

The effect of price discount, FOMO, pay later on impulse buying and cognitive dissonance post-purchase in commerce shopping among the millennial generation

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Abstract: This study seeks to understand how millennials on Shopee are driven to make impulsive purchases by "price discounts, FOMO, and pay-later options," and how these purchases influence their feelings afterward. Using a quantitative approach with a causal research design, data were collected through a Google link involving respondents who had shopped online. The study confirmed that price discounts and FOMO significantly influence consumers to buy impulsively, while the pay-later option also contributes to increasing the frequency of purchases. However, high impulse buying is associated with increased post-purchase cognitive dissonance, where consumers experience discomfort and regret after purchasing. This research yields crucial information that can help e-commerce platforms optimize their marketing strategies, understand consumer behavior, and highlight the need for consumer education to reduce the risk of cognitive dissonance. This study is intended to act as a key source for future research concerning consumer habits within the digital marketplace, which continues to grow.

Keywords: FOMO, Impulse Buying, Pay Later, Post-purchase cognitive dissonance, Price discount.

1. Introduction

The development of digital technology, especially the internet and e-commerce, has changed consumer behavior in doing shopping activities. Indonesia, the largest e-commerce market in Southeast Asia, sees widespread online shopping activity, with approximately 90% of internet users making purchases online, as indicated by We Are Social and Hootsuite. This trend is particularly prevalent among millennials, who value the ease and convenience of online shopping. Based on an article from Goodstats written by Aditiya [1] it was reported that the market capitalization of Indonesia's e-commerce industry hit \$40 billion in 2022.

With the ongoing digital transformation, the market value is anticipated to climb in 2023. This upward trend is significantly influenced by the expanding Indonesian middle class, which comprised 57.3 million people, or 21% of the population, in 2019 [1]. This is also reflected in the increasing amount of people spending on consumer goods online (wearesocial and Hootsuite 2022). Throughout 2022, 46.2% of e-commerce transactions were attributed to consumers aged 26-35, the millennial generation [2]. The millennial generation, born between 1981 and 1996, is a generation that grew up in the era of digitalization and rapid technological development [3]. They are known as a generation that is highly connected to social media, demands freedom in their work, values individuality, and has significant purchasing power [4].

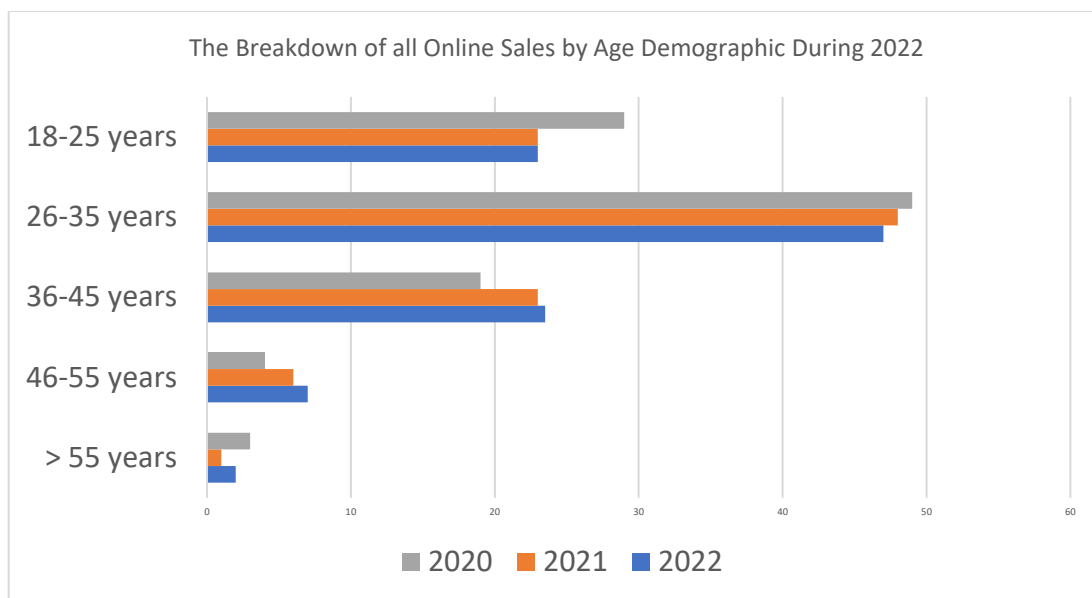


Figure 1.
The breakdown of all online sales by age demographic during 2022.

