Predicting Impulse Buying Beyond the Traditional Motivation in Mobile Social Commerce

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To unfold impulse buying behaviour beyond traditional settings and to see how individual chronotype and regulatory focus can predict impulse buying behaviour in a mobile social commerce context. This study used the questionnaire-based survey. Using "SPSS" survey questionnaire, responses of 504 respondents were analysed and validated by employing ANOVA and multi regression. All the variables were adopted from literature. The findings from a sample of 504 mobile social commerce consumers confirmed that the regulatory focus and chronotype have a significant relationship with impulse buying. This study only considers morning and evening types; future studies can also investigate "neither type" chronotypes. Online shopping in a mobile social commerce environment was considered in general in this study, but future research can use a specific product category. The new insights and contributions of this study provide a better understanding of digital consumers to help sellers to develop a more effective mobile social commerce strategy.Impulse buying has been an important topic for researchers and marketers. It has been studied mostly in traditional offline and online shopping channels. This is perhaps the first research to gain an insight into impulse buying behaviour in mobile social commerce by incorporating the regulatory focus theory (prevention vs. promotion), and chronotypes (evening vs. morning type person) which are a part of the consumers' traits.

Key words: *Impulse buying, Social commerce, WeChat, Mobile, Chronotype, Regulatory focus, E-commerce*

1. Introduction

Impulse buying has been an important topic for researchers and marketers. Impulse buying is a sudden response to a stimulus which results in an unplanned purchase of product or service (Rook, 1987). The literature also confirms that intrinsic (personality traits, individual differences etc.) and extrinsic factors (promotion, discount, product recommendations, etc.) affect impulse buying intention (Chen & Yao, 2018; Zheng, Men, Yang, & Gong, 2019). Furthermore, the marketers are always trying to understand their customers' behaviour so they can design the marketing signals accordingly to receive a favourable response (Suleman, Ali, Nusraningrum, Ali, & Change, 2020). Impulse buying has been studied mostly in traditional offline and online shopping channels (Kesari & Atulkar, 2016; Zheng et al., 2019). This is perhaps the first research to gain an insight into impulse buying behaviour in mobile social commerce by incorporating regulatory focus theory (prevention vs. promotion) and chronotypes (evening vs. morning type person) which are a part of an individual's personality traits. The different chronotypes represent the differences in the individuals' time and sleep habits, which has an influence on their behaviour. Previous studies fortify the statement that evening and morning type chronotypes are different in terms of personality and behaviour (Natale, Alzani, & Cicogna, 2003). Evening types mostly wake up late and complete their work in the evening hours, whereas morning types like to wake up early and accomplish the task in the morning (Horzum & Demirhan, 2017). The chronotype has been examined in both the psychological and biological fields (Díaz-Morales, 2007; Reddy & O'Neill, 2010). However, it has received less attention in the marketing and business field. Exceptions include the study of (Gullo, Berger, Etkin, & Bollinger, 2018), which found there to be a correlation between variety-seeking conduct and time of the day and (Hornik & Miniero, 2009), who stated that chronotype affects advertisement recall ability and service evaluation performance. According to the regulatory focus theory, there are two different regulatory focus types (promotion & prevention focus) (Higgins, 1998). Promotion-focused individuals orient themselves toward accomplishments, achievements, and development. They are more likely to be impulsive and to seek hedonistic motives for shopping. Prevention-focused individuals concern themselves more with protection and prevention concerning negative consequences. They look for detailed information and prefer utilitarian motives. These contrasting foci may influence the consumers' decision making, psychology and information processing (Florack, Scarabis, & Gosejohann, 2005). The literature confirms that chronotype and regulatory focus affect the individuals' behaviour. Consequently, it can be inferred that these traits may have an impact on impulse buying in a mobile social commerce environment.

