ISBN*: 978-623-92201-2-9*

Relationship Between Financial Literacy, Materialism, and Impulsive Buying on Financial Behavior and How it Influences the Financial Decision on Undergraduate Students of Bandung Institute of Technology

Muhammad Naufal Ihsan* and Subiakto Sukarno

School of Business and Management, Institut Teknologi Bandung, Indonesia

Email: muhammad_naufal@sbm-itb.ac.id

Abstract - **Proper financial literacy and financial behavior are essential for financial decision-making. An individual's materialistic attitude also leads to a person's tendency to purchase impulsively, thus negatively impacting n undergrads' financial behavior. Graduating students face a crucial period in their lives where they are becoming financially independent. Students must have good financial literacy and financial behavior when making financial decisions. This research is aimed to seek the relationship between financial literacy, materialism, and impulsive buying on financial behavior and how it influences the financial decision of undergraduate students at Bandung Institute of Technology. Using the quantitative methodology, the researcher surveyed 391 respondents. For studying each variable, the researcher is also using the purposive sampling technique and PLS-SEM. This study found that financial literacy significantly influences financial behavior and the same with financial behavior on a financial decision. Financial literacy does not have a significant relationship on financial decisions. Furthermore, materialism has a significant influence on impulsive buying, but materialism does not have a significant influence on financial behavior. Impulsive buying has a negative and significant influence on the financial behavior of ITB undergraduate students.**

Keywords – **Financial Behavior, Financial Decision, Financial Literacy, Impulsive Buying, Materialism.**

I. INTRODUCTION

Financial products becoming increasingly complex necessitate that everyone is capable of managing their finances. In Indonesia, the Financial Services Authority (OJK) has worked to increase public and consumer awareness of Financial Services Institutions (LJK) and the financial industry's products and services. Thus, awareness of the financial industry will grow, which would eventually result in a rise in the degree of utility and public and consumer trust in financial services institutions and products in Indonesia (financial well-literate). Financial literacy in Indonesia, based on a survey conducted by Otoritas Jasa Keuangan (OJK) in 2019, the Indonesian financial literacy index was 38.03%. It is an improvement of 8.33% compared to the survey conducted by OJK in 2016, which was only 29.7% [6]. In contrast, the World Bank Survey reveals that Indonesian financial literacy levels are still lower than among Southeast Asian nations such as Malaysia, which has a 66% financial literacy rate, Thailand, which has a 73% financial literacy rate; and Singapore, which has a 98% financial literacy rate. Thus, though Indonesia has progressed a long way, it still has some work to improve its financial literacy.

Financial literacy is critical for everyone because their interests are jeopardized in favor of others. Financial literacy is defined as the capacity to comprehend financial information to plan for the future, accumulate wealth, incur debt, and manage retirement accounts. Students can develop financial literacy skills such as budgeting, investing, retirement planning, and stock market trading [1]. Previous research indicates that an individual's financial literacy affects their financial behaviors [2]. In comparison, a lack of financial literacy encourages individuals to make suboptimal financial decisions and makes them more susceptible to sudden and unexpected economic shocks. Every individual requires fundamental financial literacy, balanced financial behavior, and a positive attitude to manage limited resources effectively and ensure a better future. Additionally, understanding finance enables you to make short-term financial decisions such as saving and borrowing, as well as long-term financial decisions such as retirement, business, and college planning.

Some undergraduates still struggle with their financial decisions as reflected in their financial behavior, as Arofah, Purwaningsih, and Indriayu in their study entitled Financial Literacy, Materialism, and Financial Behavior, which was done on university students in 2018. Since the undergraduates' monthly expenses were considered, it is evident that their expenditures are still heavily on food, a voucher for a gadget, clothing, and going to the movies, while only the essentials of pleasure are met. It has more value than using money set aside for savings, school expenses, or investing. This finding shows that saving attitudes are still weak in college students, and as a result, not enough of their money is set aside for saving in the bank. Additionally, only a small number of undergraduate students keep track of their financial information by keeping records of their income and expenses. Financial behavior is problematic due to the many undergraduates who have not managed their finances efficiently and effectively.

Undergraduates have internet and computer-surrounded existence that makes them highly dependent

***ISBN**: 978-623-92201-2-9*

on technology and the internet. It puts them in contact with materialism-related issues because they spend much time on the internet and social media. When an individual has a materialistic behavior, the foremost concern is to fulfill a shopping habit that satisfies an unadulterated passion for shopping. Spending without regard to the long-term financial effects results in thinking about spending all the money. Following that, reference [3] states that Materialistic behavior tends to reinforce a person's tendency to purchase impulsively and, thus, negatively impact an undergraduate's financial behavior.

Materialism has now resulted in the open manifestation of a phenomenon. In today's generation, social media is an integral part of daily life. Indeed, everyone has internet access and uses social media. Internet usage has increased with each new generation of digital natives. As a result, it is natural for them to believe that they need to believe everything they see in commercial advertisements and social media. Materialism is a psychological state in which materialistic desires consume a person. Individuals are encouraged to think short-term when making financial decisions. Consumer behavior is possessive, wasteful, and rash [3][4][5]. When an individual has a materialistic behavior, the foremost concern is to fulfill a shopping habit that satisfies an unadulterated passion for shopping. Spending without regard to the long-term financial effects results in thinking about spending all the money. People who understand the connection between their financial literacy and their Materialism are more equipped to control their financial behavior and help others design and implement effective financial education programs for college students, especially for those just starting their careers.

Additionally, today are difficult financial climate forces young people to make difficult financial decisions. Early life mistakes can be costly [7]. This research objective to find out the relationship between financial literacy, Materialism, and Impulsive Buying on financial behavior and how it influences financial decisions among undergraduate's students at Bandung Institute of Technology.

Based on the problems found, the researcher believes in conducting a study to answer the following questions:

1. Does undergraduate financial literacy influence undergraduates' financial behavior, and how it influences it?
2. Does undergraduate materialism influence impulsive buying and undergraduates' financial behavior, and how it influences it?
3. Does impulsive buying influence undergraduates' financial behavior, and how it influences it?
4. Does undergraduates' financial behavior influence financial decision and how it influences it?

The scope and limitation of this study are active undergraduate students at Bandung Institute of Technology, and active on social media and the internet. The reason for choosing this scope and limitations is because social media is the main cause of materialism among today's young generation, one of whom is a student. So, limit the scope to active users of social media and the internet because they are the ones who have the potential for materialism. The purpose of this research is to see if there is a relationship between financial knowledge of ITB students and consumer behavior on financial behavior and its implications for their financial decisions.