However, behind this convenience, there are various phenomena that can affect consumer behavior when shopping online. One phenomenon that often appears in online shopping activities is post-purchase cognitive dissonance. This cognitive dissonance occurs when the customer's initial expectations do not match the performance of the product purchased online [5]. Then, one of the drivers that can lead to cognitive imbalance after a purchase is “impulse buying behavior” [6]. Impulse buying is a situation where consumers make purchases suddenly, spontaneously, and not planned in advance [7]. When consumers make impulse buying without careful consideration, they tend to experience cognitive dissonance after making the impulse purchase [8]. The fact that impulse buying is so prevalent underscores its importance as a factor in the e-commerce shopping experience [9]. Thus, by reviewing the previous literature on Impulse buying, it can be seen that previous research has largely sought to analyze the stimuli and their influence on consumers before they make online purchases, such as those conducted in the studies by, Hanifah and Sabandi [10] and Kathuria & Bakshi, (2024) it can be seen that these studies focus on exploring aspects that address the stimulus that affects impulse buying. Many of these studies show that sellers can make consumers make impulse purchases through various ways by attracting them.

To draw in customers and promote impulse buying, retailers commonly employ discounted prices [11]. Reduced prices enhance how consumers perceive the worth of a product, making them feel that they are getting a favorable offer [12]. Price discounts are often accompanied by time or quantity limitations, which can trigger a sense of urgency in consumers [13]. They may feel that they must act quickly to take advantage of these limited offers before the opportunity is lost [14]. In addition, a variable that can be a driver of impulse buying, especially among the younger generation, is “Fear of Missing Out (FOMO)”. FOMO is a significant issue faced by individuals in a media-saturated society, especially among the youth. It drives them to stay informed about new products and trends to avoid feelings of exclusion [15]. FOMO refers to the level of worry that arises in individuals as they try to meet the demands of consumption trends from their surroundings when making purchase decisions [16]. Individuals who experience fear of being left behind have a tendency to keep up to date with the latest developments, because they do not want to be left behind by trends or purchasing activities to keep up with ongoing trends [17]. This is in accordance with the theory explained by Lim [18] regarding fear of missing out (FoMO) in the context of shopping. He explained that, a person tends to

feel anxious and worried when someone sees their friends buying or owning an item/product that they don't have, and when they realize that their friends will attend social events without including them.

Anxiety related to falling behind trends can encourage individuals to engage in impulse buying without careful consideration of whether the item is really needed or not [19]. Consumers, especially millennials, may perceive shopping as an escape from reality, thus forgetting the burden of life and problems [20]. Anxiety can lead to impulse buying as a form of emotional regulation, where individuals seek immediate gratification to counter negative feelings [21]. As a result, when given the option to purchase a desired product, individuals are more inclined to buy on impulse, even though they don't really need it at that time. Marketers and sellers often capitalize on this FOMO by campaigning their products as trending or only available for a limited time [22]. Another variable that affects Impulse buying besides Price discount and fomo is Pay Later. Mary and Antony [23] found that the introduction of payment systems such as Pay Later has significantly influenced consumer behavior in online Impulse buying. This digital payment system has facilitated the ease of transactions on e-commerce platforms, influencing consumer purchasing decisions and encouraging impulse buying behavior [24]. The worry is that pay-later services may disrupt consumption patterns, fostering a greater tendency for unplanned buying [25]. As an alternative digital payment for Indonesian consumers, the use of pay later has also increased in recent years, along with the increase in e-commerce transactions. Based on a databooks article written by Muhamad [26] Kredivo together with the Katadata Insight Center (KIC) conducted a survey to see trends in the use of Pay Later in Indonesia.