While previous literature merely focuses on impulse buying in a traditional physical store and online shopping platforms (Dhaundiyal & Coughlan, 2016; Zheng et al., 2019), this study investigates it in a mobile social commerce context. These days, every business is trying to migrate the traffic to a mobile channel as this medium is facing tremendous growth all over the world. For instance, in the United States, almost 50% of retail sales were done using digital devices (Deloitte, 2016). The mobile channel has its' unique benefits; it offers both social

media and e-commerce apps and web accessibility. Social media refers to Internet-based interactive social platforms where users can disseminate and receive information in the form of text, audio, videos, images and live broadcast (Villarroel Ordenes et al., 2018). The very famous social media platforms include Facebook, YouTube, Twitter, WeChat and Instagram. Whereas, Electronic commerce (e-commerce) refers to web and App based online buying and selling of goods, services, ideas, and contents (Ku, Liu, & Liang, 2018). Taobao, eBay, and Amazon are among the world largest and famous electronic commerce forums. Furthermore, nowadays the social media and electronic commerce platforms are merging by integrating the features of social media and e-commerce at one platform called "social commerce". The famous social commerce platforms include Facebook commerce around the globe and WeChat social commerce in China. These social commerce platforms are being accessed by users via their mobile apps. People are using these apps for chatting, moment posting, entertainment, shopping and much more. Consequently, there is a new form of social commerce namely the "mobile social commerce" (MSC) emerging. The MSC is a new form of commerce which integrates social platforms and electronic commerce on mobile devices (Ooi, Hew, & Lin, 2018). The mobile channel is significantly different than other offline and online channels. It has continuous internet connectivity, easy mobility, accessibility, secure payment, and the consumer can make an instant search and purchase at any time anywhere (Gao, Waechter, & Bai, 2015). Furthermore, consumers' moment posting on social commerce platforms (images, videos, URLs), product recommendations, celebrity endorsements, advertisement, and marketing activities of businesses may result in impulse buying (Cakanlar & Nguyen, 2019). These unique features of mobile social commerce can trigger consumers' impulse shopping behaviour. While previous research has been done in a Western countries perspective, this study aims at the Chinese Mobile social commerce market. WeChat is the largest MSC platform in China with a user base more than 938 million. WeChat is a mobile social app which offers social media and e-commerce benefits. It can be used for chat, moment posting, page, and group following, ad posting, WeChat store and payments and much more, thus presenting a new marketing channel while encouraging impulse buying at the same time (K. W. Wang, Lau, & Gong, 2016).

The major contributions of this study are, firstly, while impulse buying has been studied mostly in traditional offline and online shopping channels, this study investigates impulse buying in a mobile social commerce context. Secondly, perhaps this is among the pioneer studies to incorporate chronotype and regulatory focus in mobile social commerce, thus it will enhance the understanding of impulse buying behaviour from a different angle. Thirdly, as literature shows that individuals' chronotype and regulatory focus play a significant role in predicting individual's behaviour, it has been mostly in educational and work environment setting, and their role in marketing domain remained under explored.

2. Theoretical Framework

2.1 Wechat Social Commerce

WeChat or "Weixin" is a social app launched in 2011 by Tencent. It is the widely used social app in China and considered an all in one App. It has more than 1 billion active users reported in 2017 (Tencent, 2017). WeChat users can chat, post moments on their wall, share pictures, videos and URLs and their social circle may like, comment, share or navigate through those links. Recently, WeChat has been offering official accounts which are similar to Facebook Pages, where users can follow the posts, comment, like, interact and recommend them (Technode, 2015). These official accounts are run by marketers and businesses for promotion, sales, and customer relationship building. Users can also click the URLs which can lead them to the WeChat store to purchase certain items (Technode, 2015). Similarly, a users' social circle can post and share the products on their moments and in personal messages which may urge the viewer to buy (Verhagen & van Dolen, 2011). WeChat offers money transfers, payments, mini-programs integration, group and page promotions, social interactions and much more which may result in impulse buying as a user can search and purchase the product while staying in the WeChat window (K. W. Wang et al., 2016). Thus, it has become the largest mobile social commerce platform in China.

2.2 Impulse Buying

Impulse buying is a sudden response to a stimulus which results in an unplanned purchase of product or service (Rook, 1987). The consumer usually experiences a positive affective response and less information processing ability during impulse buying (Chan, Cheung, & Lee, 2017). A person may feel the urge to make an impulse purchase if she feels enjoyment while engaging in the shopping milieu (Parboteeah, Valacich, & Wells, 2009). The literature also confirms that personal factors (personality traits, individual differences, etc.), social and situational factors (promotion, discount, product recommendations, etc.) affect impulse buying intention (Chen & Yao, 2018; Zheng et al., 2019). Previous literature merely focuses on impulse buying in a traditional physical store and online shopping platforms (Dhaundiyal & Coughlan, 2016; Kesari & Atulkar, 2016), but research in WeChat social commerce remains sparse. In WeChat social commerce, the social interaction and increased information exposure can make purchase stimuli stronger, which may result in impulse buying (Xiang, Zheng, Lee, & Zhao, 2016).

