, indexed by Google Scholar
International Journal of Electronic Commerce Studies	1	No There is	No There is	International Journal, indexed by Scopus
PLOS One	3	No There is	No There is	International Journal, indexed by Scopus

Source: Research Data 2026

Initiating a systematic review requires careful methodological decisions, particularly in determining the most relevant data sources and analytical frameworks. Throughout the article selection process, a consistent pattern emerged: the majority of studies utilized primary data through online surveys and questionnaires, with three articles using mixed data to provide comprehensive insights by integrating statistical relationships with contextual and experience-based explanations. allows for the integration of broad and diverse information, covering online impulse buying behavior in Generation Z, thus providing a strong empirical basis for further analysis.

A quantitative approach is reflected in the research of Hermawan et al. (2023) which emphasizes empirical analysis based on primary data through an online questionnaire to understand the impulse buying behavior of Generation Z on the social commerce platform TikTok Shop. This study analyzes the influence of price perception and shopping lifestyle on impulse buying among Generation Z in Surabaya City using the Partial Least Squares–Structural Equation Modeling (PLS-SEM) method through SmartPLS 4.0 software. The research sample consisted of 104 respondents aged 18–25 years selected using a purposive sampling technique. The analysis results show that price perception and shopping lifestyle have a positive and significant effect on impulse buying, with shopping lifestyle as the most dominant factor. These findings provide strong empirical evidence regarding the role of shopping lifestyle and price evaluation in driving impulse buying behavior of Generation Z in the context of social commerce, and emphasize the importance of selecting appropriate statistical analysis methods in modern digital marketing research.

A recent study by Siow et al. (2025) adopted a Stimulus–Organism–Response (SOR) approach to analyze Generation Z impulsive buying behavior in the context of live-streaming commerce on short-form video apps like TikTok. This study utilized primary data collected through an online survey of 272 Generation Z respondents in Malaysia who had experience shopping via live streaming. Using SmartPLS 4-based Structural Equation Modeling (SEM), the analysis was conducted to examine the direct and indirect causal relationships between anchor characteristics (attractiveness, expertise, and trustworthiness) as stimuli, perceived arousal as an affective response, and impulse buying drive as a behavioral response, with

gender as a moderator variable. The results showed that all anchor characteristics significantly influenced perceived arousal, which in turn increased impulse buying drive, with a stronger effect on female respondents than male respondents. These findings provide a strong empirical contribution to the development of the SOR model in the context of modern social commerce and emphasize the importance of primary survey data processing and the use of advanced statistical techniques to understand Generation Z's digital consumption behavior in developing countries.

Despite the differences in the variables studied, the majority of studies indicate that Generation Z's digital behavior in live shopping activities and real-time interactions on live streaming platforms is the main focus of discussion. Research by Siow et al (2024) and Siow et al (2025) shows that live streaming acts as a significant digital stimulus through anchor characteristics, such as attractiveness, expertise, and trustworthiness, which can trigger affective responses in the form of arousal and subsequently encourage behavioral responses in the form of impulsive buying in Generation Z. In line with this framework, Andika et al (2025) emphasized that social presence in e-commerce live streaming through the presence of hosts, real-time product demonstrations, and interactions between users strengthens positive emotions and perceived usefulness, which function as cognitive-affective mediators of impulsive buying urges. The consistency of these findings strengthens that live streaming is a form of integrated digital stimulation, where elements of interactivity and social presence simultaneously influence the psychological processes and consumption decisions of Generation Z.

Methodologically, most of the articles reviewed employed a quantitative approach with a variety of statistical analysis techniques, ranging from linear regression to Structural Equation Modeling (SEM), as summarized in Table 4. The choice of analysis method was tailored to the objectives of each study, particularly in identifying factors influencing impulsive buying behavior. However, there were methodological variations, such as the study by Hoang et al. (2022) which employed a mixed-data approach to gain a more comprehensive understanding by integrating statistical findings with experience-based contextual explanations. This diversity of approaches underscores the importance of a broad and cross-contextual database to produce credible and reliable research findings.

