# Compulsive Buying Behavior Mitigation In Generation Y And Z: Enhancement Of Financial Literacy Focusing On Debt Risk Awareness

Debby Nurhanani<sup>1</sup>, Sylviana Maya Damayanti<sup>2</sup>

<sup>1</sup>School of Business and Management, Institut Teknologi Bandung, Indonesia <sup>2</sup>School of Business and Management, Institut Teknologi Bandung, Indonesia \*Corresponding Author: Debby Nurhanani

**ABSTRACT**: Paylater services, driven by e-commerce growth, are popular among Generation Y and Z, aligning with OJK's financial inclusion goals. Despite a 2.88% material risk, non-material risks include difficulties in obtaining home loans and scholarships due to impulsive buying, potentially leading to compulsive buying disorders. A McKinsey survey shows poor mental health among Gen Y and Z in Indonesia, affecting their decision-making. Paylater GMV in Indonesia is expected to rise from \$3,483.8 million in 2022 to \$7,742.2 million by 2028. Psychological factors positively affect compulsive buying, while financial literacy negatively correlates with it. Paylater misuse positively influences compulsive buying, but debt risk awareness and financial literacy reduce it. OJK enhances financial literacy through cross-sector collaboration, education programs, and regulatory reforms. Recommendations include integrating psychological and social aspects into financial literacy programs and applying the Penta Helix model for sector collaboration. Strategies include educational events, mental health campaigns, social media, webinars, and national campaigns. Future research should explore the direct impact of psychological factors on Paylater misuse and integrating debt risk awareness into financial literacy campaigns, examining Penta Helix concept synergies for regulatory compliance and ethical standards.

**KEYWORDS** – Compulsive Buying Behavior, Financial Inclusion, Financial Literacy, Impulsive Buying Behavior, Paylater

# I. INTRODUCTION

According to the Financial Services Authority (OJK), the startup world in Indonesia continues to develop rapidly, especially financial technology (fintech) and e-commerce with tandem cooperation through Buy Now Pay Later (BNPL) or Paylater services. The convenience of Paylater makes it more popular, especially among generations Y and Z who constitute 60% of Paylater users according to a Tirto survey, especially in DKI and West Java which have the highest levels of fintech transactions. Because Paylater services individuals who do not have a bank account, Paylater services are able to support the Indonesian government's goal of achieving 90% financial inclusion by 2024. On the other hand, financial literacy must be increased to balance the level of inclusion. Through the road map for Indonesia's National Financial Literacy Strategy for 2021-2025, OJK with the vision of achieving sustainable financial prosperity has several strategic programs as depicted in figure 1. The Penta helix concept is mentioned as a way to achieve financial prosperity in a scientific speech by academicians.

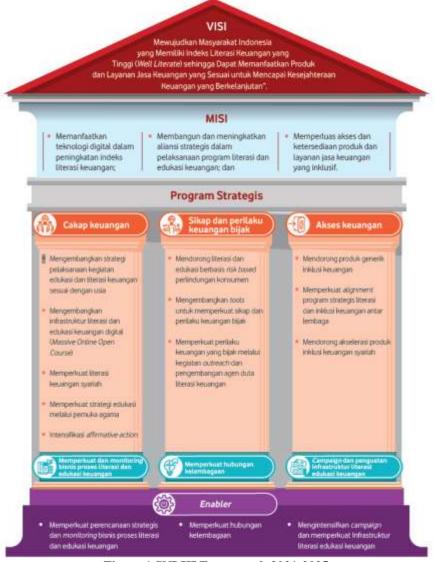


Figure 1 SNLKI Framework 2021-2025 Source: OJK, 2021

Even though Paylater has advantages, Paylater also has its own challenges. Materially, Paylater's NPL level as of August 2023 is still relatively safe at 2.88%. However, there are also immaterial risks that lurk generations Y and Z, such as Home Ownership Credit (KPR) or similar, job recruitment, and scholarship screening, all caused by a bad credit history. One of the causes of poor credit scores is that the younger generation tends to be more impulsive in using Paylater so it is considered as a misuse of Paylater. If worsened, impulsive buying behavior can become compulsive buying behavior which according to Siloam Hospital is categorized as a mental disorder. Another challenge is that generations Y and Z in Indonesia, according to a McKinsey survey, report their mental health conditions as relatively poor. On the other hand, the Paylater market in Indonesia is projected to grow continuously, with a Compound Annual Growth Rate (CAGR) of 12.6% from 2023 to 2028. Gross Merchandise Value (GMV) is estimated to increase from US\$3,483.8 million in 2022 to US\$7,742.2 million in 2028. Thus, the objectives of this research are: to determine the relationship between psychological factors and financial literacy on Paylater misuse; find out how psychological factors, financial literacy, and Paylater misuse influence compulsive buying; knowing how debt risk awareness moderate compulsive buying behavior; and propose recommendations for the development of financial literacy and debt risk awareness.

