CONSUMER IMPULSE BUYING BEHAVIOUR: THE ROLE OF CONFIDENCE AS A MODERATING EFFECT

Yokie Radnan Kristiyono[1]
Faculty of Economics and Business, Universitas Pelita Harapan, Indonesia
paulus.radnan@uph.edu

Kimberly Gozali[2]
Faculty of Economics and Business, Universitas Pelita Harapan, Indonesia
kimberlygozali1@gmail.com

Abstract- To evaluate impulse buying behaviour in consumers and how confidence moderates the variables being tested, which is an interesting phenomenon considering the fact that personal values and perceptions dictate each and every individual's behaviour as a consumer. This research paper attempts to elaborate consumer behaviour of individuals who purchase on impulse through social comparison, materialistic tendencies, negative affectivity, and confidence levels of individuals. This research topic is relatively new as there hasn't been any study done which examines impulse buying in Indonesian citizens with the following variables that have been conducted in Vietnam, let alone conducted under post Covid-19 conditions. The data gathered was obtained through a Google Forms questionnaire in which respondents had to use the Likert Scale to rate the agreeability of each statement. The data was compiled and processed using Smart-PLS 4 software. This research showed that social comparison and materialism positively impacted impulse buying but negative affect did not. Furthermore, confidence moderated the relationship between social comparison and impulse buying but did not moderate the relationship between impulse buying and social comparison. It can be concluded that everyone is unique in terms of behaviour and mindset which may benefit marketers to develop effective marketing strategies to induce purchasing behaviours. This research may also act as a reminder for consumers to spend wisely.
Keywords: Impulse Buying; Social Comparison; Materialism; Negative Affect; Confidence

1. INTRODUCTION
1.1 Research Background

The purpose of this research lies in the fact that the use of technology has experienced a significant increase in the past few years which greatly impacts a consumer's way of thinking and behaving as a basis of evaluating impulse buying behaviour. The incorporation of technology into people's lives certainly promotes efficiency and availability (Othman & Ibrahim, 2016) as shopping has become a quick process through the emergence of online marketplaces made accessible at one's fingertips. Figure 1 shows the majority of Indonesians shop online once every few months from 10 000 samples taken from 34 provinces in Indonesia.
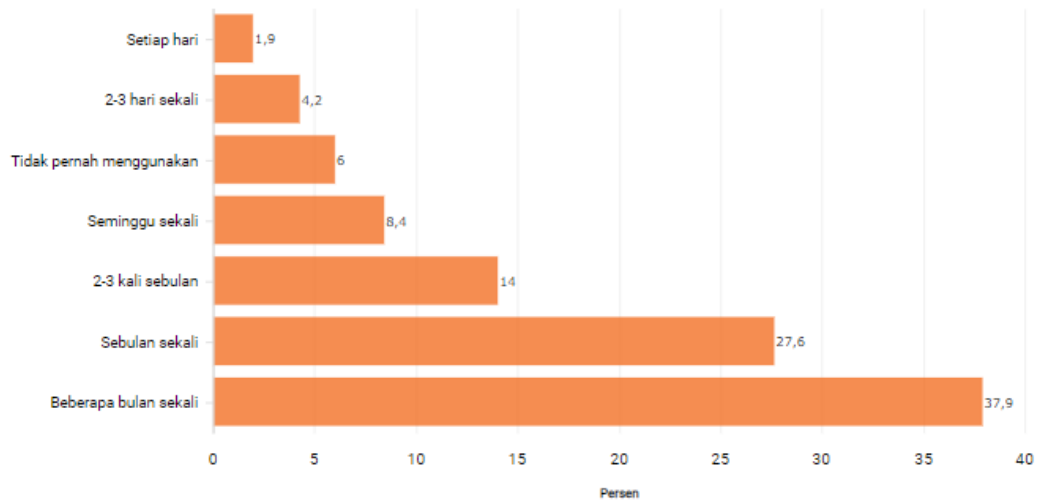
Figure 1 Online Shopping Frequency from 34 provinces in Indonesia
Source: databoks.katadata.co.id/ (2022)

Furthermore, the popularity of social media platforms has made it possible for users to display glimpses of their personal lives, in which most of the times have been carefully curated to emulate perfection. As a result, social comparison might arise due to the fact that their lives are not as perfect as others, leading to dissatisfaction and discontentment. To cope with the feelings associated with social comparison, individuals might have values relating to the accumulation of possessions along with having materialistic tendencies. Furthermore, individuals who compare themselves might experience negative affect or negative emotions such as envy, anxiety, depression, or discontentment. Both materialism and negative affect are common triggers for individuals to engage in impulse buying behaviour. Furthermore, the role of confidence is also being tested as a moderating effect to find out the relationship between social comparison towards materialism and social comparison towards impulse buying.

Based on the context that has been provided, the following research objectives have been developed: This research examines whether social comparison has a positive impact on materialism. Second, this research examines whether social comparison has a positive impact on negative affect. Third, to examine whether social comparison has a positive impact on impulse buying. Fourth, to examine whether materialism has a positive impact on negative affect. Fifth, to examine whether materialism has a positive impact on impulse buying.Six, to examine whether negative affect has a positive impact on impulse buying? Moderating effect, to examine whether confidence positively moderates the relationship between materialism and social comparison; and to examine whether confidence positively moderates the relationship between impulse buying and social comparison.