2.3 Chronotype

According to Circadian Typology, there are three types of chronotype; morning, neither and evening. Evening types sleep late and wake up late; they are more active in the evening and have an irregular sleep-wake pattern. Morning types have a propensity to sleep and wake up

early, and they are more energetic in the day time. They also show differences in terms of personality, educational performance, work engagement, and so on (Rouis, Limayem, & Salehi-Sangari, 2011; Tandoc, Ferrucci, & Duffy, 2015). Neither types are in between the morning and evening type. Evening type is high impulsive and high sensation seeker personality than the morning type (Kang et al., 2015; Muro, Gomà-i-Freixanet, Adan, & Cladellas, 2011). Sensation-seeking, is a personality trait and mostly it is related to impulsiveness, defined as a strong urge for a novel and stimulating event and readiness to face a risk for such experience (Zuckerman, Bone, Neary, Mangelsdorff, & Brustman, 1972; Zuckerman, Kuhlman, Joireman, Teta, & Kraft, 1993). Moreover, the evening type has high openness to experience tendency (Hogben, Ellis, Archer, & von Schantz, 2007). As compared to the morning type, the evening type exhibits poor planning, high acting without thinking propensity, pursuing of exciting experiences, and openness to face risk to obtain such experiences (Muro et al., 2011). In contrast, the morning type has high perceived behavioural control and scores lower on impulsivity (Adan et al., 2010b). Moreover, morning-ness is positively associated with conscientiousness (Randler, Horzum, & Vollmer, 2014; Tonetti, Fabbri, & Natale, 2009). Conscientiousness refers to being more diligent, carefulness, and well planned as opposed to spontaneous (Hogben et al., 2007). Furthermore, (Díaz-Morales, 2007) found that the morning types are more thought guided than the evening type, and they make their decisions on concrete and tangible information. In their study, (Horzum & Demirhan, 2017) confirmed that the users' chronotype affects their attitude toward Facebook usage. to wake up early and accomplish the task in the morning (Horzum & Demirhan, 2017). The chronotype has been examined in both the psychological and biological fields (Haider, bin Azam Hashmi, Ali, & Malik, 2020; Reddy & O'Neill, 2010). However, it has received less attention in the marketing and business field.

2.4 Regulatory Focus

The customer buying decisions stem from different motivations. These motivations can be categorised on one significant criterion: either the customer is striving to achieve a desired state/goal or he/she is determined to avoid an undesired outcome (Boesen-Mariani, Gomez, & Gavard-Perret, 2010). According to the regulatory focus theory, there are two types of regulatory focus (promotion & prevention) (Higgins, 1998). The consumer behaviour is significantly influenced by regulatory focus orientation (Werth & Foerster, 2007). Promotion-Focused individuals orient themselves toward accomplishments, achievements, and development (Arnold & Reynolds, 2009). They are more likely to be impulsive and to seek hedonistic motives for shopping (Das, 2015). Moreover, hedonistic value contains fun and excitement and impulse purchase can give that pleasure to them which planned purchase cannot offer (Lee & Yi, 2008). Promotion-focused consumers can make decisions with less ambiguous information (Semin, Higgins, de Montes, Estourget, & Valencia, 2005). Furthermore, the promotion focused person mostly follows the "acting before thinking" approach. The acting before thinking type person seeks novelty, excitement, and enjoyment.

Moreover, the consumer ignores the negative consequences of the behaviour while making an impulse buying (Rook, 1987). Particularly, those shoppers who enjoy the shopping experience (hedonistic) are more prone to an impulse purchase decision (Yim, Yoo, Sauer, & Seo, 2014). However, prevention-focused individuals are more concerned about safety, vigilance protection from and of negative consequences of their purchase (Arnold & Reynolds, 2009). They look for detailed information and prefer to have a utilitarian shopping value (Das, 2015). A prevention-focused person usually follows the "thinking before acting" approach and they score low on impulsivity (Das, 2015). The thinking before acting type person is well planned and a detailed information seeker. They try their best to limit the negative consequences of their actions (Vera, Crossan, Rerup, & Werner, 2014). These contrasting types of regulatory foci may influence the consumers' decision making, psychology and information processing (Florack et al., 2005). Furthermore, there are very few studies which investigate regulatory focus in the marketing field and this gap motivates the authors to conduct present research in an electronic retail context. The exceptions include Arnold and Reynolds (2009) who investigate the relationship between RF, mood and retail environment, and Das (2015) who studied regulatory focus and impulsiveness impact on brand loyalty.

