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Determinants of Online Impulsive Buying in the Covid-19 Post-Pandemic Era

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Abstract: During the Covid-19 pandemic, the use of social media has increased in line with online buying transactions. This research was conducted to find out online impulsive buying due to the large amount of information and promotion spread on social media after the pandemic. Online questionnaires were distributed to 261 respondents who made online transactions. SEM-PLS 3.0. was used to analyze the data. The results prove that hedonic browsing has a significant influence on flow experience. Flow experience has a significant influence on cognitive experience and affective experience as well as online impulsive buying. Cognitive experiences have significant influence on online impulsive buying. However, affective experiences do not have a significant influence on online impulsive buying. Moreover, financial management behavior cannot moderate the relationship among cognitive and affective experiences as well as online impulse buying. Theoretically, the study shows that irrational consumption processes lead to hedonic shopping due to easy and convenient searching for products through social media. Thus, in practice it is advisable for marketing managers to design their promotions on social media related to products and interspersed with financial literacy so that consumers can shop wisely.

Keywords: Hedonic browsing, flow experience, online impulsive buying, financial management behavior.

Introduction

During the Covid-19 pandemic, direct social interaction restrictions were carried out, but it did not limit everyone to keep in touch online through social media. It is evident that social media users have experienced a 61% increase in which people are looking for ways to stay connected and entertained [1]. Social media platforms become a communication tool that is hosted and accessed via the internet. Users can communicate selectively with others and obtain information from user-generated content including shopping activities [2]. The online shopping environment provides freedom for consumers from various obstacles, such as inconvenient store locations, limited operating hours, and other physical shopping activities. Information on social media encourages users to have online impulse purchases, in which purchases are done suddenly and immediately without pre-shopping intentions [3].

Online purchases are made without any plan due to the encouragement of information technology to avoid the spread of viruses. This internet penetration in the society through smartphones and the growth of e-commerce also encourage individuals to spend time on social media. Education, health, and economic activities have undergone a digital economic transformation since the pandemic, increasing 25% until July 2020 [4]. In fact, in the first quarter of 2021, transactions in e-commerce reached 548 million transactions with a value of Rp 88 trillion. Digitization provides an easy experience for individuals [5]. The atmosphere of online sites related to interaction and responsiveness also triggers individuals to make impulsive decisions in e-commerce [6].

The activities of individuals who are experienced in browsing social media are part of the enjoyment in browsing and making purchases [7]. Huang [8], Zheng *et al.* [7] show that hedonic browsing and impulsive buying behavior show an interrelated relationship. Hedonic search leads to get product information such as price and quality, where consumers collect information not for future purchases but to enjoy gathering information. Consumers get satisfaction from this browsing process, not necessarily from the purchase experience [9]. Martin-Consuegra *et al.* [10]state that hedonic motivation encourages consumers to browse social media web pages and prepares consumers to interact according to brands and marketing messages leading to purchase

activities. When consumers interact through social media, consumers process the information and develop affective judgments from social media [11].

Olbrich and Holsing[12] prove a causal relationship between the provision of website features and the average time consumers spend on the website. As a result, consumers have a perception of cognitive and affective factors, such as perceived usefulness, perceived enjoyment, and trust that play an important role in website formation [13][14][15]. Social media characteristics such as interactivity or personalization can affect cognitive (usability) and/or affective (enjoyment) factors [16][17][18][19] where social commerce features affect cognitive and affective factors differently depending on their functional characteristics.

Previous studies have emphasized the relation among hedonic browsing, flow experience, and online impulsive buying in regard to life styles [7][8][19][20][21][22][23][24] but there is hardly a study in relation to those variables with financial management behavior. Therefore, the purpose of this study is to find out the relationships among hedonic browsing, flow experience, cognitive and affective factors, and financial management behavior as well as online impulsive buying, especially in the Covid-19 post-pandemic era.

Methods

Literature Review

Hedonic Browsing and Flow Experience

Website browsing is an important process for consumers to get the information they need or like from the internet or social media. Hedonic browsing is a leisure activity that provides pleasure and fun [25]. The motives of this activity are mainly recreational [26], which was characterized by a high level of enjoyment of gathering information about products or services without any specific intention of buying [27][28].

Similarly, it is an activity of browsing the internet or social media, not to buy certain products or services, but to enjoy the activity of browsing itself [7][20]. It is an unconscious behavior to seek pleasure, enjoyment, and experience. Therefore, hedonic browsing encourages consumers to continue browsing to have more satisfaction that may trigger buying intention [10].

While flow experience refers to a pleasant experience when consumers can feel a high degree of control over their behavior while enjoying the fun of the activity. Daily life activities, such as sports, gambling, shopping, dancing as well as internet games, generally offer flow experiences [29]. Furthermore, flow experience provides consumers more confidence and stimulates them to explore products or services in the internet or social media [30]. Thus, it keeps consumers interested, so they do not log off [31][32]. As a result. it enhances consumer inner experience, the psychological feeling to be completely engaged in the current activity [33]. Thus, the first hypothesis is as follows:

H_1 : Hedonic browsing has a significant influence on flow experience.