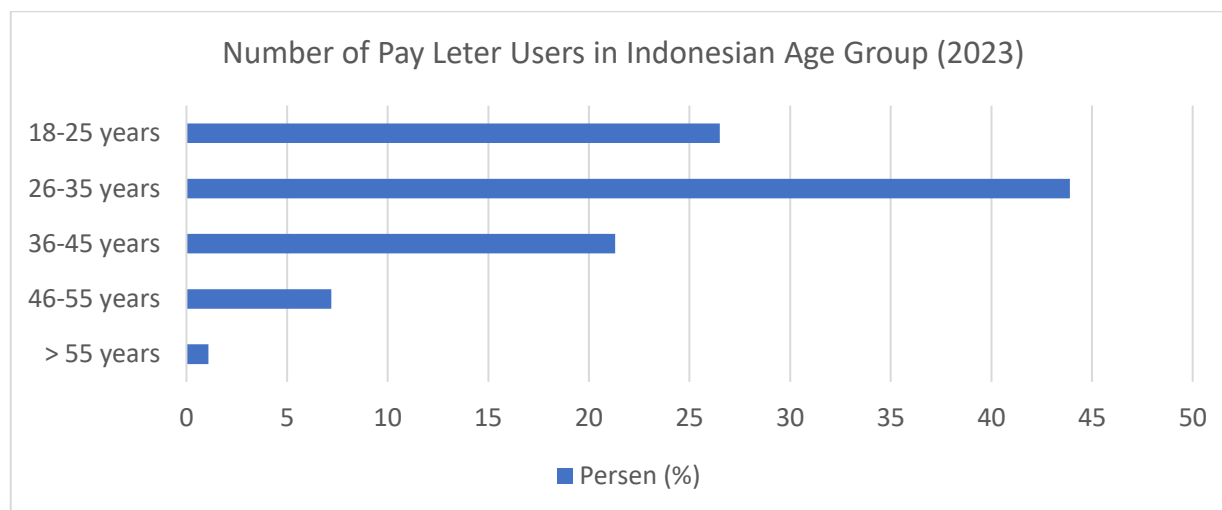


Figure 2.
Number of Pay Later Users in Indonesia by Age Group (2023).

The results show that domestic Pay Later users are dominated by the millennial generation. Kredivo and KIC conducted this survey on more than 2 million samples of Kredivo users spread across 34 provinces of Indonesia. The potential for impulse buying to arise is a concern associated with perceived ease of use [27].

The tendency to buy impulsively can trigger post-purchase cognitive dissonance, prompting consumers to re-evaluate the purchase and its necessity. This mental process can cause emotional distress, including feelings of regret, as they question their decision [6]. The psychological tension between wanting something and needing it, exemplified by impulse buying, is a key source of post-purchase cognitive dissonance or buyer's remorse [28]. To investigate how impulse buying leads to post-purchase cognitive dissonance, the study utilized the cognitive dissonance framework developed by Chetoui and El Bouzidi [29].

Previous research has looked at how impulse buying relates to post-purchase cognitive dissonance, but existing research is generally limited in terms of the context and factors that influence both phenomena, especially in e-commerce environments. The majority of prior investigations, like those from Mahapatra and Mishra [6] and Chetioui and El Bouzidi [29] focus more on the basic theory of cognitive dissonance and impulse buying behavior in general, without exploring specific variables that affect consumers on e-commerce platforms. Thus, this study contributes by including concepts that are less explored in previous literature, such as the influence of “discount, Fear of Missing Out (FOMO) and Pay Later” on “consumer behavior”, in the context of rapidly growing e-commerce. This research has interesting new things to research, wick (Examining the combined effects of “price discounts, FOMO, and pay-later options” on “impulse buying behavior in e-commerce”, Investigating the relationship between “impulse buying” and “post-purchase cognitive dissonance” in the context of millennial consumers, and providing new insights into consumer behavior in Indonesia's rapidly growing e-commerce sector.

1.1. Relationship Between Two or More Variables

1.1.1. Price Discount and Impulse Buying

Price discounts are the main promotional strategy used by sellers to stimulate purchases. According to Pratminingsih, et al. [11] price reductions cultivate a perception of value, causing consumers to feel they are getting their money's worth. Research by Harahap and Situmorang [12] highlights that the feeling of pressure stemming from a restricted timeframe offers increases impulse buying tendencies. Amos, et al. [14] argue that discounts not only attract attention but also encourage immediate purchase behavior due to psychological pressure to take advantage of the offer. In an e-commerce environment, features such as flash sales or discount coupons provide additional incentives to encourage impulse purchases [12]. Evidence from researchers such as Budaya, et al. [30]; Sofiati, et al. [31]; Roviqoh and Supriati [32]; Rahmadina, et al. [33] and Utami and Juanda [34]. This shows that “price discounts have a positive effect on impulse buying”.

H₁: Price discount has a positive effect on impulse buying.