Table 4. Statistical Methods Used in the Reviewed Articles

Writer	Method Collection Data	Statistical Methods
CC Hoang, BT Khoa	Mixed data	SEM-PLS analysis (SmartPLS) and descriptive statistics (SPSS)
M Mijoska, KT Blagoeva, M Trpkova-Nestorovska	Primary Data	Descriptive analysis (mean, standard deviation, skewness, kurtosis), reliability test, and linear regression
T Hermawan, R Dermawan	Primary Data	Data analysis using SEM-PLS (SmartPLS) for outer model testing and hypothesis testing.
PDA Septiane, BB Purmono	Primary Data	Path Analysis / Mediation Regression

TI Putri, HJ Astuti	Primary Data	SEM-PLS method: outer model test (loading factor, AVE, composite reliability) and inner model (path coefficient)
H Nguyen-Van, T Le-Duy-Duc, A Nguyen-Duy, M Pham-Thi-Tra, D Ho-Ngoc, A Le-Hai	Mixed Data	CB-SEM method (AMOS & SPSS): reliability test (Cronbach's Alpha), EFA, CFA, and structural model
SX Jing, G Phang	Primary Data	PLS-SEM (SmartPLS) and CB-SEM (AMOS) methods: outer/inner model analysis, EFA, and CFA.
B Rehman, S Ahmed, F Anwar	Primary Data	The SEM-PLS (SmartPLS) method includes outer model testing, inner model testing/hypothesis testing, as well as descriptive statistics and normality tests (skewness and kurtosis).
PDP Van Tuan, PA Ha, PX Anh, LN Minh	Mixed Data	Structural Equation Modeling (CB-SEM) method which includes CFA, goodness of fit test, and mediation analysis
MI OTEGBADE	Primary Data	Multiple Linear Regression Method
A Andika, M Najmudin, AA Nasution, TN Anisah, DN Luthfiana, N Nadia	Primary Data	PLS-SEM (SmartPLS) method: EFA, CFA, reliability test, and outer and inner model analysis.
XJ Siow, G Phang	Primary Data	SEM-PLS (SmartPLS 4) & SPSS (descriptive) method, initial analysis, including outer model testing, inner model testing/hypothesis testing, moderation analysis
TTA Ngo, HLT Nguyen, HTA Mai, HP Nguyen, THT Mai, PL Hoang	Primary Data	SEM analysis (with control variables)

Source: Research Data 2026

The table above presents a comprehensive summary of the statistical methods applied in the ten reviewed studies, including SEM-PLS, CB-SEM, multiple regression analysis, path/mediation analysis, EFA, CFA, reliability tests, descriptive statistics, and moderation and control variable tests. This table provides an overview of the techniques used to analyze impulsive buying in Generation Z, ranging from platform and promotion, social factors, psychological factors, individual factors, and demographic factors. For example, multiple linear regression is widely applied in predictive studies due to its high interpretability and simplicity in cross-sectional data, such as in the study of Septiane and Purmono (2023) who

applied path analysis techniques used to test the direct and indirect effects between variables, with testing the mediation effect conducted through indirect effect analysis using the bootstrapping method.

On the other hand, the application of SEM and PLS-SEM in the research of Ngo *et al.* (2025) and Andika *et al.* (2025) allows testing of causal relationships between latent variables, including direct effects as well as mediation and moderation mechanisms. Furthermore, the Exploratory Factor Analysis (EFA) method was utilized to identify factor structures, group indicators into latent constructs, and validate the research instrument. A more in-depth comparative analysis of the advantages and limitations of each method, including consideration of sample size, cross-sectional data characteristics, and computational complexity, can provide an important contribution in determining the most appropriate methodological approach for research on impulse buying in Generation Z.

Determinants of Generation Z Impulse Buying

Analysis of selected articles shows that Generation Z's impulse buying behavior in the context of e-commerce and social commerce is significantly influenced by digital stimuli, user experience, and technological and marketing characteristics. Dominant predictor variables include antecedents of flow (enjoyment, interactivity, control), website and digital environment quality, price perception, shopping lifestyle, flash sales, anchor characteristics, social presence, and various forms of customer experience such as entertainment, educational, escapist, and aesthetic experiences. All of these variables reflect the strong role of platform design, visual content, and digital promotional mechanisms in shaping the initial response of Generation Z consumers.

Most studies place Impulse Buying Behavior, Online Impulse Buying, or Urge to Buy Impulsively as the dependent variable, while mediator variables function to explain the psychological mechanisms underlying the relationship between digital stimuli and impulsive buying behavior. The most frequently used mediator variables include Flow Experience, Shopping Enjoyment, Perceived Enjoyment, Consumer Trust, Attitude toward Flash Sale, and the emotional responses of Arousal and Pleasure. These findings confirm that impulse buying in Generation Z does not occur directly, but rather through the formation of positive experiences, emotional involvement, and cognitive evaluation, which strengthen the urge to make spontaneous purchases in the digital environment as presented in Table 5 below.

