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Positive affect and normative evaluation as mediators in the impulsiveness and Gen-Y impulse purchase urges

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Abstract: This study examines the role of the individual factor impulse buying tendency (IBT) on the urge to buy impulsively (UB) through the mediations of positive affect (PA) and normative evaluation (NE). The structural model of this study was analysed using structural equation modelling conducted in Smart PLS 3.0. Findings revealed that IBT, PA, and NE significantly predicted UB. IBT significantly predicted the PA and NE. Both PA and NE have partially mediated the relationship between IBT and UB. The overall findings of this study could enrich the understanding of impulse purchase behaviour, particularly in the Malaysian Gen-Y context.

Keywords: impulse buying tendency; IBT; cognitive reaction; affective reaction; generation Y; gender differences; impulse buying.

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1 Introduction

Impulse buying is known as unplanned purchases or making a purchasing decision on the spot (Piron, 1991). Traditional offline purchasing is less conducive to impulse purchasing compared to online shopping (Chan et al., 2017; Chamorro-Premuzic, 2015; Iyer et al.,

2020). Having a general liking for purchasing, Gen-Y has significant spending power and has more likelihood to make impulse purchase decisions (Pentecost and Andrews, 2010). There is anecdotal evidence that claims that Gen-Y is different from other generations. Gen-Y consumers exhibit disparities in purchasing behaviour while compared to other cohorts and, thus, this urges businesses to comprehend their attitudes to encourage them to make purchases (Valaei and Nikhashemi, 2017). Studies have been done to depict the Gen-Y consumers' traits (Martin and Turley, 2004; Salema and Chaichib, 2018) and Gen-Y general impulse purchase behaviour (Khan et al., 2016). Husnain et al. (2019) found that the in-store environment (friendly employees, sales) significantly influenced Pakistan Gen-Y consumers' impulse purchase behaviour. Faisal et al. (2020) indicated that hedonic shopping motivation (idea shopping and social shopping) has a significant relationship with Malaysian Gen-Y consumers' impulsive buying behaviour. A recent study conducted by Hasima et al., (2020), found that external factors (online store environment, and online promotion) are significant factors in predicting Gen-Y consumers' impulse buying with the mediating effect of perceived enjoyment in the Malaysian context. In Malaysia, one of the top five factors that influenced Malaysian purchase decisions was impulse purchase (Statista, 2015). The Asian Institute of Finance (AIF) reported and noted that there is a lack of financial literacy among Malaysian millennials (Khidhir, 2019). This problem lies mainly with the tendency for impulse purchasing among Malaysian Gen-Y (Khidhir, 2019). Thus, this study was conducted to examine Malaysia Gen-Y's impulse buying behaviour (urge to buy impulsively).

Although businesses devoted considerable expenses to improve external factors, including store design, merchandise placement, website quality, etc., nevertheless, impulse buying tendency is more effective in impelling impulse purchasing and has a strong impulse purchase effect (Iyer et al., 2020). Wells et al. (2011) and Lau et al. (2018) acknowledged that impulse individuals are found to initiate from impulsiveness features. Supported by previous empirical works, the studies proved that impulse purchasing is explicitly and significantly associated with impulse buying tendency (Chen and Yao, 2018; Liu et al., 2013). An individual with a high impulse buying tendency is more likely and frequent to be tempted to purchase impulsively (Liu et al., 2013; Wu et al., 2020). Impulsive individual appears to have difficulty in restraining proper responses (Wu et al., 2020). That is, more impulsive consumers tend to perform actions without undergoing a deliberate process and thus, purchase products on the spur moment (Beatty and Ferrell, 1998; Kacen and Lee, 2002; Chang et al., 2019). Thus, this study adopted impulse buying tendency as one of the independent variables to predict Gen-Y's impulse buying behaviour.

Based on the theory underpinning impulse purchase study: Stimulus-Organism-Response (SOR) theory, both cognitive reaction and affective reaction are significant predictors and mediators while investigating consumer's impulse buying behaviour (Chan et al., 2017; Ming et al., 2021). Affective reactions, also known as an individual's mood state, are usually not under the consumers' control, however, have a direct influence on the impulse purchase intention (Amos et al., 2013). Likewise, an individual's mood is one of the significant factors that influencing Gen-Y's impulse buying behaviour (Khan et al., 2016; Matic and Vojvodic, 2017). Moreover, positive emotional states: affective reaction was found to be a significant mediating variable on the association between consumer impulse purchase triggers and their response (i.e., behaviour). Furthermore, consumers' behavioural intentions are related to cognitive states: normative beliefs (Ajzen, 1991; Liu et al., 2013). Consumers might also undergo

normative assessment (cognitive reaction) before engaging in the impulse purchase (Mittal et al., 2015). Rook and Fisher (1995) perceived that consumer may undergo assessments whether a certain situation is acceptable and rational before making purchases on the spur of the moment. Accordingly, the current research was proposed to understand and identify the relationship between impulse buying tendency, positive affect, normative assessment, and urge to buy impulsively. In addition, given the relevance of interrelations in enunciating behaviour, relations between impulse buying and emotion (affective reaction) seem worth uncovering (Iyer et al., 2020). Thus, this study also examined the mediating effects of positive affect and normative evaluation. As such, the present study proposed the following research question:

RQ1 How do Gen-Y's impulse buying tendency affect his or her impulse buying (urge to buy impulsively), through the mediation mechanisms of positive affect and normative evaluation?

Moreover, the present study also investigated on whether individuals' cognitive reactions and affective reactions differ by gender (Coley and Burgess, 2003). Many research has stressed the moderating role of gender in consumer impulsive buying behaviour (Foroughi et al., 2013; Coley and Burgess, 2003; Zhang et al., 2020; Liang et al., 2021; Djafarova and Bowes, 2020; Atulkar and Kesari, 2018). However, the gender analysis in the Malaysian impulse buying context, particularly focusing on cognitive reaction and affective reaction has received less attention. As gender analysis can help vendors or businesses to more understand their targeted consumers (Liang et al., 2021), this study also examines the difference between male and female consumers in terms of their impulse buying tendency, cognitive reaction, and affective reaction on impulse buying. As such, this study proposed the following research question:

RQ2 How do gender moderate the relationship between impulse buying tendency, cognitive reaction (normative evaluation), affective reaction (positive affect), and urge to buy impulsively?

