

**MODERATING ROLE OF SELF-ESTEEM IN THE RELATIONSHIP BETWEEN
MATERIALISM AND INTERNET FRAUD TENDENCY AMONG
UNDERGRADUATES IN ENUGU METROPOLIS**

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CERTIFICATION

I certify that this project was carried out by Duruh Chukwuemeka Uchenna, with Registration number GOU/U22/PSY/171 in the Department of Sociology/Psychology, Faculty of Management and Social Sciences, Godfrey Okoye University, Enugu, who duly undertook and completed this research work in partial fulfilment of the requirements for the award of Bachelor of Science Degree (B.Sc.) Honours in Psychology.

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APPROVAL PAGE

This project has been approved of having met the requirement for the award of Bachelor of Science Degree (B.Sc.) Honours in the Department of Sociology/Psychology, Godfrey Okoye University, Enugu State.

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DEDICATION

This research work is dedicated first to God Almighty for his grace, wisdom, strength and guidance throughout the course of this study.

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ABSTRACT

This study examined the moderating role of self-esteem in the relationship between materialism and Internet fraud tendency among undergraduates in Enugu Metropolis, Nigeria. A cross-sectional survey design was adopted. A total of 156 undergraduates (69 males and 87 females) were selected through convenience sampling from the University of Nigeria, Enugu Campus (UNEC), Enugu State University of Science and Technology (ESUT), Institute of Management and Technology (IMT), and Coal City University (CCU). Data were collected using standardized instruments, including the 18-item Material Values Scale, a 10-item Rosenberg Self-Esteem Scale, and a 23-item Internet Fraud Tendency Scale. Pearson Product Moment Correlation and Hayes PROCESS Macro were used for data analysis. The results showed a significant positive relationship between materialism and Internet fraud tendency ($r = .214, p < .05$) and between self-esteem and Internet fraud tendency ($r = .532, p < .001$). However, self-esteem did not significantly moderate the relationship between materialism and Internet fraud tendency ($B = 0.04, t = 0.42, p > .05$). The implication of the finding is that while materialism and self-esteem are associated with internet fraud tendency, self-esteem does not significantly influence the relationship between the two variables. Limitations of the study were acknowledged, and recommendations were made to guide future research in understanding factors that mitigate Internet fraud tendency among Undergraduates.

CHAPTER ONE

INTRODUCTION

Background to the Study

The growth of digital technology and the Internet has had a profound impact on social interactions and economic interactions around the world. While there have been many positives to this technological revolution in terms of communication, education, and business opportunities, there has also been a significant opportunity for new types of crime, such as cybercrime (International Telecommunication Union, 2021). This includes internet fraud, which has emerged as one of the most common types of cybercrime, especially in developing countries (United Nations Office on Drugs and Crime, 2020).

Internet fraud can be defined as fraudulent acts conducted through the use of technology with the aim of gaining financially and personally through deception or manipulation (Levi, 2017). Examples of these include phishing, identity theft, love scam, advance-fee fraud (otherwise called “419”) and business email compromise (Button & Cross, 2017). Nigeria has always been noted for engaging in internet fraud based on factors such as socio-economic factors, diffusion of technology and problems in governance (Smith, Holmes, & Kaufmann, 2019). The popularity of “Yahoo Yahoo,” which in Nigeria is slang used to refer to internet fraud, has seen the country earn global recognition due to the participation of youths, especially undergraduates, in these acts (Ojedokun & Eraye, 2012).

The growing participation of university students in internet scams is a major cause for concern regarding socio-psychological and economic motivations behind this phenomenon. The university is expected to act as an institution nurturing intellectual and moral development of students; nevertheless, recent data indicate that some of them resort to criminal actions on the internet as a way to attain financial prosperity and social success (Adeniran, 2008). Such a tendency is associated with certain changes in society that are

characterized by excessive consumerism and worship of wealth regardless of ways it was acquired (Dittmar, Bond, Hurst, & Kasser, 2014).

Materialism refers to one's valuation of wealth acquisition and ownership of material items as one of the primary life goals. Materialism is regarded as a prominent psychological construct affecting individuals' behavior (Richins & Dawson, 1992). People having materialistic values associate success, happiness, and social status with wealth and possessions, putting financial well-being above any other value (Kasser, 2002). In modern societies undergoing economic transformation, especially, such societies are characterized by the proliferation of media that promotes materialistic values (Twenge & Kasser, 2013).

As far as Nigeria is concerned, the emergence of materialism among youths has been found to be influenced by economic inequality, unemployment, and the effect of popular culture including music, social media, and lives of celebrities who often glorify their wealth but do not really talk about the legitimate ways of earning it (Oguejiofor, 2015). The pressure on achieving wealth at a young age coupled with lack of economic prospects makes some university students resort to deviant, mostly illegal ways of making money, such as internet scams (Ojedokun, 2016).

Materialism and deviant behavior have a long history of being studied in psychology and criminology as the relationship between them is rather obvious – materialists are known to cheat, lie, steal, and commit all kinds of fraud in order to achieve their financial objectives and reach financial success (Gino & Mogilner, 2014). It goes along with the strain theory propositions, according to which a person is more likely to commit deviant acts when his/her legitimate path to reach cultural goals is blocked (Robert K. Merton, 1938). Thus, materialism may add to strain felt by an individual, putting greater emphasis on achieving financial success.

