# A Conceptual Study of Understanding the Moderating Effects of Financial Struggles on Impulsive Online Purchases with Buy Now Pay Later Services among Gen Z in Malaysia

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**Abstract.** The rapid increase in internet users, limited mobility, and physical store closures during the Covid-19 pandemic have quickly transformed Malaysia's e-commerce retail market into a major player in just a few years. In line with this, digital transformation seeks to enhance information and communication technology infrastructure, allowing people to access high-speed internet at home and on their mobile phones. This ensures a smoother browsing experience on their favourite online marketplaces anytime. Although the pandemic is now behind us, Malaysian consumers continue to make frequent online purchases especially Gen Z who has grown up in a digitally dominant world. In addition, the escalating progress of online purchasing and the emergence of innovative payment options, such as Buy Now Pay Later services have significantly impacted the purchasing behaviour of consumers, particularly among the Gen Z. However, using online payment services has several risks, such as possible negative effects from electronic payments and challenges with managing money. Thus, this conceptual paper seeks to identify the factors influencing impulsive online purchase intention with Buy Now Pay Later services by reference to the Theory of Planned Behaviour, particularly attitudes, subjective norms, and perceived behavioural control of Gen Z. Subsequently, these antecedents can be determined by a moderating effect of Gen Z's financial struggles on impulsive online purchase intention. This study expects to develop better strategies for promoting financial management and preventing overspending among Gen Z.

**Keyword:** Financial Struggles, Impulsive Online Purchase, Buy Now Pay Later, Gen Z

## 1 Introduction

Driven by the increasing number of internet users, mobility constraints, and physical store closures during the Covid-19 pandemic, Malaysia's e-commerce retail market has grown significantly across the country in just a few years. In fact, during the Movement Control Order (MCO) implemented by the Malaysian government in 2020 - 2021 due to the pandemic, most people stayed at home, leading to a significant increase in internet usage at that time. In accord with that, digital transformation aims to improve the infrastructure of information and communication technology, enabling people to access high-speed internet not only at home but also on their mobile phones (Vafaei-Zadeh et al., 2022). This improvement helps prevent interruptions when browsing their favourite online marketplaces at any time. Most people find online purchasing highly beneficial, mainly because it offers 24-hour access to the products they want to buy (Zin et al., 2024).

Following the spread of the pandemic, many physical businesses were affected, and stores were forced to shut down due to the inability to cover operating expenses. In these difficult times, consumers have no choice but to purchase online. Although the


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pandemic is now behind us, the 2023 survey found that Malaysian consumers continue to make frequent online purchases, with many purchasing items online at least once a month (Statista, 2024). The surge in e-commerce spending during the peak of the Covid-19 pandemic in 2020 - 2021 has now become the norm in Malaysia.

According to MCMC (2019), the percentage of internet users from Gen Z in 2018 was 15.6% of the total Malaysian population. Gen Z consists of individuals born between 1997 and 2012 who are presently 27 years old and younger. Gen Z has grown up in a digitally dominant world where technology has been present since birth. Research indicates that 95% of this generation owns or has access to a smartphone, and nearly all (97%) use the internet every day (Slepian et al., 2023). This tech-savvy generation is characterized by their ability and willingness to purchase goods and services online, often using smartphones and tablets as their primary means of accessing information and making purchases. Other studies have shown that Gen Z is increasingly reliant on online shopping and digital payment methods (Dabija & Lung, 2019). In addition, researchers have determined that Gen Z is a digital consumer who boldly shops online, spending most of their time online, conducting research, reading reviews, and evaluating information before making a purchase.

The escalating progress of online purchasing and the emergence of innovative payment options, such as Buy Now Pay Later (BNPL) services, have significantly impacted the purchasing behaviour of customers, particularly among Gen Z. The concept of BNPL has gained great popularity, providing convenience to people to make purchases without upfront payment and deferring the cost to a later date. The BNPL services are welcomed for their timely introduction, as businesses grapple with pandemic-related challenges and it has helped increase sales by easing the cash flow burden on customers (The Edge Malaysia, 2021). Also, BNPL services may appeal to those facing financial constraints, as it allows them to spread out the cost of their purchases.