To date, research on the potentialities of mobile instant messaging has been very scarce (Marino and Lo Presti, 2019), particularly in the purchase interaction among sellers and buyers in the Malaysian context. While there is growing study of mobile text advertising of its influence in determining consumers purchase intention and impulsiveness (Drossos et al., 2014; Lin and Lin, 2013), limited attention has been paid to identify factors influencing consumers' impulsive behaviour during the purchase interaction among sellers or retailers on mobile instant messaging. Likewise, Nuseir (2020) indicated that social media is a platform that creates and brings forth consumers' impulse buying opportunities. The study on social media advertising/purchasing interaction is limited (Fard and Marvi, 2020), particularly in emerging markets (Ilavarasan et al., 2018; Fard and Marvi, 2020) (e.g., Malaysia). People in South-East Asia, such as Malaysia, lead the world in mobile instant messaging (Tao, 2015) because of its user interface (features) and perceived usefulness which successfully retain users to continue using it (Oghuma et al., 2016). Online retailers grab this opportunity to tap into the growing popularity of mobile instant messaging to promote their products where different consumers have different purchasing habits (Tao, 2015; Tseng and Wei, 2020; Behal and Soni, 2020). As such, this study was proposed to examine the Gen-Y consumer's urge to buy impulsively during the purchase interaction with the sellers on mobile instant messaging. It is important to identify consumers' impulsive buying behaviour in different shopping channels (i.e.,

during their purchase interaction with the sellers on mobile instant message). This will further assist the businesses or retailers to disseminate product information strategically to attract and retain their targeted consumers (Kashyap and Kumar, 2019).

In sum, this study contributes to the extant literature by responding to the calls of Djafarova and Bowes (2020) by considering the gender differences relating to impulse buying. The significant gender differences could assist businesses to plan their marketing strategy to explore different communication strategies that could attract both female and male consumers (Djafarova and Bowes, 2020). Furthermore, the overall findings of this study could enrich the understanding of impulse purchase behaviour, particularly in the Malaysian Gen-Y context.

2 Literature review

2.1 Stimulus-organism-response theory

Woodworth (1929) proposed the S-O-R theory. It is a fundamental environmental psychology model to investigate buyers' behaviour. It consists of three vital components: stimulus (S), organism (O) and response (R). This theory is an improvement and continuation of the classical Stimulus-Response theory (Lee, 2009). S-O-R theory attempts to improve the classical S-R model and 'organism' had been integrated to examine the internal evaluation (affective and cognitive) processes of an individual is reacting to stimuli (Mehrabian and Russell, 1974). S-O-R theory was used to explain individual behaviour by analysing individuals' affective and cognitive states affected by environmental stimuli (Ming et al., 2021; Shah et al., 2020). S-O-R theory tends to stimulate the cues perceived from the stimulus (environment factor) urges an individual's emotional states (organism), and subsequently prompts a positive or negative behaviour/attitude (Mehrabian and Russell, 1974). Lately, the S-O-R model had been extensively introduced to online impulse purchases (Liu and Lu, 2017; Liu et al., 2013; Shen and Khalifa, 2012; Chen et al., 2018; Xiang et al., 2016; Ming et al., 2021; Zheng et al., 2019).

One of the elements of S-O-R, which is 'stimulus' was operationalised as an environment driver evoking the internal organism states: affective and cognitive reaction (Song et al., 2021; Ming et al., 2021). In addition, 'stimuli' have also been operationalised as consumer traits (Chih et al., 2012; Chan et al., 2017). Within the S-O-R model, 'organism' refers to the individual's affective and cognitive states that mediate the relationship between the stimuli and the individual's response (Ming et al., 2021). The cognitive states are related to mental thinking when facing stimuli, while affective states refer to a person's emotional responses to the stimuli (Ming et al., 2021). This study adopted normative evaluation and positive affect to explore an individual's cognitive and affective states (Chen and Yao, 2018) during the purchase interaction with the sellers on mobile instant messaging. "Response" refers to a person's behaviour and final decision based on cognitive and affective reactions (Chan et al., 2017; Ming et al., 2021). This study adopted the 'urge to buy impulsively' to predict the Gen-Y consumers' impulsive buying behaviour (Xiang et al., 2016; Zheng et al., 2019) during the purchase interaction with the sellers on mobile instant messaging. Figure 1 depicts the research framework of the current study.

2.1.1 Stimuli

2.1.1.1 Impulse buying tendency

Impulsiveness/Impulse buying tendency is the “tendencies to experience spontaneous and sudden urges to make immediate purchases” and “to act on these felt urges with minimal evaluation or consideration of consequences” (Beatty and Ferrell, 1998). Impulse buying tendency has also been defined as “an individual’s tendency to react without premeditating the consequences”. It includes rapid response times, does not exist pre-emption, and a propensity to respond without a prudent plan (Parboteeah et al., 2016). Individuals differ in their tendency of possessing impulse purchasing behaviour (Jones et al., 2013; Beatty and Ferrell, 1998). Multitude pieces of evidence asserted that impulse buying tendency is manipulated as intrinsic stimuli, which refers to consumer impulsive characteristics/traits (Chan et al., 2017; Jones et al., 2003). This research has treated the impulsiveness/impulse buying tendency as a generalised trait (Zafar et al., 2021; Jones et al., 2003).

Impulse buying tendency has gained attention in several works of literature and has been tested in both traditional and electronic commerce contexts (Wells et al., 2011; Chen et al., 2018; Xiang et al., 2016; Bellini et al., 2017). A multitude of pieces of evidence reported that buyers’ personality traits (impulse buying tendency) are more influential in urging them to buy impulsively in a specific buying situation (Rook, 1987). The inclination to buy impulsively provides them a sense of enthusiasm in shopping (Iyer et al., 2020; Ahmad et al., 2019). Park and Kim (2008) and Iyer et al. (2020) found that impulse buying tendency is positively related to positive affect. Likewise, impulsiveness can generate positive feelings (i.e., pleasure) (Santini et al., 2018). Hence, this study postulated that:

H1 Impulse buying tendency positively influences positive affect.

Mittal et al. (2017) indicated individuals’ character values and traits arouse them to go through a positive judgment or impression on an impulse purchase. The results further revealed that when consumers possess strong inclinations to purchase impulsively, they probably possess a positive normative evaluation of an impulse purchase. Chih et al. (2012) also found that consumers’ “inclination to purchasing impulse” positively influenced their judgment. Similarly, Chen and Yao (2018) indicated that impulse buying tendency positively influenced buyers’ normative evaluation during the mobile auction. Hence, this study postulated that:

H2 Impulse buying tendency positively affects normative evaluation.

There are empirical findings that have a thread of connection with the previous impulse purchase behavior studies conducted by Beatty and Ferrell in 1998, indicating that consumers’ impulse buying tendency was positively related to impulse purchase urges (Chih et al., 2012; Xiang et al., 2016; Wells et al., 2011; Bellini et al., 2017; Atulkar and Kesari, 2018). Similarly, Lin and Lin (2013) indicated that impulse buying tendency played a significant role in determining consumers’ urge to buy perishable communities impulsively while receiving promotion messages on digital media. Likewise, this study hypothesised that impulse buying tendency positively influences consumers’ urges to purchase impulsively on instant messaging platforms, particularly during their purchase interaction with the seller.

H3 Impulse buying tendency positively influences urge to buy impulsively.