### II. LITERATURE REVIEW

2.1 Psychological Factors

According to Coon and Mitterer, psychology is the scientific study of behavior and mental processes [1]. Furthermore, human behavior is primarily influenced by a variety of psychological factors that have either

directly or indirectly formed it. Intelligentsia, emotional intelligence, emotional maturity, motivation, selfefficacy, self-concept, adjustment, depression, anxiety, stress, and so on are examples of psychological elements. A previous study in Indonesia conveyed that psychological factors such as attitude, motivation, and emotion have a positive relationship with online buying behavior [2].

Excitement seeking, aligned with Deci and Ryan's Self-Determination Theory, involves pursuing motivation, euphoria, and satisfaction [3]. According to this theory, intrinsic and extrinsic drives influence emotions and consumer behavior. When needs are unmet, it can lead to negative emotions like rage and irritation. Conversely, satisfying customer needs results in positive emotions such as joy, happiness, and satisfaction [4]. Another psychological factor, escape coping tendencies, are the certain behavior and mental strategy when individuals under stress, anxiety, depression, and other negative feelings. According to Lazarus and Folkman's transactional model of stress and coping, individuals engage in coping mechanisms to manage stressors [5]. A study by Moon and Attiq found that psychological and sociocultural factors, such as stress and self-esteem, are significant triggers for compulsive buying behavior. Compulsive buyers often feel an emotional lift immediately after shopping [6].

#### 2.2 Financial Literacy

According to OJK, financial literacy is the knowledge, skills, and beliefs that improve financial decision-making and management, leading to community financial prosperity. It includes understanding the financial services sector, product characteristics, financial management, and related taxation. Financial literacy aids in effective financial management, stability, and the adoption of financial products, improving trust and enhancing societal well-being. It helps individuals make informed choices, plan finances, make accountable decisions, and avoid risky investments, thereby leading to better financial decisions and improved quality of life. Financial literacy impacts borrowing, debt management, investing, saving, and online impulse buying [7, 8, 9]. However, a study in Malang, Indonesia, found that financial literacy does not moderate the relationship between materialism and impulsive online buying among Millennials [10]. However, higher financial literacy is associated with lower compulsive buying behavior [11], and a lack of financial literacy can lead to poor financial circumstances, worsening mental health issues [12].

#### 2.3 Paylater Misuse

According to Oxford dictionaries, misuse is using something dishonestly or for the wrong purpose, synonymous with abuse. In this research, impulsive buying by Paylater users is considered a form of misuse. Impulse buying is defined as a spontaneous urge to purchase without prior planning, influenced by internal and external factors [13]. Paylater users are more likely to make impulsive purchases due to the platform's accessibility [14], leading to potential financial distress and debt, particularly among the younger generation using credit extensively [15]. Paylater's user-friendliness impacts impulsive buying by 6.4% in Indonesian e-commerce [16]. Additionally, Paylater's mechanism, education, and demand for luxury goods significantly increase annual product purchase values [17].

#### 2.4 Compulsive Buying Behavior

According to the American Marketing Association, consumer behavior studies how individuals and organizations select, acquire, use, and discard products, concepts, and services to fulfil their needs and desires. Internal factors, such as attitude, emotions, and self-image, significantly impact consumer behavior [18]. Compulsive buying, a chronic and repetitive buying behavior, serves as a primary response to negative emotions and situations [19]. It is driven by a desire for satisfaction from the buying process rather than the utility of the purchased items. Compulsive buying is linked to psychiatric issues such as anxiety, depression, and impulse control problems, and can lead to serious debt and legal troubles. Psychological factors like low self-esteem and negative emotions, financial literacy, and misuse of Paylater services significantly contribute to compulsive buying behavior [20, 21, 22].