II. *LITERATURE REVIEW*

Financial Literacy

Financial literacy is dependent on the source and context. Financial literacy is knowledge, skills, and values that affect attitudes and actions to better guide decision-making and management of financial resources to enhance prosperity [8]. The individual's obtaining financial knowledge and using financial management skills to make financial decisions to achieve financial goals is also referred to as financial literacy [9]. Awareness of personal finance knowledge can refer to financial literacy—long-term financial planning, mindful life events, and changing economic conditions. According to reference [10], financial literacy is defined as how someone understands financial concepts and can handle personal finances while considering life events and the changing economy. Thus, it follows that financial literacy is a subset of knowledge, skills, and capabilities about finances.

The dealing literature aspects of financial literacy originated in order to explore the connection between financial literacy and retirement planning [11][12][13]. So if wealthy investors have more financial literacy, they are more likely to invest in stocks and thus diversify their portfolios to lower portfolio risk [14][15]. If people are financially literate, they will have lower overall debt and pay closer attention to how much they owe [16]. This makes it easier for them to repay credit card debt because they have lower credit levels with higher interest rates [3]. Financial literacy, therefore, has a significant impact on financial matters and debt, planning, and other elements, and it is a key that must be considered in financial behavior and making financial decisions.

Financial Behavior

One's financial obligations and financial management style often go hand in hand. Financial behavior is strongly associated with how someone manages and uses their financial resources. Financial health relies on managing resources productively. Reference [17] stated that due to the complex, interdisciplinary nature of financial behavior, it could not be treated in isolation from other fields. Successful financial behavior includes establishing financial records, documenting cash flows, managing costs, paying bills, controlling credit card use, and having a savings strategy.

***ISBN**: 978-623-92201-2-9*

Financial behaviors have three aspects [18]. Start by Consuming. It is defined as multiple purchases. A person's money behavior can be seen in his expenditure habits, such as what he buys and [19]. Then there is cashflow management, which serves as a barometer of financial health. It evaluates one's ability to pay for all of one's expenses. Cash flow management includes managing incoming and outgoing cash. If a person can keep their cash flow under control, they will also have the ability to plan for the future. Individuals save and invest come last. A portion of one's income that is not used is saved for an unforeseeable occurrence in the future. Investing is using money to gain financial benefit in the future.

Financial Decision

Credential [20][21] and financial literacy [21][22][23] are internal influences on financial decisions. It is commonly referred to when making personal financial decisions. Financial planning and stock market participation [13][24]. Other than financial education and literacy, gender is an internal factor. Gender is one of the focuses of the research [25]. The study found that income directly impacts a woman's participation in financial decision-making within the household. Additional findings by reference [26] show that women have lower risk tolerance and alternative financial strategies. Reference [27] report no gender differences in risk perception and financial decision-making. Demographics is an important part of financial decisions. Population aging is a long-term shift, which causes structural changes in financial institutions and individual attitudes toward personal finances [28]. Migration, transnational families, and their impact on household finances are considerations when discussing geography and demography as influencing variables [29]. This research is critical for nations with a large population of migratory workers. Also, the practicalities of executing financial options constrain financial decisions—a lack of financial vehicles limits the financial options. Reference [30] analyzed financial systems around the world according to national culture. The economic climate influences personal financial decisions significantly. Cumulatively, job location is influential during various economic stages. While other influencing factors stay constant, financial behavior changes markedly during economic boom and recession.

Materialism

Materialism is associated with thinking that material wealth and financial wealth are the keys to personal and social well-being [31]. Materialism is essentially an attitude towards possessions and money [32]. According to reference [33], consumption serves as both a yardstick and a point of reference for social comparisons in a materialistic society. Materialism was conceptualized and explained by reference [34] and {35] as the importance that we place on worldly possessions. In this level of materialism, our possessions are what give us the most satisfaction and cause us the most pain. Materialistic is a person's character that is related to possessiveness, envy, and non-generosity. Reference [36] argued against that view. This has been called the idea as "an existence where material comfort is all that matters." Conventional people would believe that material wealth determines one's level of accomplishment.

Similarly, Richins and Dawson used three measures: success, centrality, and happiness [37]. Belk's characterization is considered a supplement to Richins and Dawson's because both have discussed qualitative elements (personality & consumer value, respectively). Materialism encompasses the endogenous personal characteristics that shape a person's identity. Richin's approach relies on personal beliefs, which are external and dependant on the environment in which one lives. Materialists value money differently than non-materialists, which makes them want to buy something at least occasionally. Since the Richins & Dawson Scale of Happiness and Belk Dimension of Centrality, many have gained much attention, primarily because of these studies [4].

Impulsive Buying

Rookh described impulsive buying as a sudden, significant, and passionate desire to buy something [38]. Betty and Elizabeth Ferrell then broadened this concept, and they describe impulse buying as an unplanned and spontaneous purchase, regardless of the product category or task to be completed [39]. It appears to be the result of an impulse without much thought [4]. According to Sharma, Sivakumaran, and Marshall, the quickness of impulse buying decisions prevents careful consideration of alternatives or potential ramifications [40]. It is an emotionally driven and cognitively impenetrable consumer behavior that manifests itself in an irresistible urge to buy in the presence of an attractive product.

Despite their shared consequences, impulsive and compulsive purchasing are essentially distinct—both are influenced by identity and materialism [41]. D'Astous refers to impulse purchasing as a milder version of obsessive purchasing [42]. The beginning stage is impulse buying, while compulsive buying is at the opposite end of the behavioral continuum. The current study utilizes the aforementioned approach, meaning that the major distinction between the two is the frequency of the behavior. Compulsive buyers have less brand loyalty than non-compulsive purchasers, who view switching brands as a riskier endeavor [43].

III. HYPOTHESIS DEVELOPMENT

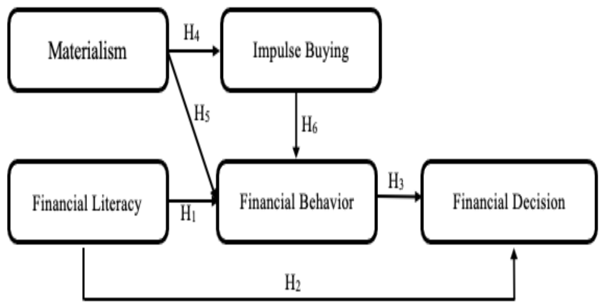

Fig. 1. Conceptual Framework.