1.2 Literature Review
1.2.1 Impulse Buying Behavior
Impulse buying behaviour refers to when individuals are driven by a sudden and persistent urge to make an unplanned purchase regardless of the consequences that might arise It is encouraged by immediate gratification (Rook & Gardner, 1993) and characterized by low involvement and low effort where they are driven to make a purchase through the existence of stimuli instead. According to Koh (1993), impulse buying refers to the unplanned attitude

which associates buying behaviour with emotional preferences when shopping. According to Muruganantham & Bhakat (2013) , the following factors affect impulse buying behaviours among individuals:

a. External cue

External factors include promotional and marketing tactics used in order to attract consumers to make a purchase. As a result, individuals who previously did not have the intention of purchasing a product will be encouraged to make a purchase as they are attracted to the reduction in price.

b. Internal Stimuli

Internal stimuli depend on an individual's personal characteristics and internal beliefs system that derives them to make decisions. Personal traits that encourage impulsive buying include optimum stimulation level, inability to control oneself, shopping enjoyment and general impulsivity (Youn & Faber, 2000) along with deriving feelings of entertainment from shopping (Sinha, 2003).

c. Situational and Product Related Factors

Situational factors such as the time, personal shopping habits, retail location and season may create buying momentum for consumers (Shapiro, 1992), making it more likely for them to act on their desires. Stern (1962) concluded that impulse buying is affected by different aspects of the products that consumers encounter in the store, such as their functionality or appearance. Different types of consumers are also more inclined to purchase on impulse based on their preference for product category such as fashion, confectionery or books.

d. Demographics and Socio-Cultural Factors

According to Dittmar et al. (1995), demographic factors such as gender influences impulse buying behaviour concluded that women are more inclined to purchase self -expressive goods on impulse whereas men are more inclined to purchase leisure and instrumental goods. It was also concluded that lower income households are more likely to enjoy immediate gratification as opposed to higher income households. Furthermore social factors such as employee friendliness and praise from a salesperson are able to induce customers to buy on impulse (Mattila & Wirtz, 2008).

1.2.2 Social Comparison

Festinger (1954) who defined it as the idea that each individual compares themselves in terms of achievements, wealth, appearance, etc against that of their peers, and bases their worth off of their personal evaluation. Liu et al. (2017) states that social comparison is very common due to having access to information regarding the lives of other people, such as through social media usage. Once they find out that their peers are on a higher level than them, they will have the ways to find the resources and means in order to improve themselves. The goal of social comparison is to know and obtain more information regarding oneself, allowing them the confirmation, expression or denial aspects of their identity as they compare themselves with people who are similar or different from themselves (Gibbons & Buunk, 2008). The different types of social comparison are:

a. Upward Social Comparison

Upward social comparison occurs when an individual compares their personal abilities, achievements, appearance, etc to someone who is considered more superior than them, enabling negative feelings such as inferiority and envy.

b. Downward Social Comparison

Downward social comparison occurs when an individual compares their personal abilities, achievements, appearance, etc to someone who is considered inferior to them, enabling positive feelings such as gratefulness and pride.

1.2.3 Materialism

According to Richins & Dawson (1992), materialism refers to how individuals place value on the acquiring of possessions and the behaviours they exhibit in order to achieve the results desired. Materialistic traits in consumers tend to cause individuals to try to become even richer through the accumulation of wealth and social status with the goal of improving themselves (Chaplin & John 2007). According to (Mowen & Minor, 2002), materialism is the tendency to obtain happiness through possession of certain property in which becomes the greatest source of satisfaction or dissatisfaction in their personal lives as it has become a crucial aspect of their identity (Schiffman & Kanuk, 2009). According to Richins & Dawson (1992), the there are three dimensions to materialism:

a. Acquisition Centrality
   Centrality is defined as perceiving money and material possessions to be an important aspect in life and desires luxury as they feel pleasure from purchasing and owning expensive items. When individuals establish their self-expression and identity based on acquiring materials, they are more susceptible to the approval and acknowledgement of external parties which are out of their control (Kashdan & Breen, 2007).

b. Acquisition as the Pursuit for Happiness
   Happiness is defined as having personal conviction in the belief that owning nicer, more expensive items will guarantee satisfaction and a better life in general. What distinguishes a materialistic individual from others is they minimize the importance of personal experience and relationships with other people to feel fulfilled in their lives.

c. Acquisition-defined Success
   Success is defined as having tendencies to evaluate the satisfaction of one's life and others' through how much money they earn and how much their possessions cost. The more their possessions are worth and the more money they have, the more successful they perceive themselves to be.

1.2.4 Negative Affect

Negative affect refers to a broad concept that encapsulates various feelings of emotional distress (Stringer, 2013) such as irritability, stress, guilt, shame, anger, anxiety along with other negative emotions (Watson et al., 1988). Watson et al. (1984) states that expressing high negativity levels mean that these individuals view themselves and several aspects of the world unpleasantly affecting their satisfaction and quality of life in the process. Moreover, individuals who reported high levels of negative affect are more likely to deal with low self-esteem, poor coping skills and have a negative self-concept (Diener et al., 1999) as it is thought that affectivity is a crucial factor in contributing to one's subjective well-being (Conner & Barrett, 2005).