### 2.5 Debt Risk Awareness

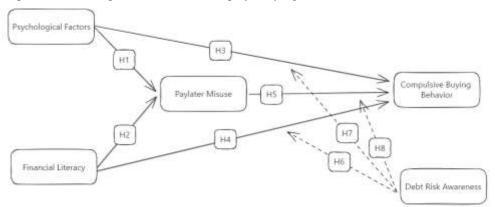
According to Lusardi, debt literacy is part of financial understanding that measures knowledge about debt and self-assessed financial knowledge; those less knowledgeable often find their debt loads excessive or cannot judge their debt position [23]. Higher financial knowledge and risk tolerance correlate with increased usage of digital financial services [24]. Awareness and experience positively affect debt management skills among credit card users [25]. Additionally, short-term infographics-based education significantly improves debt literacy, especially among those with higher information literacy [26].

### 2.6 Penta Helix Concept

The Penta helix synergy model, an evolution of the triple and quadruple helix models, involves collaboration among five stakeholders: government, business, academia, community, and media. The triple helix model, based on Etzkowitz's theory, highlights the importance of university-industry-government interactions for innovation [27]. Lindberg's quadruple helix adds community elements for democratic representation [28]. The Penta helix further includes media, emphasizing social innovation through relationships, cooperation, and collective action [29]. Studies recommend using the Penta helix model for financial literacy and inclusion in Indonesia. A 2019 study by Awwal and Rini suggests enhancing stock market literacy through this model [30], while Hibrizi's 2023 research proposes using it to improve financial access via Sharia Peer-to-Peer Lending, involving cooperation among all five stakeholders to boost financial inclusion for the middle to lower class [31].

### 2.7 Conceptual Framework

The conceptual framework serves as the foundation for the research necessary to produce a finished survey. The plan of the conceptual framework is displayed by figure 2 below.



### Figure 2 Conceptual Framework Source: Author, 2024

Hypothesis for the research:

H1: Psychological factors have a positive and significant influences on Paylater misuse

H2: Financial literacy has a negative and significant influences on Paylater misuse

H3: Psychological factors have a positive and significant influences on compulsive buying behavior

H4: Financial literacy has a negative and significant influence on compulsive buying behavior

H5: Paylater misuse has a positive and significant influence on compulsive buying behavior

H6: Debt risk awareness negatively moderates the relationship between financial literacy and compulsive buying behavior

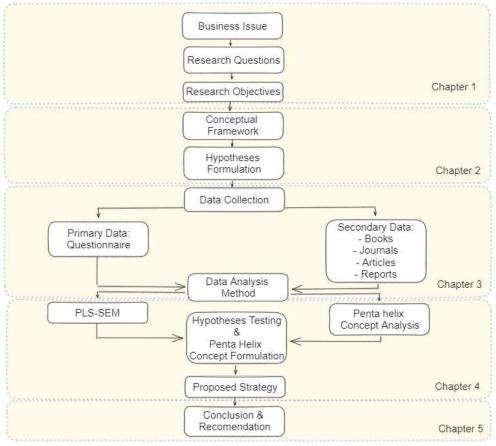
H7: Debt risk awareness negatively moderates the relationship between psychological factors and compulsive buying behavior

H8: Debt risk awareness negatively moderates the relationship between Paylater misuse and compulsive buying behavior

# III. RESEARCH METHODOLOGY

Two types of data were gathered for this study: primary and secondary. While secondary data will be gathered through literature reviews, primary data will be gathered through surveys with 385 and distributed the questionnaires to the non-probability or judgment sampling population. This research employs a quantitative methodology, using Partial Least Square (PLS) analysis via SmartPLS 4.0 software to measure causal relationships between variables. The analysis follows four steps as proposed by [32]:

- 1) Descriptive Analysis: Measures include mean, standard deviation, and frequency, considering sample size, data distribution assumptions, and statistical power.
- 2) Assessment of Measurement Models: Evaluates reliability and validity through indicator reliability, multicollinearity (VIF), construct reliability (Cronbach Alpha and Composite Reliability), construct validity (AVE), and discriminant validity (HTMT).
- 3) Structural Model Assessment: Measures the explanatory power of the model using R2.
- 4) Hypothesis Testing and Mediation Analysis: Uses a bootstrapping algorithm to test hypotheses with a 95% confidence level, evaluating direct, indirect, and total effects.



As for the research design of this research is shown in figure 3 below.

Figure 3 Diagram of Research Methodology Source: Author, 2024

# IV. RESULTS AND DISCUSSION

The hypothesis testing in this study evaluated the significance and strength of connections between psychological and financial factors using a two-tailed test and a bootstrapping procedure using 10,000 subsamples. The analysis of the research revealed several key insights, as shown in Table 1.