Undoubtedly, online purchasing habits have changed dramatically because of the quick growth of BNPL services, especially for Gen Z customers. Nevertheless, there are several hazards associated with using the online payment system, including the potential for negative consequences from using electronic payments (Halim et al., 2020). Although these services are convenient and flexible, they also bring up issues with money management and impulsive purchases. Gen Z, a group renowned for its technological proficiency and preference for immediate satisfaction, is more frequently making impulsive online purchases made possible by BNPL services. Nonetheless, a lot of people in this age range struggle financially, with issues including low income, student loan debt, and a lack of financial awareness. These elements may intensify impulsive purchasing behaviours, resulting in long-term financial issues including debt accumulation and low credit ratings. Though BNPL platforms are becoming more and more popular, limited study has been done on how Gen Z's impulsive purchasing habits are impacted by financial struggles. Creating solutions to encourage responsible financial behaviour requires an understanding of the connection between impulsive purchases through BNPL platforms and financial difficulties.

Therefore, this study aims to identify the factors influencing impulsive online purchase intention with BNPL service by reference to the three antecedents of the Theory of Planned Behaviour (TPB), particularly attitudes, subjective norms, and perceived behavioural control of Gen Z. Subsequently, these antecedents can be determined by moderating effects of financial struggles on impulsive online purchase intention with BNPL services among Gen Z in Malaysia.

## 2 Literature Review

### 2.1 Theory of Planned Behaviour

The TPB was developed by Azjen (1991) to predict an individual's willingness to act. It is an extension of the Theory of Reasoned Action (TRA) that addresses individual behaviours with incomplete volitional control. It involves the process by which an individual decides on and commits to a specific course of action. According to Ajzen (1991), behavioural intention is the most significant predictor of human behaviour. Hence, TPB is the good prediction of behaviour that comes from asking people whether they intend to act in a certain way, as intentions do not always translate into actual behaviour. Intention can indicate the level of effort individuals willingly put in and how hard they intend to try it. Therefore, TPB allocates attitudes, subjective norms, and perceived behavioural control to a fundamental belief about the behaviour.

Given that e-commerce represents a technological revolution, psychological theories like the TPB can be employed to examine individual intentions for online purchases. The utilization of TPB is well supported in a wide range of areas, especially in studies of online purchase intention. For example, Rai et al. (2024) found the TPB helpful in showing that consumer attitudes can lead to positive or negative emotions when deciding to purchase online, ultimately influenced by family, friends, or colleagues. Additionally, someone who feels powerless may be less likely to engage in purchasing, and PCB significantly shapes his or her intention to purchase online. In Gu and Wu (2019) study, they found that positive attitudes toward the Internet, favourable views of family and friends about using social media for shopping information, and high PBC indicate that consumers plan to purchase online and are likely to follow through. Building on the previous studies, it emphasizes the usefulness of the TPB in understanding consumers' online purchasing intentions. Therefore, it is essential to use the TPB in this study to explore how attitudes, subjective norms, and PBC relate to impulsive online purchasing intentions with BNPL services among Gen Z while considering the moderating effect of financial struggles.

**Attitudes**

Past researchers have looked closely at people's intentions to use technology, and one factor that influences a person's intention to utilize technology is attitude. Attitude is known as the person's evaluation of the "consequences of performing the behaviour" (Pavlou & Fygenson, 2006). In particular, attitude is defined as "the extent to which an individual has a positive or negative assessment or appraisal of the behaviour in question" (Ajzen, 1991). Numerous studies have demonstrated that a positive attitude generates strong intentions to carry out a particular behaviour (Hien et al., 2024; Tian et al., 2023; Chan & Lay, 2021; Chen et al., 2021). Likewise, a person will be less likely to engage in a specific behaviour if they perceive unfavourable consequences.

Nowadays, most Malaysians spend over seven hours a day on the Internet, indicating that convenience, especially when it comes to saving time, is now a need rather than a luxury in people's daily lives. When it comes to online shopping, consumers who perceive it favourably will typically have a positive attitude toward it. Past studies have explored consumers' attitudes on the online purchase intention (Nguyen et al., 2023; Karpagam & Rajakrishnan, 2022; Kumar & Meena, 2022; Tang et al., 2021; Chetioui et al., 2020). These studies indicate that a variety of factors pertaining to experience, preferences, and expectations influence customers' attitudes toward online purchasing. Consumers are more likely to form the intention to shop online if they have had positive experiences with it. Conversely, they are less likely to do so if they anticipate that shopping online will expose them to security risks.

According to Rohida et al. (2023), Gen Z, having been exposed to the digital era from a very young age are technology natives. They exhibit a strong reliance on smartphones and are more inclined to make online purchases. On the other hand, they also prefer the convenience of shopping online, for instance, one-click purchases, straightforward checkout processes, and personalized purchasing recommendations. These factors create positive experiences for the members of Gen Z which may influence their impulsive online purchase intentions.