3. Research Hypothesis

The unique feature of mobile phones such as mobility, connectivity, and size offer a greater fit for evening types as they can receive instant recommendations, compare products and conclude a quick deal anywhere and at any time (Gao et al., 2015; R. J.-H. Wang, Malthouse, & Krishnamurthi, 2015). In WeChat social commerce, social interaction and increased information exposure can make purchase stimuli stronger, which may result in impulse buying (Huang, 2016; Xiang et al., 2016). The use of the internet, mobile games, and social media apps are positively associated with a later bedtime (Randler et al., 2014; Vollmer, Randler, Horzum, & Ayas, 2014). The literature confirms that impulsiveness is correlated with mobile phone usage wherein the shopper can search for and purchase the product quickly in order to satisfy their impulsive needs (Drennan & Mort, 2003). In their research, (Cavallera & Giudici, 2008) and (Adan, Natale, Caci, & Prat, 2010) confirmed that impulsivity is highly associated with evening types. The evening type is more highly impulsive and a more high sensation seeker personality than the morning type (Kang et al., 2015; Muro et al., 2011). Sensation-seeking is a personality trait and mostly it is related to impulsiveness, defined as a strong urge for novel and stimulating events and readiness to face a risk for such experience (Zuckerman et al., 1972; Zuckerman et al., 1993). As per (Adan et al., 2010) evening-ness is associated with novelty seeking. Furthermore, individual behaviours such as lifestyle choice are influenced by impulsivity/sensation seeking and chronotype (Kang et al., 2015). Moreover, the evening type has high openness to experience tendency (Hogben et al., 2007). As compared to the morning type, the evening type exhibits poor planning, high acting without thinking propensity, pursuing of exciting experiences, and openness to face risk to obtain such experiences (Muro et al., 2011). Today, marketers are designing mobile marketing signals that cause impulse

buying and impulsive consumers respond favourably to these signals (San-Martin & López-Catalán, 2013). Furthermore (Silvera, Lavack, & Kropp, 2008), found that impulse buying provides an escape from a negative psychological condition. The WeChat users are following official accounts of their favourite brands on WeChat; they can like, comment and share the page feeds. Furthermore, posts of products and experiences from friends and family can also instigate impulse buying.

In contrast to evening, the morning types are less impulsive, more thought-oriented, risk-minimising and they evaluate the consequences of their behaviour (Hogben et al., 2007; Nowack & van der Meer, 2013). Furthermore, the morning type has high perceived behavioural control and scores lower on impulsivity (Adan et al., 2010). Moreover, morning-ness is positively associated with conscientiousness (Randler et al., 2014; Tonetti et al., 2009). Conscientiousness refers to being more diligent, carefulness, and well planned as opposed to spontaneous (Hogben et al., 2007). The highly conscientiousness person means better thought-oriented, goal-directed and less impulsive (Vollmer & Randler, 2012). Furthermore, Díaz-Morales (2007) found that morning types are more thought guided than evening types, and they make their decisions on concrete and tangible information. They seek to obtain detailed information, recommendations, and evaluations in order to make decisions. Morning types prefer to follow their need for touch approach to reduce uncertainty and to increase their confidence in their judgment. They seek to obtain detailed information, recommendations, and evaluations in order to make decisions. It is confirmed by the literature that haptic information increases the morning type chronotypes' confidence when it comes to decision making (Peck & Childers, 2003). Mostly, the morning types prefer to visit physical stores to make a search and purchase. The morning type also has a higher tendency of conscientiousness (Randler et al., 2014; Tonetti et al., 2009), which implies that they have more self-regulation and control over their behaviour. Therefore, it can be hypothesised that:

H1: Evening–type consumers are high in impulse buying as compared to the morning-type chronotype while engaging in WeChat social commerce.