1.2. Fear of Missing Out (FOMO) and Impulse Buying

FOMO describes psychological condition where people experience anxiety about potentially missing out. Lim [18] explains that FOMO often leads to impulse purchases, especially in e-commerce, where consumers face time-sensitive or exclusive offers. The study of Kang, et al. [16] shows that FOMO often arises from social pressure, especially among younger generations who are active on social media. Promotional content that highlights time constraints or exclusivity can trigger impulse buying behavior because consumers feel anxious not to miss the trend or opportunity [17]. Evidence from researchers such as Aydin, et al. [35]; Gupta [36] and Korfmaz and Dal [37] which shows that “FOMO has a positive effect on impulse buying”.

H₂: Fear of Missing Out (FOMO) has a positive effect on impulse buying.

1.3. Pay Later and Impulse Buying

Pay-later schemes, which are commonly offered in e-commerce, allow consumers to delay payment, thereby reducing their perception of financial risk. Mary and Antony [23] found that pay-later options significantly increase impulse buying behavior by creating the illusion of financial flexibility. Similarly, Dwipa and Yuniningsih [25] argue that delayed payment structures encourage overconsumption, as consumers feel less constrained by immediate budget constraints. Research by Sari [24] mentioned a user-friendly pay-later system promotes increased purchasing activity and a greater likelihood of spontaneous buys. Evidence from researchers such as Budiarti, et al. [38] and Hegawan, et al. [39] which states that “pay later has a positive effect on impulse buying”.

H₃: Pay later has a positive effect on impulse buying.

1.4. Impulse Buying and Post-Purchase Cognitive Dissonance

Impulse buying is often associated with regret or dissatisfaction after purchase due to unplanned decision-making. Theory Cognitive Dissonance Festinger [40] explains that impulse purchases can conflict with consumers' rational beliefs, leading to negative emotions. Mahapatra and Mishra [6] found that higher levels of impulse buying increase the likelihood of cognitive dissonance, as consumers realize that their purchases may not meet their initial expectations. Wang, et al. [8] also showed that consumers who buy impulsively are likely to experience regret or discomfort, especially when the product fails to meet their needs. Chetioui and El Bouzidi [29] highlight that the psychological conflict caused by impulse buying often leads to attempts to rationalize or justify the purchase, which further exacerbates cognitive dissonance. In terms of the research of Akbar, et al. [41] and Lazim, et al. [42] which shows “Impulse buying has a positive effect on Impulse buying”.

H₆: Impulse buying has a positive effect on post-purchase cognitive dissonance.

2. Methods

To determine the causal relationships between “discounts, FOMO, pay-later options, impulse buying, and post-purchase cognitive dissonance”, a quantitative research method with a causal design was implemented. Data was collected through a structured online survey distributed through Google Forms, targeting respondents who had shopping experience on the Shopee platform. The sample consisted of millennials aged 26-36, which is the dominant demographic group in e-commerce transactions. The study employed purposive sampling, where participants were selected strategically based on predetermined characteristics, notably age and their engagement with Shopee's pay-later service.

This research uses surveys as a data collection method to measure the various constructs being analyzed. Respondents were asked to provide responses to a number of statements organized in the form of a rating scale. The scale used allows them to express their level of agreement with each statement, ranging from strong disagreement to very strong agreement. This approach aims to capture variations in respondents' attitudes and perceptions in more detail, so that the data obtained can be analyzed to understand patterns and trends in this study. The variables in this study include 3 independent variables: “price discount, FOMO, and pay later”, and two dependent variables, “impulse buying and post-purchase cognitive dissonance”. The operational definitions and measurements of these variables were adapted from existing scales in previous studies. For example, impulse buying is measured using the Impulse Buying Tendency (IBT) scale developed by Verplanken and Herabadi [43], post-purchase cognitive dissonance is adapted from Grigsby, et al. [44], fear of missing out (FOMO) was assessed using the T-FOMO scale by Lim [18] and modified from Good and Hyman [17] Pay later was adapted from the study Kassim and Hussin [45] which was modified and price discount was adapted from the study [46].

In this study, data analysis was conducted using the variance-based structural equation modeling method. To ensure the reliability and validity of the measurement model, various indicators were used, including internal consistency testing as well as convergence and contribution of each indicator to the measured construct. In addition, the structural model is evaluated by looking at the extent to which the independent variables are able to explain the dependent variable as well as the strength of the relationship between the variables in the model. To test the hypotheses, resampling techniques are applied with a certain level of significance, thus allowing researchers to identify statistically meaningful relationships in the analyzed model [47].