Table 5. Variables Used in the Reviewed Articles

Writer	Year Published	Variable Predictor	Variables Bound	Variable Mediator
CC Hoang, BT Khoa	2022	Antecedents of Flow (Enjoyment, Interactivity, Control)	Impulse Buying Behavior	Floe Experience
M Mijoska, KT Blagoeva, M Trpkova-Nestorovska	2023	Perceived Ease of Use, Perceived Usefulness, Attitude Towards Use, Personal Tendency to Buy on Impulse, Website Quality/Environment	Online Impulse Buying Behavior	

T Hermawan, R Dermawan	2023	Price Perception, Shopping Lifestyle	Impulse Buying at TikTok Shop	
PDA Septiane, BB Purmono	2023	Website Quality, Pay-Later Payment	Online Impulse Buying	Shopping Enjoyment
TI Putri, HJ Astuti	2024	Online Customer Reviews, Sales Promotion, Conformity	Impulse Buying	Consumer Trust
H Nguyen-Van, T Le-Duy-Duc, A Nguyen-Duy, M Pham-Thi-Tra, D Ho-Ngoc, A Le-Hai	2024	Flash Sale (Limited Time Scarcity, Limited Quantity Scarcity, Information, Visuality, Entertainment, Economic Benefits)	Impulse Buying	Attitude toward Flash Sale, Arousal, Pleasure
SX Jing, G Phang	2024	Attractiveness, Expertise, Trustworthiness	Impulse Buying	Arousal
B Rehman, S Ahmed, F Anwar	2024	New Technology, Marketing Collateral	Impulse Buying Behavior	
PDP Van Tuan, PA Ha, PX Anh, LN Minh	2024	Attractiveness, Expertise, Video Content, Trustworthiness	Urge to Buy Impulsively	Perceived Enjoyment
MI OTEGBADE	2025	Access Convenience, Search Convenience, Evaluation Convenience, Transaction Convenience, Relationship Convenience	Impulse Buying Behavior	
A Andika, M Najmudin, AA Nasution, TN Anisah, DN Luthfiana, N Nadia	2025	Social Presence (Presence of Other Viewers)	Impulse Buying	Perceived Usefulness, Positive Emotions
XJ Siow, G Phang	2025	Anchor Characteristics (Attractiveness,	Impulsive Buying, /Urge to Buy Impulsively	Gender

		Expertise Trustworthiness)		
TTA Ngo, HLT Nguyen, HTA Mai, HP Nguyen, THT Mai, PL Hoang	2025	Entertainment Experience (ET), Educational Experience (ED), Escapist Experience (ES) Aesthetic Experience (EH)	Impulse Buying Behavior	Arousal, Pleasure

Source: Research Data, 2026

The analyzed studies show that Generation Z's impulse buying behavior in the context of e-commerce and social commerce is shaped by a combination of psychodigital factors, platform characteristics, and social and emotional stimuli. Intense exposure to visual, interactive elements, and scarcity-based promotions on digital platforms not only shapes product value perceptions but also triggers affective responses that accelerate unplanned decision-making. Hoang and Khoa (2022), Septiane and Purmono (2023), and Hermawan and Dermawan (2023) show that digital experience factors and marketing stimuli—such as antecedents of flow (enjoyment, interactivity, perceived control), website quality, pay-later systems, price perception, and shopping lifestyle—have a significant influence on Generation Z's impulse buying. These findings confirm that psychological mechanisms such as flow experience and shopping enjoyment play a crucial role in bridging the influence of digital stimuli on impulse buying behavior, particularly in the context of social commerce and visual content-based platforms like TikTok Shop.

Synthesis of Findings

The primary objective of this systematic review is to examine various research approaches to understanding the factors influencing impulse buying in Generation Z. Analysis of selected articles indicates that Generation Z's impulsive buying behavior is shaped through a complex interaction between digital stimuli and social context, particularly in digital platform-based shopping environments and social commerce. Several studies, including Hoang and Khoa (2022), found that antecedents of flow, consisting of enjoyment, interactivity, and perceived control, significantly influence flow experience, which subsequently increases impulse buying behavior in social commerce. Similar findings were demonstrated by Septiane and Purmono (2023), who demonstrated that website quality and pay-later payment systems positively influence online impulse buying, with shopping enjoyment acting as a partial mediator. Furthermore, Hermawan and Dermawan (2023) demonstrated that price perception and shopping lifestyle directly increase impulse buying on TikTok Shop, confirming that Generation Z is highly sensitive to price perception and digital lifestyle in the context of visual content-based shopping.