Flow Experience and Cognitive Experience

Previous studies have acknowledged the results of the cognitive experience shopping. When consumers experience flow, they tend not to use their thinking, understanding, and interpretation, which are the aspects of cognitive experience shopping. Immersion in an online activity encourages users to utilize their cognitive abilities although there are only a few of empirical research on the relationship between flow and cognitive experience shopping in the literature [20].

According to the human information processing theory, consumers' decision-making on e-commerce websites can broadly be divided into two stages, namely 1) potential product, and 2) product evaluation from the social information by social commerce features [34]. Therefore, a rich social commerce feature has a significant positive effect on the perceived usefulness and enjoyment [23]. When pages of a shopping website are constructed with specialized functions and features, users will be attracted, become immersed in the shopping experience, will not be distracted by external stimuli, and complete their shopping task with greater efficiency, thereby satisfying their utilitarian purchase value. Consumers' concentration on a website is positively related to utilitarian value as a part of cognitive experience [22].

In a flow state, the perceived control of online users is impacted from their control of the site's web pages, shaped by the experience of relevant systems such as the search engine, recommendation systems, transaction security system, and how these factors enable the users to find desired information or perform operating procedures. Utilitarian consumers, when shopping, prefer more control, less expenditure of effort, and higher efficiency to speed up completion of their purchase task. Results indicate that the perceived control on website is positively associated with perceived utilitarian value when shopping online [22]. Besides, Xue *et al.* [35] found that the perceived control is positively associated with the perceived usefulness. The explanation behind is that high perceived control promotes consumers to search useful information prior to purchasing decision. The next hypothesis is:

H_2 : Flow experience has a significant influence on the cognitive experience.

Flow Experience and Affective Experience

Browsing social media increases flow experience, which leads to more pleasure and enjoyable sensations for the consumers. This flow experience positively influences affective experience shopping [20]. In addition, social presence refers to "the degree to which the medium permits users to experience others as being psychologically present." The more human warmth and sociability a medium conveys, the greater the social presence. Websites incorporating socially rich design elements (e.g., human images, human videos, personalized greetings) can significantly increase the perceived enjoyment since consumers associate websites that convey a sense of human warmth and sociability with more pleasure. If an e-commerce website incorporates a greater diversity of functionally diverse social commerce features to convey different kinds of social information, a greater sense of human warmth and sociability can be conveyed. The more consumers can experience and interact with other consumers, including friends and family members, the more likely it is that they enjoy their shopping experience. Websites providing a higher level of rich social commerce feature will be associated with a higher level of perceived enjoyment as an affective experience. A rich social commerce feature has a significant positive effect on the perceived enjoyment [23].

After individuals enter a flow state, they will discover the intrinsic enjoyment of the media. Because of the pleasant atmosphere and fun environment, the users will become more immersed in the activity itself, and not merely perform the intended task. If constructed in a vivid manner and richly interactive with images, texts, and animation, a site will lead the consumers to immerse themselves more deeply, to stimulate more exploratory behavior, to feel more pleasure and fun, and to experience hedonic purchase value. The consumers' cognitive enjoyment on a website is positively related to hedonic value [22]. If a site functional design enables users to immerse themselves without distraction in the internet world and places information on an array of goods at the users' fingertips, they will experience a variety of pleasure and fun, thereby satisfying the need for a hedonic shopping experience. The consumers' concentration on a website is positively related to hedonic value [22].

Furthermore, an intrinsic reward is more important than any achievement of external goals when people are in flow experience, and it leads them to have the optimal experience. However, they might not be happy since they are so involved with their activities, but the positive feelings are developed. The enjoyment reflects the affective evaluation of the experience. Flow as a process leads to engrossment on enjoyment [36]. Next, the third hypothesis is as follows:

H_3 : Flow experience has a significant relationship with affective experience.

Flow Experience and Online Impulsive Buying

Impulsive buying generally depends on the consumers' feeling in the process of shopping [37]. Product categories, characteristics, and attributes may evoke a flow experience for consumers. This experience can positively influence consumers' behavior and attitudes [38]. When consumers feel happy, they pay more attention to online marketing activities. As a result, this can generate the consumers' greater likelihood to buy impulsively [29].

A study by Zhu *et al.* [24] in Cross-Border E-Commerce (CBEB) indicated that flow experience has influence on the online impulsive buying positively and significantly. The consumers' curiosity in flow experience can generate their intention for impulsive buying. This is not identical with the finding in traditional e-commerce [39]. In addition, all types of products on CBEB platforms can evoke the pleasure obtained by flow experience.

Thus, it allows consumers to enjoy the shopping process well. This flow experience can lead them to participate actively in impulsive buying. Based on self-control theory, consumers' behavior from browsing to buying is basically a process to consume self-control resources. Consumers have to be able to control and resist temptation and impulsive behavior constantly. However, the enjoyment and pleasure obtained by flow experience sometimes exceed their self-control resources resulting in impulsive buying behavior [24]. Thus, the next hypothesis is as follows:

H_4 : Flow experience has a significant relationship with online impulsive buying.

Cognitive and Affective Experiences as well as Flow Experience Affect Online Impulsive Buying with Financial Management Behavior as a Moderating Variable

During the pandemic period, consumers may feel less connected to the "outside world" and have the feelings of depression and loneliness. Thus, they use social media to connect with other people. To escape from negative feelings, such as boredom, depression, and frustration, consumers make impulsive purchases [21].