1.2.5 Confidence

Shrauger & Schohn, (1995) defines confidence as how an individual senses their level of skill and competence which influences their perceived capability to effectively deal with different situations or handle a problem. Hendriana et al., (2017) states that confidence is the

belief in oneself and explains how the individual perceives themselves to be. As confident people have conviction in themselves, they are not anxious when making decisions and although they have freedom to act according to their desires, they are also responsible for the consequences for their actions (Lauster, 2002). Whereas, Khan et al., (2015) concluded that less confident people are more likely to depend on external validation and opinions to form a coherent decision as their aversion to risk has made it difficult to assess problems and situations on their own. According to Lauster, (2002), the following are characteristics of individuals who are confident:

a. Confident in their Abilities

Ability can be defined as the talent, creativity and intelligence an individual possesses which required to accomplish tasks or reach a certain goal. Confident people believe that they can achieve their goals and are able to put more effort with the current set of skills they have learned and obtained.

b. Confident in Making Decisions

Individuals who are confident tend to not involve external parties in their decisions as they have been accustomed to achieving their goals independently, therefore they do not need to depend on others in order to make the right decision. They are decisive with their choices as they already have in mind what they want and need, along with the trust in themselves that they are making the right choice.

c. Thinks positively of themselves

Individuals who are confident are more likely to think positively about themselves as they have a positive self-concept, perceiving themselves as trustworthy and capable. People who lack confidence and self-esteem tend have anxiety, stress and depression (Nguyen et al., 2019) which may come from persistent self-criticism and judgement (*Self Esteem*, 2014).

d. Not Afraid to Express Opinions

Confident individuals are able to freely express themselves as they are not consumed with anxiety that might come from potential external judgement. As a result, they are able to speak in public and as well as converse with people of different ages and backgrounds.

1.3 Hypothesis Development and Research Model

Based on the context that has been provided, the following research questions have been developed:

H1: Does social comparison have a positive impact on materialism?

H2. Does social comparison have a positive impact on negative affect?

H3. Does social comparison have a positive impact on impulse buying?

H4. Does materialism have a positive impact on negative affect?

H5. Does materialism have a positive impact on impulse buying?

H6. Does negative affect have a positive impact on impulse buying?

H7a. Does confidence moderate the relationship between materialism and social comparison?

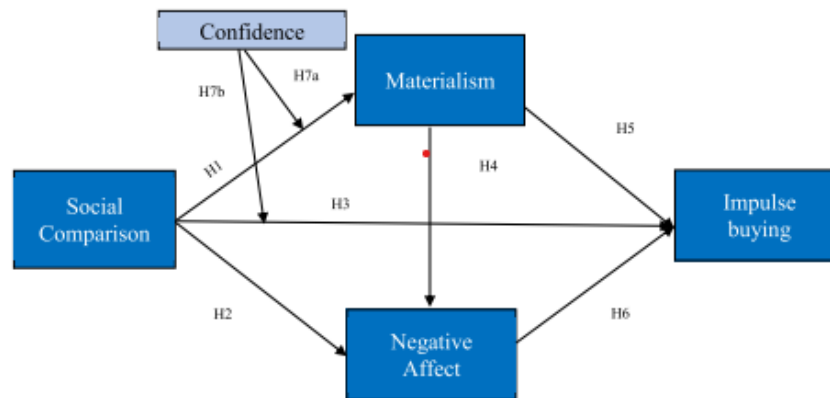H7b. Does confidence moderate the relationship between impulse buying and social comparison?

Figure 2. Research Model
Source: Prepared by Author (2021)

2. RESEARCH METHODOLOGY

2.1 Data Types and Sources

This study utilizes secondary data gathered from questionnaires. Secondary data is used in this research as it is relatively inexpensive and easy to obtain. The data is gathered from several respondents who willingly participated in answering the questionnaires.

2.2 Population and Sample

The population of this research includes the general population. From this population, the determination of sample using purposive sampling includes the following criteria:

1. People who live in Jabodetabek.
2. People over the age of 15.
3. People who frequently shop online.

2.3 Research Variable

The independent variables in this study are social comparison, materialism, and negative affect while the dependent variable in this study is impulse buying. Furthermore, the moderating variable in this research is confidence.

2.4 Sample Collection Method

A Google Form questionnaire was used to obtain answers from respondents which were distributed through various social media platforms such as Instagram, Twitter and Line. To ensure that the respondents fit the research's criteria of ever purchasing items online, the filtering of respondents is being done in the beginning of the questionnaire. Therefore, individuals who have never shopped online cannot proceed to answer the next section of the questionnaire. The researcher was able to obtain 270 valid respondents.

2.5 Data Analysis Method

This research utilizes quantitative research which refers to the exploration and the understanding of concepts that individuals or a group of people attribute to a social problem (Creswell, 2012). It involves the collection of data from participants, inductively analysing data and interpreting the data to produce a meaningful conclusion. Quantitative research refers to the process of analysing, interpreting and collection of data obtained from the study (Creswell, 2012) which handles measurable and numerical data. Furthermore, this research utilizes causal

research to find out the factors that affect impulse buying behaviour in consumers as well as how confidence as the moderating variable impact impulse buying and materialism. The statistical software, SmartPLS 4.0 is being used to process and analyse the data obtained in order to form conclusions

2.6 Unit of Analysis
It can be concluded that the unit analysis of this research is the subject being researched. In this particular research, individual unit of analysis is used where data is gathered from different individuals who each possesses different traits and come from different backgrounds and unique ways of thinking which has the ability to influence their purchasing behaviour.

2.7 Respondent Profile
The researcher is able to gather a total of 271 respondents from the Google Forms questionnaire. After the filtering of questions, it is known that 270 respondents have ever shopped online while 1 respondent has never shopped online.