In addition, social learning theory also offers an additional perspective on understanding the participation of university students in internet fraud. Based on the ideas of Albert Bandura (1977), behavior is learned through observation, imitation and reinforcement in a social setting. Where there are social environments in which internet fraud is acceptable or even applauded, such behaviors can be acquired through peer groups especially in a case where people benefit financially without facing any instant negative repercussions (Akers, 1998). The adoption of “Yahoo Yahoo” culture among students which can be enhanced by the use of social networking sites can therefore help in maintaining the fraudulent behavior.

Researches have shown how materialism leads to unethical behaviors. For example, Tang and Chiu (2003) revealed that individuals who value money highly are inclined to behave unethically while Kasser et al. (2007) noted that people with materialistic values are less likely to have high moral standards and are more prone to antisocial behaviors. In Nigeria, Ojedokun and Eraye (2012) noted that young people engaged in internet fraud have a high urge for material success and social prestige.

The university setting in itself may as well contribute to the development of internet fraud amongst the students. Social factors such as peer influence, university culture, and contact with people who are already involved in internet fraud may greatly contribute to the way that these young people conduct themselves (Adeniran, 2008). Some of the students, who have no intentions of participating in fraud, may be forced by circumstances into becoming involved in the criminal activity due to social factors and peer pressure. This calls for a more thorough analysis of not only personal but also social factors influencing these behaviors of students.

The city of Enugu Metropolis located in the southeastern part of Nigeria is the most suitable area for this study to take place. This region is home to quite a few higher education institutions such as universities and polytechnics; moreover, a big part of the student population lives there, being exposed to various socio-economic impacts. Like the rest of the

Nigerian states, Enugu metropolis has undergone the process of technological advancement and the experience of economic hardships; therefore, the area provides a perfect ground for legitimate and illegal online activities (National Bureau of Statistics, 2023).

Though there exists a great number of scholarly writings about cyber crime and its perpetrators, relatively little scholarly attention has been paid to the study of the influence of materialistic motives on the involvement of Nigerian university students in internet fraud. Most scholars have chosen to focus on socio-economic determinants, technologically-based factors, or criminological aspects, paying less attention to psychological motivations that play an essential role in committing cybercrime (Ojedokun, 2016).

The inclusion of materialism to the study of cybercrime corresponds to the modern trends in psychological research that highlight the importance of the values, motivations, and identity of individuals for their behavior (Dittmar et al., 2014). Thus, the study aimed at filling the gap in research and contributing to the comprehensive investigation of the factors that influence the cyber behavior of undergraduate students.

The social implications of internet fraud within society at large make this case even more compelling. In addition to individual effects, cyber crime hampers the development process and ruins the reputation of a country along with its integrity (Economic and Financial Crimes Commission, 2022). Thus, finding solutions to the problem and addressing such problems as materialism is essential in order to foster ethics and sustainable development in Nigeria.

Moreover, the findings of this research have certain significance for educational establishments, policy makers, and psychotherapists as well. In particular, universities can contribute significantly in dealing with materialistic attitudes within students via value-based education and counseling. Policy makers will be able to find helpful information concerning the mental aspects of cyber crimes and youth in general (Kasser, 2002).

The growing incidence of internet fraud among undergraduate students in Nigeria is a multi-layered social problem determined by a number of psychological, social, and economic factors. Being one of the value systems which emphasizes money and material possessions, materialism has proved to be a powerful determinant of people's motives and behaviors. Still, there is a need for more research into the relationship between materialism and engagement in internet fraud activities in the undergraduate students in Enugu Metropolis . The current paper intends to explore the role of materialism as a predictor of internet fraud activities among the target population.

Being a general assessment of one's own worth (Rosenberg, 1965), self-esteem is one of the most important psychological factors affecting people's behaviors and, particularly, deviant ones. In the case of internet fraud, self-esteem performs a dual function – traditionally being a protective factor against antisocial behavior, it can promote deviance at both low and high levels of self-esteem.

Low self-esteem individuals may suffer from feelings of inadequacy, rejection, and failure, which may render them vulnerable to deviant coping strategies. Based on General Strain Theory, an individual may commit internet fraud as a coping strategy to ease distressing emotions and attain the desired status (Agnew, 2006). It is indicated by recent findings that adolescents who suffer from poor self-worth are more susceptible to seeking external approval through economic gains and social status regardless of whether their methods are illegal (Nguyen & Tran, 2021).

Alternatively, high self-esteem individuals, especially if their self-views are unrealistic and inflated, may be prone to commit internet fraud. An individual with high self-esteem tends to have excessive confidence, lack of fear for consequences, and self-entitlement, which makes fraud easier to commit (Bushman & Baumeister, 2002; Orth & Robins, 2022). In the context

of the internet where anonymity leads to lack of accountability, such individuals tend to view committing fraud as a risk-free behavior.

Empirical evidence supports this dual pathway. For instance, recent findings show that self-esteem is positively associated with risk-taking and unethical decision-making in online contexts, particularly when individuals perceive high rewards and low risks (Zhang et al., 2023). Similarly, studies in cyberpsychology suggest that online fraudsters often display confidence, social manipulation skills, and adaptive self-presentation, which may reflect elevated or strategic self-esteem (Cross, 2020).

Within the Nigerian context, where social status and wealth are highly valued, self-esteem may be closely tied to material success and societal recognition, thereby increasing the likelihood of engaging in internet fraud when such success is not achieved legitimately. This aligns with your study context, where undergraduates operate within environments that reward visible wealth and status.