Moreover, customer buying decisions stem from different motivations. These motivations can be categorised on one significant criterion: either the customer is striving to achieve a desired state/goal or he/she is determined to avoid an undesired outcome (Boesen-Mariani et al., 2010). According to the regulatory focus theory, there are two different regulatory foci (promotion & prevention) (Higgins, 1998) and consumer behaviour is significantly influenced by regulatory focus orientation (Werth & Foerster, 2007). Promotion-Focused individuals orient themselves toward accomplishments, achievements, and development (Arnold & Reynolds, 2009). They are more likely to be impulsive and to seek hedonistic motives for shopping (Das, 2015). Moreover, hedonistic value contains fun and excitement and impulse purchase can give that pleasure to them which a planned purchase cannot offer (Lee & Yi, 2008). Promotion-focused consumers can make decisions with less and ambiguous information (Semin et al., 2005).

Furthermore, promotion focused persons mostly follow the "acting before thinking" approach. The acting before thinking type person seeks novelty, excitement, and enjoyment (Das, 2015). Moreover, the consumer ignores the negative consequences of the behaviour while making an impulse buy (Rook, 1987). Particularly, those shoppers who enjoy the shopping experience (hedonistic) are more prone to impulse purchase decision (Yim et al., 2014). Additionally, hedonistic motives offer entertainment and emotional benefits to promotion focused consumers, and searching for and viewing products on their mobile may provide them with instant hedonistic pleasure (Arnold & Reynolds, 2003). In contrast, prevention-focused individuals are concerned more with protection and preventing negative consequences. They look for detailed information and prefer utilitarian motives. Furthermore, as prevention-focused consumers have utilitarian motives, they may perceive the mobile channel as problematic, insecure and threatening (Nepomuceno, Laroche, & Richard, 2014). Furthermore, prevention-focused individuals are more concerned about safety, vigilance protection from and of negative consequences of their purchase (Arnold & Reynolds, 2009). They look for detailed information and prefer to have a utilitarian shopping value (Das, 2015). A prevention-focused person usually follows the "thinking before acting" approach and they score low on impulsivity (Das, 2015). The thinking before acting type persons are well planned and detailed information seekers. They try their best to limit the negative consequences of their actions (Vera et al., 2014). Prevention-focused shoppers look for detailed reviews, videos tutorials, and their friends' recommendation in order to increase their confidence in their judgments. Thus, it can be hypothesised that:

H2: There is a positive relationship between impulse buying and promotion focused type while engaging in WeChat social commerce.

H3: There is a negative relationship between impulse buying and prevention-focused type while engaging in WeChat social commerce.

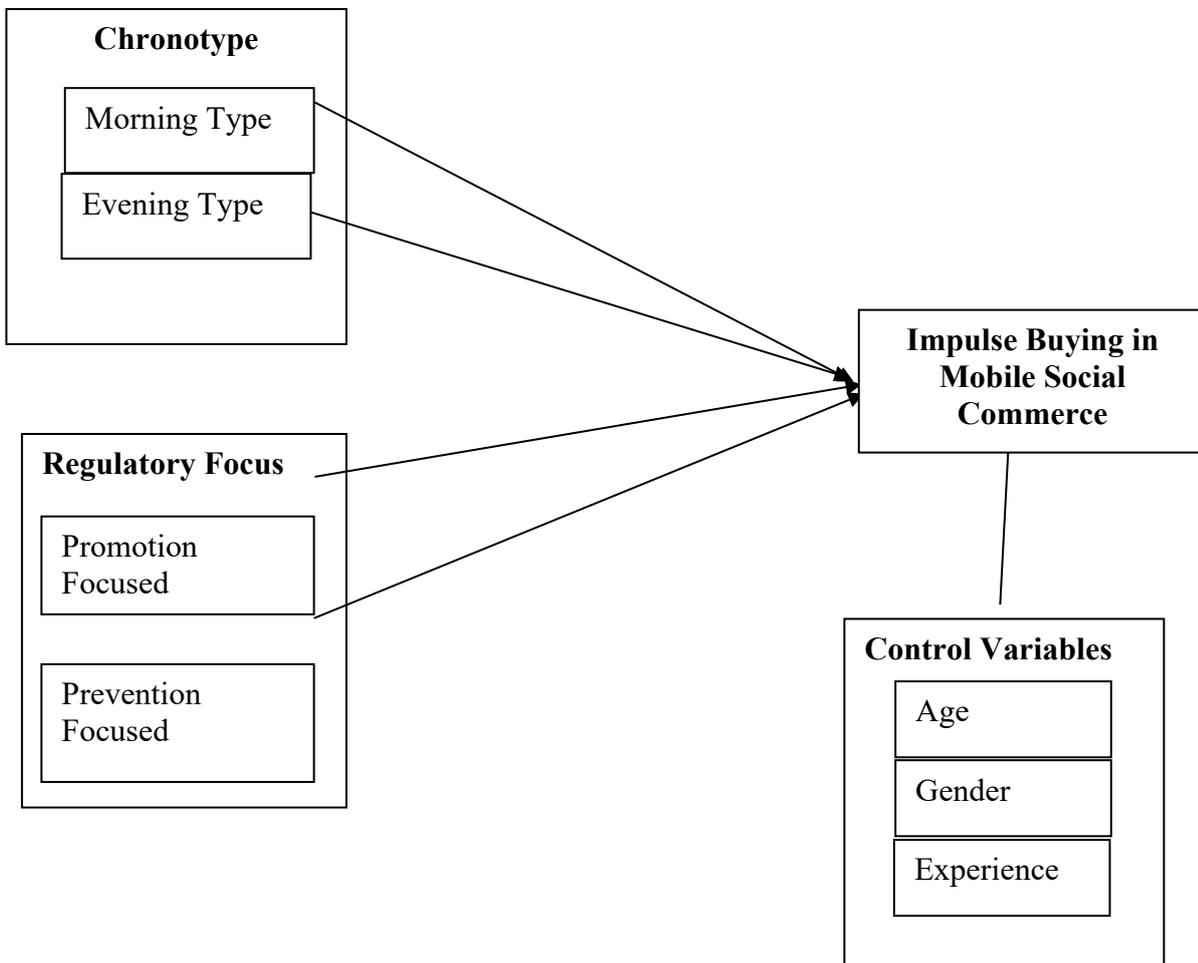The Schematic figure is given in Fig 1.