Furthermore, Youn dan Faber [40] show that consumers with positive and depressed feelings are more likely to buy goods impulsively because these consumers cannot use their cognitive abilities to manage these purchases. Consumers respond to internal and external influences affectively and cognitively, or both. These two elements influence consumers whether to buy something impulsively or not due to affective and cognitive influences.

Affective factors refer to emotions, feelings, and moods, while cognitive factors include thinking, understanding, and perception. The more emotional a person is, the more likely consumers are to shop impulsively and vice versa [20]. However, consumers who have financial management skills will have a lower compulsive buying tendency.

In addition, financial management behavior is individual behavior related to good financial management, starting from cash, installment, savings, and finally investment management. These behaviors include acquisition, allocation, and the use of financial resources that are oriented towards several goals. This hierarchy of behavior depends on differences in financial resources among individuals. If the individual's income is not sufficient to meet financial obligations, perhaps she does not have the capacity to save [41].

This study investigates the role of financial management behavior in impulsive buying and predicts the effect of flow experience, cognitive and affective experiences on impulsive buying that can be moderated by individual financial management behavior. Owusu *et al.* [42] stated that financial management skills are very important in encouraging responsible financial behavior. Individuals with good financial management skills have lower compulsive buying tendencies.

Individuals who can manage finance effectively, their economic well-being and financial satisfaction will increase in the long run [43]. According to a study by Lim *et al.* [44], disciplined consumers can cope with uncertainty better. Consumers who have financial management skills avoid compulsive buying behavior [44] [45]. As Covid-19 pandemic has affected economic condition which caused a lot of individuals to become jobless and to make their income unstable, so they need to manage their financial literacy very well. Besides that, there is no previous study that can support the condition. So, the proposed hypotheses are as follow:

H_5 : Cognitive experiences have a significant influence on online impulsive buying.
H_6 : Affective experiences have a significant influence on online impulsive buying.
H_7 : Financial management behavior moderates the relationship between cognitive experiences with online impulse buying.
H_8 : Financial management behavior moderates the relationship between affective experiences and online impulse buying.
H_9 : Financial management behavior moderates the relationship between flow experiences and online impulse buying.

Data Collection

The data were collected using questionnaires aimed at public in general and selected using a purposive sampling technique. Online questionnaires were distributed to respondents from January to May 2022. The questionnaire is organized into 2 (two) parts. The first part is designed to collect respondents according to the sample criteria, namely social media users who have made online purchase after browsing the social media and demographic information of the respondents. In the second part, respondents were asked to rate the measurement of the items according to the research variables. All items were measured using a 5-point Likert Scales [46] to avoid ambiguous results. Table 1 shows the endogenous, exogenous, and moderating variables along with the measurement items according to the adopted Likert scale.

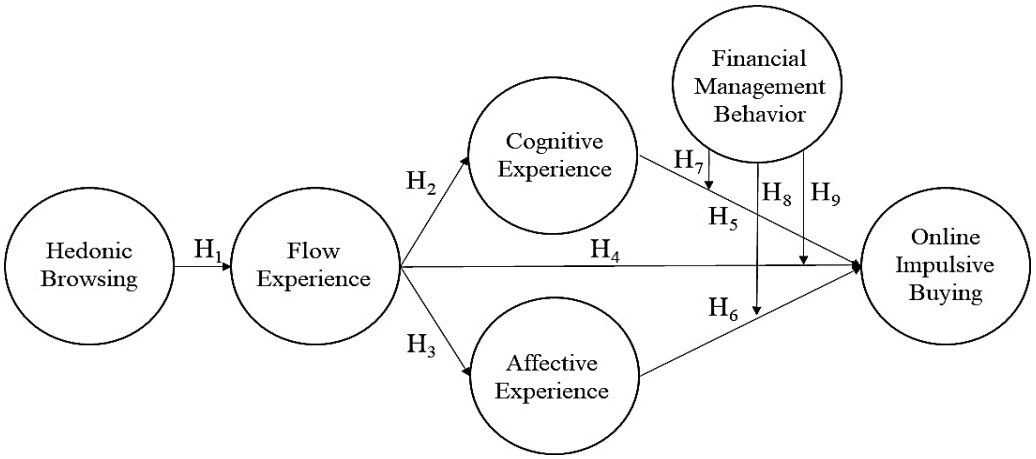

Figure 1. Hypotheses model

Table 1. Endogenous, exogenous and moderating variables

Variable	Sub-variable	Code	Scale	Relevant literature
Endogenous variable:				
Impulsive Buying		IB	Likert Scale	[48]
Exog				
enous variables:				
Hedonic browsing		HBW	Likert Scale	[49]
Flow experience (FE)	Curiosity	Cur	1 = strongly	[50]
	Skill	Sk	disagree	[51]
	Challenge	Chl	2 = disagree,	[51]
	Enjoyment	Enj	3 = neutral,	[50]
	Concentration	Con	4 = agree,	[20][50]
	Telepresence	Tel	5 = strongly agree	[52]
	Time Distortion	Tim		[53]
Cognitive experience		CogE		[20][54]
Affective experience		AffE	Semantic scale	[55]
Moderating variable:				
Financial Management	Cash	Csh	Likert:	[56]
Behavior (FMB)	Credit	Cdt	1 = never,	
	Saving	Sav	2 = seldom,	
	Insurance	Ins	3 = sometimes,	
			4 = often,	
			5 = always	