Table 1. Profile of Respondents

Category	Description	Number	Percentage
Frequency	1 – 5 times	114	42.2%
	6 – 10 times	87	32.2%
	11 – 15 times	38	14.1%
	16 – 20 times	19	7%
	More than 20 times	12	4.4%
Gender	Female	260	59.3%
	Male	110	40.7%
Age	15 – 20 years old	22	8.1%
	21 – 26 years old	141	52.2%
	27 – 32 years old	67	24.8%
	33 - 38 years old	27	10%
	39 - 44 years old	11	4.1%
	More than 44 years old	2	0.7%
Level of Education	Diploma	45	16.7%%
	Bachelor's Degree	198	73.3%
	Master's Degree	27	10%
	Doctorate Degree	0	0%
Profession	Student	93	34.4%
	Public sector employee	26	9.6%
	Private sector employee	89	33%
	Entrepreneur	32	11.9%
	Housewife	24	8.9%
	Other	6	2.2%
Domicile	Jakarta	111	41.1%
	Bogor	41	15..2%
	Depok	29	10.7%
	Tangerang	65	24.1%
	Bekasi	24	8.9%
Income	Less than Rp 1 000 000	25	9.3%
	Rp 1 000 000 – Rp 4 999 999	102	37.8%
	Rp 5 000 000 - Rp 9 999 999	66	24.4%
	Rp 10 000 000 – Rp 14 999 999	39	14.4%
	Rp 15 000 000 – Ro 19 999 999	19	7%
	More than Rp 20 000 000	19	7%

Category	Description	Number	Percentage
Expenditure	Less than Rp 1 000 000	54	20%
	Rp 1 000 000 – Rp 4 999 999	132	48.9%
	Rp 5 000 000 – Rp 9 999 999	51	18.9%
	Rp 10 000 000 – Rp 14 999 999	17	6.3%
	Rp 15 000 000 – Ro 19 999 999	10	3.7%
	More than Rp 20 000 000	6	2.2%

2.8 Hypotheses

This research aims to test the following hypotheses:

H1: Social comparison has a positive impact on materialism.

Díaz & Arroyob (2017) state that social comparison significantly positively impacts materialism in individuals. also showed that materialism and social comparison have a positive relationship. When upward social comparison is made, individuals will feel the desire to buy the same luxury items or have the same lifestyle as they become more inclined to put more importance on purchasing products that can be visible to the public. On the other hand, when downward social comparison is made, individuals feel more confident which results them to purchase on impulse (V. D. Tran, 2022).

H2: Social comparison has a positive impact on negative affect.

H3: Social comparison has a positive impact on impulse buying.

Furthermore, social comparison positively impacts impulse buying behaviour once they individuals see their peers purchasing certain goods (Q.-Q. Liu et al., 2017) which may stem from the need for people to keep up with the latest trends. As social media has enabled people to get a glimpse of other people's lives, social comparison is more likely to take place, especially when it comes to wealth and material goods.

H4: Materialism has a positive impact on negative affect.

Wang et al., (2017) states that materialistic traits in consumers positively impacts negative emotions to arise such as feelings of unhappiness in their lives, lower marital satisfaction, decline in well-being and overconsumption. According to Donelly et al., (2016), materialism positively impacts negative emotions as materialists tend to have more negative social relationships with their peers, more likely to experience anxiety, general stress in which certain triggers may intensify these emotions.

H5: Materialism has a positive impact on impulse buying.

H6: Negative Affect has a positive impact on impulse buying.

H7a: Confidence moderates the relationship between materialism and social comparison.

H7b: Confidence moderates the relationship between impulse buying and social comparison.

3. RESULT AND DISCUSSION

Through SmartPLS 4, the validity and reliability of this research are being tested, along with the results to accept or reject the hypotheses being tested. The results obtained and their individual interpretation are as follows:

3.1. Validity Testing

a. Convergent Validity

Convergent validity is being tested in order to make conclusions regarding the relationship between constructs or indicators. It tests whether or not related constructs in fact

are highly correlated with one another. It is measured through the Average Variance Extracted (AVE) with a threshold of over 0.5 to be deemed valid, meaning that the latent variable can be explained by more than half of its indicators (Ghozali, 2016).

Table 2. Convergent Validity – Factor Loading >0.70 Actual Test (Final)

Indicator	CD	IB	MA	NA	SC	CD x SC
CD1	0.745					
CD2	0.834					
CD3	0.823					
CD4	0.871					
IB2		0.902				
IB3		0.891				
IB4		0.801				
IB5		0.895				
IB6		0.788				
IB7		0.867				
IB8		0.908				
MA1			0.714			
MA2			0.819			
MA3			0.723			
MA4			0.799			
MA5			0.855			
MA7			0.791			
NA1				0.836		
NA2				0.908		
NA6				0.879		
NA9				0.879		
NA10				0.794		
SC1					0.714	
SC2					0.705	
SC3					0.767	
SC7					0.850	
SC8					0.900	
SC9					0.830	
SC10					0.863	
SC11					0.786	
CD x SC						1.000

Source: Data Analysis of Actual Test with 270 Respondents (2022)

Table 2 shows the factor loading of indicators after the removal of a total of 13 invalid indicators. It can be seen that all of the indicators meet the rule of thumb as the factor loadings are all above 0.70, therefore all of the indicators are now valid.

Table 3. Convergent Validity – AVE >0.50 Actual Test (Final)

	Variable	AVE	Rule of Thumb	Model Evaluation
Convergent Validity	Confidence	0.672	>0.50	Valid
	Impulse Buying	0.750		Valid
	Materialism	0.617		Valid

	Negative Affect	0.740		Valid
	Social Comparison	0.647		Valid

Source: Data Analysis of Actual Test with 270 Respondents (2022)

Table 3 shows the AVE values of variables after the removal of a total of 13 invalid indicators. It can be seen that all of the variables meet the rule of thumb as the AVE values are all above 0.5, therefore all of the variables are now

b. Discriminant Validity

Ghozali (2016) states that discriminant validity should be tested in order to ensure that indicators from latent variables differ from other latent variables as evidence that they are in fact unrelated using **t**he heterotrait-monotrait ratio of correlations (HTMT).