The Relationship Between Financial Literacy and Financial Behavior

One of the many factors that can influence financial behavior is financial literacy. The study shows that financial literacy strongly influences financial behavior [2][5]. The relationship between financial literacy and financial management is tight, and the more knowledgeable one is in financial matters, the better they are at managing finances. When it comes to financial literacy, it can be said that financially illiterate people are at risk for various issues related to not being able to repay debt, as well as for other issues such as welfare dependency and homelessness. When people consider everything, financial literacy is about developing the specific skills and behavior that will help people handle money, even if you start with plenty and aspires to have more. There is empirically supported evidence supporting this because there is a clear relationship between responsible financial behavior and objective financial literacy [7][44][45][46]. Thus, financial literacy is assumed to influence financial behavior significantly.

H1: Financial literacy is positively and significantly influencing towards financial behavior of ITB undergraduate students.

The Relationship Between Financial Literacy and Financial Decision

An informed and educated member of society should make better financial decisions for their well-being and the community's growth. Hogarth stated that poor financial decisions could affect one's financial wealth when a lack of financial literacy is present [47]. In both developed and developing countries [48]. Decisions in this area are often complex and varied. Financial literacy can be easily calculated, but it is difficult to explore how people understand and apply financial information. Decisions are made more prudently when people are financially literate [49].

Financial literacy and financial behavior are linked to financial well-being. An example can be provided demonstrating how people evaluate their financial future. Knowing alone is not enough. Therefore, another influencing factor should be added, which is financial literacy. According to Mandell, financial literacy is "the ability of customers to make financially sound decisions in their own best interest." [50]. Financial literacy is often invoked whenever someone discusses financial decisions. Financial decisions have long-term consequences for individual welfare and other crucial decisions. In other words, it is either an option or a consideration.

Hung claims that people with limited financial literacy are more vulnerable to financial error and will be less able to handle a harsh economic downturn [51]. As a result, the many new financial products that could provide greater returns leave individuals with limited financial literacy behind [52]. Thus, financial knowledge and abilities are inescapably connected to financial decisions. Financial literacy thus assumes to influence financial decisions.

H2: Financial literacy has a positive influence towards the financial decision of ITB undergraduate students.

The Relationship Between Financial Behavior and Financial Decision

There are numerous ways people interact with the financial system [54]. In other words, economics, political science, and sociology are continuous but are not held separately. As explained above, understanding personal financial behavior requires familiarity with psychological, sociological, and financial concepts. Shefrin described financial behavior as a psychological phenomenon [53]. The study of how the overall financial system and people interact. Cultivate an understanding of how psychological issues impact financial decisions in general [55]. Bad money management practices lead to great social and economic costs [56]. Students' financial behaviors can affect future decisions [54][57]. Better financial well-being, lower financial pressure, and higher self-esteem are linked to better financial behavior. It is important to emphasize the importance of personal financial decisions since they greatly impact a person's financial well-being [59]. Students who go to college are also financially overextended. Many college students have opened their credit card accounts [58]. Behavior governs how money is handled; students' overall quality of life must be examined to identify which variables have the greatest impact on their well-being [60][61]. Thus, it is expected that financial behavior positively and significantly influences undergraduates' financial decisions.

H3: Financial behavior is positively and significantly influence toward the financial decision of ITB undergraduate students.

The Relationship Between Materialism and Impulsive Buying

Materialism, according to Türk and Ercis, is defined by the following characteristics: possessions, status, ostentatious consumerism, consumer independence, brand loyalty, and impulse purchasing [62]. According to Badgaiyan and Verma, consumerism, shopping pleasure, and an impulsive nature all influence impulsive purchasing behavior in India [63]. Additionally, they argue that materialism and impulsive purchasing are related. Tatzel's research found that consumers have considerable spending requests and a good attitude toward debt and impulsive purchases [64]. Belk asserted that the materialist consumer is enslaved and will only desire additional expenditures [35]. Thus, materialism is expected to have a favorable and large effect on impulsive purchasing.

H4: Materialism is positively and significantly influencing the impulsive buying of ITB undergraduate students.

The Relationship Between Materialism and Financial Behavior

Based on Nye & Hillyard, Materialism's influence on financial behavior is mostly through impulsive buying, which results in disrupted financial behavior [5]. Thus, it is assumed that materialism is negatively influenced financial behavior.

H5: Materialism is negatively influencing the financial behavior of ITB undergraduate students.

The Relationship Between Impulsive Buying and Financial Behavior

Impulsive buying is often linked to low self-esteem, immaturity, and financial problems [65]. Following that, Vohs and Faber argue that extreme consumer debt levels are closely linked to impulsive buying in the US population [66]. Thus, it is expected that impulsive buying has a negative influence towards financial behavior.

H6: Impulsive buying negatively and significantly influences towards financial behavior of ITB Undergraduate Students.

IV. METHODOLOGY

A. Research Design

This research applied explanatory quantitative research and uses various statistical techniques to measure variables and procedure results to explore the relationship and formulate generalizations. For this research, quantitative analysis is used to measure the influence of financial literacy, materialism, impulsive buying, and financial behavior towards the financial decision.

This study employs five variables: two independent, two mediating, and one dependent. Financial literacy and materialism are two independent variables, financial behavior and impulsive buying are two mediating variables, and a financial decision is the dependent variable. Financial literacy is defined as an individual's comprehension and knowledge of finance that is required for effective financial management. Financial literacy was assessed using ten questions adapted from Lusardi, Mitchell, and Cutro [7]. Financial conduct is related to an individual's financial obligations and management style. According to Noor, financial conduct is inextricably linked to how individuals manage and utilize their financial resources. The goal of sound financial behavior is to handle resources efficiently. For the financial behavior variable, the researcher adapts eight questions from Kumar [2] and Arofah, Purwaningsih, and Indriayu [46]. The researcher is utilizing five questions derived from Dewi [9] to assist with financial decisions. Materialism is a term that refers to an individual who uses possession of an object to demonstrate his or her status. Nine items from Richins [36] were used to assess materialism. Impulsive purchasing is described as an unplanned and spontaneous purchase done without prior forethought, whether for a particular product category or to perform a certain goal [39]. For this variable, the researcher used the questionnaire design from Beatty and Ferrell [39] and Foroughi [67].

B. Population and Sample

The population for this research was all ITB undergraduates students. The sample was determined using the non-probability technique, and the sample size was determined using Slovin Formula. The research sample consisted of 391 undergraduates, including 96 undergraduates from the 2020 batch, 98 undergraduates from 2019 the batch, 157 undergraduates from the 2018 batch, 35 undergraduates from the 2017 batch, and five undergraduates from the 2016 batch.