**Subjective Norms**

Subjective norms are considered a significant predictor of behavioural intention. Ajzen (1991) defined subjective norms as "perceived social pressure to perform or not perform the behaviour. It originated from the Theory of Reasoned Action (TRA). A person forms specific beliefs or normative beliefs regarding the acceptability of certain behaviours (Ajzen & Fishbein, 1980). It relates to a person's perception of how any reference group as well as family, friends, neighbours, coworkers, the public, institutions, and culture view a particular behaviour and influence their decision-making process. Subjective norms or perceived social values of behaviour may affect people's general behaviours and thereafter their future behavioural intention.

Prior research has shown that subjective norms are among the most important variables influencing consumers' behavioural intentions, particularly their intentions to purchase online. Nguyen et al. (2023) determined subjective norms caused significant impacts on online purchase intention. It was also agreed by several authors (Song & Jo, 2023; Othman & Sudarmin, 2022; Xu et al., 2021; Sumarliah et al., 2021: Bhatti & Akram, 2020). These suggested that the significant people in one's immediate vicinity exerted an impact on one's intention to make an online purchase. However, its influence appeared to be varied case-by-case.

In the context of Gen Z, their social circle, which consists of close friends, classmates, and relatives may have an impact on their decision to shop online. Gu and Wu (2019) concluded that there is pressure on Gen Z to follow the trends of online shopping because they are influenced by their peers' social media and live in a world where online shopping is more common. Most of them feel compelled to adopt the consuming habits of young people. Peer referrals and user-generated content are trusted by Gen Z (Rohida et al., 2023). They check product reviews, unboxing videos, and friends' recommendations before acquiring anything from online purchases. Kumar and Pandey (2023) also demonstrated that social media with subjective norms establish young consumer motivation and play a significant role in impulsive purchase intention. Consequently, strong subjective norms can therefore increase consumers' inclination to make online purchases.

**Perceived Behavioural Control**

Perceived Behavioural Control (PBC) is the belief of an individual in their ability to perform a particular behaviour, which is influenced by internal factors such as motivation and skills, as well as external conditions like a stress-free online environment or financial resources (Hagger et al., 2022; Karimi et al., 2021). These factors have the potential to either increase or decrease an individual's perception of control, which in turn affects their behavioural intentions. Reducing anxiety associated with online purchasing or digital interactions enhances individuals' perceived control and reduces their vulnerability to external marketing pressures (Wu et al., 2022). In addition, individuals may be more inclined to avoid impulsive purchases due to increased control in their decision-making processes (Fawehinmi et al., 2020; Hagger et al., 2022).

Multiple research endeavours have repeatedly highlighted that elevated levels of perceived behavioural control exhibit a correlational relationship with diminished impulsive tendencies in internet purchasing behaviours. Individuals with a self-perception of efficacy in behavioural regulation demonstrate a greater propensity to mitigate their impulsive urges (Zhao et al., 2021). Impulse purchasing, defined as spontaneous and unforeseen acquisitions, often yields external stimuli like promotional activities, discount offers, and the convenience of the purchasing process (Chan et al., 2022). In instances where individuals hold the belief that they wield control over their behaviours, the likelihood of succumbing to external stimuli diminishes, consequently resulting in a lowered probability of engaging in impulsive buying behaviours (Wang & Xiao, 2023).

According to Steiner et al. (2022), features like "one-click" purchases, automatic payment information, and ongoing exposure to personalized advertisements are common on online shopping platforms and seem to increase impulsivity. These factors increase the likelihood of impulsive purchases by reducing PBC and evading customers' cognitive decision-making processes. This is especially true for members of Gen Z, who are constantly exposed to marketing via their e-commerce and social media platforms, which might impair their capacity for self-regulation (Wu et al., 2023).

**Financial Struggles**

Financial struggle is a hardship in fulfilling daily financial obligations, frequently characterized by limited income, debt, or dependence on credit. Further added by Li et al. (2022) and Sharme et al. (2020), financial struggles can induce worry and anxiety, which may profoundly affect consumer behaviour. Individuals experiencing financial stress may have less self-control, resulting in impulsive purchasing behaviours as a coping strategy. Xie et al. (2023) found that customers experiencing emotional distress due to financial difficulties are more likely to make impulsive purchases, especially when shopping online, where the immediate nature of purchasing chances and their accessibility exaggerate such behaviours.