2.1.2 Organism

2.1.2.1 Normative evaluation

The shopping scenario acts as a vital role in the occurrence of an impulse purchase. It further triggers a strong emotional response and induces consumers to make an immediate purchasing decision (Chen and Yao, 2018). Personal characteristics, such as personal traits, values, and inclinations may induce consumers to have a positive judgment or impression when relating to impulse buying behaviour (Mittal et al., 2017). Kent (2001) revealed that buyers' normative judgments can affect their purchase decision at the airport. Shoppers engaging in impulse purchases depend on both the extent to which they owned the tendencies of impulse buying traits and on their judgments, that allowed or induced them to participate in impulse purchases (Kent, 2001). A recent study indicated that respondents disclosed that impulsive purchase during the limited-time special is reasonable and acceptable (Chen and Yao, 2018). When consumers evaluate particular impulsive purchasing behaviour to be positive, the impact of the urge to purchase will not be discouraged thereupon, the certain impulsive buying behaviour is likely to go forward smoothly (Zhao et al., 2019). More specifically, sending 'limited time special' sales advertisements through social media (text message, email) could probably impel buyers to purchase spontaneously (Lin and Lin, 2013). This is because buyers are price sensitive toward goods and services, which subsequently influenced their purchasing behaviour (Adrita, 2020). Hence, this study postulated that:

H4 Normative evaluation positively affects the urge to buy impulsively.

Drawing on the S-O-R theory, cognitive reaction (normative evaluation) is found to have a mediating effect between consumers' characteristics and their actual impulse purchase intentions (Liu et al., 2013). When consumer undergoes an impulse purchase stimulus and then evaluate the prospective purchase as an acceptable situation, both normative influences and traits are harmonious, hence they may have the chance to behave impulsively (Rook and Fisher, 1995; Kent, 2001). Based on the justifications of H3 and H4, thus, this study postulated that:

H5 Normative evaluation mediates the relationship between impulse buying tendency and urge to buy impulsively.

2.1.2.2 Positive affect

Positive affect is "the degree to which an individual has a sense of enthusiastic, active, and alert" (Chen and Yao, 2018). Impulse purchasing behaviour is "accompanied by emotions of pleasure and is a powerful persistent urge to purchase and are exposed to the immediate stimuli" (Xiang et al., 2016; Rook and Fisher, 1995, Ortiz Alvarado et al., 2020). Extant empirical research also indicated that individuals with high emotional states would feel active to initiate approaching behaviour (Xu et al., 2019). More specifically, the affective state (emotional energy) is related to the excitement to engage in a certain behaviour (Xu et al., 2019). A recent study posited that when consumers receive the promotion message on social media, positive affect (i.e., enthusiastic, interested, determined, excited, and inspired) influenced their impulse buying intention

(Lin and Lin, 2013). Consumers with positive emotional states are more likely to engage in certain behaviour, particularly, in impulsive buying behaviors (Hu and Jasper, 2006).

Furthermore, impulse buyers often make impulse purchases to suffice the emotional needs derived from the interaction (Lin and Lin, 2013; Beatty and Ferrell, 1998). This is because, in services, the interaction between buyers and businesses is considered as a basis upon marketing efforts are established (Azad and Sadeghifar, 2019). Previous empirical studies indicated that there was a positive relationship between positive affect and urge to buy impulsively (Bandyopadhyay et al., 2021; Xu et al., 2020). Consistent with the previous studies, this study postulated that:

H6 Positive affect positively influences the urge to buy impulsively.

Emotion was highlighted as a potential mediator construct (Mehrabian and Russell, 1974; Iyer et al., 2020). Intrinsic (individual traits) and extrinsic stimuli (environmental stimuli) influence an individual's affective reaction, then induce responses or behaviours (Iyer et al., 2020). Consumers who engaged in impulse buying will display emotions before, during, or after the purchasing process. Multitude pieces of evidence acknowledged that environmental stimuli, personal motives, and personalities can influence consumers' affective reactions (Mehrabian and Russell, 1974; Chen and Yao, 2018; Liu et al., 2013; Iyer et al., 2020). Hence, emotional reactions mediate the relationships of situational, external, and personal antecedents on impulse purchase (Verhagen and Dolen, 2011; Iyer et al., 2020). Based on the justifications of H3 and H6, thus,

H7 Positive affect mediates the relationship between impulse buying tendency and urge to buy impulsively.

2.1.3 Response

2.1.3.1 Urge to buy impulsively

Urge to purchase impulsively is 'the state of desire that is experienced upon encountering an object in the environment' which is definite by Beatty and Ferrell in 1998. Rook (1987) further explains when an individual undergoes a sudden urge to purchase a particular item when exposed to the stimuli, these induces is caused by the state of mind developed by the shopping circumstances. Furthermore, Piron (1991) described the urge to buy impulsively as hedonically sudden, complex, persistent, and irresistible. As noted in the recent impulse purchase study, the urge to buy impulsively is "a rational surrogate of actual consumers' impulse buying behavior because consumers' urge to buy impulsively leads to actual impulse buying" (Zafar et al., 2021). Besides that, recent research opined that consumers' behavior or reaction may be biased due to the need to behave in ways that are accepted and expected by society (Xiang et al., 2016; Zheng et al., 2019). As such, several studies have adopted the urge to buy impulsively as a significant proxy for measuring actual impulse buying behaviour (Xiang et al., 2016; Zafar et al., 2021; Chen et al., 2016; Zheng et al., 2019). Many empirical studies adopt the urge to buy impulsively in examining impulse purchase behaviour (Beatty and Ferrell, 1998; Huang, 2016; Lin and Lin, 2013). Therefore, this study adopted the urge to buy impulsively as the endogenous variable rather than using actual impulsive buying behaviour (Zheng et al., 2019).

2.2 *The moderating effect of gender*

Studies have examined the moderating effect of gender on the relationship between impulse buying factors and impulse buying behaviour (Foroughi et al., 2013; Badgaiyan and Verma, 2014; Atulkar and Kesari, 2018). As cited in Tifferet and Herstein (2012), the “male-female divide is easy to identify, easy to access, and large enough to be profitable”. Thus, gender is one of the segmentation criteria employed by businesses to target potential consumers (Tifferet and Herstein, 2012; Kanwal et al., 2021).