Fig. 1

4. Methodology

4.1 Sample & Data Collection

The sample comprised of the undergraduate and above level students who used the WeChat platform for shopping. According to McKinsey (K. W. Wang et al., 2016) in 2016 more than 31% of Chinese consumers initiated their purchase through WeChat. Furthermore, according to (Borak, 2018), in China, more than 85% of online shopping is done by young consumers aged 17 to 36. This indicates that most university level students are digital shoppers and fall into this age range. Therefore, University students were found to be the most appropriate respondents as they are tech-savvy and online shoppers. The convenience sampling technique was used to collect the data (20th Nov 2018 to 10th January 2019) as the respondents were accessible through the institutions' premises. Furthermore, with the support of a Chinese-English specialist, a survey questionnaire was converted to Chinese and then was distributed

to 15 scholars and 4 professors to gather their responses and suggestions. The suggested changes were made before the questionnaire was distributed to the actual sample. The link to the questionnaire was shared via a WeChat QR code, which directed the respondents to "wjx.cn". It is a trusted online platform in China that can be used to collect data. The screening statements were included in the questionnaire to make sure that respondents are WeChat social commerce users. The participants were given a 10 Yuan red-packet (a gift in the form of digital money on WeChat) and each device IP could submit the questionnaire only once.

4.2 Operationalisation Of Variables

In the first stage, the participants provided their demographic including education level, age, gender, time spent on WeChat, page subscriptions and shopping experience in WeChat social commerce in years. After that, the second part included chronotype, regulatory focus, and impulse buying. The composite scale of Morning-ness (CSM) was used to measure the chronotype (morning, evening) of the respondents within the 10th and 90th percentiles (Önder, Beşoluk, & Horzum, 2013; Smith, Reilly, & Midkiff, 1989). The CSM scale consists of 13 Likert-scale items (with 3 items on a 5-point and 10 items on a 4-point scale) with a maximum of 55 possible from a minimum score of 13. The cut-off points for the CSM scores in this study were 29 and 38 respectively. A score higher than 38 represents the individual being more of a morning type and a score lower than 29 denotes the individual as being more of an evening type chronotype. This method for chronotype categorisation (evening and morning) has been followed by many studies (Horzum & Demirhan, 2017; Maukonen et al., 2017; Randler, 2008; Smith et al., 1989).

The construct of regulatory focus was measured by adapting the 10 item scale from (Haws, Dholakia, & Bearden, 2010). Finally, impulse buying was adopted from (Badgaiyan & Verma, 2014; Rook & Fisher, 1995) with 4 items on the 5 points Likert scale, and respondents were asked to recall their WeChat shopping experience while answering the questions.