3. Results and Discussion

3.1. Descriptive Analysis Result

Table 1 shows the demographic data of the respondents. This study involved 150 millennial participants who use Shopee's Pay Later feature. The majority of the sample was female, consisting of 87

people (58%), while 63 participants (42%) were male. In terms of age, the largest segment of respondents were in the 26-28 age group, with 69 participants (46%). The 29-31 and 32-36 age groups each represented 27% of respondents. In terms of occupation, the largest group consisted of private employees, with 83 people (55%). Other occupations included self-employed (15%), housewives (12%), teachers (7%), and students (4%). Income levels varied, with the largest group earning more than IDR 5,000,000 (25%). The second largest group earns between Rp 2,000,000 and Rp 3,000,000 (20%). The rest are distributed as follows: less than Rp 1,000,000 (14%), Rp 1,000,000 - Rp 2,000,000 (15%), Rp 3,000,000 - Rp 4,000,000 (14%), and Rp 4,000,000 - Rp 5,000,000 (13%).

Based on the types of products purchased on Shopee, fashion products as well as skincare and bodycare are the top choices with 38 people (25%) each, followed by household goods (23%), gadgets and accessories (22%), and sporting goods (5%). Meanwhile, based on the frequency of use of the pay later feature, most respondents use this feature once a month with 72 people (48%), followed by twice a month (19%), three times a month (29%), and four times a month (4%). Overall, the respondent profile shows that they are dominated by women aged 26-28 years old, work as private employees, have an income of more than Rp 5,000,000, tend to buy fashion and skincare/bodycare products, and use the pay later feature on average once a month.

Table 1.

Demographic data from millennial generation respondents who use shop pay later.

Description	Characteristics	Amount	Persentase
Gender	Number of respondents	150	100%
	Male	63	42%
	Women	87	58%
Age	Number of respondents	150	100%
	26-28	69	46%
	29-31	42	27%
	32-36	40	27%
Work	Number of respondents	150	100%
	Teacher	10	7%
	Housewife	29	19%
	Private employee	83	55%
	Student	6	4%
	self-employed	22	15%
Revenue	Number of respondents	150	100%
	< Rp. 1.000.000	20	13%
	Rp. 1.000.000 – Rp. 2.000.00	23	15%
	Rp. 2.000.000 – Rp 3.000.00	30	20%
	Rp. 3.000.000 – Rp 4.000.00	21	14%
	Rp. 4.000.000 – Rp 5.000.00	19	13%
Products purchased on the shoppe	Number of respondents	150	100%
	Gadgets and Accessories	32	22%
	Sports Equipment	7	5%
	Household supplies	35	23%
	Fashion Products	38	25%
	Skincare and Bodycare	38	25%
Frequency of shopping using pay later	Number of respondents	150%	100%
	Once a month	72	48%
	Twice a month	29	19%
	Three times a month	43	29%
	Four times a month	6	4%

4. Results

4.1. Assessment of Measurement Model (Outer)

For a measure to be considered reliable and have convergent validity, individual item loadings should be above 0.7, and the corresponding p-values should be significant (below 0.50) [47]. To assess construct reliability, Cronbach's Alpha (CA), Composite Reliability (CR), and rho_A were utilized, with all values surpassing 0.7. As demonstrated in Tables 2 and 3, both reliability and convergent validity were within acceptable limits. However, it can also be seen that there are three statements, namely IB10, 1B9 and PD5 that are not visible in the table. these indicators were eliminated from the data processing process, and retested because they were invalid or had a puter loading value below 0.7.

The Fornell-Larcker Criterion was used to assess discriminant validity, requiring that the square root of the AVE for each latent variable be higher than its correlations with all other latent variables [48]. According to the Fornell-Larcker criterion, Table 4 shows that all constructs exhibit acceptable discriminant validity.

Table 2.

Outer Loading: Convergent validity.