Many studies have confirmed the relationship between affective reaction (positive affect) and urge to buy impulsively (Chen and Yao, 2018; Zhang et al., 2014; Bellini et al., 2017). Positive emotion/affect improves consumers’ specific judgments depending on the interactions among motivation or depth of thoughts (Yi and Jai, 2019). There is a consensus among researchers that emotional state (positive affect) raises the probability of purchase, resulting in urging consumers to buy impulsively (Iyer et al., 2020; Chan et al., 2017). Previous empirical research has noted that males will be less likely to exhibit little impulse purchase urges under the influence of positive emotion than females (Coley and Burgess, 2003). That is, the male was found to be more likely than the female to exhibit the feelings of positive buying emotion over making impulse purchases (Coley and Burgess, 2003). Thus, this study postulated that:

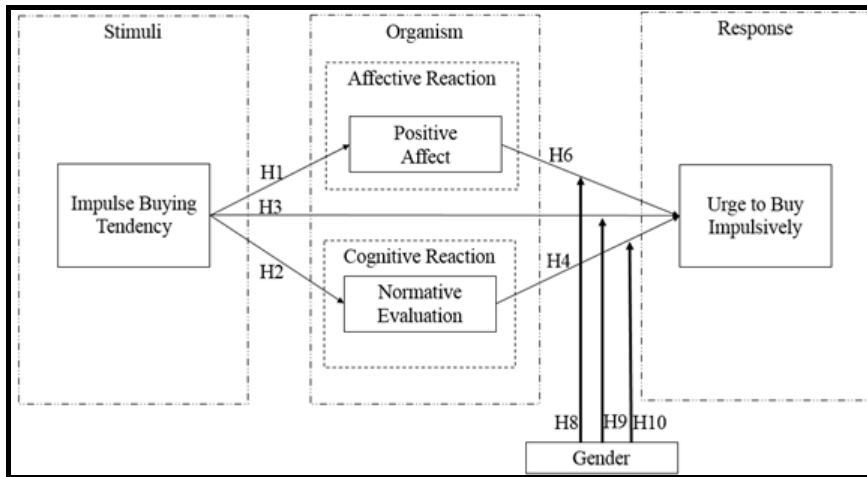
H8 Gender moderates the relationship between positive affect and urge to buy impulsively.

Studies have identified the influence of consumer traits (impulsive buying tendency) on impulse purchase urges (Foroughi et al., 2013; Xiang et al., 2016; Bellini et al., 2017). The literature noted that individual who has displayed impulsive traits (impulse buying tendency) are more likely to engage in impulsive buying behavior (Djafarova and Bowes, 2020). Prior studies’ findings indicated that female respondents displayed impulsive traits and were prone to possess impulsive urges. Therefore, females were much likely than males to engage in impulsive buying (Djafarova and Bowes, 2020; Atulkar and Kesari, 2018; Tifferet and Herstein, 2012; Rejikumar and Asokan-Ajitha, 2020). Thus, this study postulated that:

H9 Gender moderates the relationship between impulse buying tendency and urge to buy impulsively.

The relationship between normative evaluation and urge to buy impulsively (Chih et al., 2012; Chen and Yao, 2018). That is, when both normative influences and traits are harmonious, consumers are probably to behave impulsively (Rook and Fisher, 1995; Kent, 2001). Extant empirical research has been done on gender differences in consumer behavior, particularly focusing on cognitive reaction (normative assessment). A previous study indicated that male respondents exhibit less cognitive thinking while purchasing on impulse than female respondents (Coley and Burgess, 2003). By nature, females may be more inclined to feel the need of cognitively or rationalised on impulse buying (Coley and Burgess, 2003). Thus, this study postulated that:

H10 Gender moderates the relationship between normative evaluation and urge to buy impulsively.

Figure 1 Research framework

3 Methodology

3.1 Sample and data collection procedure

The target population of this study was generation Y. Malaysia Gen-Y is considered an important market segment due to their strong purchasing capacity and high usage of mobile devices (Moorthy et al., 2014). A recent empirical study conducted by Sundström, et al. (2019) indicated that Gen-Y buyers are more susceptible to ‘impulse buying’ compared to other generational cohorts. Likewise, Malaysian Communications and Multimedia Commission (MCMC, 2009) indicated that Malaysian Gen-Y is an occasional impulse buyer. Young Malaysians incline to spend beyond their ability and lead them to engage in impulse purchasing behaviour (Vijandren, 2017). Hence, the targeted respondents of this research were Malaysia Generation Y, who were born from the year 1980 to 2000 (Weeks, 2015; Matic and Vojvodic, 2017). Gen-Y is also known as ‘Millennials’, ‘digital natives’, ‘echo boomers’ (Matic and Vojvodic, 2017). Usage of instant messaging (IM), emails, chats, etc. are part of Gen-Y life (MCMC, 2020). Thus, the online survey link was posted on social media (Facebook, Instagram, etc.) to facilitate data collection.

A non-probability purposive sampling technique was adopted in the current study. This study adopted a non-probability sampling technique because of the absence of the sampling frame (Badgaiyan and Verma, 2015). The sampling frame consisting of a list of individuals that use mobile instant messaging for purchasing interaction is unavailable. In addition, the applicability of the purposive sampling technique is deemed appropriate in non-experimental research (Batouei et al., 2020). In particular, this study employed a cross-sectional approach by adopting an online survey for data collection. Furthermore, purposive sampling is purposefully choosing the individuals to include in the study due to the selected individual could give a wealth of information and evaluate his or her perception of particular research according to their previous experience (Clark and Creswell, 2015). The purposive sampling technique is useful for researchers to select

targeted participants who have certain knowledge related to the objectives of the research (Naeem, 2021). Therefore, two prerequisites are established in choosing the participants to ensure whether they are qualified to answer the survey. The filtering questions were:

- 1 Active mobile instant messaging users and those who use instant messaging as the medium for purchase interaction with the sellers
- 2 Malaysian Gen-Y who was born between the years 1980s to 2000s.

3.2 Construct measurement

All five constructs' survey items in the current research were adapted from impulse purchase literature. All survey items were measured using a five-point Likert scale and normative evaluation used a semantic differential scale. The Likert scale is ranging from '1 indicates strongly disagree to 5 indicates strongly agree'. The measurement items of impulse buying tendency were adopted from Bandyopadhyay (2016). Both the measurement items of normative evaluation and positive affect were from Chen and Yao (2018). Minor modifications had been made to ensure contextual consistency. 'Mobile auction' was modified to 'purchase interaction with the sellers on mobile instant messaging'. Three measurement items of the urge to buy impulsively were adapted from Xiang et al. (2016) and were used to measure Gen-Y consumers' urge to buy impulsively during the purchase interaction with the sellers on instant messaging platforms.

4 Data analysis

4.1 Data examination

The present research's data was gathered using an online survey: online Google form. Descriptive analysis was analysed using SPSS version 25. Straight-lining answers were found during the data examination stage. A total of 263 datasets were collected. A thorough checking of the 263 responses, a total of ten responses were removed due to straight-lining responses (Hair et al., 2014). The critical value of Mahalanobis distance (d^2) for three predictors is 16.27 ($p < 0.001$) (Tabachnick and Fidell, 2013). To address multivariate outliers, a total of eight cases were removed as the d^2 values were above 16.27. Thus, a total of 245 valid responses were used in the final analyses. This resulted in a 93.2% response rate that far exceeds as according to G*Power (Faul et al., 2009), which is a sample size of 161 is adequate to achieve the statistical power of 99%. The demographic profile of respondents was summarised in Table 1.