This study uses the measurement and estimation of the structural model to test the hypotheses about impulse buying with Smart PLS 3.0 which explains the relationship among the constructs and the effects of each construct measured in Figure 1. The advantage of this technique is that it enables to predict well when problems occur with small sample sizes, missing data, data that are not normally distributed, or when using latent variables. SEM-PLS focuses on the difference between the observed (in the case of manifest variables) or approximated (in the case of latent variables) values of the dependent variable and the value predicted by the model in question. PLS analysis uses two analytical models, namely inner and outer models. The outer model shows the specific relationship among variables and their indicators. The outer model defines the characteristics of the latent construct with manifest variables. The inner model shows the specific relationship among latent variables, namely exogenous variables to endogenous variables [47].

Outer model is used to assess the validity and reliability of research variables as well as to find out the relationship of each indicator with each construct or latent variable. Validity can be measured using Convergent Validity (CV) dan Discriminant Validity (DV). CV is used to measure the correlation between indicator and latent variable scores, where the factor loading measure is said to be high if the correlation value is > 0.70. An indicator with a loading factor between 0.40 and 0.70 is to be deleted if it can increase Composite Reliability (CR) and Average Variance Extracted (AVE) above the recommended threshold value. Furthermore, DV is a measurement of latent variable indicators by comparing the AVE value of each construct to the correlation between constructs in the model at which AVE > 0.50. CR shows the degree that indicates latent common reliability (unobserved) as an internal measurement consistency and construct forming indicator, using Cronbach's alpha with a composite reliability value of 0.60 - 0.70 [47].

Inner model is to test the relationship between constructs or latent variables with bootstrapping procedure to get Estimate for Path Coefficients through t-statistic test. The t test serves to test the endogenous variables from exogenous variables by looking at the p-value or confidence interval. This study used a bootstrap subsample of 5,000 and a total of 261 respondents. The use of a large number in bootstrap subsamples is very important to ensure the stability of the results. The t-values for the two-tailed test are 1.65 (90% confidence interval), 1.96 (95% confidence interval) and 2.58 (99% confidence interval). The next step is to estimate the PLS model by selecting the path weights that pay attention to the highest R^2 value for endogenous latent variables and is generally applicable to all types of specifications and estimates of the PLS path model. R^2 for latent variables has the same interpretation as regression, indicating the diversity of endogenous constructs that can be explained simultaneously by exogenous constructs. The influence magnitude of the R^2 value is divided into three categories, namely 0.25 (weak), 0.50 (moderate), and 0.75 (substantial). As for the predictive relevance of endogenous variables related to exogenous variables, we apply Q-square (Q^2). If $Q^2 > 0$, then the model has a predictive relevance, otherwise the value of $Q^2 < 0$ means the model lacks a predictive relevance[47].

Results and Discussions

Two hundred sixty-five (265) questionnaires were distributed online using Google form, but only 261 samples were valid for a further analysis. Most of the respondents in this study are students aged 21-30 years old with a status as singles. Most respondents have allowance between five to twenty million rupiahs and use Shopee-pay as a payment method as shown in Table 2.

Furthermore, Table 3 below shows that respondents browsed social media to find product and service offerings for 2.51 hours before they finally made an average transaction of Rp. 718,161. Generally, they made about 4 transactions per month.

Next, Table 4 shows that most respondents like to search on social media to find product or service offerings. These activities are considered as fun activities that can increase curiosity about something on social media. Then, affective experience factors are higher than cognitive factors so that these also encourage impulse buying. However, the management of cash and savings occupies the highest priority compared to other behaviors.

Table 2. Respondents' characteristics

Demography	Code	Male	Female	Total
Age	<=20 years	9	23	32 (12.3%)
	21-30 years	**39**	**74**	**113 (43.3%)**
	31-40 years	24	20	44 (16.9%)
	41-50 years	12	31	43 (16.5%)
	>=51 years	17	12	29 (11.1%)
Occupation	**Students**	**28**	**53**	**81 (31.0%)**
	Government employees	7	14	21 (8.0%)
	Private employees	24	46	70 (26.8%)
	Entrepreneur	22	23	45 (17.2%)
	Professional	12	7	21 (8.0%)
	Other	6	17	23 (8.8%)
Status	**Singles**	**51**	**89**	**140 (53.6%)**
	Married, no children	7	9	16 (6.1%)
	Married, with children	42	60	102 (39.1%)
	Divorce	1	2	3 (1.1%)
Income	<Rp 5 millions	42	71	113 (43.3%)
	Rp 5-20 millions	**49**	**76**	**125 (47.9%)**
	Rp 21-40 millions	6	7	13 (5.0%)
	>Rp 40 millions	4	6	10 (3.8%)
Payment	Credit card	15	10	25 (9.6%)
	Debit card	31	37	68 (26.1%)
	Shopee-pay	**16**	**55**	**71 (27.2%)**
	Go-pay	13	20	33 (12.6%)
	Ovo	12	21	33 (12.6%)
	Dana	2	1	3 (1.1%)
	Other	12	16	28 (10.7%)