Self-Esteem is an important psychological mediator that moderates the link between materialism and engagement in internet fraud through the way people view and react to materialistic desires. The notion of materialism encourages people to seek wealth and material things as life goals. Nevertheless, whether the behavior becomes deviant or not largely depends on the person's level of self-esteem. Persons who have materialism and low levels of self-esteem experience psychological strain. They feel like they cannot meet the expectations of society in legitimate ways. It makes them vulnerable to deviant actions like internet fraud. Empirical evidence: Persons with low self-esteem are more prone to act unethically in financial matters.

Materialists who also have high self-esteem may become adept at manipulating the system. Fraud may be seen by them as well-deserved success or intelligent action. This conforms to the principles of rational choice theory in which perceived benefits are greater than risks.

Moderately stable self-esteem may function as a protective shield, preventing materialism from leading to fraud. Materialists with such characteristics are guided more by their internal values and morality. It has been confirmed recently that self-esteem plays a crucial moderating role in the relationship between materialism and unethical behaviors, especially in digital settings (Li et al., 2022; Wang et al., 2021).

Statement of the Problem

Increasing cases of internet fraud by undergraduate students in Nigeria present a significant social and psychological issue. Even though the availability of higher education and technology increases, the level of dishonest activities conducted by these students through internet phishing, stealing identity information, and advance-fee fraud continues. This practice negates the expected function of institutions of higher education as places for moral and intellectual growth and requires a more in-depth investigation into the reasons for the occurrence of such practices from the psychological perspective. While previous literature has suggested that social and economic factors, peer influence, and the accessibility of technology are the factors leading to cyber-crime, the effect of internal psychological factors is relatively understudied, especially that of materialism and self-esteem. The link between materialism and deviant behavior has been demonstrated, and self-esteem has complex correlations with deviant behavior, but an interaction of both of these factors has not received sufficient scholarly attention, especially within the Nigerian population of undergraduates. Therefore, the problem of this study is the lack of empirical understanding of how self-esteem moderates the relationship between materialism and Internet fraud tendency among undergraduates in Enugu Metropolis, Nigeria.

The following research question is stated to guide the study:

1. Will materialism relate to Internet fraud tendency among undergraduates in Enugu Metropolis?

2. Will self-esteem relate to Internet fraud tendency among undergraduates in Enugu Metropolis?
3. Will self-esteem moderate the relationship between materialism and Internet fraud tendency among undergraduates in Enugu Metropolis?

Purpose of the Study

The main purpose of this study is to examine materialism as a predictor of Internet fraud tendency among undergraduates in Enugu Metropolis, Nigeria. Specifically, the study aims to:

1. Will materialism be significantly related to Internet fraud tendency among undergraduates.
2. Will self-esteem be significantly related to Internet fraud tendency among undergraduates.
3. Will self-esteem significantly moderate the relationship between materialism and Internet fraud tendency among undergraduates.

Operational Definition of Terms

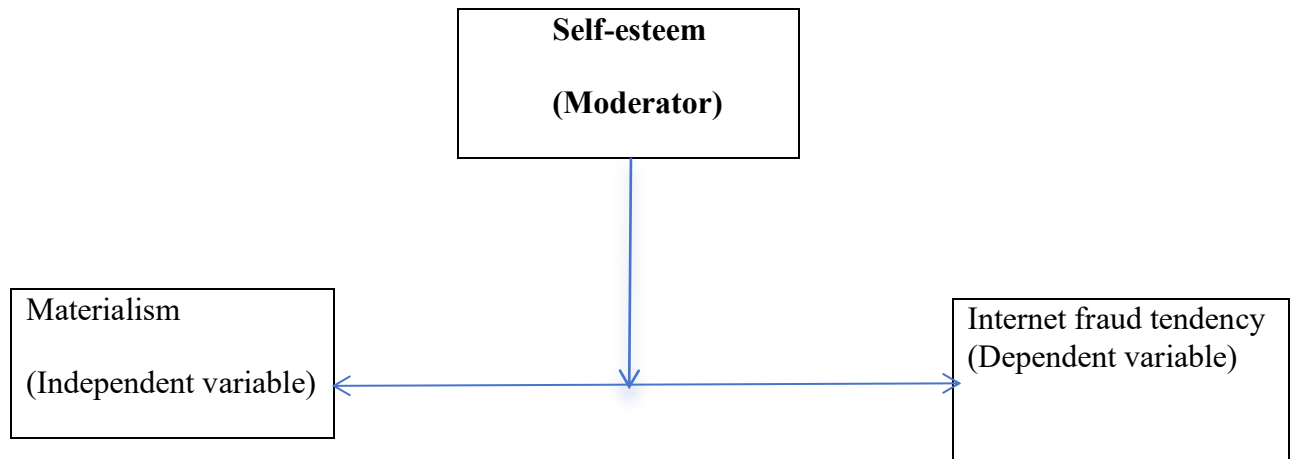
Materialism: refers to the degree to which an individual places importance on wealth, possessions, and material success as central to life and personal happiness as measured by scores on the 18-item multidimensional Material Values Scale (Richins and Dawson, 1992).

Internet Fraud: refers to use of digital platforms to intentionally deceive or manipulate individuals for financial or personal gain as measured by scores on the 23-item Internet Fraud Tendency Scale (Elgbadon & Adejuwon, 2015).

Self-esteem is defined as an individual's overall evaluation of an undergraduate's self-worth and personal value measured using the 10-item unidimensional Rosenberg Self-Esteem Scale (Rosenberg, 1965).

CONCEPTUAL FRAMEWORK

Figure 2.1: Conceptual Framework Showing the Moderating Role of Self-esteem in the Relationship between Materialism and Internet fraud tendency among Undergraduates in Enugu Metropolis.