Hypothesis	Path	Path Coefficient	<b>T</b> Statistics	P values	Decision
H1	PF -> PM	0.833	10.841	0	accepted
H2	FL -> PM	0.015	0.17	0.865	rejected
H3	PF -> CB	0.446	6.957	0	accepted
H4	FL -> CB	-0.225	2.786	0.005	accepted
H5	PM -> CB	0.279	6.171	0	accepted
H6	DR x FL -> CB	-0.318	5.519	0	accepted
H7	$DR \times PF \rightarrow CB$	0.224	4.233	0	accepted
H8	$DR \times PM \rightarrow CB$	0.02	0.589	0.556	rejected

### Source: Author, 2024

The study found a strong positive relationship between Psychological Factors (PF) and Paylater Misuse (PM) with a path coefficient of 0.833, indicating that psychological aspects significantly influence the misuse of Paylater services. Financial Literacy (FL) showed no significant impact on PM with a path coefficient of 0.015. PF also positively affects Compulsive Behavior (CB) with a path coefficient of 0.446, while FL negatively impacts CB with a path coefficient of -0.225, suggesting higher financial literacy reduces compulsive buying. PM positively influences CB with a path coefficient of 0.279. Debt Risk Awareness (DR) positively affects CB with a path coefficient of 0.363, though its interaction with FL on CB is negative (-0.318), indicating combined

\*Corresponding Author: Debby Nurhanani

financial literacy and debt awareness may reduce compulsive buying. The interaction between DR and PF positively affects CB (0.224), while the interaction between DR and PM is insignificant (0.02). These relationships are summarized in Figure 4, providing a detailed understanding of how psychological, financial, and risk awareness factors influence financial behaviors.

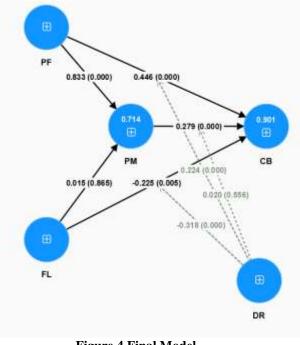


Figure 4 Final Model Source: Author, 2024

Further analysis is the current OJK's strategy for financial literacy improvement. From the report Road Map for Supervising the Behavior of Financial Services Business Actor, Education and Consumer Protection (PEPK) for the period of 2023-2027, the strategy is depicted in figure 5 below.



Figure 5 OJK's Financial Literacy Strategy 2023-2027 Source: OJK, 2024

By taking a holistic approach, the OJK's four action plans for 2023–2027 seek to improve financial literacy. First, the OJK is carrying out extensive educational programs aimed at priority communities. This includes using the SiMOLEK mobile unit to combine financial literacy with cultural entertainment and offline initiatives like public financial education, trainer training programs for local apparatus, and so forth. To enhance

financial literacy, particularly among younger generations, online activities involve digitizing financial literacy using social media, webinars, and the Learning Management System Edukasi Keuangan (LMSKU).

Second, the OJK is focusing on vulnerable populations, including as women and rural areas, by conducting thematic financial education and planning events around national holidays. Thirdly, by creating thorough financial literacy courses and routinely upgrading financial literacy resources, such as those pertaining to digital financial assets and green finance, the OJK is building the infrastructure for financial education. The OJK is also organizing events such as World Investors Week (WIW), Global Money Week (GMW), Literasi Keuangan Indonesia Terdepan (LIKE IT), and national financial literacy campaign. These collaborations with multiple ministries and stakeholders are being carried out, to sum up. All of these initiatives are meant to increase financial literacy and create a more informed public about money.

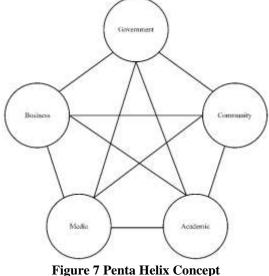
As for synergy analysis, figure 6 depicts that OJK has a synergy map with other stakeholders as in the 2023-2027 work program image below. It can be seen that there is a synergy initiative from the government as a catalyst for the other stakeholders to increase financial literacy. There are ministries or institutions; PUJK as a business actor; academics, media, and NGOs; and also, international institutions.