Table 3. Descriptive of flow and transaction in social media

Variable	Minimum	Maximum	Mean	Std. dev
Browsing	30 minutes	15 hours	2.51 hours	2.25 hours
Spending	Rp 40,000	Rp 17,000,000	Rp 718,161	Rp 1.327.751,84
Transaction	1 x	40 x	4.33 x	4.36 x

Table 4. Descriptive analysis of endogenous and exogenous variables

Code	Item	Mean	Std. dev.
Hedonic Browsing (HBW)		3.75	0.223
HBW1	While browsing on social media, I was very excited, like playing.	3.70	0.979
HBW2	I am happy when I browse products or services on social media.	4.03	0.909
HBW3	I feel the pleasure of browsing on social media.	3.77	1.022
HBW4	While browsing on social media, I can forget my problems and feel relaxed.	3.49	1.214
Flow experience			
Curiosity		3.71	0.207
Cur1	Interacting with social media makes me curious.	3.62	0.956
Cur2	Using social media stirs my imagination.	3.56	1.064
Cur3	Using social media increases my curiosity.	3.95	0.871
Skill		3.46	0.511
Sk1	When using social media, I know how to find the information.	4.23	0.854
Sk2	I feel better at using social media than other users.	3.21	1.093
Sk3	When using social media, I feel in control.	3.17	1.139
Sk4	People think I'm good at using social media.	3.23	1.083
Challenge		3.27	0.270
Chl1	Using social media is a challenge for me.	2.95	1.173
Chl2	Using social media challenges me to do the best I can.	3.25	1.115
Chl3	Using social media is a good test of my skills.	3.25	1.118
Chl4	I find that using social media expands my limits.	3.61	.980
Enjoyment		3.79	0.085
Enj1	I enjoy interacting with social media.	3.69	0.980
Enj2	Using social media is a lot of fun.	3.84	0.910
Enj3	I enjoy using social media.	3.84	0.894
Concentration		3.36	0.121
Con1	When using social media, my mind is completely focused on the social media.	3.28	1.031
Con2	When using social media, I'm very engrossed.	3.50	1.006
Con3	When using social media, I really concentrate on what I'm doing.	3.31	0.980
Telepresence		2.69	0.155
Tel1	Social media creates a new world for me, and this world suddenly disappears when I stop browsing.	2.67	1.173
Tel2	When I use social media, my body is in the room, but my mind is in the world created by social media.	2.86	1.173
Tel3	When I use social media, the virtual world created is more real to me than the real world.	2.55	1.187
Time Distortion		3.12	0.285
Tim1	When using social media, I am so focused that I completely lose track of time.	2.83	1.260
Tim2	I realize that time runs faster than expected; I don't even feel it when using social media.	3.40	1.135
Tim3	I often spend more time on social media than I would like to.	3.11	1.241
Cognitive experience		3.35	0.668
CogE1	When shopping online, I often forget the time.	2.65	1.150
CogE2	When shopping online, I can control myself.	3.98	0.903
CogE3	When shopping online, most of the time I focus on the activity at hand.	3.43	0.903
Affective experience		3.76	0.089
AffE1	When shopping online, I feel (1 – unhappy; 5 – happy).	3.81	0.794
AffE2	When shopping online, I feel (1 – sad; 5 – happy).	3.74	0.774
AffE3	When shopping online, I feel (1 – annoyed; 5 – happy).	3.84	0.799
AffE4	When shopping online, I feel (1 – lethargic; 5 – energetic).	3.64	0.766
Impulsive buying.		2.57	0.158
IB1	I made a purchase spontaneously	2.66	1.238
IB2	My purchase was unplanned.	2.58	1.252
IB3	I can't stop myself from making a purchase when it happens.	2.34	1.168
IB4	I don't intend to buy before it happens.	2.70	1.162
Financial Management Behaviors			
Cash		3.93	0.611
Csh1	I always make comparisons when shopping for products or services.	4.31	0.798
Csh2	I always pay all bills on time.	4.52	0.757
Csh3	I always keep written or electronic records of monthly expenses.	3.16	1.375
Csh4	I always spend according to my budget or spending plan.	3.73	0.999
Credit		3.07	0.960
Cdt1	I always pay off my credit card balance every month.	4.18	1.206
Cdt2	I maximize my credit card limit on more than one card.	2.48	1.440
Cdt3	I only pay the minimum payment for a loan (credit card).	2.55	1.494

Code	Item	Mean	Std. dev.
Saving		3.90	0.503
Sav1	I start to maintain an emergency savings fund.	4.21	0.917
Sav2	I always set aside some money from the salary received.	4.25	0.935
Sav3	I save for long term goals like buying a car, tuition fees, house, etc.	4.20	0.987
Sav4	I put funds into the account for retirement.	3.75	1.306
Sav5	I bought a bond, stock, or mutual fund.	3.07	1.578
Insurance		3.08	0.255
Ins1	I maintain to purchase an adequate health insurance policy.	3.34	1.466
Ins2	I maintain to purchase adequate property insurance such as auto or homeowners insurance.	2.84	1.483
Ins3	I purchase life insurance adequately.	3.07	1.475