Latent Variable	Code Item	Outer Loading	AVE
	Fomo1	0.826	
	Fomo2	0.840	
	Fomo3	0.810	
Fear of Missing Out (FOMO)	Fomo4	0.842	0.645
	Fomo5	0.814	
	Fomo6	0.714	
	Fomo7	0.768	
	PL1	0.900	
	PL2	0.738	
Payleter	PL3	0.909	0.733
	PL4	0.868	
	PD1	0.909	
	PD2	0.898	
Price discount	PD3	0.907	0.813
	PD4	0.893	
	IB1	0.790	
	IB2	0.859	
	IB3	0.843	
	IB4	0.846	
Impulse buying	IB5	0.799	0.682
	IB6	0.861	
	IB7	0.805	
	IB8	0.798	
	DK1	0.823	
	DK2	0.891	
Post-purchase cognitive dissonance	DK	0.895	0.730
	DK4	0.806	

Table 3.
Cronbach's alpha: Reliability Test.

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Fomo	0.908	0.914	0.927	0.645
Impluse Buying	0.933	0.934	0.945	0.682
Pay Later	0.878	0.899	0.916	0.733
Price Discount	0.923	0.926	0.946	0.813
post-purchase _cognitive dissonance	0.876	0.878	0.915	0.730

Table 4.
Fornell Larcker:Validitas Diskriminan.

	Fomo	Impulse buying	Pay Later	Price discount	post-purchase _cognitive dissonance
Fomo	0.803				
Impulse buying	0.682	0.826			
Pay Later	0.587	0.618	0.856		
Price discount	0.599	0.590	0.680	0.902	
post-purchase _cognitive dissonance	0.607	0.730	0.571	0.541	0.855

4.2. Structural Model Assessment (Inner)

Table 5.
R-Square.

	R-square	R-square adjusted
<i>Impulse buying</i>	0.549	0.539
<i>post-purchase _cognitive dissonance</i>	0.533	0.530

To determine how well a model explains endogenous latent variables, the R-squared value is essential. According to Chin [49] propose that an acceptable model should have an R-squared of 0.19 or higher.

Tabel 6.
Research Hypothesis Test.

Hypothesis		Original sample	T- statistik	V-values	Description
Price discount -> Impulse buying	H1	0.151	1.752	0.040	Supported
Fomo -> Impulse buying	H2	0.441	4.483	0.000	Supported
Pay Later -> Impulse buying	H3	0.256	2.691	0.004	Supported
Impulse buying -> post-purchase _cognitive dissonance	H4	0.730	18.813	0.000	Supported

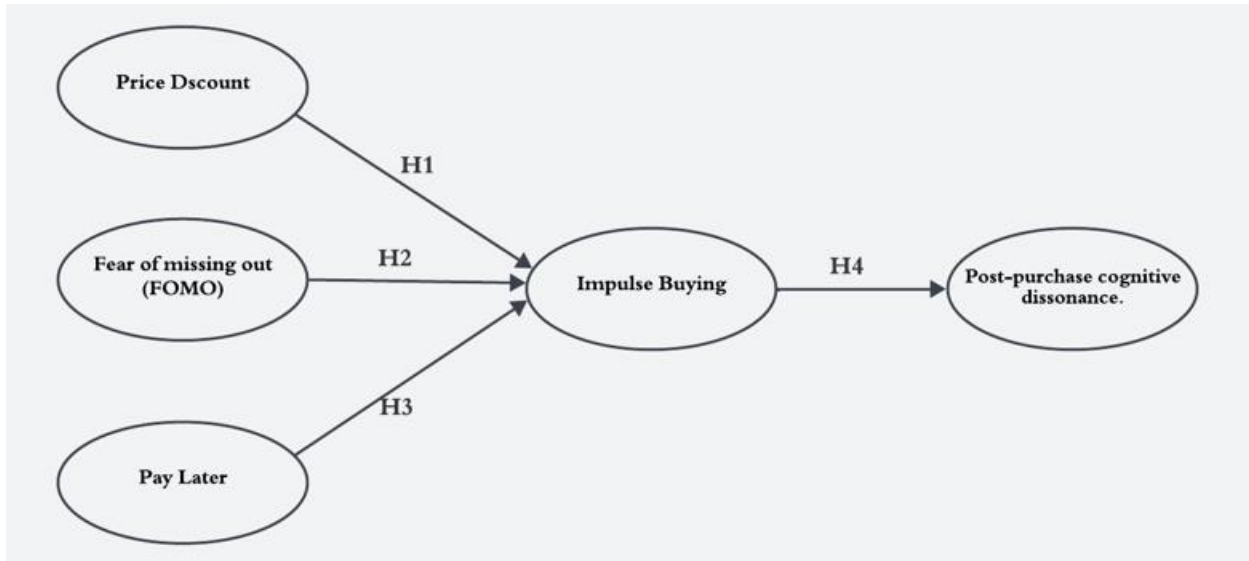


Figure 3. Empirical Research Method.