Before measurement and structural model assessment, common method bias was examined using Harman's single factor. Results indicated that all four variables accounted for 59.15% of the total variance. The first factor is 29.78% ($< 50\%$) showing that a single factor for the majority of the covariance in the measures. The result proved that the data set is free from common method bias (Podsakoff et al., 2003).

4.2 Respondents' demographics

Among the 245 respondents, the percentage of males was 34.3% and females were 65.7%. Approximately 95% of them were between 19 to 35 years old. Majority of the

respondents were from the age group of between 21 to 25 followed by the age group of those who are below 20 years old. Collectively, both groups constituted the biggest percentage of 73% of the total sample of which about 52% of them were from the former group. With more than 80% of the Malaysian instant messaging platform users being dominated by the above demographic aged (The Star Online, 2014), the selected respondents were capable of evaluating their perception during the purchase interaction among sellers and buyers on mobile instant messaging platforms.

Facebook Messenger was the popular mobile instant messaging that was utilised by Gen-Y for online purchasing interaction with the sellers followed by WhatsApp (N = 127), and WeChat (N = 121). These percentages are in-line with the report executed by the Malaysian Communications and Multimedia Commission (2018) in which Facebook Messenger, WhatsApp, and WeChat were the top three favoured instant messaging platforms among Malaysians.

Table 1 Respondents' demographic profile

<i>Respondent characteristics</i>	<i>Frequency</i>	<i>Percentage (%)</i>
Gender		
Male	84	34.3
Female	161	65.7
Monthly income (RM)		
≤ 2,000	128	52.2
2,001–4,000	60	24.5
4,001–6,000	30	12.2
6,001–8,000	3.3	
8,001–10,000	8	3.3
10,001 and above	11	4.5
Occupation		
Student	157	64.1
Non-Executive	41	16.7
Executive	22	9.0
Manager	16	6.5
Senior Manager	4	1.6
Others (housewife, professional: teachers)	5	2.0
Instant messaging platform for purchase interaction		
WhatsApp	127	51.8
Line	15	6.2
Skype	4	1.6
Facebook messenger	180	73.5
Telegram	14	5.7
KaoKao talk	5	2.0
WeChat	121	49.4
Others (Instagram direct message)	10	4.1

Table 1 Respondents' demographic profile (continued)

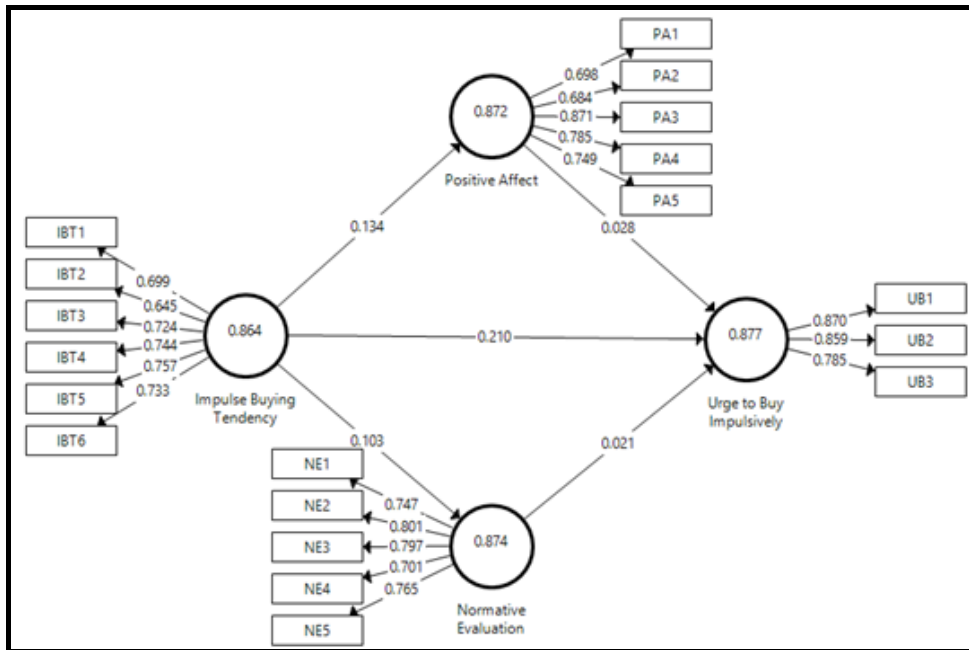
	<i>Mean</i>
Use IM to Communicate with	
Family	3.84
Distant friends	3.67
Teachers	2.50
Sellers/buyers	3.18
College friends	3.63
Use IM to	
Let people know where I am	3.01
Tell people when I will be back	3.16
Say what I am doing	3.16
Leave a message for a specific person	3.89
Leave a quote/ or saying for others to read	2.66
Express my emotions	2.66

Gen-Y was more often used IM apps to communicate with family members followed by distant friends, college friends, sellers or buyers, and teachers. In addition, IM apps were more often used by Gen-Y to leave a message to someone, followed by telling others their location where they currently check-in and what they do currently, leaving quotes or sharing postings and expressing their emotions, as shown in Table 1.

4.3 *Measurement model*

In this study, Smart PLS version 3.0 was utilised to perform PLS-SEM analysis. Compared to covariance-based (CB-SEM), PLS-SEM concentrates more on explaining the amount of variance (R^2) in the dependent variables explained by all the exogenous variables (Hair et al., 2014). PLS-SEM focuses more on the prediction of how well a set of constructs predict a dependent variable (Hair et al., 2014). All variables' composite reliabilities and Cronbach's Alpha were above 0.70 (Nunnally and Bernstein, 1994) and below 0.95 (Hair et al., 2017). As shown in Figure 2 and Table 2, findings from reliability measures confirm that all reflective constructs in the research framework are reliable. Figure 2 shows the measurement model of the research framework.

Convergent validity was assessed for all four research variables based on average variance extracted (AVE) values and the values should fulfill the minimum threshold of 0.50, indicating each construct should account for at least 50 percent of the assigned indicators' variance (Fornell and Larckers, 1981; Hair et al., 2017). Hence, all 19 items were retained. The factor loadings, CR, and AVE of each variable were shown in Table 2.

Figure 2 Measurement model

Collinearity diagnostics were examined before conducting the structural analyses. Hair et al., (2014) indicated that the results of path coefficient could be biased due to the presence of collinearities in the structural estimations among independent variables. All constructs' variance inflation factor (VIF) of all items was from 1.000 to 1.207 (lower than 5), as tabulated in Table 2. Thus, collinearities between the variables are not an issue in the present conceptual framework (Hair et al., 2011).