The conceptual framework proposes that materialism is the independent variable that influences internet fraud tendency, the dependent variable. Self-esteem serves as the moderating variable, influencing the strength or direction of the relationship between materialism and internet fraud tendency among undergraduates in Enugu Metropolis.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

The literature review is done under theoretical and empirical review.

Theoretical Review

Materialism Theories

Material Values Theory (Richins & Dawson,1992)

Self-Determination Theory (Deci & Ryan,1985)

Self-Esteem Theories

Sociometer Theory (Leary,1995)

Self-Discrepancy Theory (Higgins,1987)

Internet Fraud/Cybercrime Theories

Strain Theory (Merton,1938)

Social Learning Theory (Bandura,1977)

Routine Activity Theory (Cohen & Felson,1979)

Strain Theory (Merton, 1938)

One of the best sociological theories that explain deviance and crime is the Strain Theory, formulated initially by Merton (1938). The theory belongs to the functionalist perspective of sociology. It attempts to explain why some societies' structure and culture result in pressure on people to act in a deviant manner. According to Merton (1938), any society creates cultural norms or goals such as wealth, success, and social mobility and at the same time defines ways of achieving those goals. In case of disparity between goals and means of achievement, an individual experiences strain, forcing him/her to adopt different means to reach the goals set by society (Merton, 1938).

A key component of Strain Theory is the notion that the social structure is not available to everyone in society. Many developing nations, like Nigeria, have structural barriers such as unemployment, poverty, and lack of economic opportunity which limit people's access to success through legitimate means (Agnew, 1992). Students, who face problems of uncertainty about their future employment and economic hardship, are likely to feel increased strain when they realize the discrepancy between their expectations of becoming rich and the lack of opportunities for this. This strain will be particularly prominent when success is perceived mainly in terms of material possessions – which directly links the theory to the notion of materialism.

Materialism, as a value system, implies the belief that acquiring wealth, owning luxury products, and having financial success are the signs of success in life (Richins & Dawson, 1992). In terms of Strain Theory, materialism can be considered as a cultural magnifier of strain. This means that people who are highly attached to materialistic values face greater pressures to achieve financial success. If there are no effective legitimate ways, they would resort to any illegitimate ways including internet fraud for achieving their aspirations (Kasser, 2002). Therefore, materialism (IV) is positively correlated with strain, which is a predictor of deviant behavior such as internet fraud (DV).

Innovation among others is one of the five adaptations suggested by Merton (1938) as the response to strain. It is a situation where individuals accept the goals set in the society but fail to accept the legitimate ways of accomplishing those goals. Instead, they seek other methods, which might be illegitimate in nature to accomplish the accepted goals (Merton, 1938). In the context of this paper, students who engage in internet fraud can be referred to as innovators. They are desirous of financial success and recognition but choose an alternative route to fulfill their aspirations.

In Nigeria, practical illustrations of innovation are seen in what is known locally as "Yahoo Yahoo," whereby youths indulge in internet scams in order to extort money from their victims. An example of how innovation works within the materialistic nature of youth culture can be described through an undergraduate with a desire to own expensive gadgets like expensive phones, fancy cars, and designer clothes, as seen in the various social media networks. The individual may not have legitimate ways of earning the income for the luxurious possessions due to financial inadequacies; hence, he or she turns to fraudulent practices.

The effect of globalization and media in the modern world has increased materialistic expectations of youths. Through social media sites, undergraduates are subjected to images of luxuries that they do not possess themselves in their economic status. This results in a feeling of relative deprivation whereby an individual feels deprived of what other persons own (Walker & Smith, 2002). The feeling brings about psychological pressure to "catch up."

Previous researches on the topic have provided support for the applicability of Strain Theory in accounting for deviant acts committed by youth. In general, according to Agnew (1992), Merton's theory was enhanced by adding psychological factors, whereby it has been indicated that strain results in negative feelings such as anger, frustration and resentment that could in turn lead to committing crime. In the current case, frustration resulting from financial and comparison strains could be a factor that drives the students to commit internet fraud in order to reduce the level of their frustrations. Moreover, it has been demonstrated that individuals having high financial ambitions and no legitimate means are more likely to commit economic crimes.

Linkage between materialism and cyber crimes can also be attributed to the fact that people internalize societal values. In societies where success is measured primarily based on materialistic status, people will have more incentive to focus on materialistic gain than ethical

issues (Dittmar et al., 2014). The culture of valuing materialistic achievements encourages the adoption of unethical behaviors as a way to obtain those material achievements. Undergraduates, which are still in a developmental phase, tend to be very susceptible to internalizing societal norms and making behavioral decisions based on those internalized values.

Another example can be derived from peer-group dynamics in university environments. Students who interact with peers involved in online frauds not only acquire the necessary skills but also the set of values that encourages these kinds of behaviors. From this perspective, strain is not just an individual phenomenon; rather, it is a societal one. For example, students who are having difficulties in financing themselves can see other students committing cyber crimes while being prosperous and recognized among the others.

Despite the theory's ability to explain social phenomena, Strain Theory has also been criticized for several reasons. One of the major flaws of the Strain Theory is that it focuses heavily on economic strain as the main source of strain and ignores other types of strains such as conflicts, interpersonal stress, or academic pressure (Agnew, 1992). In the case of internet fraud, not everyone who faces economic strain becomes criminal as there are other elements such as personality characteristics, morals, and self-control which are involved in the process of committing crime (Gottfredson & Hirschi, 1990).