Table 5. Evaluation of measurement model

Code	Measurement item code	Factor loading	Cronbach's alpha	Rho A	Composite reliability	AVE
HBW1	HBW1 ← HBW	0.882	0.871	0.871	0.912	0.722
HBW2	HBW2 ← HBW	0.843				
HBW3	HBW3 ← HBW	0.867				
HBW4	HBW4 ← HBW	0.803				
Cur	Cur ← FE	0.760	0.886	0.889	0.911	0.594
Sk	Sk ← FE	0.754				
Chl	Chl ← FE	0.711				
Enj	Enj ← FE	0.810				
Con	Con ← FE	0.845				
Tel	Tel ← FE	0.748				
Tim	Tim ← FE	0.760				
CogE1	CogE1 ← CogE	0.908	0.551	0.547	0.771	0.633
CogE3	CogE2 ← CogE	0.665				
AffE1	AffE1 ← AffE	0.883	0.906	0.907	0.935	0.782
AffE2	AffE2 ← AffE	0.922				
AffE3	AffE3 ← AffE	0.896				
AffE4	AffE4 ← AffE	0.834				
Cdt	Cdt ← FMB	0.848	0.670	0.186	0.698	0.543
Ins	Ins ← FMB	0.606				
IB1	IB1 ← IB	0.863	0.898	0.912	0.929	0.765
IB2	IB2 ← IB	0.905				
IB3	IB3 ← IB	0.886				
IB4	IB4 ← IB	0.843				
FMB*FE	FMB*FE ← FMB*FE	1.048	1.000	1.000	1.000	1.000
FMB*AffE	FMB*AffE	1.031	1.000	1.000	1.000	1.000
FMB*CogE	FMB*CogE	1.126	1.000	1.000	1.000	1.000

Hypothesis testing starts with the process of forming the model for the first time to test validity and reliability through outer model analysis. From the results, three indicators with the values of loading factor below 0.50 were invalid, namely cognitive 2, saving, and cash indicators. Thus, they are excluded from the model. Then, the second analysis was carried out, and the results showed that all indicators were valid. The reliability test in Table 5 for all latent variables are reliable. The Cronbach's Alpha (CA) value is in the range of 0.50 - 0.70 which is still tolerable. Cognitive Experience and Financial Management Behavior are said to be very reliable as moderating variables as their values of CA > 0.70.

In addition, the discriminant validity test with Fornell-Larcker suggests that the values of each latent variable are greater than the correlation value among latent variables as shown in Table 6. The Fornell-Larcker value for Affective Experience is 0.884 while the correlation value between latent variables is below that value, namely 0.465, 0.169 and so on. So, it is concluded that all latent variables have met the requirements of discriminant validity.

Next, the relationships among latent variables were tested using bootstrapping with the results as shown in Figure 2.

The direct and indirect effects can be seen from Table 7. which shows that hedonic browsing has influenced flow experience. Furthermore. flow experience has influenced cognitive and affective experiences and online impulse buying. Then. only cognitive experience has also influenced online impulse buying. The role of the Financial Management Behavior (FMB) cannot significantly moderate flow experience on online impulse buying.

Table 6. Fornell-Larcker criterion

	AffE	CogE	FMB	FE	HBW	FMB*CogE	FMB*FE	FMB*AffE	IB
AffE	0.884								
CogE	0.465	0.796							
FMB	0.169	0.187	0.737						
FE	0.468	0.580	0.285	0.771					
HBW	0.476	0.418	0.242	0.674	0.849				
FMB*CogE	0.034	0.134	0.184	0.127	0.146	1.000			
FMB*FE	0.044	0.136	0.273	0.136	0.121	0.685	1.000		
FMB*AffE	0.131	0.037	0.159	0.045	0.141	0.575	0.525	1.000	
IB	0.335	0.435	0.268	0.426	0.336	0.165	0.177	0.152	0.875