Table 4. Discriminant Validity – HTMT<0.90 Actual Test (Final)

Variable	CD	IB	MA	NA	SC	CD x SC
CD						
IB	0.591					
MA	0.509	0.850				
NA	0.138	0.187	0.303			
SC	0.398	0.825	0.896	0.205		
CD x SC	0.103	0.035	0.099	0.055	0.031	

Source: Data Analysis of Actual Test with 270 Respondents (2022)

Table 4 shows the results for the model's HTMT which ranges from 0.031 to 0.898 which can be concluded as valid as the threshold is below 0.90. Although one variable has an HTMT value of 0.898 which is just below the threshold, it is still considered valid.

3.2 Reliability Testing

Reliability refers to the degree of consistency and stability the test scores are and determines whether or not the research findings are able to be repeated. Furthermore, test reliability provides insight regarding the extent in which the measurement is precise and error free (Franzen, 2011). Therefore, determining the consistency and stability of a measurement is crucial in conducting research (Bougie & Sekaran, 2016).

According to Chiang et al. (2019), the Cronbach's Alpha widely used by researchers in the field of psychology to measure internal consistency. With a rule of thumb of greater than 0.70 (Ghozali, 2016; Hair, Black, et al., 2019), the closer the Cronbach's Alpha value is to 1, the higher the consistency of the variable (Bougie & Sekaran, 2016).

a. Cronbach's Alpha

Table 5. Reliability Cronbach's Alpha >0.70 – Actual Test (Final)

Variable	Cronbach's Alpha	Rule of Thumb	Model Evaluation
Confidence	0.840		Reliable
Impulse Buying	0.944		Reliable
Materialism	0.876	>0.70	Reliable
Negative Affect	0.913		Reliable
Social Comparison	0.921		Reliable

Source: Data Analysis of Actual Test with 270 Respondents (2022)

Table 5 shows that all of the variables are reliable as their values are above the rule of thumb which is 0.7. Out of all the variables, impulse buying has the highest reliability with a value of 0.944.

b. Composite Reliability

Table 6. Reliability Composite Reliability >0.70 – Actual Test (Final)

Variable	Composite Reliability	Rule of Thumb	Model Evaluation
Confidence	0.891		Reliable
Impulse Buying	0.954		Reliable
Materialism	0.906	>0.70	Reliable
Negative Affect	0.943		Reliable
Social Comparison	0.936		Reliable

Source: Data Analysis of Actual Test with 270 Respondents (2022)

Table 6 shows that all of the variables are reliable as their values are above the rule of thumb which is 0.7. Out of all the variables, impulse buying has the highest reliability with a value of 0.954.

3.3 Collinearity (VIF)

Common Method Bias occurs when all of the variables being studied utilize the same method, therefore creating a bias in relationship between constructs. (Podsakoff & Organ, 1986) causing distortion in relationships and errors in measurements (Bagozzi & Yi, 1990). (Baumgartner & Steenkamp, 2001). Common Method Bias can be detected through testing for collinearity (Kock, 2015) through VIF values.

Collinearity refers to predictor variables that have a degree of correlation, therefore have the same underlying construct with other predictors in a multiple regression model. Kock (2015) states that in order for a model to be free of common method bias, VIF values should not exceed 3.3. Meanwhile, Ghozali (2021) states that VIF values under 5 or 10 can still be considered as valid.

a. Outer VIF

Table 7. Collinearity (VIF) – Outer VIF <10 Actual Test (Final)

Indicator	VIF
CD1	1.651
CD2	2.035
CD3	1.832
CD4	1.894
IB2	3.997
IB3	3.716
IB4	2.456
IB5	3.865
IB6	2.171
IB7	3.220
IB8	4.299
MA1	1.643
MA2	2.245
MA3	1.816

Indicator	VIF
MA4	2.064
MA5	2.512
MA7	2.060
NA1	2.622
NA2	3.530
NA6	2.978
NA9	2.437
NA10	2.087
SC1	1.751
SC2	1.744
SC3	2.186
SC7	3.060
SC8	4.670
SC9	2.771
SC10	3.553
SC11	2.152
CD x SC	1.000

Source: Data Analysis of Actual Test with 270 Respondents (2022)

Table 7 shows that most of the Outer VIF values are under 3.3, some being over 3.3 but still under 5, with the indicator with the highest VIF value of 4.670. It can be concluded that all of the indicators are free from common method bias.

b. Inner VIF

Table 8. Collinearity (VIF) – Inner VIF <10 Actual Test (Final)

Variable	CD	IB	MA	NA	SC	CD x SC
CD		1.413	1.176			
IB						
MA		3.738		3.025		
NA		1.164				
SC		3.067	1.167	3.025		
CD x SC		1.036	1.008			

Source: Data Analysis of Actual Test with 270 Respondents (2022)