Another issue with Strain Theory is the failure of the theory to explain the reason why some people conform to society's standards even though they suffer from similar strains. As an example, many undergraduate students in Enugu State suffer from economic strain and are surrounded by materialistic environment but they do not commit internet fraud. This demonstrates the existence of moderating factors such as ethical orientation, religion, or future orientation which have an effect on the impact of strain on deviant behavior (Cullen, 2011).

Additionally, critics argue that Merton's original formulation is too deterministic, implying that strain inevitably leads to deviance (Bernard, Snipes, & Gerould, 2010). In reality, individuals have agency and may adopt various coping strategies, including legitimate efforts to overcome challenges. For example, some undergraduates may respond to financial strain by seeking part-time employment, engaging in entrepreneurship, or relying on social support rather than resorting to fraud. This suggests that the relationship between strain and deviance is probabilistic rather than deterministic.

Additionally, there are criticisms directed at Strain Theory due to the lack of concern regarding the effects of cultural and technological changes in today's criminal activities. Internet fraud, being a cybercrime, includes technology, anonymity, and transnational networks, which were not covered in Merton's theory. Nonetheless, the recent developments of the theory like General Strain Theory have tried to solve these problems.

However, notwithstanding the criticisms, Strain Theory is highly applicable to understanding the connection between materialism and committing internet frauds among the undergraduates. The theory gives a great insight into the problem, as it focuses on the difference between aspirations and the opportunities of people, and thus allows one to see how the values of materialism may influence people and push them to commit illegal actions. Thus, in the case of Enugu State, when there is an existing material poverty along with increasing globalization of the consumption culture, the theory will be highly applicable.

Conclusion

Strain Theory is thus a solid theoretical basis for the study due to the association between society's expectation, personal values and behavior. Materialism heightens one's yearning for success financially, hence increasing the probability of strain occurrence if the legitimate means fail to suffice. Strain might therefore prompt the students to use creative yet illegitimate ways such as online fraud. Despite the flaws associated with this theory, the

incorporation of psychological aspects like materialism makes it more appropriate. In this regard, Strain Theory is thus an appropriate theoretical framework for investigating the relationship between materialistic values and online fraud behavior of undergraduate students in Enugu Metropolis, Nigeria.

Social Learning Theory (Bandura, 1977)

The Social Learning Theory by Bandura (1977) is one of the most fundamental theories in psychology that provides an explanation on how people's behaviors are shaped through a process of interaction between cognitive, behavioral, and environmental influences. According to this theory, people are not able to learn behaviors through mere experiences; rather, individuals are capable of learning through observing other people within their social environments (Bandura, 1977). This theory has shifted away from traditional views of behaviorism since it takes into consideration cognitive aspects of learning such as attention, retention, reproduction, and motivation.

The concept of observational learning is at the heart of the Social Learning Theory, where individuals are said to be acquiring new behaviors by observing other people. The models that the individual observes can include other people within his/her environment, including friends, family, media stars, among others (Bandura, 1986). In this regard, undergraduate students within Enugu State may be observing peers who commit fraud using the internet and then imitating such behaviors because the behaviors have positive outcomes such as money, fame, and luxurious lifestyle.

This theory also makes mention of the vicarious reinforcement whereby people learn about behaviors from observing other people getting rewarded for exhibiting some specific behaviors (Bandura, 1977). In the Nigerian university setting, one might observe their fellow students involved in internet fraud being rewarded with money which is used in buying fancy things like gadgets, cars, or even becoming popular on campus. All these act as strong

reinforcements that motivate other students to emulate the same by engaging in fraudulent practices despite not having experienced any fraud personally.

Materialism acts as an independent variable in this study and forms a very crucial aspect of the Social Learning Theory. This is because materialists are characterized by high concern for possessions and wealth (Richins & Dawson, 1992). From the perspective of social learning, materialistic people tend to have higher attentiveness towards models displaying material success and behaviors facilitating their attainment (Kasser, 2002). Materialism increases the salience of models in particular, especially those demonstrating financial success.

The interrelation of materialism and social learning theories can be explained by the principle of selective attention. As it was stated by Bandura (1977), people pay attention to those behaviors which are connected with their goals and values. Thus, materialistic students will pay more attention to those behaviors which are related to the acquisition of wealth, for example, internet fraud. If they observe such behaviors frequently and reinforce them in their social world, they will integrate them into their behavioral repertoire.

Apart from observational learning, one of the important principles of Social Learning Theory is the role of cognitive processes, namely, self-efficacy. Self-efficacy is the belief in one's ability to perform some behavior successfully (Bandura, 1997). In relation to internet fraud, students observing how others perform successful internet scams will feel confident in their ability to do the same. Such feelings of competence will promote their participation in fraudulent behavior.

In this respect, there is an example of how this mechanism works in the case of “Yahoo Yahoo,” which is commonly practiced in Nigeria. For instance, some students at universities who commit cyber crime tend to demonstrate their success through the consumption of expensive items and living in luxury. Other students, especially with high materialistic values, tend to see such people as successful and follow them. Thus, they learn not only the

methods of internet fraud, but also their justification, thus engaging into cyber crimes more actively.

It should be emphasized that the influence of peers plays one of the most important roles in Social Learning Theory. Universities are perfect places for the development of peer groups, in which norms, values and behaviors are exchanged (Akers, 1998). If a student belongs to such a group, which accepts or practices internet frauds, then the probability that he/she will commit such actions is higher. It is especially true, if there is social approval or reward for such behavior among peers. In this case, materialism may become a common value among peers.