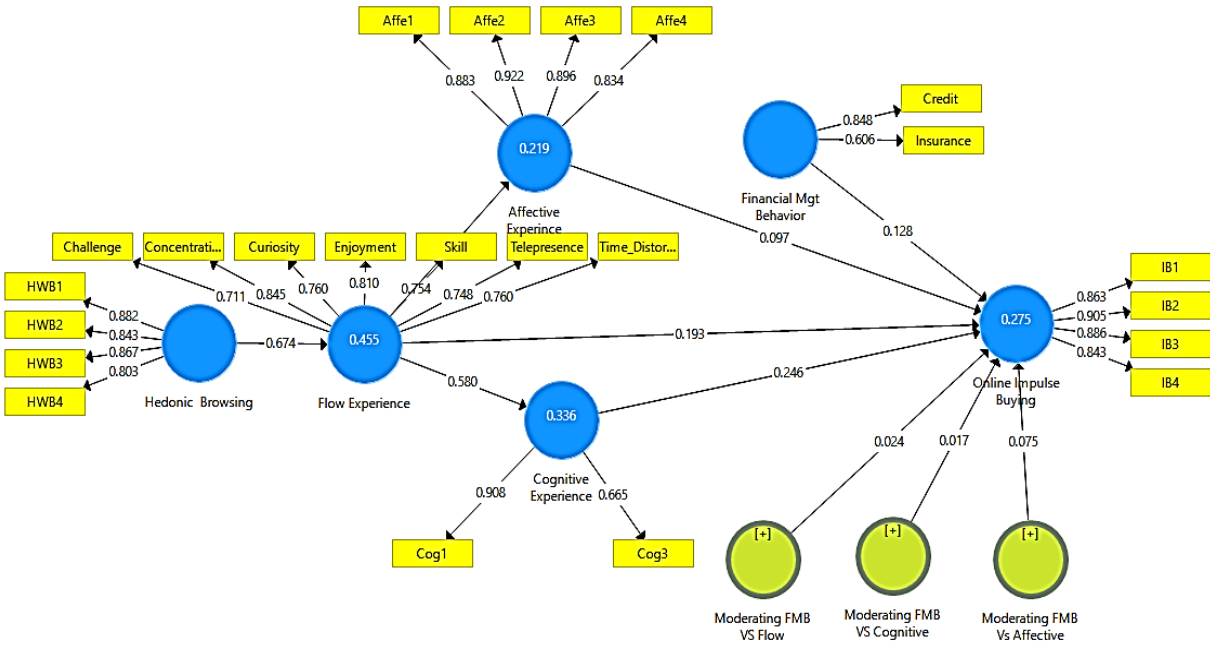

Figure 2. Structural model evaluation

Table 7. Direct and indirect effect

	Hypothetical path	Original sample	t-stats	p-values
Direct Effect - Without moderation:				
H1	Hedonic Browsing → Flow Experience	0.674	14.506	0.000*
H2	Flow Experience → Cognitive Experience	0.580	13.749	0.000*
H3	Flow Experience → Affective Experience_	0.468	8.715	0.000*
H4	Flow Experience → Online Impulse Buying_	0.193	2.426	0.016*
H5	Cognitive Experience → Online Impulse Buying_	0.246	3.248	0.001*
H6	Affective Experience_ → Online Impulse Buying_	0.097	1.505	0.133
Direct Effect - With moderation:				
H7	FMB*Cognitive → Online Impulse Buying_	0.017	0.207	0.836
H8	FMB*Affective → Online Impulse Buying_	0.075	0.938	0.349
H9	FMB*Flow → Online Impulse Buying	0.024	0.300	0.764
Indirect Effect				
H1-H2-H5	Hedonic Browsing → Flow Experience → Cognitive Experience → Online Impulse Buying	0.096	2.892	0.004*
H1-H3-H6	Hedonic Browsing → Flow Experience → Affective Experience_ → Online Impulse Buying_	0.031	1.436	0.152
H1-H4	Hedonic Browsing → Flow Experience → Online Impulse Buying_	0.130	2.385	0.017*
H3-H6	Flow Experience → Affective Experience_ → Online Impulse Buying_	0.045	1.477	0.140
H2-H5	Flow Experience → Cognitive Experience → Online Impulse Buying_	0.143	3.056	0.002

Note: * Significant at α = 5%; ** Significant at pada α = 10%

Moreover, inner model evaluation is to examine the relationships among latent variables using the coefficient of determination R^2 which serves to measure the predictive power of the research model. The results of the R^2 and adjusted R^2 tests on each path are listed in Table 8 and the data from the research model can explain online impulse buying by 38.1% (Geisser Stoner's Q^2 Value).

Table 8. Inner model evaluation

	R Square	R_2 adjusted	Q^2 Geisser stoner
Flow Experience	0.455	0.452	0.381
Affective Experience	0.219	0.216	
Cognitive Experience	0.336	0.334	
Online Impulse Buying	0.275	0.255	

Discussion

The first hypothesis stating that hedonic browsing has a significant influence on flow experience is proven. While browsing on social media. consumers feel very happy and excited. They also feel relaxed so that they may forget their problems. Thus. it stirs their imagination and increases their curiosity while using social media and interacting with others. They really enjoy and get the pleasure of being engrossed in flow experience. The result of the study is in line with studies by Martın-Consuegra *et al.* [10]. Hoffman and Novak [29] as well as Guo and Poole [33].

In addition. the second hypothesis saying that flow experience has a significant influence on cognitive experience is accepted. A lot of consumers having flow experience could completely forget the time. They are so focused on searching product and service offerings on social media that makes them feel very concentrated. Even. they lose self-control as if they were in another world away from the reality. Similarly. the studies by Lee and Wu [22]. Friedrich *et al.* [23]. and Shahpasandi *et al.* [20]suggested the same results.

Next, the third hypothesis stating that flow experience has a significant influence on affective experiences is also accepted. Flow experience enables consumers to feel the pleasure of surfing social media. The consumers' curiosity makes them go deeper and deeper as well as immerse themselves in having a lot of fun to have such affective experience. The result is in accordance with studies done by Lee and Wu [22]. Drengner *et al.* [36]. Friedrich *et al.* [23], and Shahpasandi *et al.* [20].

The fourth hypothesis suggesting that flow experience has a significant influence on online impulsive buying is also proven. As consumers become engaged on social media to find information about products and services. their product knowledge gets better and better. Unconsciously. this could generate such an online impulsive buying or unplanned purchase. Studies by Hoffman and Novak [51], Koufaris [39], Skadberg and Kimmel [38]. and Zhu *et al.* [24] also show the similar results.

Furthermore, the fifth hypothesis mentioning that cognitive experience has a significant influence on online impulsive buying is accepted. Many consumers often forget their time while seeking product or service information even though some others may be able to control themselves. However, to some degree, this kind of experience can evoke online impulsive buying. The result of this study is in line with Youn and Faber [40].