Table 8 shows that all of the Inner VIF values are under 3.3, with the indicator with the highest VIF value of 3.067. It can be concluded that all the indicators are free from common method bias.
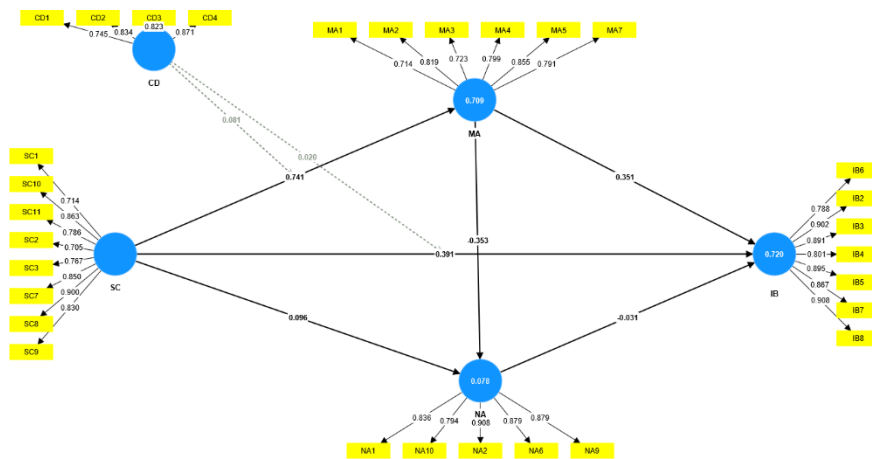
Figure 3 Outer Model
Source: Data Analysis of Actual Test with 270 Respondents (2022)

3.3 R Squared Results

The coefficient of determination or R^2 measures the variance proportion of the dependent variable that can be explained by the independent variable (Hair et al., 2014). It evaluates how scattered the data is around the linear regression line. The closer the R^2 is to 1.0, the higher the chances are that the predictions are identical to the observed data and is deemed as reliable for future forecasting. According to Chin (1998) the rule of thumb for measuring R^2 falls into 3 categories: weak effect at 0.19, moderate at 0.33 and substantial at 0.67.

Table 9. R² Results

Variable	R-square
Impulse Buying	0.720
Materialism	0.709
Negative Affect	0.078

Source: Data Analysis of Actual Test with 270 Respondents (2022)

Table 9 shows the R Squared Results of the model. The variable Impulse Buying has a substantial effect with an R^2 value of 0.720, indicating that 72% of the dependent variable can be explained by the independent variable while the remaining 28% can be explained by external factors which are not included in this study. Materialism also has a substantial effect with an R^2 value of 0.70, indicating that 70% of the variation is explained by the independent variable while the remaining 30% can be explained by external factors which are not included in this study. Negative affect has a weak effect with an R^2 value of 0.078, indicating that 7.8% of the variation is explained by the independent variable while the remaining 92.2% can be explained by external factors which are not included in this study.

3.4 Model Fit

A model's goodness of fit can also be evaluated using SmartPLS through Standardized Root Mean Square Residual (SRMR) and Normed Fit Index (NFI). SRMR measures how well the predicted model reproduces the observed results where values closer to 0 indicates a perfect fit. According to Hu & Bentler (1999), models with good fit have SRMR values below 0.08 while Hair et al. (2014) states that values below 0.10 are considered an acceptable fit and

slightly good fit when SRMR exceeds 0.10. NFI displays the percentage by which the researcher's model improves the null model in terms of fit with values varying between 0 to 1.0 (Shadfar & Malekmohammadi, 2013). Hair et al. (2014) states that NFI values closer to 1.0 indicate a good fit.

Table 10. Model Fit results

Goodness of Fit	Saturated Model
SRMR	0.071
NFI	0.795

Source: Data Analysis SmartPLS (2022)

The SRMR result of 0.071 shown in Table 10 indicates that the model is an acceptable fit Hair et al. (2014) as it is below 0.10 but above 0.08. Furthermore, NFI value of 0.795 is also an indication that the model is well fitted. Overall, the model has ideal goodness of fit results.

3.5 Hypothesis Testing

Table 11. Hypothesis Testing

Hypothesis	Original sample	T statistics	P values	Analysis
H1: Social comparison has a positive impact on materialism.	0.741	19.417	0.000	Accepted
H2: Social comparison has a positive impact on negative affect.	0.096	0.969	0.166	Rejected
H3: Social comparison has a positive impact on impulse buying.	0.391	5.416	0.000	Accepted
H4: Materialism has a positive impact on negative affect.	-0.353	3.897	0.000	Accepted
H5: Materialism has a positive impact on impulse buying.	0.351	4.682	0.000	Accepted
H6: Negative Affect has a positive impact on impulse buying.	-0.031	1.047	0.148	Rejected
H7a: Confidence moderates the relationship between materialism and social comparison.	0.081	1.697	0.045	Accepted
H7b: Confidence moderates the relationship between impulse buying and social comparison.	0.020	0.414	0.340	Rejected

Source: Data Analysis of Actual Test with 270 Respondents (2022)

H1: Social comparison has a positive impact on materialism.

Based on Table 4.11, it can be seen that the hypothesis has a T-Statistic value of 19.417, which meets the rule of thumb of >1.65, indicating that the hypothesis is accepted. A P-value of 0.000 meets the rule of thumb of <0.05, proving that *Social Comparison* has a significant impact on *Materialism*. Furthermore, an original sample value of 0.741 indicates that *Social Comparison* has a positive impact on *Materialism*.

This result is consistent with previous studies conducted by Islam et al. (2018) and Zheng et al. (2018), where it was proven that social comparison causes individuals to emphasize materialistic values as they are driven by envy to own the same possessions when comparison is made against people who have higher social status. As social media has become

a platform for individuals to construct their identity and self-image (J. Hum et al., 2011) and has permeated so deeply into society, the social comparisons made possible by these platforms increase materialism among adolescents and young adults (Islam et al., 2018).