The effect of media and technology is another important factor that affects the process of social learning. The use of social media sites, music videos, and online content presents wealth and affluence as the desired end results which are obtained without necessarily considering the ethical ways of acquiring them (Dittmar et al., 2014). In this regard, the undergraduates exposed to this kind of content learn these values and try to imitate them. Sometimes, Internet fraud in popular culture is presented as a smart way of becoming successful hence making it acceptable among young people.

Some studies have confirmed the application of Social Learning Theory in explaining deviant behaviors. For instance, Akers (1998) through his Social Learning Theory of crime has proved that criminal behaviors are learned through processes of differential association, imitation, and reinforcement. Likewise, it has been demonstrated that associating with deviant people increases the probability of indulging in deviant behaviors (Warr, 2002). Within the Nigerian society, Ojedokun (2016) found out that influence from peers and exposure to fraudsters predicts cybercrime behaviors.

In the context of Social Learning Theory, the relationship between materialism and internet fraud can also be explained via value internalization. When people see and imitate behaviors

linked to being successful materially, they start seeing those behaviors as legitimate or even necessary in the process of reaching their goals (Bandura, 1986). It means that a person, who is convinced at first that the use of internet fraud is unethical, changes his mind due to observations of peers involved in similar behaviors and not facing any repercussions from it. As a result, behavior gets normalized and becomes more or less ethical for the person to participate in it.

A good practical example can be found in the area of mentorship in fraudulent networks. Sometimes people called “Yahoo boys” may train newbies about the needed skills in internet fraud, including scripting, persuasion and technical skills.

Nevertheless, Social Learning Theory has been criticized for various reasons. First of all, the theory tends to exaggerate the effect of the environment by underplaying the significance of individual differences like personality features, moral reasoning, and biology (Gottfredson & Hirschi, 1990). People who observe deviant behavior do not necessarily commit crime because there are other factors which can affect the decision to commit fraud.

Secondly, it is believed that Social Learning Theory fails to answer the question of the origin of deviant behaviors (Cullen, 2011). It describes well how people learn behaviors but it does not answer the questions of why people behave in certain ways and why they become models for other people. In the case of internet fraud, the theory explains how students commit deviant acts but it cannot give explanations to why it happens.

Finally, critics argue that Social Learning Theory neglects such factors as socio-economic factors, inequality, and unemployment which can predispose people to commit crime (Agnew, 1992). Economic hardships and unemployment are considered to be some of the important elements that cause deviant behaviors. Therefore, Social Learning Theory has to be used together with Strain Theory to understand the issue better.

In addition, there is criticism of the lack of precision of this theory regarding predictions. Though the mechanisms of learning have been identified in the Social Learning Theory, the exact circumstances under which people decide to copy the observed behavior are not provided (Bandura, 1986). For instance, some undergraduate students might observe the acts of internet fraud among their peers but decide not to participate because of having strong moral principles or fears of being arrested and other factors.

However, Social Learning Theory can be considered as highly relevant regarding materialism and participation in internet fraud among undergraduates since this theory provides a great framework for explaining how behavioral materialism influences the observed models of behaviors.

Therefore, Social Learning Theory presents a comprehensive theory about how internet fraud can be learned by the students through the social environment. In the first place, materialism creates the value of observing the model who is successful and wealthy; thus, the chances of imitation increase significantly. With the help of observing the model, getting reinforcement for the behavior, and having positive attitudes toward it, the person learns that internet fraud is a way to become a member of the wealthy group.

Routine Activity Theory (Cohen & Felson, 1979)

The Routine Activity Theory (RAT), proposed by Cohen and Felson (1979), is an approach used to understand criminal activity in situational and opportunity terms. Contrary to the conventional criminological theories, which emphasize the role of offender motivation in explaining crime, RAT highlights the environmental circumstances that make committing crimes possible. It suggests that crime happens when three crucial components are present at the same place and time: a motivated offender, a suitable victim, and a lack of guardianship (Cohen & Felson, 1979). The applicability of the theory is vast since it has been extensively used to explain different types of criminal activities, including cybercrime.

The main assumption of the Routine Activity Theory is that people's routine activities include certain actions that accidentally become an opportunity for committing crimes (Felson, 2002). As such, one can say that the routine activities of students include using the Internet for educational purposes and leisure activities. In today's digital world, these activities increase the opportunities for internet fraud by placing the offender and the target of criminal activity under one roof. In addition, the internet provides an anonymous environment with minimum chances for being caught.

The motivated offender, the first aspect of RAT, is meant to describe people with the necessary motivation or willingness to commit a crime. The theory does not discuss how offenders acquire their motivation but takes it for granted that there is a motivation among them (Cohen & Felson, 1979). For the purpose of this paper, the concept of materialism is used to motivate the offenders. Students who are highly materialistic in nature are likely to develop a craving for money and property. If the legal ways of acquiring this property do not seem sufficient enough, offenders would be willing to commit internet fraud (Kasser, 2002). Thus, materialism (IV) becomes the primary factor behind motivated offenders.

The second element is the existence of a suitable target. It implies that offenders find some individuals or organizations attractive and easily reachable (Button & Cross, 2017). When it comes to cybercrimes, suitable targets are usually those people who have low computer literacy, believe in online communication or fall into deceptive traps (Button & Cross, 2017). Internet fraudsters among undergraduates tend to select their victims via emails, social networks, and other internet sites. For instance, one can establish a false online identity to deceive gullible people and receive money illegally. As the internet space is global, fraudsters get access to a great variety of victims thus raising the chances of the success of frauds.

