

Analysis of influence of materialism on impulsive buying and compulsive buying with credit card use as mediation variable

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Abstract

Having unlimited needs and wants, humans as economic beings will struggle to meet their needs. In this modern era, shopping for human needs and desires has become easier to do with the availability of various stores and malls to online retail. This ease of shopping has increased interest in shopping for unlimited material needs and indulges Indonesians to continue making purchases in order to develop uncontrolled compulsive buying behavior. Therefore the authors aim to examine the effect of materialism on compulsive buying mediated by the use of credit cards and impulsive buying. The object of this research is credit card users in Batam. Sampling was done by giving a google form questionnaire to credit card users in the city of Batam. Demographic data of respondents were then analyzed using IBM SPSS Statistics version 25.0 and analysis of the effect of independent variables on the dependent variable was carried out using Smart PLS version 3.2.8. The results of this study indicate that the variables of materialism, use of credit cards and impulsive buying have a significant effect on compulsive buying.

Keywords: Materialism; credit card use; impulsive buying; compulsive buying

INTRODUCTION

Humans referred to as economic beings (*Homo Economicus*) from birth have an infinite variety of desires and needs and every day struggle to fulfill them (Zak & Jeksen, 2010). Maslow's theory of hierarchy of needs found by psychologist Abraham Maslow explains that there are five levels in human needs namely physical need, security, compassion, respect and self-actualization. The fulfillment of these needs makes people as much as they can to fight for them to be met (Durmaz, 2014).

In this modern era, shopping for necessities is easier to do. Various shops, malls around which provide a variety of products based on price, shape, and taste can be chosen according to our needs and desires. Along with the development of technology, shopping can also be done through our gadgets in online retail and e-commerce such as Tokopedia, Shopee, Lazada and so on. The ease of shopping in this modern era has also increased the interest of shopping and pampering Indonesians to buy material needs such as appearance needs or that show social status. This is called personality materialism. Materialism is a personality that is important for acquiring and consuming material goods. A materialist assumes that ownership is the key to happiness and that success can be judged by one's material ownership (Attiq & Azam, 2015). Materialistic personality or materialism itself can be interpreted as understanding that assumes that the importance of owning or acquiring material goods to achieve the desired purpose of life and circumstances. Usually people who adhere to extreme materialism seek dignity and social status (Doosti & Karampour, 2017). A materialist considers that ownership of the material as the center attribute of an individual's identity to success. According to Omar *et al.* (2014), materialism is an individual's devotion to material desire, a desire to have more material things and an interest in material ownership to achieve the desired conditions, thus ultimately determining and fostering the nature of materialism in individuals.

If a materialist is eager to have a material then it is possible to buy unnoticed or get carried away by the atmosphere when shopping. This is called impulsive purchasing when shopping. Impulsive Buying is a sudden hedonistic purchasing behavior, in which a purchase occurs quickly without prior consideration of alternatives or future implications. Impulsive purchases are said to be unplanned purchases, but can't always be categorized as impulsive purchases. The logic behind this discrepancy lies in the fact that unplanned purchases can occur not only because consumers have needs but also fail to put the right items on the shopping list. The time lag between our desire to buy and our decision to buy is very short on unplanned purchases. Just like impulsive buying but more due to the encouragement of strong hedonist temptation for immediate satisfaction and improved mood and not paying attention to the consequences. So the impulse during impulsive buying is very strong and hard to resist. Often consumers describe impulsive purchasing events as a strong temptation to object to desire and have few behavioral constraints to resist this temptation (Amos *et al.*, 2014).

The presence of non-cash payment tools in this modern era such as credit cards, makes materialistic easier to make purchases. On the one hand credit card users find it convenient not to bring cash when shopping. On the other hand it can create opportunities for credit card users to make purchases they cannot afford in cash (Nga *et al.*, 2011). Credit card circulation continues to increase every year in Indonesia, as does the number of transactions and the value of transactions. The Indonesian Credit Card Association (AKKI) which is an organization that monitors and supervises credit card competition, is responsible for issuers and credit card holders, merchants and principals such as MasterCard International and other related parties.