5. Results

In Table 1, the examined sample shows the number of male and female respondents and their WeChat social commerce platform using experience (in years). The majority of the sample were Bachelor's or Master's degree students.

Table 1: Respondents' Information

Demographics	Characteristics	Frequency Percentage
Gender	Male	48%
	Female	52%
Age in years	18-23	43%
	24-29	41%
	30-35	13.5%
	36 & above	2.5%
Degree	Undergraduate	49%
	Master	38%
	PhD	13%
Usage time	1 Year	4%
	2 Year	12%
	Above 2 years	84%

Confirmatory Factor Analysis (CFA) was conducted in order to analyse the factors and structure of the important study constructs. The measurement model of the variables was developed by including chronotype, regulatory focus and impulse buying. The findings revealed that the statistics of the measurement model fall within the recommended range (χ^2/df= 2.11, χ^2/df< 3), RMSEA=0.046 (RMSEA<0.07), CFI= 0.911 (CFI>0.91), NNFI= 0.925 (NNFI>0.90). The factor loadings ranged between 0.621 and 0.793. Moreover, the composite reliability of each construct was greater than 0.8. Hence, the reliability and validity of the study variables are also satisfactory. In order to test the relationship between the two types of chronotype and impulse buying, a univariate analysis was conducted using SPSS.

Initially, the chronotype types (i.e. morning and evening types) were segregated based on certain cut-off criteria (Smith, Reilly, & Midkiff, 1989). Following the 10th and 90th percentiles, evening types constituted 45.63% (n=230), and morning types constituted 54.37% (n=274). Similar techniques for chronotype categorisation have been used by many researchers including (Horzum & Demirhan, 2017; Maukonen et al., 2017; Randler, 2008; Smith et al., 1989). After segregation, the mean differences of the groups were tested using the independent t-test. Both morning and evening types were significantly different from each other with t > 2 and p < 0.05. Furthermore, the morning and evening types were tested against impulse buying. The mean values were calculated to compare the results. Tables 2 shows that evening types are high in impulse buying (Mean=3.925) compared to morning types (Mean=2.739) with F > 5 and p < 0.005. These statistics confirm **H1.** Furthermore, table 3 shows that there is no impact on control variables (age, gender, and experience) on impulse buying with p > 0.05. As far as interaction is concerned, this study finds no impact of the interaction of chronotype with age, gender, and experience on the impulse buying with p > 0.05.

Table 2: Explanatory figures on Impulse Buying

	N	Mean	Std. Error	95% Confidence Interval for Mean	
				Lower Bound	Upper Bound
Evening	230	3.925	.098	3.732	4.117
Morning	274	2.739	.082	2.578	2.900

Table 3: Two-way ANOVA findings on Impulse Buying according to chronotype (evening versus morning)

Tests of Between-Subjects Effects

Dependent Variable: Impulse Buying

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	206.186[a]	48	4.296	8.789	.000
Intercept	918.712	1	918.712	1879.756	.000
Chronotype	27.553	1	27.553	56.376	.000
Gender	.282	1	.282	.577	.448
Age	.761	4	.190	.389	.816
Experience	1.368	2	.684	1.400	.248
Chronotype * Gender	.639	1	.639	1.307	.254
Chronotype * Age	.316	3	.105	.216	.886
Chronotype * Experience	.460	2	.230	.470	.625

In order to test hypotheses 2 and 3, hierarchical multiple regression is employed. **Tables 4** shows that both models of hierarchical regression have a better fit as the value of F is greater than 5 and $p < 0.05$. Furthermore, this table shows that the beta coefficient from the promotion focus to impulse buying is positively significant ($p < 0.05$) and that prevention focus has a significant negative relationship with impulse buying ($p < 0.05$). These statistics confirm **hypothesis 2 and 3.** Furthermore, this study has not found a significant impact of all control variables (age, gender, experience) on the impulse buying with $p > 0.05$

Table 4: Hierarchical Regression Analysis

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	F-Value
		B	Std. Error	Beta			
1	(Constant)	3.883	.221		17.540	.000	12.944
	Gender	-.087	.081	-.047	-1.085	.278	
	For how many years you have been using the e-commerce platform	.014	.065	.009	.213	.831	
	Age in Years	-.191	.031	-.270	-6.210	.000	
2	(Constant)	4.340	.362		11.984	.000	14.714
	Gender	-.013	.079	-.007	-.168	.867	
	For how many years you have been using the e-commerce platform	-.011	.062	-.008	-.183	.855	
	Age in Years	-.153	.030	-.217	-5.107	.000	
	Promotion	.199	.046	.184	4.344	.001	
	Prevention	-.237	.047	-.212	-5.040	.002	

a. Dependent Variable: Impulse Buying

Hypothesis summary is given in table 5.