Figure 6 OJK's Synergy with Stakeholders Source: OJK, 2023

Based on the study's findings, it is confirmed that psychological factors significantly influence Paylater misuse and compulsive shopping behaviors in generations Y and Z. Debt risk awareness acts as a mediating factor, reducing the likelihood of compulsive shopping as awareness of debt dangers increases. Additionally, the synergy analysis of OJK's present programs and initiatives reveals that the organization has external partners synergy. Nevertheless, the Penta Helix concept has not been used to implement this type of synergy. Based on the results of the analysis, there are two additional strategies that will be proposed in OJK's current programs and strategies:

- 1) Integrate psychological and social aspects and perspectives into OJK financial literacy campaign programs and strategies.
- 2) Applying the Penta helix concept to optimize synergy between OJK and other stakeholders as shown in figure 7 below.



Source: Author, 2024

The Penta Helix model involves the synergy of five key stakeholders: government, academia, business, community, and media. This model is aimed at enhancing financial literacy and inclusion by leveraging the unique strengths of each stakeholder. Below is a detailed action plan based on the proposed strategies. To implement massive education, both offline and online approaches are important. For offline education, OJK can develop creative, varied, and entertaining educational content through Simolek by collaborating with ministries (Social Affairs, Labor, Education, Health), academia, practitioners, and businesses. Engaging local youth arts communities and influencers will enhance appeal and participation, while leveraging online platforms will extend reach and virality. Additionally, job fairs can be organized in partnership with the Ministry of Social Affairs, Employment, businesses, and job seeker communities, including a SLIK outlet by OJK to provide financial information and services. EduFairs, involving the Ministry of Education and Culture, educational institutions, and scholarship opportunities. Furthermore, mental health campaigns can be carried out in collaboration with the Ministry of Health, educational institutions, professional associations, and mental health communities, featuring talk shows, Q&A sessions, and entertainment to maintain engagement.

For massive online education, OJK can expand the Sikapi family with new characters representing psychological, social, and educational perspectives. Literacy content can be developed jointly with practitioners and practitioner associations, and influencers and youth communities can be involved to increase the reach of content on social media and the OJK minisite. Webinars with diverse and relevant topics, such as "Keuangan Sehat Mental Sehat", "(Bukan) Generasi Galbay", and "Pendidikan Keuangan untuk Generasi Sandwich", will further strengthen financial education.

Thematic collaborations with popular themes and communities, such as the creative industry, will enhance the understanding of financial literacy. OJK can engage with forums like the Young Indonesia Forum, Booktube Indonesia, Lentera Sintas Indonesia, UNICEF Young Partners, and Young on Top, integrating financial literacy topics with various aspects of life to increase relevance and understanding. Developing financial education infrastructure includes compiling content from offline and online activities into a quarterly financial literacy book and magazine. This comprehensive resource will provide consistent and accessible financial education materials.

Implementing a national financial literacy campaign involves OJK contributing to national campaigns by other ministries, such as the Ministry of Health's mental health campaign, and supporting and collaborating with other ministries and stakeholders. A national financial literacy competition can also be organized, featuring various challenges and competitions to engage the public. These include the Thematic Case Study Challenge, where participants propose solutions to real-world financial scenarios; the Financial Innovation Hackathon, which develops innovative financial tools or applications; the Financial Debate Tournament, focusing on economics, finance, psychology, and their social impacts; and the Behavioral Economics Essay Competition, exploring the principles of behavioral economics in everyday financial decisions. This action plan leverages the synergy of the Penta Helix model to create comprehensive and engaging financial literacy programs, enhancing financial inclusion and literacy among the target audience.

# CONCLUSION AND RECOMMENDATION

#### 5.1 Conclusion

V.

The research concluded that psychological factors have a strong and positive relationship with Paylater misuse, supporting the first hypothesis. However, financial literacy does not significantly impact Paylater misuse, thereby rejecting the second hypothesis. This indicates that psychological factors play a more crucial role in influencing Paylater misuse compared to financial literacy.

When examining the factors affecting compulsive buying behavior, the study found that psychological factors positively and significantly influence compulsive buying behavior, supporting the third hypothesis. In contrast, financial literacy has a negative relationship with compulsive buying behavior, supporting the fourth hypothesis. Additionally, Paylater misuse was found to positively affect compulsive buying behavior, supporting the fifth hypothesis. These findings highlight the complex interplay between psychological factors, financial literacy, and Paylater misuse in driving compulsive buying behavior.

The study also explored the moderating effect of debt risk awareness on compulsive buying behavior. It was found that debt risk awareness combined with financial literacy negatively impacts compulsive buying behavior, supporting the sixth hypothesis. Moreover, debt risk awareness moderates the relationship between psychological factors and compulsive buying behavior, although the relationship remains positive, supporting the seventh hypothesis. However, debt risk awareness does not significantly moderate the relationship between Paylater misuse and compulsive buying behavior, thereby rejecting the eighth hypothesis. These results suggest that increasing debt risk awareness, especially when combined with financial literacy, can help mitigate compulsive buying behavior.