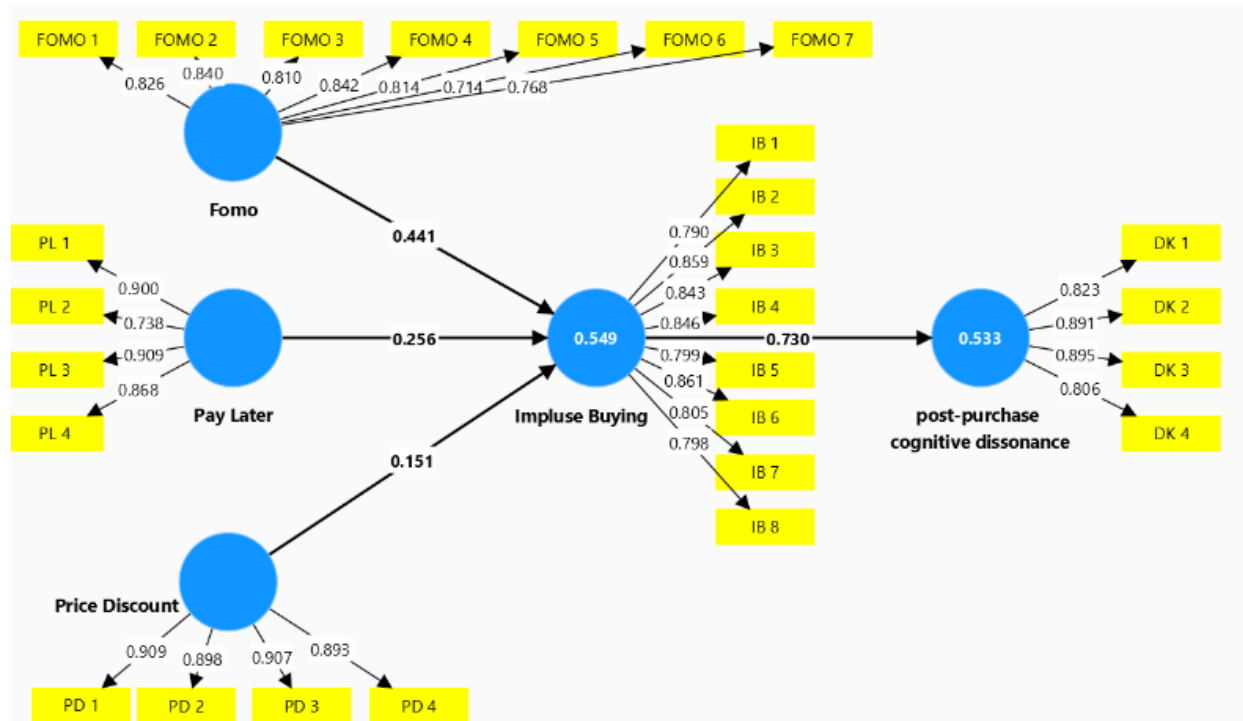


Figure 4. The Results of Full Model Analysis.

4.3. The Effect of Price Discount on Impulse Buying

Based on Table 6, testing the first hypothesis, namely the effect of a Price discount on Impulse buying, shows a positive original sample value of 0.151 with a t-statistic value of 1.752 > 1.66 and a probability value (p-value) of 0.040 < 0.05, so H1 is supported. This means that price discounts have a positive effect on impulse buying. This indicates that price discounts are among the most decisive

factors influencing consumer impulse decisions. Impulse buying behavior triggered by price discounts is often associated with emotional factors. Price discounts are considered to create a sense of pleasure, satisfaction, and a sense of getting great benefits, which encourages consumers to make immediate purchasing decisions without considering the needs that are really needed.

Consistent with consumer behavior theory, the results of this study demonstrate the impact of external factors, such as price promotions, can influence impulse buying decisions [50]. According to research Mihić and Kursan [51] showed similar findings. Research on price discounts has been conducted by Budaya, et al. [30]; Sofiati, et al. [31]; Roviqoh and Supriati [32]; Rahmadina, et al. [33] and Utami and Juanda [34].