Table 1. Growth in number of credit cards, number of credit card transactions and number of credit card scores in indonesia

Year	Total cards	Transactions	Value (millions)
2009	12.259.295	177.817.542	132.651.567
2010	13.574.673	194.675.233	158.687.057
2011	14.785.382	205.744.761	178.160.763
2012	14.817.168	217.956.183	197.558.986
2013	15.091.684	235.695.969	219.026.985
2014	16.043.347	250.543.218	250.177.517

Year	Totalcards	Transactions	Value (millions)
2015	16.863.842	274.719.267	273.141.964
2016	17.406.327	297.661.974	272.950.051
2017	17.244.127	319.291.747	288.912.875
2018	17.275.128	330.145.675	305.201.319
Nov-2019	17.383.244	308.323.981	300.737.451

In 2009 the number of credit cards in Indonesia amounted to 12,259,295 cards with a total transaction of 177,817,542 and resulted in a transaction value of IDR 132,651,567 (millions). Ten years later, the number of credit cards in Indonesia in November 2019 reached 17,383,244 cards with a total transaction of 308,323,981 and resulted in a transaction value of IDR 300,737,451 (millions).

The growth of credit card users in Indonesia is increasing as well as the encouragement of materialism and impulsive purchasing, can increase the tendency to like and get used to shopping activities until it cannot be controlled directly or indirectly. This behavior is called compulsive buying. Compulsive Buying is a behavioral disorder of a person making a continuous purchase regardless of the financial, social or psychological consequences. Compulsive purchases are characterized by excessive, out-of-control, repetitive and time-consuming shopping in response to negative situations and mood conditions (Ergin, 2010). According to Palan *et al.* (2011) compulsive purchases are medically defined as impulsive control disorders, mental disorders characterized by irresistible impulsivity to engage in dangerous or unreasonable behaviors to cope with negative emotional situations such as depression and loneliness.

METHODS

This research based on the purpose is quantitative research, the findings of Sugiyono (2015) which is a research method that observes a sample, collects data with research instruments, analyzes data in statistical or quantitative form to evaluate the research hypothesis. The data used was collected from google forms questionnaire to credit card users in Batam city for research. This research was developed from previous research researched by Pradhan *et al.* (2018) under the title "Materialism and Compulsive Buying Behavior: The Role of Consumer Credit Card Use and Impulsive Buying". Researchers intend to study the influence and signification of the relationship between materialism, credit card use and impulsive purchases against compulsive purchases in Batam.

The purchasing behavior of Batam city people became the object of this research. The population of this study is the Batam city community and the sample taken is the Batam city people who have credit cards. According to data found from the Population Indicator of Riau Islands Province in 2019, there were 1,329,773 people in Batam city (BPS Kepri, 2019). For the determination of samples researchers will use a non-probability type of sampling and the method used is purposive sampling, this method determines the sample that will provide the best information according to the purpose of this study (Kumar, 2011). As for determining the minimum sample count with the Slovin formula, because researchers can not share with the entire population of Batam (Sanusi, 2012).

$$n = \frac{N}{1 + Ne^2}$$

N = Research population

n = Samples taken from the population

e = Error tolerance limit

Errors can occur when sampling research, then determined percentage for fault tolerance limit. Researchers used a 5% error limit so that the accuracy in the study sample was 95%. The minimum number of samples to be collected is as follows:

$$n = \frac{1.329.773}{1 + 1.329.773 (0.05)^2} = 399,879 = 400$$

According to the formula that has been calculated above, researchers must collect a minimum number of respondents as many as 400 respondents. Compulsive purchasing is medically defined as impulsive control dysfunction, a mental disorder characterized by irresistible impulsivity to engage in harmful or unreasonable behavior (Palan *et al.*, 2011). While Islam *et al.* (2017) defines compulsive purchases as an abnormal form of chronic shopping and spending characterized by extreme,

uncontrollable, and repeated desire to buy, ignoring the consequences. Research has described compulsive purchasing behavior as a mental state in which isolated individuals who have no impulsive control and have low self-esteem combined with anxiety and materialism seek pleasure.