In terms of recommendations, the research highlights OJK Indonesia's strategic approach to enhancing financial literacy through cross-sector collaboration involving government, businesses, academia, community groups, and media. OJK's initiatives include comprehensive education programs, regulatory reforms, and the use of innovative digital platforms to reach various segments of society, particularly rural communities. Additionally, Aftech, a fintech association, plays a significant role in increasing financial literacy and inclusion through collaborations with financial institutions and government partnerships.

Based on the findings, the research proposes integrating psychological and social aspects into financial literacy programs to address issues like Paylater misuse and compulsive buying behavior, particularly among younger generations. It also recommends adopting the Penta helix model to enhance collaboration across various sectors, including government, business, academia, community leaders, and media. The proposed strategies involve organizing offline educational events such as job fairs and mental health campaigns, leveraging synergies with multiple stakeholders to effectively disseminate financial knowledge. Furthermore, online initiatives utilizing social media, minisites, and webinars are suggested to reach a wider audience. By combining diverse perspectives from stakeholders such as psychologists, educators, and business leaders, the content becomes more comprehensive and engaging. This multifaceted approach aims to create a sustainable financial education ecosystem that addresses diverse audience needs and societal trends.

#### 5.2 Recommendation

The author provides several recommendations for further research and application of the Penta helix concept to increase financial literacy facilitated by the OJK. These recommendations are divided into three main areas. First, future researchers should dig deeper into the specific psychological factors that directly impact Paylater misuse and compulsive buying behavior. In addition, external factors influencing Paylater misuse and compulsive buying behavior should be explored. Analyzing how debt risk awareness can be integrated into financial literacy and inclusion campaigns is critical. Additionally, it is recommended to investigate internal and external factors that can reduce Paylater misuse and compulsive buying behavior. These steps aim to deepen understanding and create more effective interventions.

Second, exploring synergies with the Penta helix concept includes exploring forms of collaboration from the perspective of various stakeholders, including ministries, academics, the business world and the media. By enriching views on financial literacy and inclusion, these efforts will optimize the achievement of main goals in Indonesia. This broader perspective will ensure that financial literacy initiatives are comprehensive and inclusive, leveraging the strengths of each stakeholder group.

Third, the role of OJK as a facilitator and initiator is emphasized. OJK must determine the scope of collaboration, ensure compliance with regulations, and maintain ethical standards in multi-party collaboration. Key aspects that need to be discussed and agreed upon include identifying and utilizing various communication channels to ensure stakeholders receive relevant, up-to-date and consistent information. This will improve coordination and decision making. Clearly defining roles and responsibilities through early discussions and formalizing them in a document such as a memorandum of understanding will prevent conflict and confusion, ensuring efficient workflow and accountability.

Regulatory compliance should be integrated from the start, with ongoing dialogue with regulatory

bodies, regular independent audits, and the establishment of a compliance oversight body to monitor and enforce compliance measures. Additionally, developing and enforcing clear codes of conduct regarding data handling, privacy, transparency, and accountability is critical. Providing regular training sessions and updates will keep the code of ethics relevant, minimize legal and reputational risks, and promote ethical responsibility.

This recommendation aims to encourage a comprehensive and sustainable financial literacy approach, utilizing the Penta helix model of multi-stakeholder collaboration to achieve better financial inclusion and literacy in Indonesia. Through coordinated efforts involving various stakeholders, OJK can ensure that financial education initiatives are effective, inclusive, and easily adaptable to changing community needs.