Customers' ability to self-regulate their impulsive purchasing behaviour directly correlates with the emotional stress of challenging financial circumstances. Li et al. (2022) highlighted that financial struggles often cause emotional and psychological discomfort, making exercising self-control over impulsive online purchase actions more challenging. This is the case in online shopping, where consumers can purchase straightforwardly and discretely. Digital marketplaces constantly expose customers to targeted advertising and flash discounts, exacerbating this concern by encouraging impulsive purchases. According to Sharma et al. (2020), customers facing financial struggles tend to make online impulsive purchases because it is emotionally pacifying for them. Anonymity and ease of shopping facilitate the psychological hurdle customers face when purchasing online. Moreover, these game-based marketing methods may increase the likelihood of impulse purchases facilitated by today's increasingly interconnected environment. Park and Lin (2021) asserted that e-commerce platforms leverage different psychological triggers, such as limited-time discounts and personalized suggestions, to exacerbate impulsive purchase behaviours, notably among financially distressed consumers.

**Impulsive Online Purchase Intention**

Impulsive purchase behaviour is defined as unplanned and spontaneous purchases motivated by emotions rather than rational decision-making. This behaviour has received a lot of attention in the world of online shopping since the ease and accessibility of digital platforms have made purchasing more instantaneous; hence, the frequency of such an intention has increased. In addition, the impulsive online purchases made by Gen Z consumers using BNPL services on e-commerce platforms have shown an increasing trend in retail consumption. Gen Z, defined as people who were born between 1997 and 2012, is a digital-first generation that values convenience and flexibility in financial transactions. Hence, BNPL services are tailored to meet their needs, and eventually online impulse purchases will rise in tandem with the frequency of BNPL transactions (FI, 2021; Kumari et al., 2023). Although it was anticipated that BNPL would dramatically increase impulsive purchasing in this demographic, new research reveals conflicting findings. There was no discernible difference in impulsive behaviour between BNPL users and non-BNPL users in Gen Z, according to a study that examined this generation's purchasing habits. Although BNPL is not the only factor causing impulsivity in Gen Z, both external and internal factors, such as marketing strategies and attitudes toward personal finance, play a role in this behaviour (Elsayed et al., 2022).

Many researchers have focused more on online impulsive purchase behaviour since the development of e-commerce. Understanding the underlying factors that influence impulsive online purchase intention is critical, and the TPB emphasizes that attitudes, subjective norms, and perceived behavioural control have an impact on behavioural intentions (Ajzen, 1991). When it comes to making impulsive online purchases, people's intentions are greatly influenced by their positive attitudes regarding the ease of online shopping, social influences such as peer recommendations, and the perceived ease of the purchase. Luo et al. (2021) highlighted that online promotion has a significant impact on consumers' willingness to make impulsive purchases. For businesses, online promotions are considered a more diversified and eye-catching way to present products. In another study, researchers have found that influencer marketing on social media is influential for brand awareness and purchase intention among consumers (Lou & Yuan, 2019). Furthermore, some companies are even employing scarcity strategies, like time-limited deals and low-stock alerts, which can incite impulsive buying intentions by creating a sense of urgency (Gierl & Hu, 2006). This literature suggests that although BNPL is changing the way consumers behave, other factors, such as market forces and broader consumer psychology, may also play a part in impulsive purchase behaviour.

*Conceptual Framework*

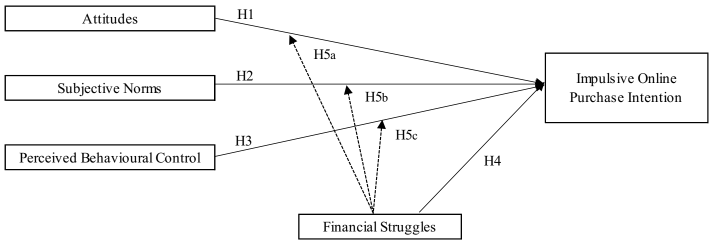


**Fig 1.** Proposed Research Model

This study presents a conceptual framework based on the TPB to explore the potential relationships between attitudes, subjective norms, and perceived behavioural control on the impulsive online purchase intention and the moderating effect of financial struggles on the relationship between the three main independent variables: attitudes, subjective norms, and perceived behavioural control on the impulsive online purchase intention. Therefore, the following hypotheses were proposed:

H1: Gen Z's attitudes significantly influence impulsive online purchase intention.

H2: Gen Z's subjective norms significantly influence impulsive online purchase intention.

H3: Gen Z's perceived behavioural control significantly influences impulsive online purchase intention.