Materialism is defined as the importance an individual considers possessing earthly treasures. It has been regarded as a personality construct with three characteristics: envy, possessiveness, and insecurity. Materialists strive to find pleasure and satisfaction through ownership and acquisition. So it can be said that materialism is a combination of one's principles in life relating to the priorities of one's place in earthly possession (Bushra & Bilal, 2014).

According to Attiq and Azam (2015) materialism can be called consumer concern for materialistic goods. Overall materialism is the significance associated with the ownership and procurement of material goods when it becomes a way to obtain the ambition of life or expected position. More and more materialistic people have a habit of consuming expensive items more openly because they think that more purchases of expensive items can lead to their success and honor in society.

Credit cards are a type of plastic money that is used quickly among consumers. Consumer credit cards are free from storing cash when shopping. From a psychological perspective, credit cards are a trigger for shopping behavior. Shoppers feel more comfortable and relatively pain less when spending with credit cards. Furthermore, the use of credit cards lowers perceived costs (Akram *et al.*, 2018). Credit cards easily give consumers the opportunity to borrow money and shop around. Consumers with credit cards tend to shop more and supplement their spending (Lo & Harvey, 2011).

Impulsive purchases arise when the individual feels the will to shop directly. This impulse is hedonically and affects a person's emotional. Impulsive purchases also occur without considering the consequences (Darrat *et al.*, 2016). Usually impulsive buyers react to stress and anxiety, with the desire to fulfill satisfaction immediately as a form of relief (Davenport *et al.*, 2012). The data obtained in the form of primary data directly through an online questionnaire using google forms to credit card users in Batam city. Then secondary data is obtained from previous research journals, sites and books.

Researchers used structural equation modeling methods to analyze research data. This method is able to map the relationship of independent variables to dependent variables (Hair *et al.*, 2014). Researchers use this method because researchers use SmartPLS in analyzing data, which is based on the approach of the relationship between constructs.

Descriptive statistics in this study to find out the number of respondents and the percentage of demographics. Demographic data obtained from respondents using credit cards in Batam city.

The CMB test will show the same difference or error in the variables tested when performing the same test method as the single factor test of <50% (Siemens *et al.*, 2010; Chang *et al.*, 2010).

Outer Model measures the validity and reliability of research to find out the constructed variables obtained from respondents are accurate so that they can be trusted (Hair *et al.*, 2014). Construct validity values tested from outer loading and AVE. While the reliability value on the block indicator is tested from composite reliability (Ghozali & Latan, 2015).

The validity test looked at the accuracy of the questionnaire data given to respondents. This test looks at whether the data obtained matches the research object. The data is said to be valid if the questionnaire reflects the topic of research and corresponds to what was obtained from respondents (Sugiyono, 2015). Outer loading tests are used by researchers to measure the validity of data as well as AVE tests to measure construct validity values (Hair *et al.*, 2014). This test will show the accuracy of each indicator on each variable. If the results show a >0.5 then the variable is valid and can be used by researchers (Hair *et al.*, 2014).

The AVE test measures the average variation value of the processed data and represents a latent construct. AVE values are categorized as valid when they have a >0.5. If the AVE value <0.5 means it has on average more errors in the item than variance as > measured by latent constructs. The test looked at whether the questions on the questionnaire given to respondents were consistent. If the question on the questionnaire is consistency and stable then the questionnaire can be said reliable. The question in the questionnaire can be considered reliable if the composite reliability value >0.70 (Hair *et al.*, 2014).

Path Coefficient Analysis measures direct relationships on hypotheses, while indirect relationships or mediation are measured by indirect effects. The significance of the variable seen from the T-statistic value reaches a value of >1.96 meaning it has a significance rate of 5% (Hair *et al.*, 2014).

This test is applied to measure the relationship of independent variables to dependents. Values 0 through 1 reflect the level of influence between the variables tested, when approaching value 1 indicates the effectiveness of independent variables bringing information to dependents. The R Square Adjusted value also shows strong weakness of independent variables to dependents on the research model (Ghozali & Latan, 2015).