### REFERENCES

- [1]. Coon, Dennis, and John O. Mitterer. Introduction to Psychology. Wadsworth Publishing Company, 2010.
- [2]. Nuradina, Kartika. "PSYCHOLOGICAL FACTORS AFFECTS ONLINE BUYING BEHAVIOUR." Journal of Business and Management INABA (JBMI), vol. 1, no. 02, Dec. 2022, pp. 112–23, https://doi.org/10.56956/jbmi.v1i02.120.
- [3]. Edward L., and Richard M. Ryan. Intrinsic Motivation and Self-Determination in Human Behavior. Springer Science & Business Media, 1985.
- [4]. Vainikka, Bianca. Bianca Vainikka PSYCHOLOGICAL FACTORS INFLUENCING CONSUMER BEHAVIOUR. June 2015, core.ac.uk/download/pdf/38126112.pdf.
- [5]. Lazarus, Richard S., and Susan Folkman. Stress, Appraisal, and Coping. Springer Publishing Company, 1984.
- [6]. Moin Ahmed Moon, and Saman Attiq. "Compulsive Buying Behavior: Antecedents, Consequences and Prevalence in Shopping Mall Consumers of an Emerging Economy." DOAJ (DOAJ: Directory of Open Access Journals), June 2018. Accessed 26 May 2024.
- [7]. Lusardi, Annamaria. "Financial Literacy and the Need for Financial Education: Evidence and Implications." Swiss Journal of Economics and Statistics, vol. 155, no. 1, Jan. 2019, pp. 1–8, https://doi.org/10.1186/s41937-019-0027-5.
- [8]. Spinella, Marcello, et al. "Compulsive Buying Tendencies and Personal Finances." Psychological Reports, vol. 115, no. 3, Dec. 2014, pp. 670–74, https://doi.org/10.2466/18.02.pr0.115c27z0. Accessed 10 Nov. 2020.
- [9]. Suratno Suratno, et al. PENGARUH ONLINE SHOP, LINGKUNGAN TEMAN SEBAYA DAN LITERASI KEUANGAN TERHADAP PEMBELIAN IMPLUSIF MAHASISWA JURUSAN PIPS FKIP UNIVERSITAS JAMBI. no. 1, Feb. 2021, pp. 61–75, https://doi.org/10.38035/jmpis.v2i1.414. Accessed 17 June 2023.
- [10]. Ningtyas, Mega Noerman, and Amelindha Vania. "Materialism, Financial Literacy, and Online Impulsive Buying: A Study on the Post Millennial Generation in a Pandemic Period." Jurnal Manajemen Teori Dan Terapan | Journal of Theory and Applied Management, vol. 15, no. 1, Apr. 2022, pp. 1–12, https://doi.org/10.20473/jmtt.v15i1.33774. Accessed 5 May 2022.
- [11]. Potrich, Ani Caroline Grigion, and Kelmara Mendes Vieira. "Demystifying Financial Literacy: A Behavioral Perspective Analysis." Management Research Review, vol. 41, no. 9, Sept. 2018, pp. 1047– 68, https://doi.org/10.1108/mrr-08-2017-0263.
- [12]. Samuelsson, Emma, et al. "Financial Literacy, Personal Financial Situation, and Mental Health among Young Adults in Sweden." Journal of Financial Literacy and Wellbeing, Cambridge University Press, Feb. 2024, pp. 1–24, https://doi.org/10.1017/flw.2024.3. Accessed 29 Mar. 2024.
- [13]. MH, Novia, and Harmon Chaniago. "Faktor Penentu Perilaku Impulsive Buying Pada Fashion Business Di Kota Bandung." Jurnal Riset Bisnis Dan Investasi, vol. 2, no. 3, Mar. 2017, pp. 121–33, https://doi.org/10.35313/jrbi.v2i3.97. Accessed 20 Jan. 2022.
- [14]. Ah Fook, Lauren, and Lisa McNeill. "Click to Buy: The Impact of Retail Credit on Over-Consumption in the Online Environment." Sustainability, vol. 12, no. 18, Jan. 2020, p. 7322, https://doi.org/10.3390/su12187322.
- [15]. Bauer, Johannes C., et al. "Interest-Free Financing Promotions Increase Consumers' Demand for Credit for Experiential Goods." Journal of the Association for Consumer Research, vol. 6, no. 1, Jan. 2021, pp. 54–66, https://doi.org/10.1086/710250. Accessed 27 Nov. 2021.
- [16]. Sari, Rahmatika. "Pengaruh Penggunaan Paylater Terhadap Perilaku Impulse Buying Pengguna E-Commerce Di Indonesia." Jurnal Riset Bisnis Dan Investasi, vol. 7, no. 1, May 2021, pp. 44–57, https://doi.org/10.35313/jrbi.v7i1.2058. Accessed 21 Oct. 2021.
- [17]. Nanduri, Sireesha. "Buy Now-Pay Later -Trends in Purchase Decisions." Research Gate, Journal of Social Sciences, July 2023, www.researchgate.net/publication/372448324.