4.4. Fear of Missing Out (FOMO) on Impulse Buying

Based on table 6, testing the second hypothesis, namely the effect of Fear of Missing Out (FOMO) on Impulse buying, shows a positive original sample value of 0.441 with a t-statistic value of $4.483 > 1.66$ and a probability value (p-value) of $0.000 < 0.05$, so H2 is supported. The data shows a significant positive relationship between the two variables. That is, consumers with a high fear of loss are more likely to make unplanned purchases. The FOMO theory states that the fear of missing out on something interesting or limited can encourage a person to buy goods impulsively, without thinking, so as not to miss the opportunity. The results of this study support the theory of consumer behavior which states that FOMO is one of the main drivers in making impulse buying decisions. Research on FOMO has been conducted by Saibaba [52]; Aydin, et al. [35]; Gupta [36] and Korfmaz and Dal [37] which shows FOMO has a positive effect on Impulse buying.

4.5. Pay Later on Impulse Buying

Based on table 6, testing the third hypothesis, namely the effect of Pay Later on Impulse buying, shows a positive original sample value of 0.256 with a t-statistic value of $2.691 > 1.66$ and a probability value (p-value) of $0.004 < 0.05$, so H3 is supported. This means that Pay Later has a positive effect on Impulse buying. Based on data analysis, it is found that the existence of pay later facilities increases the tendency of consumers to make impulse buying, these results indicate that the easier consumers access pay later facilities, the more likely they are to engage in impulse buying.

Perceptually, pay later influences buying behavior by reducing the perception of immediate risk associated with spending. Consumers feel that they can postpone the Perceptually, pay later influences buying behavior by reducing the perception of immediate risk associated with spending. Consumers feel that they can postpone the financial burden until a certain time, thus making the buying decision seem lighter. This creates the illusion that the purchase will not have a major impact on the current financial condition, although in the long run it can increase the debt burden. In line with the findings of Budiarti, et al. [38]; Hegawan, et al. [39] and Keil and Burg [53] which shows Pay Later has a positive influence on Impulse buying among e-commerce users.

4.6. Impulse Buying on Post-Purchase Cognitive Dissonance

Based on table 6, testing the fourth hypothesis, namely the effect of Impulse buying on post-purchase cognitive dissonance, shows a positive original sample value of 0.730 with a t-statistic value of $18.813 > 1.66$ with a probability value (p-value) of $0.000 < 0.05$, so H4 is supported. This means that impulse buying has a positive effect on post-purchase cognitive dissonance. Based on data analysis, it was found that consumers who engage in impulse buying tend to experience higher levels of cognitive dissonance. This cognitive dissonance occurs due to a mismatch between unplanned purchasing decisions and consumers' actual values, budgets or needs.

Consumers who make impulse purchases often feel regret because the product does not fully meet expectations or is only purchased because of emotional impulses, such as attractive discounts or limited promotions. Cognitive dissonance is related to dissatisfaction with the attributes of the product purchased and emotional dissonance is associated with the experience of psychological discomfort

(including a sense of disappointment, unhappiness, or regret in connection with the purchase) [54]. In line with research conducted by Akbar, et al. [41] and Lazim, et al. [42] which shows Impulse buying has a positive effect on post-purchase cognitive dissonance.

5. Conclusion

This study examines the influence of “price discounts, Fear of Missing Out (FOMO), and pay later” on “impulse buying behavior, as well as the impact of impulse buying on post-purchase cognitive dissonance” among millennial consumers in the Indonesian e-commerce sector. The findings reveal that price discounts, FOMO, and pay later options significantly drive impulse purchases, while impulse purchases contribute to cognitive dissonance. These results emphasize the important role of psychological factors and promotional strategies in shaping consumer behavior.

These insights enable e-commerce companies to formulate marketing strategies that will work well in real-world scenarios, such as time-limited discounts and pay-later schemes, while considering ethical implications to minimize potential consumer regret. Theoretically, this study enriches the literature on consumer behavior in digital marketplaces, especially in clarifying the connection between unplanned purchases and post-purchase regret.

Then, this study has limitations in that the findings of this study may not be widely applicable because the focus is only on millennial Shopee users. The results may not reflect the behavior of other demographics or consumers on different e-commerce platforms. Future research could include a wider demographic coverage, other e-commerce platforms, as well as use a longitudinal design to explore the long-term dynamics of this phenomenon. A qualitative approach may also provide deeper insights into the psychological mechanisms behind impulse buying behavior and cognitive dissonance.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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