C. Data Collecting

Questionnaires were used to gather data. This study used the Likert scale in its questionnaire. The author employs the Likert scale to assess an individual's attitude in a study. Typically, the Likert scale employs two types of statements: positive and negative. Positive statements are used to assess positive attitudes, while negative statements assess negative attitudes. The researcher made use of the Likert Scale, which ranges from one to five (1 for strongly disagree, 2 for disagree, 3 for neutral,4 for agree, and 5 for strongly agree).

D. Data Analyze

The data were analyzed using descriptive statistics and Structural Equation Modeling (SEM) with the help of the SmartPLS software. The following objectives justify the use of SEM analysis techniques based primarily on components of variance (PLS): PLS can be used to confirm a theory, but it can also be used to describe or exclude relationships between latent variables; additionally, the structural equation of the PLS model can be used to predict a theory or theory of development.

V. RESULTS

The data obtained from the respondents' questionnaires collected may be seen in Table 1

ISBN*: 978-623-92201-2-9*

Frequency Questionnaire Distribution. Table 1 summarizes the respondents' replies to financial literacy, financial behavior, materialism, impulsive buying, and financial decision. Out of 391 respondents, 154 (39.39%) respondents have financial literacy tendency belonging to a high category, and 144 (36.83%) of the respondents have financial literacy tendency belonging to a very high category. It is followed by financial behavior, where 162 (41.31%) and 163 (41.69%) of the respondents have financial behavior tendency to high and very high category. The same case with a financial decision where 170 (43.48%) of the respondents have financial decision tendency to very high category. On the contrary, 184 (47.06%) of the respondents have a materialism tendency in neutral, and for impulsive buying, 160 (40.92%) of the respondents have impulsive buying tendency to low category. Table 1 indicates that the respondents have a high understanding of financial literacy, financial behavior, financial decision, neutral perception about materialism, and low perception of impulsive buying.

TABLE 1
FREQUENCY QUESTIONAIRE DISTRIBUTION

Variable	Category		Frequency	%
Financial Literacy	0 – 2	Very Low	7	1.79%
	3 – 4	Low	29	7.42%
	5 – 6	Moderate	57	14.58%
	7 - 8	High	154	39.39%
	9 - 10	Very High	144	36.83%
Financial Behavior	0 - 8	Strongly Disagree	0	0.00%
	9 – 16	Disagree	4	1.02%
	17 - 24	Neutral	62	15.86%
	25 - 32	Agree	162	41.43%
	33 - 40	Strongly Agree	163	41.69%
Financial Decision	0 – 5	Strongly Disagree	0	0.00%
	6 – 10	Disagree	5	1.28%
	11 – 15	Neutral	57	14.58%
	16 – 20	Agree	159	40.66%
	21 - 25	Strongly Agree	170	43.48%
Materialism	0 – 9	Strongly Disagree	1	0.26%
	10 – 18	Disagree	53	13.55%
	19 – 27	Neutral	184	47.06%
	28 – 36	Agree	129	32.99%
	37 - 45	Strongly Agree	24	6.14%
Impulsive Buying	0 – 6	Strongly Disagree	22	5.63%
	7 – 12	Disagree	160	40.92%
	13 – 18	Neutral	138	35.29%
	19 – 24	Agree	51	13.04%
	25 - 30	Strongly Agree	20	5.12%

Additionally, data analysis was performed using SmartPLS software to determine financial literacy, materialism, and impulsive buying on financial behavior and its implication on financial decisions. Table 2 may be used to visualize the influence of one variable on another, as demonstrated by the beta coefficient value (original sample). In contrast, the t-statistic can be used to determine the significance level (t-value). The significance threshold for this study is 5%, which results in a significance value of 1.96.

When the beta coefficient (original sample) and t-statistic (t-value) values in Table 2 are considered, the test results for individual hypotheses may be interpreted as follows.

Hypothesis 1

Financial literacy has a positive and significant influence on the financial behavior of ITB undergraduate students, according to Hypothesis 1. With a correlation coefficient of 0.489 for the original sample, this indicates a positive relationship between financial literacy and financial behavior. Additionally, with a t-value of 9.849 > 1.96 and a p-value of 0.000, the relationship between financial literacy and financial behavior is significant at the 0.05 level. As a result, the hypothesis has been accepted.

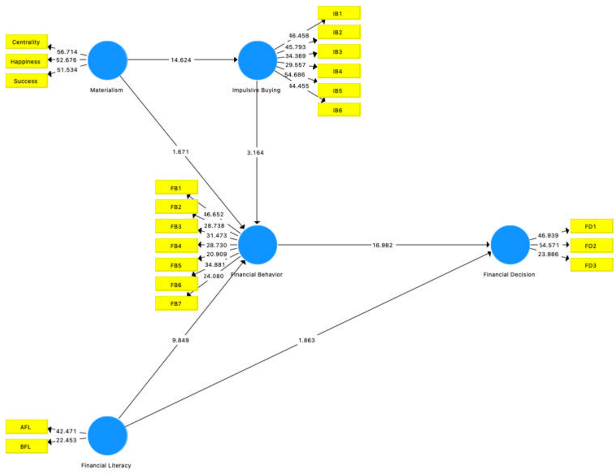

Fig. 2. PLS-SEM Model

TABLE 2
TOTAL EFFECT AND HYPOTHESIS TESTING

Structural Path	Original Sample (O)	Sample Mean (M)	T Statistics (|O/STDEV|)	P Values
Financial Literacy □ Financial Behavior	0.489	0.489	9.849	0.000
Financial Literacy □ Financial Decision	0.085	0.084	1.863	0.063
Financial Behavior □ Financial Decision	0.654	0.657	16.982	0.000
Materialism □ Impulsive Buying	0.552	0.552	14.624	0.000
Materialism □ Financial Behavior	-0.082	-0.083	1.671	0.095
Impulsive Buying □ Financial Behavior	-0.166	-0.171	3.164	0.002

Hypothesis 2

Financial literacy has a positive influence on the financial decision of ITB undergraduate students, according to Hypothesis 2. With a correlation coefficient 0.085 for the original sample, this is indicating a positive relationship between financial literacy and financial decision is positive. However, with a t-value of 1.863 < 1.96 and p-value of 0.063, the relationship between financial literacy and financial decision is not in significance level of 0.05. As a result, the hypothesis cannot be accepted.