4.4 Structural model

The hypotheses results were tabulated in Table 4, which depicts that all seven path relations were significant. Bootstrapping analysis with 5,000 samples is conducted to validate and test the direct effects of all hypothesised relationships, and the t-values are assessed to verify the significances of the paths coefficient (Hair et al., 2014). The result indicated that IBT positively influenced PA ($\beta = 0.344$; $t = 6.153$; $p < 0.001$), NE ($\beta = 0.306$; $t = 4.768$; $p < 0.001$), and UB ($\beta = 0.417$; $t = 6.406$; $p < 0.001$), thus supporting H1, H2, and H3 respectively. NE ($\beta = 0.132$; $t = 1.984$; $p < 0.05$) and PA ($\beta = 0.152$; $t = 2.635$; $p < 0.01$) positively influenced UB, thus supporting H4 and H6 respectively.

The square roots of the AVEs for the reflective variables of UB (0.839), IBT (0.718), NE (0.763), and PA (0.760) were tabulated in Table 3. All the squared roots of AVEs were higher than the correlations with other variables (Fornell and Larcker, 1981). As shown in Table 4, the heterotrait–monotrait ratio of correlations (HTMT) were below 0.85 (Henseler et al., 2015). Hence, both the results of Fornell-Larcker criterion and HTMT have good discriminant validity.

Table 2 Construct measurement and loadings

<i>Indicators</i>	<i>Factor loading</i>	<i>CA</i>	<i>CR</i>	<i>AVE</i>	<i>VIF</i>	
					<i>Outer VIF</i>	<i>Inner VIF</i>
Impulse buying tendency (IBT)		0.813	0.864	0.516		1.191
IBT1	0.699				1.521	
IBT2	0.645				1.539	
IBT3	0.724				1.646	
IBT4	0.744				1.653	
IBT5	0.757				1.576	
IBT6	0.733				1.548	
Positive affect (PA)		0.820	0.872	0.578		1.207
PA1	0.698				1.644	
PA2	0.684				1.647	
PA3	0.871				2.392	
PA4	0.785				1.562	
PA5	0.749				1.605	
Normative evaluation (NE)		0.820	0.874	0.582		1.174
NE1	0.747				1.674	
NE2	0.801				1.909	
NE3	0.797				1.769	
NE4	0.701				1.492	
NE5	0.765				1.616	
Urge to buy impulsively (UB)		0.879	0.877	0.704		
UB1	0.870				1.888	
UB2	0.859				1.875	
UB3	0.785				1.444	

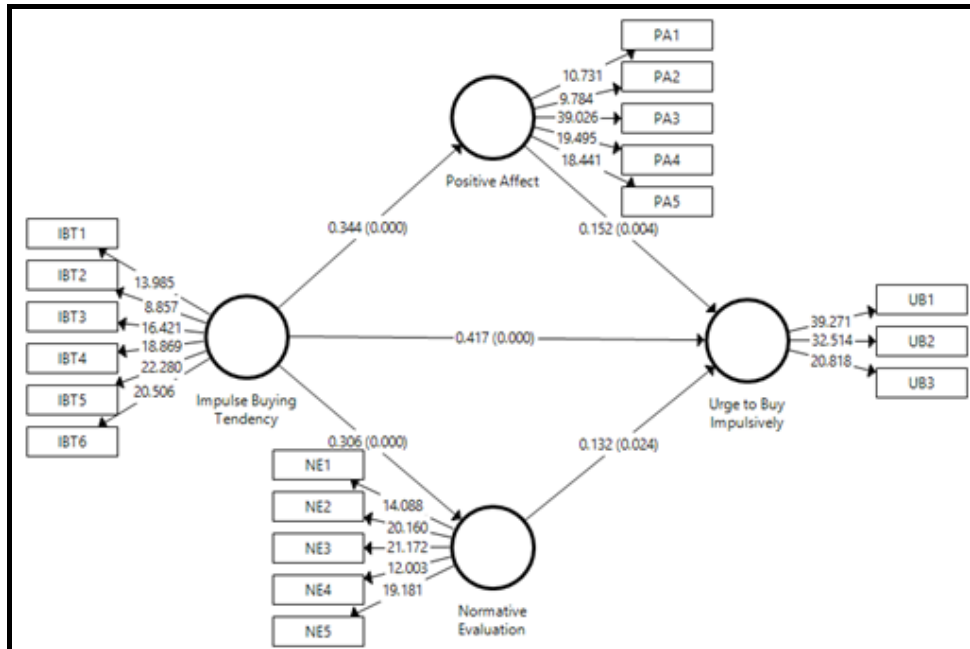
Notes: AVE = average variance extracted; VIF = variance inflation factor; CA = Cronbach's alpha; CR = composite reliability.

Table 3 Fornell-larcker criterion

	<i>Impulse buying tendency</i>	<i>Normative evaluation</i>	<i>Positive affect</i>	<i>Urge to buy impulsively</i>
Impulse buying tendency	0.718			
Normative evaluation	0.306	0.763		
Positive affect	0.344	0.324	0.760	
Urge to buy impulsively	0.510	0.308	0.338	0.839

Table 4 Heterotrait-monotrait ratio (HTMT)

	<i>Impulse buying tendency</i>	<i>Normative evaluation</i>	<i>Positive affect</i>	<i>Urge to buy impulsively</i>
Impulse buying tendency				
Normative evaluation	0.371			
Positive affect	0.391	0.391		
Urge to buy impulsively	0.625	0.382	0.401	

Figure 3 Structural model

The coefficient of determination, predictive accuracy (R^2) of the structural model's dependent variable were determined. Overall, the model interprets 30.5%, 9.3%, and 11.8% of urge to buy impulsively, normative evaluation, and positive affect respectively. The R^2 value of 0.305 was above the threshold of 0.26 as suggested by Cohen (1988) where denotes a substantial model. R^2 values of 0.093 and 0.118 were above the threshold of 0.02 as suggested by Cohen (1988), were to represent moderate predictive power.

The effect sizes of impulse buying tendency, normative evaluation, and positive affect on urge to buy impulsively were 0.210, 0.021, and 0.028 respectively. According to Cohen's (1988) effect size assessment, normative evaluation, and positive affect had relatively weak effect sizes on the urge to purchase impulsively. The effect size of impulse buying tendency was 0.210, above the threshold of Cohen's (1988) medium effect size, thus verifying the moderate effect size of impulse buying tendency on the urge to buy impulsively. The effect size of impulse buying tendency was 0.103, above the threshold of Cohen's (1988) small effect size. Thus, impulse buying tendency had a relatively moderate effect size on the normative evaluation. The effect size of impulse

buying tendency was 0.134, above the threshold of Cohen's (1988) small effect size. Thus, impulse buying tendency had relatively moderate effect size on the positive affect.

In addition, the predictive relevance Q^2 can be examined by running a blindfolding analysis to determine the value of $(1 - SSE / SSO)$. The Q^2 value of urge to buy impulsively has a value of 0.200, indicating that the model has predictive relevance Q^2 based on the endogenous variables. The Q^2 values are larger than zero, with value of 0.200 indicating a medium predictive relevance (Hair et al., 2017).