The third element is the existence of absent or inadequate guardianship. In general, guardianship is something that prevents people from being victims of crimes. In the digital

environment, guardianship can be related to cybersecurity systems, law enforcement, laws regulating cybercrimes, or personal attention (Reyns, 2013). Weak cybersecurity systems, non-enforcement of laws about cybercrimes, and lack of public knowledge make guardianship insufficient in many cases, especially in developing countries (Economic and Financial Crimes Commission, 2022).

Interaction between all these three aspects creates a comprehensive analysis of why internet fraud occurs among undergraduate students. Materialism being a psychological variable increases the motive of the offender since he or she wants money. The frequent use of technology enables offenders to find the right target because of the weak guardianship system, which lowers the risks of committing fraud. Therefore, Internet fraud tendency among undergraduate students becomes a feasible choice.

An example of how the interaction of materialism and situational variables leads to internet fraud can be seen in the context of Nigerian universities. In case the student has the materialistic personality, then he or she has a motive to acquire luxurious goods like cell phones, expensive clothes, and cars. Students' aspiration for luxurious things is influenced by what social media present as a successful life. Through the use of technology, the student encounters the right situations whereby he or she comes into contact with his or her target. If the student knows that the chances of getting caught are minimal due to lack of security measures, then the decision to commit fraud can be made.

Moreover, the idea of lifestyle exposure, which is an adaptation of the Routine Activities Theory, indicates that the regular activities of people determine the chances of being faced with criminal opportunities (Hindelang, Gottfredson, & Garofalo, 1978). Undergraduates who are involved in many online activities and use those sites that require financial and personal transactions have more chances not only to get involved in fraudulent activities but

also to find targets. For materialists, such criminal opportunities will be especially attractive since they coincide with the objective of making money.

The fact that people communicate via digital channels has also broadened the range of the possible targets and allowed the targets to be chosen not only in the local area but anywhere else. The person from the Enugu State can communicate with other people even abroad. It means that a wide geographical location makes it easier to conduct fraudulent activities and gain from them. The anonymity of the digital communication process also reduces the perceived risk of getting into trouble.

Empirical studies have established the validity of applying Routine Activity Theory to understand cybercrime. Studies have found that the presence of online activities, exposure to targets, and lack of any form of cybersecurity significantly predict engagement in cybercrime (Reyns, 2013). In Nigeria, research has revealed the influence of opportunities and availability of technology on internet fraud by the youths (Ojedokun, 2016).

The connection between materialism and internet fraud from the perspective of RAT can be explained by the notion of rational choice as well. In fact, people with high levels of materialism would undertake an assessment of costs and benefits of committing internet fraud. When the benefit is greater than the cost, the chances of indulging in such an activity are higher (Cornish & Clarke, 1986). In case guardianship is low in that environment, the risk factor is minimized as well.

An additional example of application of Routine Activity Theory can be found in the use of phishing schemes by a materialistic college student who will create fraudulent emails and websites that would resemble legitimate websites to deceive victims and steal sensitive information. Due to the existence of tools and online instructions to conduct such schemes, it becomes relatively simple to do it. At the same time, the lack of guardianship – effective

monitoring system or law enforcement activity – means that offenders would face little interference during their actions.

Nevertheless, despite many strengths, there have been some criticism of Routine Activity Theory as well. One of the major problems with it is the premise that offender motivation is given and is not explained properly (Cullen, 2011). Even though the theory does a good job explaining when opportunities arise for a crime to occur, it fails to provide reasons why an individual becomes motivated to commit a crime. Materialism, which is used in this study, is introduced in order to cover up this problem.

Another criticism levelled against RAT is that it might be too simplistic in its approach to explaining the complexities of criminal behaviour insofar as it focuses predominantly on the situational elements. Specifically, the theory fails to take into consideration the broader influence of social, cultural, and psychological factors on behaviour (Agnew, 1992). Personality characteristics, moral beliefs, emotional state – all these aspects can be just as important in deciding whether the person is going to commit the online fraud or not.

Moreover, RAT has been criticised as being too narrowly focused on crimes that require direct interpersonal interaction of the offender with the victim. In the case of cyber-crime, however, this aspect does not apply to the extent that in most cases there are victims and opportunities in the online world as well (Yar, 2005).

Another limitation of RAT is the idea that when there is no guardianship, crime will happen with higher frequency. However, people will abstain from criminal acts because of personal moral standards, fear of legal consequences, or societal norms, without any external control (Gottfredson & Hirschi, 1990). This implies that psychological traits, like self-control and ethics, can also serve as determinants of behavior.

Additionally, critics suggest that power and inequalities are not sufficiently incorporated into the RAT framework to account for victimization and offending processes (Messner &

Rosenfeld, 2001). People who belong to less privileged social groups may commit crimes because of structural constraints regardless of their routine activities. In the Nigerian setting, socioeconomic inequality combined with materialism can exacerbate the probability of committing online fraud.

In spite of these limitations, however, Routine Activity Theory is still an important theory that can help explain the situational dynamics of internet fraud cases among university students. The importance of opportunity structures, environmental factors, and routine behaviors allows using this theory to analyze how cyber-crime occurs. In conjunction with such psychological concepts like materialism, the theory becomes even more effective in explaining the motive as well as opportunity for committing deviance.