Furthermore, several studies confirm that emotional responses and psychological evaluations are the primary mechanisms bridging the influence of digital stimuli on impulse buying. Nguyen-Van et al. (2024) reported that flash sale elements, particularly limited-time scarcity and economic benefits, significantly increase arousal and pleasure, which in turn shape attitudes toward flash sales and encourage impulse buying. These findings are supported by Jing and Phang (2024) and Van Tuan et al. (2024), who demonstrated that the attractiveness, expertise, and trustworthiness of digital figures increase the urge to buy

impulsively through arousal and perceived enjoyment. Meanwhile, Otegbade (2025) found that transaction and relationship convenience significantly influence impulse buying behavior, while access and search convenience showed no significant impact. Overall, although not all studies model causal relationships identically, the pattern of empirical findings suggests that Generation Z impulse buying emerges through a systematic psychodigital pathway, where platform stimuli trigger internal emotional states before generating spontaneous buying responses.

Empirical findings from the analyzed articles consistently demonstrate that the relationship between digital stimuli and Generation Z's behavioral responses is not direct, but rather mediated by psychological mechanisms and influenced by specific social contexts. Internal variables such as enjoyment, perceived enjoyment, arousal, pleasure, and consumer trust serve as the primary link between platform characteristics, digital content, and marketing actors with impulsive behavior and purchase intentions. This finding is supported by research by Putri and Astuti (2024), which demonstrated that online customer reviews and sales promotions significantly influence impulse buying through consumer trust as a mediator. This indirect relationship pattern indicates that future research needs to place greater emphasis on explicit mediation and moderation modeling, particularly to capture the role of emotion, trust, and user engagement in dynamic digital environments. Therefore, analytical approaches such as Structural Equation Modeling (SEM), PLS-SEM, and the Stimulus–Organism–Response (SOR) framework are becoming increasingly relevant for integrating technological, affective, and social dimensions, so that analysis is not only descriptive but also able to explain the psychological processes underlying Generation Z's decision-making.

CONCLUSION

Based on the results of a Systematic Literature Review of 13 selected articles published in the period 2018–2025, it can be concluded that online impulse buying behavior in Generation Z is a complex phenomenon influenced by the dynamic interaction between digital stimuli, the characteristics of e-commerce and social commerce platforms, and the psychological and emotional mechanisms of consumers. The online shopping environment, which is rich in visual elements, high interactivity, ease of transactions, and scarcity-based promotions, creates conducive conditions for the emergence of spontaneous buying impulses in Generation Z.

The main findings of this systematic review indicate that digital stimuli such as website quality, anchor or host characteristics in live streaming, flash sales, price perception, shopping lifestyle, and ease and convenience of transactions have a significant influence on impulse buying behavior. However, this influence is generally indirect. Most studies emphasize the important role of mediator variables in the form of psychological and affective mechanisms, such as flow experience, shopping enjoyment, perceived enjoyment, arousal, pleasure, and consumer trust, which serve to bridge the relationship between digital stimuli and impulse buying behavioral responses.

Furthermore, the literature synthesis indicates that the context of social commerce and live-streaming commerce is becoming an increasingly dominant arena in shaping Generation Z's impulse buying behavior. Social presence, real-time interactions, and the credibility and attractiveness of digital figures have been shown to strengthen consumers' emotional

responses, ultimately increasing the urge to purchase without planning. This confirms the relevance of the Stimulus–Organism–Response (SOR) theoretical framework in explaining Generation Z's consumption behavior in immersive and interactive digital environments.

Methodologically, the majority of studies employ a quantitative approach with primary data based on online surveys and advanced statistical analyses such as SEM, PLS-SEM, path analysis, and linear regression. This approach is considered effective in mapping causal relationships between latent variables and testing the role of mediation and moderation. However, the review also indicates that research integrating qualitative data or a longitudinal approach remains relatively limited, resulting in an under-explored understanding of the dynamics of Generation Z's impulse buying behavior over time.

Overall, this study confirms that online impulse buying among Generation Z is not solely driven by rational factors, but is heavily influenced by digital experiences, emotional engagement, and the social context created by e-commerce and social commerce platforms. Therefore, the findings of this study provide a theoretical contribution by strengthening the conceptual understanding of the psychodigital mechanisms underlying Generation Z's impulsive buying behavior, as well as practical contributions for digital business actors in designing marketing strategies based on user experience and ethical and sustainable social interactions.