H4: Gen Z's financial struggles significantly influence impulsive online purchase intention.

$H5_a$: Financial struggles moderate the relationship between Gen Z's attitudes and impulsive online purchase intention.

$H5_b$: Financial struggles moderate the relationship between Gen Z's subjective norms and impulsive online purchase intention.

$H5_c$: Financial struggles moderate the relationship between Gen Z's perceived behavioural control and impulsive online purchase intention.

## 3 Research Methodology

This study aims to explore Gen Z's attitudes, subjective norms, and perceived behavioural control regarding impulsive online purchase intention with BNPL services. The moderating impact of financial struggles on the intention to make impulsive online purchases through BNPL services can therefore be used to identify these antecedents. Thus, this study will use a quantitative research design because it is simpler to measure and allows for clear results based on numerical data, statistics, and objective facts. Since this study is still in progress, certain questions will be created to illustrate the proposed model. The data will be collected through self-administered questionnaires that will be distributed to Malaysian customers specifically Gen Z as part of a cross-sectional study. This research design was chosen for its efficiency and cost-effectiveness

The target respondents for this study will be Gen Z in Malaysia, aged between 18 - 27 years old. The age range is chosen because these groups represent the digital natives of Gen Z and are eligible to use BNPL services. In Malaysia, the minimum age to utilize BNPL services is typically 18 years old. Individuals must be of this legal age to enter into contracts and financial agreements, including BNPL agreements. Besides that, this study focuses on Gen Z because Dabija and Lung (2019) show that Gen Z is highly dependent on online purchases and digital payment methods. They spend most of their time online researching, reading reviews, and evaluating information before purchasing.

To choose the right sample size is important to draw accurate conclusions from the research findings. Therefore, this study will employ Krejcie and Morgan table (KMT) which is widely recognised to help researchers in the behavioural and social sciences determine sample sizes. According to Krejcie and Morgan (1970), this table does not require calculation and indicates that a sample size of 384 is adequate for any given population. Thus, KMT can be used in this study to determine sample size when probability sampling methods are appropriate choice. Probability sampling involves methods that select a sample that accurately represents a given population, where participants are randomly selected to ensure that everyone has an equal chance of inclusion, thus minimizing selection bias (Shorten & Moorley, 2014). A stratified random sampling can be selected for a more focused approach by dividing the population into subgroups (strata) based on relevant characteristics that are meaningful to the study. Characteristics such as gender, age range, income level and job role are commonly used (Sekaran & Bougie, 2012) because they often affect how people experience and perceive certain situations. This sampling method ensures that each stratum is properly represented in the sample, allowing fair analysis of subgroups for this study.

In gathering the data, this research will adopt a hybrid method~~,~~ combining both physical and online questionnaires using Google Forms to maximize participation and comprehensive data coverage. Before distributing the questionnaire to respondents, a pilot test will be carried out to confirm the instrument's validity and eliminate any ambiguity in the questions, ensuring reliable and valid data collection. As we expect to distribute the questionnaire to participants throughout Malaysia, the data will be analysed using Partial Least Squares Structural Equation Modeling (PLS-SEM) to derive the results.

## 4 Conclusion and Implications

In conclusion, this research highlights the significant impact of financial struggles on the impulsive online purchasing intention of Gen Z, particularly when leveraging BNPL services. Bado et al. (2023) discovered that individuals, especially Gen Z who experience financial challenges are more likely to make impulsive online purchases, which can worsen their financial situation over time.

Nonetheless, other researchers highlight the importance of enhancing financial literacy and educational programs for the demographic, allowing them to make more informed and responsible purchasing choices (Faisal et al., 2020). Furthermore, the decision urged online retailers and BNPL providers to implement more robust measures to reduce the risk of impulsive spending among the financially vulnerable Gen Z. By understanding these underlying dynamics, policymakers, educational institutions, and industry stakeholders can develop more effective strategies to promote financial well-being and responsible consumption among the Gen Z population.

Consequently, marketers should recognize that their initiatives to influence attitudes, subjective norms, and perceived behavioural control regarding impulsive online purchasing may be especially impactful for consumers facing financial difficulties. Meanwhile, policymakers may need to consider targeted interventions to help vulnerable consumers develop better self-regulation and financial management skills in the face of the temptations of online shopping (Wang et al., 2022). Lastly, with Malaysian government support and initiatives, continuous digital transformation can enhance the information and communication technology infrastructure, ensuring that people have access to high-speed internet both at home and on their mobile devices (Vafaei-Zadeh et al., 2022).

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