This test measures the quality level of models in this study with goodness of fit (GoF) (Marko *et al.*, 2012). GoF values are classified into three which are as small with a value of >0.1 , moderate with a value of >0.25 and large with a value of >0.36 (Ghozali & Latan, 2015). Here's the GoF formula below: $GoF = \sqrt{\overline{Com} \times \overline{R^2}}$

GoF = Goodness of Fit

\overline{Com} = Average Communality

$\overline{R^2}$ = Average R Square Adjusted

RESULTS AND DISCUSSION

This chapter discusses the results of data testing based on answers obtained from respondents. Demographic and CMB data is processed using IBM SPSS Statistic version 25.0. While testing data on the respondent's general character, inner and outer model tests as well as explanations of results obtained from the hypothesis were processed using SmartPLS version 3.2.8.

Single factor test shows variance value of 44.176% or $<50\%$ which means in this study does not occur CMB and has met the requirements that is credit card users in Batam city.

The questionnaire question was seen whether it had conformed to the research model and was declared valid, applied validity test (Hair *et al.*, 2014). Table 4.7 below says all questions have an outer loading value of >0.5 and have been valid.

Table 2. Validity test results (outer loading)

Variable	Outer loading	Description
CB1	0,884	Valid
CB2	0,885	Valid
CB3	0,899	Valid
CB4	0,897	Valid
CB5	0,827	Valid
CC1	0,855	Valid
CC2	0,854	Valid
CC3	0,804	Valid
CC4	0,795	Valid
CC5	0,821	Valid
CC6	0,850	Valid
CC7	0,855	Valid
IB1	0,877	Valid
IB2	0,865	Valid
IB3	0,910	Valid
IB4	0,883	Valid
M3	0,739	Valid
M4	0,676	Valid
M5	0,773	Valid
M6	0,838	Valid
M8	0,619	Valid
M9	0,774	Valid

To see if the construct variable is valid, a validity test is performed with AVE (Hair *et al.*, 2014). Table 2 shows AVE results >0.5 and is valid.

Table 3. Validity test results (ave)

Variable	AVE	Description
Compulsive Buying	0,772	Valid
Credit Card Use	0,695	Valid
Impulsive Buying	0,782	Valid
Materialism	0,550	Valid

Compulsive Buying has an AVE value of 0.772, Credit Card Use of 0.695 and Impulsive Buying of 0.782 which means >0.5 and no indicators are removed. While Materialism has an AVE value of 0.550 which means >0.5 but there are 3 indicators removed, listed in table 4 below. The above data test results conclude that all variables meet validity requirements (Hair *et al.*, 2014).

Table 4. Number of questionnaire instruments removed in validity test

Variable	Total item	Number of deleted item	Deleted item	AVE	Remaining item
Materialism	9	3	M1	0,423	6
			M2	0,462	
			M7	0,498	

The reliability test looked at the consistency of questions on questionnaires (Hair *et al.*, 2014). The following table 4.10 below shows the results of the reliability test with composite reliability >0.7 and has been reliabel.

Table 5. Reliability test results

Variable	Composite Reliability	Description
Compulsive Buying	0,944	Reliabel
Credit Card Use	0,941	Reliabel
Impulsive Buying	0,935	Reliabel
Materialism	0,878	Reliabel

Table 5 shows the composite reability value of compulsive buying of 0.944, credit card use of 0.941, impulsive buying of 0.935 and materialism of 0.878. So all of the above variable questions have been relied upon.

To measure the significance of relationships between variables must meet the provisions of the T-Statistics >1.96 (Hair *et al.*, 2014). Table 6 shows test results of significance between variable materialism, credit card use, impulsive buying and compulsive buying.

Table 6. Direct influence test results

Line <i>X→Y/Direct</i>	T-Statistics	Conclusion
Materialism → Credit Card Use	4,958	H1: Significant
Credit Card Use → Impulsive Buying	39,028	H2: Significant
Materialism → Compulsive Buying	2,974	H3: Significant
Materialism → Impulsive buying	2,806	H4: Significant
Credit Card Use → Compulsive Buying	13,201	H5: Significant
Impulsive Buying → Compulsive Buying	8,946	H6: Significant

Table 6 shows the result of the relationship between materialism to compulsive buying and variable mediation of credit card use and impulsive buying and credit card use against compulsive buying with variable mediation impulsive buying.