Hypothesis 3

Hypothesis 3 stated that financial behavior has a positive and significant influence on ITB undergraduate students' financial decisions. With a correlation coefficient of 0.654 for the original sample, this indicates a positive relationship between financial behavior and financial decision. Additionally, with a t-value of 16.982 > 1.96 and a p-value of 0.000, the relationship between financial behavior and financial decision making is significant. As a result, the hypothesis has been accepted.

Hypothesis 4

Hypothesis 4 stated that materialism has a positive and significant effect on ITB undergraduate students' impulsive buying. With a correlation coefficient of 0.552, the original sample indicates a positive relationship between materialism and impulsive buying. Additionally, with a t-value of 14.624 > 1.96 and a p-value of 0.000, it demonstrates that the relationship between materialism and impulsive buying is significant. As a result, the hypothesis has been accepted.

Hypothesis 5

According to Hypothesis 5, materialism is negatively influenced towards the financial behavior of ITB undergraduate students. With a correlation coefficient of -0.082 for the original sample, this indicates a negative relationship between materialism and financial behavior. Additionally, with a t-value of 1.671, lower than the t-value of 1.96, and a p-value of 0.095, greater than the significance level of 0.05, it demonstrates that the relationship between materialism and financial behavior is not significant. As a result, the hypothesis has been accepted.

Hypothesis 6

According to Hypothesis 6, impulsive buying has a negative and significant influence on the financial behavior of ITB undergraduate students. With a score of -0,166 for the initial sample, this indicates a negative relationship between impulsive purchasing and financial behavior. Additionally, with a t-value of 3.164 > 1.96 and a p-value of 0.002, the relationship between impulsive buying and financial behavior is significant at the 0.05 level. As a result, the hypothesis has been accepted.

VI. DISCUSSION

Financial Literacy is Positively and Significantly Influencing Financial Behavior of ITB Undergraduate

Based on the result obtained, there is a positive and significant influence of financial literacy on ITB undergraduates' financial behavior. The predicted attitude is positive (original sample of 0.489), indicating that when ITB undergraduates' level of financial literacy is high, their financial behavior is expected to be high. The significance parameter value is significant (t-value 9.849 > 1.96), it is indicating that financial literacy has a significant effect on undergraduate financial behavior. Undergraduates indicate this condition feel more empowered to manage their finances after acquiring financial literacy in fundamental personal finance knowledge about evaluating product and service advantages and determining the need priority scale. Second, undergraduates report feeling more empowered to plan and manage their finances because of acquiring financial literacy in money management skills based on the understanding of cost and income budgeting. Thirdly, undergraduates feel assisted in managing their finances by acquiring financial literacy in saving and investing information, enabling first-year students to save money and prepare for the future, including emergency expenses. The above conclusion indicates that an undergraduate's financial literacy has a positive effect on financial behavior. This result shows that financial literacy and financial behavior have a positive and significant influence. This is in line with the previous [7][24][46].

Financial Literacy Does not significantly Influencing Financial Decision of ITB Undergraduate

Based on the result obtained, it can be concluded that there is no significant influence of financial literacy on ITB undergraduates' financial decisions, even though it has a positive effect. It can be concluded that even though there is a positive relationship between financial literacy and financial decisions of ITB undergraduate students. This result has a little different from a previous study that shows financial literacy has a positive and significant influence on the financial decision of undergraduates [2].

Financial Behavior is Positively and Significantly Influencing Financial Decision of ITB Undergraduate

Based on the result obtained, there is a positive and significant influence by financial behavior toward the financial decision of ITB undergraduates. The predicted attitude is positive (original sample of 0.654), indicating that when ITB undergraduates' level of financial behavior is high, their financial decision is expected to be high. The significance parameter value is significant (t-value 16.982 > 1.96), it is indicating that financial behavior has a significant effect on an undergraduate financial decision. An undergraduate who learns and practicing good financial behavior is preferably to have better decision making in their finances. This research was in line with previous research [2][54][57].

Materialism is Positively and Significantly influencing Impulsive Buying of ITB Undergraduate

Based on the result obtained, there is a positive and significant influence by materialism toward the impulsive buying of ITB undergraduates. The predicted attitude is positive (original sample of 0.552), indicating that when the level of materialism of ITB undergraduates is high, their impulsive buying is expected to be high. The significance parameter value is significant (t-value 14.624 > 1.96) and p-value 0.000 < 0.005, it is indicating that materialism has a significant effect on undergraduate impulsive buying. This result shows that undergraduate spending demands and follows high materialism; an undergraduate may have a favorable debt and impulsive buying attitude. The result of this research was in line with previous research [4][64].

Materialism Does not Significantly Influencing Financial Behavior of ITB Undergraduate

Based on the result obtained, there is no significant influence of materialism on ITB undergraduates' financial behavior, even though it has negative effect. The predicted attitude is negative (original sample of -0.082), So, the sixth hypothesis cannot be accepted. But it is found there are some undergraduates admire those who have expensive goods. In their eyes, those possessions reflect success, and they want to get similar possessions to impress others. It causes undergraduates to do things they would not want to do, which causes them to suffer financially. Also, many undergraduates feel that getting what they want would make them happy, experience luxury, and buy things that are not essential. Undergraduates learn that consuming hurts their financial planning and management. Lastly, pupils display materialist pleasure, in which some feel that they become pleased after they acquire a wide variety of items and are glad when they cannot buy what they wish. Undergraduates learn to utilize unexpected purchasing behavior to get as much material as possible, which leads to less-optimal financial management and control. This result is slightly different from the previous study that shows materialism has a negative and significant influence on financial behavior [46].

Impulsive Buying is negatively and significantly Influencing Financial Behavior of ITB Undergraduate

Based on the result obtained, it can be concluded that there is a negative and significant influence by impulsive buying toward the financial behavior of ITB undergraduates. The predicted attitude is negative (original sample of -0.116), indicating that when the level of impulsive buying of ITB undergraduates is high, their financial behavior is expected to be low. The significance parameter value is significant (t-value 3.164 > 1.96) and p-value 0.000 < 0.005, it is indicating that impulsive buying has a significant effect on undergraduate financial behavior. This result follows Vohs and Faber stated that impulsive buying has an extreme level of consumer debt and leads to an inability to pay debt and disturbing consumer financial behavior [66].

VII. CONCLUSION

As stated in the first chapter, this research aims to find out the relationship between financial literacy, materialism, and impulsive buying on financial behavior and how it influences financial decisions among undergraduate's students at Bandung Institute of Technology. The researcher has thoroughly analyzed all the data obtained through a quantitative approach using a questionnaire with descriptive analysis and SmartPLS.