As an implication for further research, it is recommended that future studies develop a more integrative conceptual model by incorporating moderating variables such as individual characteristics, culture, and platform context, and employing longitudinal or mixed-method research designs to capture the dynamics of consumer behavior more deeply. Thus, studies on Generation Z's online impulse buying can continue to develop comprehensively and relevantly to the rapidly changing digital economic landscape.

REFERENCES

- Andika, A., Najmudin, M., Nasution, A. A., Anisah, T. N., Luthfiana, D. N., & Nadia, N. (2025). Enhancing impulse buying among Generation Z through social presence in e-commerce live streaming. *TEM Journal*, 14(1), 236–250. <https://doi.org/10.18421/TEM141-22>
- Fernandes, S., Panda, R., Venkatesh, V. G., Swar, B. N., & Shi, Y. (2022). Measuring the impact of online reviews on consumer purchase decisions: A scale development study. *Journal of Retailing and Consumer Services*, 65, 102866. <https://doi.org/10.1016/j.jretconser.2021.102866>
- Forrester Research. (2024). The global digital economy will reach \$16.5 trillion and capture 17% of global GDP by 2028. <https://www.forrester.com/blogs/the-global-digital-economy-will-reach-16-5-trillion-and-capture-17-of-global-gdp-by-2028/>
- Hanifah, N., Susilaningsih, & Sabandi, M. (2024). Factors that influence impulse buying: A literature review. *EduLine: Journal of Education and Learning Innovation*, 4(2), 286–293. <https://doi.org/10.35877/454RI.eduline2683>
- Hartono, S. D., & Ingriana, A. (2025). Impulsive buying due to flash sales: A marketing strategy or a psychological trigger? *International Journal of Economics and Business Studies (IJEBS)*, 2(1). <https://journal.dinamikapublika.id/index.php/IJEBS>
- Hermawan, T., & Dermawan, R. (2023). The effect of price perception and shopping lifestyle on impulse buying at TikTok Shop among Generation Z in Surabaya City. *Indonesian*

- Journal of Business Analytics, 3(6), 2141–2152.
<https://doi.org/10.55927/ijba.v3i6.5933s>
- Hoang, C. C., & Khoa, B. T. (2022). Impulse buying behavior of Generation Z customers in social commerce: Flow theory approach. *Journal of Logistics, Informatics and Service Science*, 9(4), 197–208. <https://doi.org/10.33168/LISS.2022.0413>
- Ismagilova, E., Slade, E. L., Rana, N. P., & Dwivedi, Y. K. (2020). The effect of electronic word of mouth communications on intention to buy: A meta-analysis. *Information Systems Frontiers*, 22(5), 1203–1226. <https://doi.org/10.1007/s10796-019-09924-y>
- Jing, S. X., & Phang, I. G. (2024). Exploring the effect of anchor characteristics on impulse buying among Generation Z in live streaming on short-form video apps. *International Journal of Accounting, Finance and Business (IJAFB)*, 9(56), 117–128. <https://doi.org/10.55573/ijafb.095610>
- Kholida, A., & Rini, G. P. (2025). Exploring Gen Z consumers' impulse buying behaviour on e-commerce: An SDL perspective. *Economics & Business Solutions Journal*, 9(1), 65–80.
- Kumala, M., Santoso, A., & Widhianingrum, W. (2024). Online review and social influence: Key factors in increasing impulsive buying and self-control as moderation. *Jurnal Manajerial*, 11(1), 153–165. <https://doi.org/10.30587/jurnalmanajerial.v11i01.6998>
- Masitoh, M. R., Wibowo, H. A., Prihatma, G. T., & Miharja, D. T. (2024). Pengaruh interactivity, online customer review, dan trust terhadap impulse buying pengguna Shopee Live Streaming. *GREENOMIKA*, 6(1), 41–53. <https://doi.org/10.55732/ung.gnk.2024.06.1.5>
- Mijoska, M., Blagoeva, K. T., & Trpkova-Nestorovska, M. (2023). Determinants of online impulse buying behaviour of Generation Z: The case of North Macedonia.
- Ngo, T. T. A., Nguyen, H. L. T., Mai, H. T. A., Nguyen, H. P., Mai, T. H. T., & Hoang, P. L. (2025). Analyzing the role of customers' experiences and emotional responses in shaping Generation Z's impulse buying behavior on Shopee video platform. *PLOS ONE*, 20(5), e0322866. <https://doi.org/10.1371/journal.pone.0322866>
- Ngo, T. T. A., Nguyen, H. L. T., Nguyen, H. P., Mai, H. T. A., Mai, T. H. T., & Hoang, P. L. (2024). A comprehensive study on factors influencing online impulse buying behavior: Evidence from Shopee video platform. *Heliyon*, 10, e35743. <https://doi.org/10.1016/j.heliyon.2024.e35743>
- Nguyen-Van, H., Le-Duy-Duc, T., Nguyen-Duy, A., Pham-Thi-Tra, M., Ho-Ngoc, D., & Le-Hai, A. (2024). Impact of flash sale on impulse buying on e-commerce platforms of Gen Z consumers in Vietnam. *International Journal of Social Science Humanity & Management Research*, 3(6), 578–586. <https://doi.org/10.58806/ijssh mr.2024.v3i6n02>
- Otegbade, M. I. (2025). Influence of online convenience on Generation Z online impulsive buying behaviour in the fashion industry in Nigeria. *International Journal of Social Sciences and Management Review*, 8(5). <https://doi.org/10.37602/IJSSMR.2025.8503>
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., ... Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *Systematic Reviews*, 10, 89. <https://doi.org/10.1186/s13643-021-01626-4>