Table 5 Hypotheses results

	<i>Hypothesised relationship</i>	<i>Beta (β)</i>	<i>t-statistic</i>	<i>P-value</i>	<i>Results</i>
H1	Impulse buying tendency → Positive affect	0.344***	6.153	0.000	Supported
H2	Impulse buying tendency → Normative evaluation	0.306***	4.768	0.000	Supported
H3	Impulse buying tendency → Urge to buy impulsively	0.417***	6.406	0.000	Supported
H4	Normative evaluation → Urge to buy impulsively	0.132*	1.984	0.024	Supported
H6	Positive affect → Urge to buy impulsively	0.152**	2.635	0.004	Supported
H8	Positive affect × gender → Urge to buy impulsively	0.026	0.153	0.439	Not supported
H9	Impulse buying tendency × gender → Urge to buy impulsively	-0.204	1.133	0.129	Not supported
H10	Normative evaluation × gender → Urge to buy impulsively	-0.017	0.095	0.462	Not supported

Notes: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; × Interaction effect, significance level = 0.05, if t -value = 1.96, based on two-tailed t -test.

4.5 Mediation analysis

Table 6 shows a summary of the mediation results. The indirect effects 95% Boot CI bias-corrected (lower level and upper level) for $IBT \rightarrow NE \rightarrow UB$ and $IBT \rightarrow PA \rightarrow UB$ do not straddle a 0 in between which indicates the mediation effect takes place (Preacher and Hayes, 2004), as shown in Table 5. The t -value of the indirect effect (0.052) for the $IBT \rightarrow NE \rightarrow UB$ relationship was 2.158 ($p < 0.05$). The result confirmed that the mediation effect was statistically significant. NE mediated the relationship between IBT and UB. Hence, H5 was supported. The present study further assessed the direct effect. The direct effect was also significant, suggesting a partial mediation (Zhao et al., 2010).

The t -value of the indirect effect (0.063) for the $IBT \rightarrow PA \rightarrow UB$ relationship was 2.824 ($p < 0.01$). The result confirmed that the mediation effect was statistically significant. PA mediated the relationship between IBT and UB. Hence, H7 was supported. The direct effect (0.512) was further assessed, yielding a p -value of less than 0.001. The direct effect was still significant, suggesting a partial mediation (Zhao et al., 2010).

Table 6 Mediation result

Hypotheses	Indirect effect					Direct effect		
	(β)	95% CI (BC)		t	p	Result (s)	(β)	t
		Lower	Upper					
H5	IBT --> NE --> UB	0.052*	0.013	0.106	2.158	0.031	Supported	0.508***
H7	IBT --> PA --> UB	0.063**	0.025	0.110	2.824	0.005	Supported	0.512***

Notes: *p < 0.05; **p < 0.01; ***p < 0.001; IBT = impulse buying tendency; PA = positive affect; NE = normative evaluation; UB = urge to buy impulsively; 95% CI (BC) = 95% confidence interval (BC).

4.6 Moderating analysis

To assess the moderating effect of gender, the proposed associations on the basis of interaction effect and gender differences should be analysed (Atulkar and Kesari, 2018). The results from the x-interaction effect indicates that the gender moderates the findings by revealing insignificant negative relationship ($\beta = -0.204$; $t\text{-value} = 1.313$; $p = 0.129$) between impulse buying tendency and urge to buy impulsively, insignificant negative relationship ($\beta = -0.017$; $t\text{-value} = 0.095$; $p = 0.462$) between positive affect and urge to buy impulsively, and insignificant positive relationship ($\beta = 0.0260$; $t\text{-value} = 0.153$; $p = 0.439$) between normative evaluation and urge to buy impulsively. The moderating analysis on all the proposed hypotheses showed that there were no gender differences in the proposed relationships (H8 to H10).

5 Discussion

Earlier studies posited that impulse buying is related to the products' features where products could be categorised into impulsive and non-impulsive items (Stern, 1962). However, Parsad et al. (2019) refuted this approach and linked impulsive buying behaviour with individual characteristics rather than product types. Considering that the current research findings found that impulse buying tendency (individual characteristics) to be a strong predictor in urging Gen-Y buyers to buy impulsively during the purchase interaction on social communication platforms, inferences can be made relating to the importance of the consumers' impulsive characteristics on impulse buying behaviour. Similarly, psychologists underline that everyone has a different tendency to buy impulsively. Researchers have also illustrated differing consumers' proclivity in their impulse purchasing (Rook and Fisher, 1995; Beatty and Ferrell, 1998).

The current study concluded that Gen-Y perceived that their impulse buying tendency significantly influenced positive affect and normative evaluation during the purchase interaction with the sellers on the instant messaging platform. These findings were consistent with the previous empirical studies, indicating that impulse buying positively influences positive affect (Ahmad et al., 2019; Iyer et al., 2020) and normative evaluation (Chen and Yao, 2018; Chih et al., 2012). More specifically, Gen-Y impulsive buyers are more easily influenced by the sellers during the purchase interaction, resulting in arousing them to buy impulsively.

In addition, significant relationships exist between positive affect and urge to buy impulsively as well as normative evaluation and urge to buy impulsively, respectively. When both favorable (positive affect) purchase interaction and positive normative evaluation regarding impulsive buying behavior during limited-time special intermediate, Gen-Y consumers' impulse buying tendency positively compel them to buy impulsively. Similarly, these findings were consistent with the previous empirical studies, evidenced that positive affect (Bellini et al., 2017; Mrad and Cui, 2019) and normative evaluation (Chen and Yao, 2018) significantly predicted the urge to buy impulsively.

Furthermore, this study managed to produce related studies examining the significance of the mediating effects for both affective reaction (positive affect) and cognitive reaction (normative evaluation). The mediating effect of positive affect on the association between impulse buying tendency and the urge to buy impulsively was found to be significant in the current study. Congruent with Iyer et al. (2020) and Flight et al.

(2012), the result showed a consistent finding confirming the mediating relationship. The present research also confirmed the mediating effect of normative evaluation. In the impulse purchase research, mediators typically helped to clarify antecedents contributing to impulse buying and the roles of the antecedents in resisting the impulses (Iyer et al., 2020). The effect from impulse buying tendency to urge to buy impulsively becomes weaker when both the positive affect and normative evaluation intervene, as tabulated in Table 6. This is because an individual's normative evaluation, that is, the cognitive state takes place to improve emotional stability including minimising impulsive reactions or reactivity to emotional stimuli (Park and Dhandra, 2017; Sermboonsang et al., 2019). Hence, when positive affect and normative evaluation intervene, impulse buying tendency may be depleted.

Unexpectedly the finding of the current study for moderating construct (gender) showed insignificant on the relationship between the independent variables (impulse buying tendency, normative evaluation, and positive affect) and the dependent variable (urge to buy impulsively). The results supported the past study efforts of Badgaiyan and Verma (2014), indicating that the influence of intrinsic variables on consumers' impulsive buying behavior did not vary with gender.