Based on the result, it can be concluded that ITB undergraduate students have a high financial literacy level. It could be seen from the descriptive analysis result that from 391 respondents, 154 (39.39%) of the respondents have financial literacy tendency belonging to a high category, and 144 (36.83%) of the respondents have financial literacy tendency belonging to very high category. This result is also followed by financial behavior and financial decision. Based on the descriptive analysis, 162 (41.31%) and 163 (41.69%) of the respondents have financial behavior tendency to high and very high category, and there are 170 (43.48%), and 159 (40.66%) of the respondents have financial decision tendency to very high and high category. This result shows a positive relationship between financial literacy, financial behavior, and financial decision of ITB undergraduates. This result is also proven by the PLS-SEM analysis showing a positive and significant relationship in financial literacy toward financial behavior, the same with financial behavior toward financial decision. So, it suggests that undergraduates with high financial literacy levels, especially in understanding the fundamental knowledge concepts about economics, calculating financial numeric. The basic concept of inflation, taxes, and interest rate, and understanding about risk and return, and knowledge about investment dan risk will have a good financial behavior practice, especially in tracking monthly expenses and spending within a budget and saving money regularly. Furthermore, respondents who understand advanced financial literacy, such as understanding risk and return, and investment instruments, will tend to have a good financial behavior of regularly investing for retirement in stocks or mutual funds. This result will also lead to having wise financial decision-making.

However, even though students' financial literacy is high, their financial behavior can be at a medium or even low level if they have high materialism and impulsive buying characteristics. It is proven by the PLS-SEM analysis, which shows that materialism has a negative influence on financial behavior. The existence of materialism could lead to impulsive buying behavior where it has a negative and significant influence on the financial behavior of ITB undergraduates. So, it suggests that undergraduates with materialism characteristics will tend to conduct impulsive buying. Because of that, it will hurt the financial behavior of the undergraduates and leads to unwise decision-making in personal finances, especially in deciding on purchasing goods and taking a debt.

The findings of this study are helpful and may assist educational institutions of all types in increasing the financial literacy of ITB undergraduates. Undergraduate benefit more from an applied program, such as a case study in class, than from theory. When developing financial education programs, educational institutions may consider students' ages and economic position. It is also goods for financial educational programs to give education regarding the psychological and interpersonal consequences of financial decisions. As a result, increasing financial awareness among undergraduates will be more successful.

This research has several limitations that might be considered for future research. First, this study only assessed ITB undergraduate students. It is recommended to expand the subject of this research to have a better precise picture about the relationship between financial literacy, materialism, and impulsive buying on financial behavior and the implication toward financial decision. Second, even though the author already provided some variables that influence financial behavior and financial decision, it is suggested to add more variables and other factors that may influencing the financial behavior and financial decision.

ACKNOWLEDGMENT

The authors express thanks to and acknowledge the support of Mr. Subiakto Sukarno for the guidance given in building this paper.

REFERENCES

[1]Y. Bonaparte, “The Pleasant Yield of Financial Illiteracy,” SSRN Electronic Journal, 2020, doi: 10.2139/ssrn.3732260.
[2]S. Kumar, C. Watung, J. Eunike N, and L. Liunata, “The Influence of Literacy towards Financial Behavior and Its Implication on Financial Decision: A Survey of President University Student in Cikarang-Bekasi,” FIRM: Journal of Management Studies, vol. 2, no. 1, pp. 14–23, 2017.
[3]R. B. Garðarsdóttir and H. Dittmar, “The relationship of materialism to debt and financial well-being: The case of Iceland’s perceived prosperity,” Journal of Economic Psychology, vol. 33, no. 3, pp. 471–481, Jun. 2012, doi: 10.1016/j.joep.2011.12.008.
[4]J. S. Podoshen and S. A. Andrzejewski, “An Examination of the Relationships Between Materialism, Conspicuous Consumption, Impulse Buying, and Brand Loyalty,” Journal of Marketing Theory and Practice, vol. 20, no. 3, pp. 319–334, Jul. 2012, doi: 10.2753/mtp1069-6679200306.
[5]P. Nye and C. Hillyard, “Personal Financial Behavior: The Influence of Quantitative Literacy and Material Values,” Numeracy, vol. 6, no. 1, Jan. 2013, doi: 10.5038/1936-4660.6.1.3.
[6]“Siaran Pers Survei OJK 2019 Indeks Literasi Dan Inklusi Keuangan Meningkat,” www.ojk.go.id, 2019. https://www.ojk.go.id/id/berita-dan-kegiatan/siaran-pers/Pages/Siaran-Pers-Survei-OJK-2019-Indeks-Literasi-Dan-Inklusi-Keuangan-Meningkat.aspx.
[7]O. S. Mitchell, A. Lusardi, and V. Curto, “Financial Literacy Among the Young: Evidence and Implications for Consumer Policy,” SSRN Electronic Journal, 2009, doi: 10.2139/ssrn.1459141.
[8]“STRATEGI NASIONAL LITERASI KEUANGAN INDONESIA (Revisit 2017),” Nov. 2017. [Online]. Available: https://www.ojk.go.id/id/berita-dan-kegiatan/publikasi/Documents/Pages/Strategi-Nasional-Literasi-Keuangan-Indonesia-(Revisit-2017)-/SNLKI%20(Revisit%202017).pdf.
[9]V. I. Dewi, E. Febrian, N. Effendi, M. Anwar, and S. R. Nidar, “Financial literacy and its variables: The evidence from Indonesia,” Economics & Sociology, vol. 13, no. 3, pp. 133–154, Sep. 2020, doi: 10.14254/2071-789x.2020/13-3/9.
[10]D. L. REMUND, “Financial Literacy Explicated: The Case for a Clearer Definition in an Increasingly Complex Economy,” Journal of Consumer Affairs, vol. 44, no. 2, pp. 276–295, Jun. 2010, doi: 10.1111/j.1745-6606.2010.01169.x.
[11]J. Ameriks, A. Caplin, and J. Leahy, “Wealth Accumulation and the Propensity to Plan,” The Quarterly Journal of Economics, vol. 118, no. 3, pp. 1007–1047, Aug. 2003, doi: 10.1162/00335530360698487.
[12]A. Lusardi and O. S. Mitchell, “Baby Boomer retirement security: The roles of planning, financial literacy, and housing wealth,” Journal of Monetary Economics, vol. 54, no. 1, pp. 205–224, Jan. 2007, doi: 10.1016/j.jmoneco.2006.12.001.
[13]M. C. J. van Rooij, A. Lusardi, and R. J. M. Alessie, “Financial literacy and retirement planning in the Netherlands,” Journal of Economic Psychology, vol. 32, no. 4, pp. 593–608, Aug. 2011, doi: 10.1016/j.joep.2011.02.004.
[14]C. Christiansen, J. S. Joensen, and J. Rangvid, “Are Economists More Likely to Hold Stocks?*,” Review of Finance, vol. 12, no. 3, pp. 465–496, Oct. 2007, doi: 10.1093/rof/rfm026.
[15]M. van Rooij, A. Lusardi, and R. Alessie, “Financial literacy and stock market participation,” Journal of Financial Economics, vol. 101, no. 2, pp. 449–472, Aug. 2011, doi: 10.1016/j.jfineco.2011.03.006.
[16]V. STANGO and J. ZINMAN, “Exponential Growth Bias and Household Finance,” The Journal of Finance, vol. 64, no. 6, pp. 2807–2849, Nov. 2009, doi: 10.1111/j.1540-6261.2009.01518.x.