Table 7. Results of mediation effect influence test

Line <i>X→M→Y/With Mediating</i>	T-Statistics	Conclusion
Materialism → Credit Card Use → Compulsive Buying	4,520	H7: Significant
Materialism → Impulsive buying → Compulsive Buying	2,582	H8: Significant
Materialism → Credit Card Use → Impulsive buying	5,046	H9: Significant
Credit Card Use → Impulsive Buying → Compulsive Buying	8,582	H10: Significant

Hypothesis 1

Hypothesis 1 is relatively positive with materialism towards credit card use has a t-statistics value of 4,958 or >1.96 and is in line with pradhan *et al.* research (2018). A materialist will use a credit card because the credit card reflects social status and strength and gives greater power to spend on the desired material.

Hypothesis 2

Hypothesis 2 is relatively positive with credit card use against impulsive buying having a t-statistics value of 39,028 or >1.96 and in line with pradhan *et al.* research (2018). The use of credit cards will encourage impulsive purchases by providing an opportunity for users to make purchases instantly without thinking about the financial situation.

Hypothesis 3

Hypothesis 3 is relatively positive with materialism against compulsive buying variables has a t-statistics value of 2,974 or >1.96 and is in line with pradhan *et al.* research (2018). One's materialism will pursue material that demonstrates a high social level to achieve happiness and success if not controlled will develop compulsive purchases.

Hypothesis 4

Hypothesis 4 is relatively positive with materialism against impulsive buying has a t-statistics value of 2,806 or >1.96 and is in line with Pradhan *et al.* (2018) research. Individuals with materialism will tend to fail to resist the temptation to the desired material so that it is easy to fall on impulsive purchases.

Hypothesis 5

Hypothesis 5 is relatively positive with credit card use against compulsive buying having a t-statistics value of 13,201 or >1.96 and contrary to the results of pradhan *et al.* (2018) research that is not significant. Someone with a credit card tends to fall into compulsive purchases because they have power over the finances of credit cards so make excessive purchases.

Hypothesis 6

Hypothesis 6 is relatively positive with impulsive buying against compulsive buying having a t-statistics value of 8,946 or >1.96 and in line with pradhan *et al.* research (2018). A person who fails to resist temptation and make impulsive purchases tends to be tied to the material so that it will make purchases continuously and if not controlled will lead to compulsive purchases.

The R Square Adjusted test measures variable relationships. Table 8 showing R Square Adjusted value at compulsive buying of 0.804 (80.4%) which means all three variables can explain compulsive buying of 80.4%. Similarly, the R Square Adjusted value on credit card use is 0.047 (4.7%) and impulsive buying of 0.696 (69.6%) with the same understanding.

Tabel 8. Hasil uji r square adjusted

Variable	R Square Adjusted	Percentage (%)
Compulsive Buying	0,804	80,4%
Credit Card Use	0,047	4,7%
Impulsive Buying	0,696	69,6%

Goodness of fit measures the quality of either or not the research model. Compulsive buying produces niali GoF 0.6007 which means >0.36 , hence categorized Strong by the meaning this model can be used (Ghozali & Latan, 2012).

Table 9. Goodness of fit test results analysis of the influence of materialism on compulsive purchases mediated by credit card use and impulsive purchases

Communality	R Square Adjusted	GoF	Conclusion
0,6997	0,5157	60,07%	Strong

CONCLUSIONS

The study examined the influence of materialism on compulsive purchases with credit card use and impulsive purchases as mediation. After this research, it is known that materialism, credit card use and impulsive purchases directly have a significant positive effect on compulsive purchases and indirectly have a significant positive effect on compulsive purchases through credit card use mediation and impulsive purchases. It can be concluded that credit card users in Batam who have a view of materialism can develop impulsive purchases as well as develop compulsive purchases if not controlled or restricted. However, there is a different hypothesis from pradhan *et al.* research (2018) that previous use of credit cards directly did not have a significant effect on compulsive purchases, but had a significant effect on this study. This is because credit cards make it easier and easier to access and create opportunities for credit card users to make purchases in all conditions freely so that if not controlled there can be compulsive purchases.

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