The sixth hypothesis stating that affective experience has a significant influence on online impulsive buying is not proven. It is in contrast with the study by Shahpasandi *et al.* [20]. This may occur because some consumers in this study do not purchase products or service impulsively as the average mean of online impulsive buying is only 2.57. To a certain extent. they can still control themselves not to have unplanned purchases. In other words. they are not compulsive enough and become very considerate when buying products or services online. It may occur because respondents in this study are mostly students. So, they are very considerate before buying products or services as they have a limited allowance.

Next. the seventh hypothesis stating financial management behavior moderates the relationship between cognitive experiences and online impulse buying is rejected. It is because the value of indirect effect is only 0.017 (t-statistics 0.207) which is smaller than its value of direct effect 0.246 (t-statistics 0.001). In addition. the eighth hypothesis mentioning that financial management behavior moderates the relationship between affective experiences and online impulse buying is not proven. This is proven by the value of indirect effect that is 0.075 (t-statistics 0.938). which is smaller than its value of direct effect 0.097 (t-statistics 1.505). Finally. the last hypothesis saying that financial management behavior moderates the relationship between flow experiences

and online impulse buying is also rejected. The value of indirect effect is 0.024 (t-statistics 0.300). which is smaller than the value of its direct effect 0.193 (t-statistics 2.426). Based on the means of financial management behavior. they indicate that consumers can manage their cash (μ = 3.93). credit (μ = 3.07). saving (mean 3.90) and insurance (μ = 3.08) well. Consumers not only compare products and services before making purchases but also spend their money according to their budget. Then. they always pay off their credit card balance regularly. Even. they also keep some money for future needs and purchase an adequate health insurance policy. In general. they have good financial management skills.

The results of the significance test show that hedonic browsing affects online impulsive buying with flow experience and cognitive experience as mediating variables. Meanwhile. financial management behavior is proven not to moderate the flow. cognitive and affective experience variables on online impulse buying. Consumers are very excited and enjoy themselves while browsing on social media to find the goods or services they want by spending an average of two (2) hours per day. This browsing experience encourages consumers' curiosity to seek more product or service information through social media. Preferred content can increase consumers' preference and curiosity resulting in greater opportunities to get new consumers to make shopping transactions [57]. This sense of pleasure and fun experienced by consumers encourages them to make online purchases impulsively. However. they can still control themselves when making purchasing decisions. Even. the feelings of cheers. happiness. and excitement do not easily influence consumers in making online purchasing decisions.

Moreover. financial management behavior related to cash management. savings. credit. and risk management does not moderate an individual's impulsive behavior when making online purchasing decisions. Most consumers in this study have a high cash and saving management behavior. They would make some comparison before buying products and services online. They also save some fund for emergencies and future needs as well as pay debt before its due date. The results of this study contradict with the research by Owusu *et al.* [42] which proved that financial management behaviors moderate compulsive buying behavior for business students in Ghana. Relevant financial management skills can minimize compulsive buying tendencies. The interaction of financial management with compulsive buying produces a negative coefficient. Consumers with proper financial management skills do not spend or use money carelessly and tend to have self-control over expenses. especially unplanned ones. However. when financial management skills are weak. the tendency of individuals to spend and buy compulsively will be high [58].

Conclusion

This study proves that consumers make online purchases through social media impulsively. The browsing and flow experience on social media make them feel happy and excited. and they even spend more time surfing on social media that encourages them to make online impulsive buying. Curiosity. joy. and excitement enable consumers to enter a separate world that provides a sense of comfort and pleasure. However. consumers with financial management skills do not easily make online impulsive buying. or at least these skills reduce the online purchases.

Overall. the findings in this study suggest that equipping individuals with financial management skills is very crucial. This is part of personal responsibility that individuals should be able to control themselves not to buy products or services impulsively as this may impose some financial risks in the future. By improving financial management skills. individuals can avoid addictive behavior like impulsive buying more responsibly. As the samples in this study are very diverse. it cannot examine chronic impulsive buying tendencies. Therefore. the results of this study need to be interpreted cautiously to describe social media users who make an online buying.

Impulsive buying behavior does not depend on one variable. but it is a combination of sociodemographic. emotional. sensory. genetic. psychological. social. and cultural factors. For further research. it is suggested that personality traits can be studied related to impulse buying. Impulsive buyers have a low self-esteem. high levels of anxiety. depression. and negative moods so that they tend to develop strong obsessive-impulsive disorders. However. the uncertainty due to the pandemic and economic crisis can change people's consumption behavior. which was formerly more planned and informed, so it needs to be investigated further.

This study provides the following theoretical implications. First. this research focuses on the process of irrational consumption that leads to hedonic spending. Individuals buy products or services irrationally due to the ease of exploring and browsing through social media as well as the ease payment. Second. this study explores the role of moderating financial behavior in impulsive shopping activities. Impulsivity is an action caused by time. An

irresistible desire for a product encourages impulsive purchases. and it is not influenced by financial management behavior. Furthermore. this research also provides practical implications for marketing managers to create better post-pandemic marketing promotion strategies through social media. Social media design must focus on products. and it should be interspersed with financial literacy in order to attract consumers' attention and interest so that they can purchase wisely.

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