[17]V. Ricciardi, "A Research Starting Point for the New Scholar: A Unique Perspective of Behavioral Finance," SSRN Electronic Journal, 2005, doi: 10.2139/ssrn.685685.
[18]J. Dew and X. Jing Jian, "The Financial Management Behavior Scale: Development and Validation," Journal Financial Counseling and Planning, vol. 22, pp. 43–59, 2011.
[19]Ida and C. Yohana Dwinta, "Pengaruh Locus Control , Financial Knowledge, and Income Terhadap Financial Management Behavior," Jurnal Bisnis dan Akuntansi, vol. 12, no. 3, pp. 131–144, 2010.
[20]C. B. I and Robinson, "Financial Education and Timely Decision Support : Lessons from Junior Achievement," American Economic review, vol. 102, no. 3, pp. 305–208, 2012.
[21]A. Lusardi, "Financial Literacy: An Essential Tool for Informed Consumer Choice?," SSRN Electronic Journal, 2008, doi: 10.2139/ssrn.1336389.
[22]R. Calcagno and C. Monticone, "Financial Literacy and the Demand for Financial Advice," SSRN Electronic Journal, 2011, doi: 10.2139/ssrn.1884813.
[23]A. Lusardi, "Household Saving Behavior: The Role of Financial Literacy, Information, and Financial Education Programs," SSRN Electronic Journal, 2008, doi: 10.2139/ssrn.1094102.
[24]A. Lusardi and O. S. Mitchell, "How Ordinary Consumers Make Complex Economic Decisions: Financial Literacy and Retirement Readiness," Quarterly Journal of Finance, vol. 07, no. 03, p. 1750008, Aug. 2017, doi: 10.1142/s2010139217500082.
[25]A. Bernasek and V. L. Bajtelsmit, "Predictors Of Women ' s Involvement In Household Financial Decision-Making," Financial Counseling and Planning, vol. 13, no. 2, pp. 39–48, 2002.
[26]M. Powell and D. Ansic, "Gender differences in risk behaviour in financial decision-making: An experimental analysis," Journal of Economic Psychology, vol. 18, no. 6, pp. 605–628, Nov. 1997, doi: 10.1016/s0167-4870(97)00026-3.
[27]R. Schubert, M. Brown, M. Gysler, and H. W. Brachinger, "Financial Decision-Making: Are Women Really More Risk Averse?," American Economic Review, vol. 89, no. 2, pp. 381–385, May 1999, doi: 10.1257/aer.89.2.381.
[28]I. LUPU, G. HURDUZEU, T. CIUMARA, C. COJOCARIU, and R. MURARIU, "Spillover Effects and Long-Term Correlations on European Financial Markets," ECONOMIC COMPUTATION AND ECONOMIC CYBERNETICS STUDIES AND RESEARCH, vol. 53, no. 2/2019, pp. 43–57, Jun. 2019, doi: 10.24818/18423264/53.2.19.03.
[29]G. Seshan and D. Yang, "Transnational household finance: A field experiment on the cross-border impacts of financial education for migrant workers," Qatar Foundation Annual Research Forum Proceedings, no. 2012, p. AHO3, Oct. 2012, doi: 10.5339/qfarf.2012.aho3.
[30]C. C. Y. Kwok and S. Tadesse, "National culture and financial systems," Journal of International Business Studies, vol. 37, no. 2, pp. 227–247, Mar. 2006, doi: 10.1057/palgrave.jibs.8400188.
[31]S. Ward and D. Wackman, "Family and Media Influences On Adolescent Consumer Learning," American Behavioral Scientist, vol. 14, no. 3, pp. 415–427, Jan. 1971, doi: 10.1177/000276427101400315.
[32]G. P. Moschis and G. A. Churchill, "Consumer Socialization: A Theoretical and Empirical Analysis," Journal of Marketing Research, vol. 15, no. 4, p. 599, Nov. 1978, doi: 10.2307/3150629.
[33]A. Daun, "Swedishness as an Obstacle in Cross-Cultural Interaction.," 1984, vol. 14, no. 1, Dec. 1983, doi: 10.16995/ee.1431.
[34]B. R. W, "Three scales to measure constructs related to Materialism: Reliability, validity, and relationships to measures of happiness," Advances in Consumer Research, vol. 11, no. 291, 1984.
[35]B. R. W and P. R. W, "Materialism and magazine advertising during the twentieth century," Advances in Consumer Research, vol. 12, no. 1, pp. 394–398, 1985.
[36]M. L. Richins, "The Material Values Scale: Measurement Properties and Development of a Short Form," Journal of Consumer Research, vol. 31, no. 1, pp. 209–219, Jun. 2004, doi: 10.1086/383436.
[37]M. L. Richins and S. Dawson, "A Consumer Values Orientation for Materialism and Its Measurement: Scale Development and Validation," Journal of Consumer Research, vol. 19, no. 3, p. 303, Dec. 1992, doi: 10.1086/209304.
[38]D. W. Rook, "The Buying Impulse," Journal of Consumer Research, vol. 14, no. 2, p. 189, Sep. 1987, doi: 10.1086/209105.
[39]S. E. Beatty and M. Elizabeth Ferrell, "Impulse buying: Modeling its precursors," Journal of Retailing, vol. 74, no. 2, pp. 161–167, Jun. 1998, doi: 10.1016/s0022-4359(98)90009-4.
[40]P. Sharma, B. Sivakumaran, and R. Marshall, "Exploring impulse buying in services: toward an integrative framework," Journal of the Academy of Marketing Science, vol. 42, no. 2, pp. 154–170, Jul. 2013, doi: 10.1007/s11747-013-0346-5.
[41]B. Verplanken and A. Sato, "The Psychology of Impulse Buying: An Integrative Self-Regulation Approach," Journal of Consumer Policy, vol. 34, no. 2, pp. 197–210, Mar. 2011, doi: 10.1007/s10603-011-9158-5.
[42]A. d'Astous, "An inquiry into the compulsive side of 'normal' consumers," Journal of Consumer Policy, vol. 13, no. 1, pp. 15–31, Mar. 1990, doi: 10.1007/bf00411867.
[43]C. Horváth and M. van Birgelen, "The role of brands in the behavior and purchase decisions of compulsive versus non-compulsive buyers," European Journal of Marketing, vol. 49, no. 1/2, pp. 2–21, Feb. 2015, doi: 10.1108/ejm-10-2012-0627.
[44]A. Lusardi and O. S. Mitchell, "The Economic Importance of Financial Literacy: Theory and Evidence," Journal of Economic Literature, vol. 52, no. 1, pp. 5–44, Mar. 2014, doi: 10.1257/jel.52.1.5.
[45]A. Grohmann, "Financial Literacy and Financial Behavior: Evidence from the Emerging Asian Middle Class," SSRN Electronic Journal, 2017, doi: 10.2139/ssrn.3084021.
[46]A. A. Arofah, Y. Purwaningsih, and M. Indriayu, "Financial Literacy, Materialism and Financial Behavior," International Journal of Multicultural and Multireligious Understanding, vol. 5, no. 4, p. 370, May 2018, doi: 10.18415/ijmmu.v5i4.171.
[47]J. M. Hogarth, "Financial literacy and family and consumer sciences," Journal of Family & Consumer Sciences, vol. 94, no. 1, pp. 14–28, 2002.
[48]S. H. Priyadharshini, "From financial literacy to financial well-being: A study of the level of financial literacy of women teaching faculty in educational institutions in Coimbatore region," Bharathiar University, 2017.
[49]K. A. Khan, "Financial awareness and investment preference of working women in Kampala, Uganda," International Journal in Management & Social Science, vol. 3, no. 9, pp. 62–70, 2015.
[50]L. Mandell, "Financial Literacy of High School Students," Handbook of Consumer Finance Research, pp. 163–183, 2009.
[51]A. Hung, A. M. Parker, and J. Yoong, "Defining and Measuring Financial Literacy," SSRN Electronic Journal, 2009, doi: 10.2139/ssrn.1498674.
[52]B. P., "Relationship between financial literacy and investment behavior of salaried individuals," Journal of Business Management & Social Sciences Research, pp. 82–87, 2014.
[53]S. H., "Beyond Greed And Fear," 2002.
[54]J. J. Xiao, C. Tang, and S. Shim, "Acting for Happiness: Financial Behavior and Life Satisfaction of College Students," Social Indicators Research, vol. 92, no. 1, pp. 53–68, Jul. 2008, doi: 10.1007/s11205-008-9288-6.
[55]J. R. Nofsinger, Investment madness how psychology affects your investing ... and what to do about it. Upper Saddle River, Nj [U.A.] Financial Times Prentice Hall [U.A, 2001.
[56]V. G. Perry and M. D. Morris, "Who Is in Control? The Role of Self-Perception, Knowledge, and Income in Explaining Consumer Financial Behavior," Journal of Consumer Affairs, vol. 39, no. 2, pp. 299–313, Sep. 2005, doi: 10.1111/j.1745-6606.2005.00016.x.
[57]B. Cude, "Eastern Family Economics and Resource Management Association 2006 Conference College Students and Financial Literacy: What They Know and What We Need to Learn," 2006. [Online]. Available: http://www.fermascholar.org/wp-content/uploads/2013/07/22-college-students-and-fin-literacy.pdf.
[58]L. Mandell and L. Schmid Klein, "The Impact of Financial Literacy Educationon Subsequent Financial Behavior," Journal of Financial Counseling and Planning, vol. 20, no. 1, Jan. 2009.