Table 5: Finding Summary

Hypotheses No.	Association	Results
H1	Evening chronotype > morning-chronotype → impulse buying	Supported
H2	Promotion Focus → impulse buying	Supported
H3	Prevention → impulse buying	Supported

6. Discussion

In the past impulse buying has been investigated in the offline and online environment, but research in mobile social commerce remains sparse. This study focused on this niche by incorporating personal factors (regulatory focus and chronotype). Individual differences shape behaviour (Das, 2015) and this study also confirmed this claim. The results confirmed that these personal factors significantly affect impulse buying behaviour in WeChat social commerce environment. The evening type and promotion focused type respondents showed more impulse buying behaviour in MSC and contrarily, the morning type and prevention-

focused respondents showed a negative relationship with impulse buying behaviour. The possible justification is, as the evening type is a more novelty and innovation seeker, risk taker, extensive mobile users and impulsive in nature that's why they are more prone to impulse buying in WeChat social commerce. Furthermore, promotion focused consumers are always looking for excitement and discounts. They mostly respond favourably to marketing stimuli and they have less perceived control over their behaviour; thus these characteristics make them more vulnerable to impulse buying in the MSC context. These results are in line with the study of (Rodríguez-Torrico, San José Cabezudo, & San-Martín, 2017), which proves that high impulsive consumers prefer the mobile channel compared to low impulsive shoppers, and it has been shown that evening types and promotion focused are impulsive in nature (Muro et al., 2011). Therefore, posts on WeChat moments in term of images, videos, URLs, page feeds and promotional ads may attract these types of customers. Furthermore, another explanation is that the mobile offers them the ability to quickly search, evaluate, purchase and have payment facilities that satisfy their instant and impulsive need. Whereas morning types and prevention-focused individuals are well planned, are detailed information seekers, risk aversive and less impulsive. They have more control over their wallet. WeChat posts may persuade them to buy impulsively, but their very nature restricts them to do so. They may respond to stimuli favourably if they already have a planned shopping item in their bucket list. They mostly prefer haptic information and need for touch approach to increase the confidence in their judgments. Therefore, they mostly prefer a physical store to shop. These findings are also in line with the previous work of (Demirhan, Randler, & Horzum, 2016; Díaz-Morales, 2007; Horzum & Demirhan, 2017) which stated that morning types are less likely to be risk takers, are less impulsive and are detailed information seekers.

7. Managerial Implications

This study provides interesting findings regarding consumer personality and impulse behaviour. The marketers are always looking for ways to migrate customer traffic to mobile social channels because of its growing importance. The marketers can design aesthetic and fewer step shopping interface which may help the evening and promotion type consumers so they can make a quick purchase. Offering discount coupons, limited time offers, limited quantity offers and edition offers may attract such customers. Furthermore, evening types suffer from many health-related issues like insomnia, obesity and late night food cravings (Kauderer & Randler, 2013), so marketers can approach them via the mobile channel effectively with health-related products like a gym membership, fitness apps, and healthy diet plans. Furthermore, mobile cinema and movies' marketers (Netflix) can target evening type customers by designing more catching and impulsive signals. Evening types are more promotion-focused so they favour hedonistic motives. Companies can tailor their offers and messages (SMS, MMS, and websites) accordingly. However, morning types, prevention-focused customers require another strategy. Marketers may introduce celebrity endorsements, warranty and guarantees, trial versions, HD image and videos and public reviews in their WeChat official page feed to attract and satisfy

the latter type. Furthermore, different companies especially, tourism companies and airline companies can target morning types and prevention-focused consumers via desktop channels as they plan their trip long before they are to travel (Côté-Hamel, 2016).

8. Limitations

There are some limitations to this research. In contrast to the Western world, the level of mobile device usage is high in China for shopping. Replicating this study in other countries can reveal varied findings. Online shopping in an MSC environment was considered in general in this study, but future research can use a specific product category. Moreover, a study in the context of other social commerce platforms may reveal the more interesting result.

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