H2: Social comparison has a positive impact on negative affect.

Based on Table 4. 11, it can be seen that the hypothesis has a T-Statistic value of 0.969, which does not meet the rule of thumb of >1.65, indicating that the hypothesis is rejected. A P-value of 0.166 indicates that *Social Comparison* does not have a significant impact on *Negative Affect* as P-value should be under 0.05 in order to be significant Furthermore, an original sample value of 0.096 indicates that *Social Comparison* positively impacts *Negative Affect*.

This result is consistent with the findings from main article used for this research by V. D. Tran (2022). Further research done by D. Van Tran et al. (2022) states that comparing oneself to people considered to be more superior can result in benign envy and act as a motivation in order to improve themselves in order to achieve the same level of superiority (Wheeler, 1966).

H3: Social comparison has a positive impact on impulse buying.

Based on Table 4. 11, it can be seen that the hypothesis has a T-Statistic value of 5.416, which meets the rule of thumb criteria of >1.65, indicating that the hypothesis is accepted. A P-value of 0.000 meets the rule of thumb of <0.05, proving that *Social Comparison* has a significant impact on *Impulse Buying*. Furthermore, an original sample value of 0.391 indicates that *Social Comparison* has a positive impact on *Impulse Buying*.

This finding validates the results from the research done by D. Van Tran et al. (2022) which concludes that upward social comparison positively impacts impulse buying when individuals compare themselves to celebrities on social media whose posts include advertisement for specific products. Gibbons & Buunk (2008) concluded that individuals who compare themselves with others are more anxious about their appearance, hence will attempt to buy the same products to look like them.

H4: Materialism has a positive impact on negative affect.

Based on Table 4. 11, it can be seen that the hypothesis has a T-Statistic value of 3.897, which meets the rule of thumb criteria of >1.65, indicating that the hypothesis is accepted. A P-value of 0.000 meets the rule of thumb of <0.05, proving that *Materialism* has a significant impact on *Negative Affect*. An original sample value of -0.353 indicates that *Materialism* negatively impacts *Negative Affect*.

A possible explanation for this could be that these people fall into the second type of materialism, which is happiness centrality (Richins & Dawson, 1992). Where individuals experience positive emotions such as happiness and satisfaction when purchasing goods as they prioritize hedonism (Poluan et al., 2019). Hedonism is a view of life which assumes that pleasure and material enjoyment is the main goal of life and base their choices on the potential which reaps the most pleasure (Themba et al., 2021). As enjoyment and pleasure arises when shopping, individuals will constantly seek for that feeling, resulting in more frequent purchases in order to fill that emotional need and to meet excessive aesthetic, lifestyle and social demand (Widagdo & Kenny, 2021) .

H5: Materialism has a positive impact on impulse buying.

Based on Table 4.11, it can be seen that the hypothesis has a T-Statistic value of 4.682, which meets the rule of thumb criteria of >1.65, indicating that the hypothesis is accepted. A

P-value of 0.000 meets the rule of thumb of <0.05, proving that *Materialism* has a significant impact on *Impulse Buying*. Furthermore, an original sample value of 0.351 indicates that *Materialism* has a positive impact on *Impulse Buying*.

This finding is consistent with previous researches that have been conducted (Kasser et al., 2007; V. D. Tran, 2022; Sen & Nayak, 2019). As materialism puts emphasis on obtaining possessions, materialists are more likely to purchase an item in order to increase social status (Moran et al., 2015) or as a form of entertainment (Ningtyas & Amelindha, 2022).

H6: Negative Affect has a positive impact on impulse buying.
Based on Table 4.11, it can be seen that the hypothesis has a T-Statistic value of 1.047, which does not meet the rule of thumb of >1.65, indicating that they hypothesis is rejected. A P-value of 0.148 indicates that *Negative Affect* does not have a significant impact on *Impulse Buying*. An original sample value of -0.031 indicates that *Negative Affect* negatively impacts *Impulse Buying*.

This finding does not validate the results of prior studies (P. Liu et al., 2019; V. D. Tran, 2022; Silvera et al., 2008). Different people have different characteristics and ways to cope with negative emotions or problems, either through focusing or confronting the problem (healthy) or maladaptive strategies, which emphasizes on attempting to reduce negative emotions through problem avoidance (unhealthy) to evade thinking of the negative stimuli. Impulsivity as a response to negative emotions (Johnson et al., 2020) does not only cover impulse buying, but also involves a wide range of erratic behaviours.

H7a: Confidence moderates the relationship between materialism and social comparison.
Based on Table 4.11, it can be seen that the hypothesis has a T-Statistic value of 1.697, which meets the rule of thumb of >1.65, indicating that the relationship between *Materialism* and *Social Comparison* is statistically significant when moderated by *Confidence*. Furthermore, an original sample value of 0.081 indicates that *Confidence* positively moderates the relationship between *Materialism* and *Social Comparison*. A P-value of 0.045 meets the rule of thumb of <0.05, proving that the hypothesis is both statistically significant and accepted.

The result obtained is consistent with the study conducted by V. D. Tran (2022). As the circumstances and context of this study differ from the study done by V. D. Tran (2022) along with the lack of theory development from previous researches, the researcher was not able to pinpoint the exact reason for this difference. Therefore, it can be concluded that this difference is caused by external factors that are not being included in this research.