ISBN*: 978-623-92201-2-9*

[59] I. McAuley, "Understanding human behavior in financial decision-making: Some insights from behavioral economics," presented at the No Interest Loans Scheme Conference "Dignity in a Downturn," Jun. 2009.
[60] M. Gutter and Z. Copur, "Financial Behaviors and Financial Well-Being of College Students: Evidence from a National Survey," Journal of Family and Economic Issues, vol. 32, no. 4, pp. 699–714, Apr. 2011, doi: 10.1007/s10834-011-9255-2.
[61] E. Akben-Selcuk, "Factors Influencing College Students' Financial Behaviors in Turkey: Evidence from a National Survey," International Journal of Economics and Finance, vol. 7, no. 6, May 2015, doi: 10.5539/ijef.v7n6p87.
[62] B. Türk and A. Ercis, "Materialism and Its Associated Concepts," International Journal of Organizational Leadership, vol. 6, no. 4, pp. 444–455, Oct. 2017, doi: 10.33844/ijol.2017.60212.
[63] A. J. Badgaiyan and A. Verma, "Intrinsic factors affecting impulsive buying behaviour—Evidence from India," Journal of Retailing and Consumer Services, vol. 21, no. 4, pp. 537–549, Jul. 2014, doi: 10.1016/j.jretconser.2014.04.003.
[64] M. Tatzel, "'Money worlds' and well-being: An integration of money dispositions, materialism and price-related behavior," Journal of Economic Psychology, vol. 23, no. 1, pp. 103–126, Feb. 2002, doi: 10.1016/s0167-4870(01)00069-1.
[65] Y. Zhang and L. J. Shrum, "The Influence of Self-Construal on Impulsive Consumption," Journal of Consumer Research, vol. 35, no. 5, pp. 838–850, Feb. 2009, doi: 10.1086/593687.
[66] Kathleen D. Vohs and Ronald J. Faber, "Spent Resources: Self-Regulatory Resource Availability Affects Impulse Buying," Journal of Consumer Research, vol. 33, no. 4, pp. 537–547, Mar. 2007, doi: 10.1086/510228.
[67] A. Foroughi, N. A. Buang, Z. C. Senik, R. S. Hajmirsadeghi, and M. M. Bagheri, "The Causes of Impulse Buying Behavior among Iranian Shoppers," Asian Social Science, vol. 10, no. 21, Oct. 2014, doi: 10.5539/ass.v10n21p64.