6 Implications

6.1 Theoretical implication

Mehrabian and Russell (1974) proposed stimulus-organism-response (S-O-R) theory and proved that emotion (organism) mediates the relationship between factors of unplanned purchase and the impulse buying behaviour (i.e., actual impulsive buying behaviour or impulsive buying urges). In the literature analysis conducted by Chan et al. (2017), an organism could be categorised into two types, which are affective reaction (emotion) and cognitive reaction (evaluation). Recent empirical studies noted that one of the quintessential elements of S-O-R Theory, that is, 'organism' is being categorised into affective and cognitive states (Ming et al., 2021; Shah et al., 2020; Song et al. 2021). Hence, the theoretical contribution of the current study is examining both concepts (affective and cognitive) in determining Gen-Y's impulse purchase urges during the purchase interaction on instant messaging platforms. Furthermore, this research attempts to validate and examine the mediating effects of both cognitive reaction and affective reaction. This study was proposed to extend the aptness of the S-O-R theory in predicting Gen-Y's impulsive buying behaviour during the purchase interaction with the seller on mobile instant messaging. Still, this study unveiled that both cognitive and affective states had a significant mediating effect in predicting Gen-Y's urge to buy impulsively.

6.2 Practical implication

Several actionable managerial insights follow from the current research findings. The present study proved that impulse purchase tendency was the strongest antecedent in predicting and arousing Malaysian Gen-Y buyers to make an impulsive purchase during the purchasing conversation/interaction with the seller on mobile instant messaging. Liu et al. (2013) posited that different buyers possess different extents of impulsiveness. Consumers' impulse buying tendency would influence their purchasing habits (Chopdar

and Sivakumar, 2019). Besides that, eventually, highly impulsive people have a likelihood to respond to a post on the Facebook Second-hand Marketplace (Chang et al., 2019). Similarly, in the current study, Gen-Y who possess impulse buying tendency is more likely to respond to a message sent by the sellers and thus, urge them to buy impulsively. Although businesses may not be able to alter the buyer's mind and their purchasing habits, however, this study suggested that businesses or retailers could frequently push products or services information to impulsive buyers, particularly Gen-Y through mobile instant messaging.

Furthermore, the result of the present research evidenced that Gen-Y consumers' normative evaluation positively influenced the urge to buy impulsively. The significance finding indicated that Gen-Y cognitively evaluated that impulsive purchase behaviour on the limited time special is acceptable and appropriate, subsequently, urge them to buy impulsively. Congruent with the point of view of Xu et al. (2020), the researchers indicated that impulse purchases do not just act impulsively, it also involves a matter of cognitive thought. Accordingly, this study suggested that sellers or retailers could formulate corresponding strategies to adapt to vigorous competition. For instance, year-end sales, seasonal sales with limited-time specials certainly might be organised to shape normative assessment and urge consumers to buy impulsively. To reach out to young generations, businesses could excite them with relevant content by connecting them through social communication platforms (Arunkumar et al., 2019). The promotion or limited-time specials might be advertised or propagated through mobile instant messaging in order to stimulate more cohesive interactions with the customers, facilitate communication, and virtual contact.

The relationship between positive affect and the urge to buy impulsively was found to be significant. The significant result indicated that having positive emotion during the purchase interaction with the sellers would lead to impulse buying behaviour. Hence, it is recommended that when consumers make replies and inquiries about a product or service, the seller responds to the questions with a polite and patient attitude. Good interaction will strengthen positive impressions of a sellers' post or message, in turn making the purchase interaction to be more pleasurable hence, making high possibilities to urge them to buy the products impulsively.

7 Limitations and suggestions for future study

There are limitations linked to this study. The use of non-random sampling is a limitation. In the present study, a non-probability purposive sampling technique was adopted to collect data. However, the non-probability sampling technique cannot be generalised to the whole population (Zikmund and Babin, 2010). Therefore, the findings of the study are unable to represent entire Malaysia's Gen-Y feedback. Future study is recommended to employ probability sampling technique to address this issue.

Previous studies indicated that there is a paradoxical relationship between impulse buying tendency and emotional consequences (Santini et al., 2018). A prior empirical study consents that impulse buying tendency can elevate and manage negative mood states (Iyer et al., 2020). A recent study conducted by Iyer et al. (2020), affirmed that there was a relationship between impulse buying tendency and negative mood. This research provides new insight into the impact of impulse buying tendency and positive

affect thereupon calls particular attention to the apprehensions between impulse buying tendency and the negative affect.

This study was conducted during the Covid-19 pandemic. During the pandemic of Covid-19, consumers spend more time at home and they are encouraged to go online for purchasing purposes. It is expected that impulsive shopping therefore to increase along with the increased time being exposed to the internet. It is recommended that future research could conduct comparative research between new online users and savvy online users in their impulse purchases during this pandemic period. This study may be extended to examine whether there are significant differences between the individual's internal states (cognitive and affective states) and impulse buying behaviour by comparing the perceptions of new online consumers and more experienced consumers.

8 Conclusions

This study was undertaken to identify the intrinsic motivations (individual factors) that would urge Gen-Y buyers to make unplanned purchases during the purchase interaction with the seller on mobile instant messaging in the Malaysian context. Although impulse buying behaviour in e-commerce and social commerce has been widely researched, little is known about the influence of consumers' intrinsic motivations to aid seller-buyer interactions, particularly in the mobile instant messaging platforms. With the prevalence of mobile technologies, retailers or sellers have to adapt and consider it to interact with their marketing strategies. Mobile instant messaging plays an important role as retailers or sellers may send advertisements to attract consumers' attention. This is because the mobile instant messaging platform is a highly individualised and personalised communication tool (Parise et al., 2016). This study enhances the understanding of Gen-Y's urge to buy impulsively during the purchase interaction with the sellers on mobile instant messaging by considering Gen-Y's impulse buying tendency and examining the mediating effects of normative evaluation and positive affect.

Impulse buying tendency is the most influential factor in motivating consumers to purchase products on impulse strikes (Xiang et al., 2016; Verhagen and Dolen, 2011). Hence, it is imperative to investigate the correlation between consumers' impulsiveness on impulse buying behaviour as the findings will contribute towards the body of knowledge in the Malaysian impulse purchase context. The prior empirical research that relies on the impulse buying tendency conceived that impulse buying tendency is consistent across various purchasing processes/conditions (Jones et al., 2003; Beatty and Ferrell, 1998). Thus, it is important to address this knowledge gap in investigating consumers' impulsive behaviours, specifically on the mobile instant messaging platform. Success to close this knowledge gap could bring a sufficient understanding of Malaysian consumers' general impulsive trait (impulse buying tendency) and their impulse purchase behaviour through the mediation of cognitive and affective states.

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