- [18]. Eastman, Jacqueline K., et al. "The Journal of Consumer Behaviour's First 20 Years." Journal of Consumer Behaviour 22(3), July 2023, https://doi.org/10.1002/cb.2206.
- [19]. Weinstein, Aviv, et al. "Compulsive Buying—Features and Characteristics of Addiction." Neuropathology of Drug Addictions and Substance Misuse, vol. 3, 2016, pp. 993–1007, https://doi.org/10.1016/b978-0-12-800634-4.00098-6.
- [20]. Duh, Helen, and Teichert Thorsten. "Preventing Compulsive Shopping among Young South-Africans and Germans." Young Consumers, vol. 20, no. 1, Apr. 2019, pp. 29–43, https://doi.org/10.1108/yc-08-2018-0842.
- [21]. Roberts, James A., et al. "Contingent Self-Esteem, Self-Presentational Concerns, and Compulsive Buying." Psychology & Marketing, vol. 31, no. 2, Jan. 2014, pp. 147–60, https://doi.org/10.1002/mar.20683. Accessed 27 Feb. 2019.
- [22]. Alhakim, Nurul, et al. "Pengaruh Psychological Factors, Financial Literacy, Dan Paylater Misuse Terhadap Compulsive Buying Pada Pengguna Aplikasi Paylater Di Jabodetabek." Jurnal Manajemen Dan Organisasi (JMO), vol. 14, no. 1, Mar. 2023, pp. 57–68, https://doi.org/10.29244/jmo.v14i1.42798. Accessed 19 July 2023.
- [23]. LUSARDI, ANNAMARIA, and PETER TUFANO. "Debt Literacy, Financial Experiences, and Overindebtedness." Journal of Pension Economics and Finance, vol. 14, no. 4, Oct. 2015, pp. 332–68, https://doi.org/10.1017/s1474747215000232.
- [24]. Königsheim, Christian, et al. "Financial Knowledge, Risk Preferences, and the Demand for Digital Financial Services." Schmalenbach Business Review, vol. 18, no. 4, Aug. 2017, pp. 343–75, https://doi.org/10.1007/s41464-017-0040-0. Accessed 20 Oct. 2021.
- [25]. Alwi, Mohd Afifie bin Mohd, et al. "Debt Management Literacy among Credit Cards Users." Linguistics and Culture Review, vol. 6, Nov. 2021, pp. 42–56, https://doi.org/10.21744/lingcure.v6ns1.1897. Accessed 8 Dec. 2021.
- [26]. Porzak, Robert, et al. "Improving Debt Literacy by 2/3 through Four Simple Infographics Requires Numeracy and Not Focusing on Negatives of Debt." Frontiers in Psychology, vol. 12, Mar. 2021, https://doi.org/10.3389/fpsyg.2021.621312.
- [27]. Broström, Anders. "The Triple Helix: University-Industry-Government Innovation in Action by Henry Etzkowitz." Papers in Regional Science, vol. 90, no. 2, June 2011, pp. 441–42, https://doi.org/10.1111/j.1435-5957.2011.00357.x.
- [28]. Lindberg, Malin, et al. "Quadruple Helix as a Way to Bridge the Gender Gap in Entrepreneurship: The Case of an Innovation System Project in the Baltic Sea Region." Journal of the Knowledge Economy, vol. 5, no. 1, June 2012, pp. 94–113, https://doi.org/10.1007/s13132-012-0098-3.
- [29]. Moulaert, Frank, and Diana MacCallum. Advanced Introduction to Social Innovation. Edward Elgar Publishing, 2019.
- [30]. Awwal, Muhammad Al Faridho, and Dewi Wahyu Setyo Rini. "Peningkatan Sadar Investasi Masyarakat Melalui Model Penta Helix." IQTISHODUNA, vol. 15, no. 2, Oct. 2019, pp. 153–80, https://doi.org/10.18860/iq.v15i2.6554. Accessed 26 Oct. 2021.
- Hibrizi, Emil. "Pemanfaatan Model Pentahelix Sebagai Bentuk Kolaborasi Dalam Meningkatkan [31]. Inklusi Keuangan Melalui Peer-To-Peer Lending Syariah Di Indonesia." Educationist: Journal of Educational and Cultural Studies, vol. 2, no. 1. Aug. 2023, 291-95. pp. jurnal.litnuspublisher.com/index.php/jecs/article/view/133. Accessed 26 May 2024.
- [32]. Hair, Joseph F., et al. "When to Use and How to Report the Results of PLS-SEM." European Business Review, vol. 31, no. 1, 2019, pp. 2–24, https://doi.org/10.1108/EBR-11-2018-0203.

\*Corresponding Author: Debby Nurhanani <sup>1</sup>(School of Business and Management, Institut Teknologi Bandung, Indonesia