H7b: Confidence moderates the relationship between impulse buying and social comparison.
Based on Table 4.11, it can be seen that the hypothesis has a T-Statistic value of 0.414, which does not meet the rule of thumb of >1.65, indicating that the hypothesis is rejected. A P-value of 0.340 does not meet the rule of thumb of <0.05, proving that *Impulse Buying* and *Social Comparison* is statistically insignificant when moderated by *Confidence*. Furthermore, an original sample value of 0.020 indicates that *Confidence* positively moderates the relationship between *Impulse Buying* and *Social Comparison*.

This result obtained is inconsistent with the original study conducted by V. D. Tran (2022). The results from this study imply that an increase in an individual's confidence level does not significantly increase the relationship between impulse buying and social comparison. As individuals with higher levels of confidence are capable of independently forming their judgments and are sure with the decisions they make, they are less likely to be influenced by

external validation (Outreville, 2014) and do not desire conformity (Cahyaningsih & Dewi, 2019). Therefore, comparing oneself with other individuals will not result in impulse buying behaviour as they have lesser desire to conform to societal norms or trends.

4. CONCLUSION

The goal of this study is to answer the research problems that prompted the conduct of this study. With a total of 8 hypotheses which test for impulse buying behaviour, the following explanations below will be able to prove whether or not the hypotheses are found to be significant and supported.

H1: Social comparison has a positive impact on materialism.

An original sample value of 0.741, it can be concluded that social comparison has a positive impact on materialism. Through upward social comparison, individuals might feel the need to keep up with the same trends or have the same lifestyle as it is considered ideal. As comparison focuses on what they lack, they start to prioritize the accumulation of possessions in order to be on the same level or social status.

H2: Social comparison does not have a positive impact on negative affect.

With an original sample value of 0.96 and a P-value of 0.166, it can be concluded that social comparison does not have a positive impact on negative affect which do not validate previous findings. Comparison might cause benign envy, encouraging individuals to improve themselves where the individual being compared to might act as a motivator for them. Hence, negative affectivity such as resentment or depression is not relevant.

H3: Social comparison has a positive impact on impulse buying.

With an original sample value of 0.391, it can be concluded that social comparison has a positive impact on impulse buying. As comparison allows individuals to evaluate themselves using other people as a benchmark, they might feel inferior as they do not meet the standard. Hence, impulse buying tendencies are increased as there is the urge to keep up with the desired lifestyle.

H4: Materialism has a negative impact on negative affect.

With an original sample value of -0.353, it can be concluded that materialism has a negative impact on negative affect. This result is obtained from the questionnaire where respondents scored high in materialistic traits but do not experience negative affect. Materialistic people find that acquiring more goods bring them happiness as they adopt a hedonism approach to shopping as hedonic fulfilment results in satisfaction, fun and amusement.

H5: Materialism has a positive impact on impulse buying.

With an original sample value of 0.351, it can be concluded that materialism has a positive impact on impulse buying. As materialism is a driving force for purchasing decisions, it is probable to fall into impulse buying patterns. The need for acquiring more possessions or wealth indicates that individuals are more willing to behave irrationally regarding spending decisions.

H6: Negative Affect has a negative impact on impulse buying.

With an original sample value of -0.031, it can be concluded that negative affect has a negative impact on impulse buying. Results from previous studies are not validated as they focus on impulse buying as a coping mechanism against negative affect. In reality, not every individual engages in impulse buying behaviour when coping with negative emotions. There are a multitude of different ways to cope which are not included in this study and are being preferred by the majority of the respondents in this research.

H7a: Confidence moderates the relationship between materialism and social comparison.

With an original sample value of 0.081, it can be concluded that confidence moderates the relationship between materialism and social comparison. Individuals displaying higher confidence increases the relationship between materialism and social comparison. The exact reason for the difference in conclusion cannot be determined through this research.

H7b: Confidence does not moderate the relationship between impulse buying and social comparison.

With T-statistics value of 0.414 and a P-value of 0.340, it can be concluded that confidence does not moderate the relationship between materialism and social comparison. Due to the fact that highly confident individuals are less likely to have the need for external acceptance and conformity, it is less likely that they will purchase on impulse solely to desire owing the same products as other people. They are more likely to stick to their opinions and judgement and make decisions independently without external influence

As this research is far from perfect, there are a few limitations to this research:

- This research only considers the proportion of people who frequently make online purchases without taking into account the probability that not everyone is actively using social media.
- An individual's buying power greatly depends on their monthly income, impacting their purchase decisions as well. Therefore, there might be individuals who are impulse shoppers but are not able to afford the luxury of purchasing on impulse and would rather allocate their income on purchasing necessities.
- There is a great disparity in the ages of the respondents obtained in this research, with 52.2% of the respondents being 21-26 years old and 0.7% of the respondents being 44 years old. As a result, this research does not accurately represent the entirety of the different age groups as intended in the first place.
- There is insufficient information regarding the topic and model being studied as there is still a limited amount of prior explorative research. Therefore, the information gathered in this research might not be as extensive.
- This research only emphasizes social comparison from an upward social comparison perspective. Answers and results might differ through a downward social comparison perspective; therefore, the results presented in this research are unable to represent social comparison as a whole.

Recommendations for Further Research

Based on the limitations that have been stated above, the following suggestions and recommendations can be done for further research:

- Future researches may include more variables such as social media usage as a determinant for social comparison and income level as a determinant for impulse buying.
- It is recommended for future researchers to obtain more respondents from all age groups in order to get a more accurate representation of the sample.
- Future researchers may implement this research in a different context such as in offline stores, as consumer behaviour might differ.

Future researchers may consider adding downward social comparison as a variable to compare results with upward social comparison

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