- Pham, V. T., Ha, P. A., Anh, P. X., Minh, L. N., Ngoc, L. M., & Tien, T. T. (2024). The impact of perceived enjoyment on urge to buy impulsively among Generation Z in Hanoi: A case study of affiliate marketing on short-form video platforms. *Journal of Finance & Accounting Research*, 28(3), 81–100.
- Putri, T. I., & Astuti, H. J. (2024). Impulsive buying in Gen Z: How online customer review, sales promotion, and conformity influence impulsive buying through consumer trust (Study on e-commerce users in Purwokerto). *International Journal of Management and Business Intelligence (IJMBI)*, 2(4), 403–426. <https://doi.org/10.59890/ijmbi.v2i4.2440>
- Rehman, B., Ahmed, S., & Anwar, F. (2024). Situational stimuli influencing impulse buying behavior among Generation Z in the e-commerce setting: A study on the apparel sector. *Advances in Business and Commerce (ABC)*, 2(2), 1–20.
- Septiane, P. D. A., & Purmono, B. B. (2023). The influence of website quality and pay-later payment on online impulse buying with shopping enjoyment as a mediation variable (case on Generation Z Indonesian Shopee customers). *JEMBA: Journal of Economics, Management, Business and Accounting*, 1(3), 44–65.
- Siow, X. J., & Phang, I. G. (2025). Impact of anchor characteristics on impulsive buying among Generation Z in live streaming on short-form video apps: The moderating role of gender. *International Journal of Electronic Commerce Studies*, 16(1), 65–82. <https://doi.org/10.7903/ijecs.2473>
- Suhendra, I., Istikomah, N., Anwar, C. J., Supriadi, A., Wakhid, A. A., Purwanda, E., & Salim, A. (2025). Influence of the digital economy on economic growth: Empirical study of a region in Indonesia. *Cogent Economics & Finance*, 13(1), 2457477. <https://doi.org/10.1080/23322039.2025.2457477>
- Thamara, S. D., Syarif, M., & Suyono. (2025). Triggers of consumer impulse buying behavior on e-commerce platforms: A systematic literature review. *Jurnal Ekonomi dan Bisnis Digital (MINISTAL)*, 4(3), 325–334. <https://doi.org/10.55927/ministal.v4i3.14898>
- Todino, L. A., Wairan, K., Gaitedy, N., Syarif, S. F., Priscilla, A. E., Wardy, E., & Ardyan, E. (2024). Assessing review consistency, product information quality, and online impulsive buying tendency: The mediating pathway of customer engagement. *International Journal of Economics, Business and Accounting Research (IJEBAR)*, 8(3), 764–778. <https://jurnal.stie-aas.ac.id/index.php/IJEBAR>
- United Nations Conference on Trade and Development. (2021). Digital economy report 2021: Cross-border data flows and development: For whom the data flow. United Nations.
- United Nations Conference on Trade and Development. (2024). Business e-commerce sales and the role of online platforms (UNCTAD Technical notes on ICT for development No. 1). United Nations.
- Wanda, P. A., Permatasari, I. R., & Santoso, E. B. (2025). Pengaruh online customer review dan viral marketing terhadap impulse buying pada produk Facetology di Beautyby.dsy Sidoarjo. *Indonesia Economic Journal*, 1(2), 1135–1144. <https://doi.org/10.63822/dfwg0766>