Routine Activity Theory is a solid theory that explains the occurrence of internet fraud through the combination of three elements, including motivated offenders, suitable targets, and absence of any forms of guardianship. Materialism increases the motivation of the offenders due to their desire to become rich. Additionally, routine online behaviors provide the offenders with access to both potential targets and opportunities. At the same time, the absence of efficient guardianship decreases the risk of becoming involved in this activity. Although this theory has some limitations, its use in conjunction with the psychological variables makes it relevant for the current research.

Material Values Theory (Richins & Dawson, 1992)

The Material Values Theory was created by Richins and Dawson (1992) and represents an effective psychological paradigm explaining the role played by materialism in defining people's attitudes and values. According to this theory, materialism is viewed as a value system based on the centrality of material possessions in people's lives as the major sources of their well-being and identity (Richins & Dawson, 1992). As compared to previous attempts

to explain materialism as a personality trait, this theoretical perspective focuses on its cultural dimension.

Richins and Dawson (1992) suggest that there are three principal dimensions of materialism, namely, centrality, success, and happiness. Centrality is about the degree of centrality of possession among the main life goals of people. Success dimension is related to the idea that possessions can be used as indicators of personal accomplishments and one's status in society, whereas happiness is defined as the idea that possession of goods makes people happy. Overall, these three dimensions are shaping the way people look at life goals and prefer gaining money and acquiring possessions to such values as personal development, relationships, and ethics (Kasser, 2002).

As for this particular research, Material Values Theory gives direct reasons why the independent variable of the research – materialism – influences the dependent variable of this research – Internet fraud tendency. People who are strong proponents of materialistic values have a tendency to see acquisition of wealth as their main life goal. In case when legitimate means to achieve these goals are seen by people as insufficient or too slow, they are likely to start engaging in illegal activities like internet fraud (Tang & Chiu, 2003).

Materialism and deviant behavior have a link, which is explained by the value prioritization aspect of the theory. The materialistic person has an evaluative approach towards actions that is focused on material rewards from such actions, sometimes disregarding the moral or ethical implications (Dittmar et al., 2014). It increases the chances of committing an act that would give some financial gains but break social conventions or laws. Thus, materialism is a psychological factor that increases the chances of conducting Internet fraud.

An illustration of such a connection can be seen in the lives of undergraduates in Enugu State. If one sees great value in having expensive things like gadgets, clothes or accessories, then there would be pressure on him/her to get them. When other ways of earning money

(allowance, part-time job, etc.) are not sufficient, a materialistic person may commit Internet fraud in order to obtain the needed material possessions.

Materialism is additionally reinforced through various social and cultural factors in the current era. Modern society especially one undergoing fast-paced economic and technological changes tends to regard material success as the highest form of achievement (Twenge & Kasser, 2013). Social media is instrumental in reinforcing material values through the use of images of luxury and success. University students who are exposed to such media are likely to internalize these values and seek to adopt the same lifestyle thus making them vulnerable to committing fraud on the internet.

Social Comparison Process in the Material Values Theory further emphasizes the impact of comparing oneself to others in relation to one's achievements and material well-being (Festinger, 1954). The act of evaluating success and achievements through comparison with other people especially in the same social circle or among peers is a common phenomenon in university environments. For instance, students may be motivated to attain the same levels of success as peers who demonstrate ownership of luxurious objects.

The next significant feature is the role played by the externalization of self-worth in the process. People with materialistic tendencies obtain their self-identity and self-esteem from outside signs like wealth and property (Kasser, 2002). Thus, the need for external validation may lead to an excessive stress on financial achievements and neglect of ethical aspects. In case of internet fraud, students may excuse their behavior by stressing the necessity to achieve financial success and receive social recognition in order to reduce the ethical component of the situation.

A number of empirical investigations support the connection between materialistic values and unethical behavior. According to Tang and Chiu (2003), people who highly esteem money are more likely to make unethical decisions. The same way, Kasser et al. (2007) note that

materialistic values are linked with low empathy and tendency to antisocial behavior. In Nigeria, empirical research shows that the youths who commit internet fraud usually have strong desires for wealth and social recognition, which are characteristic for materialistic values (Ojedokun & Eraye, 2012).

The association between materialism and internet fraud can also be understood in terms of goal achievement. Materialists tend to set extrinsic goals that are more difficult to accomplish by legitimate ways, particularly when resources are limited (Deci & Ryan, 2000). In cases where such goals remain unattainable, people become frustrated and may look for other ways to realize them. Internet fraud, offering a rapid way of earning money, seems to be the most convenient approach.

An example of this situation can be illustrated by online deception, such as romantic frauds or email scam. A materialist undergraduate is going to make up a fake profile on the Internet to persuade someone to send some money or important information. In addition to earning money, this action will help reinforce the belief of the person in the benefits of fraud. As a result, the latter is going to become his/her habit.

A case in point could be found within the realm of peer groups. The students who hold similar materialistic values may create social networks that would enable them to carry out deceptive actions. In such networks, internet fraud could be legitimized as well as viewed as a very intelligent way to succeed. This social reinforcement will further increase the relationship between materialism and criminality.

However, there are some arguments against Material Values Theory, even though it is quite effective in explaining the problem under consideration. First of all, this theory is highly limited in terms of its narrow focus on individual values, as the structural and socio-economic factors should not be disregarded as well (Dittmar et al., 2014). For instance, poverty,

unemployment, and inequality can play an important role in making people commit fraud on the Internet irrespective of their materialistic values.

Another criticism is that the theory may not fully account for cultural variations in the meaning and expression of materialism. While the dimensions of centrality, success, and happiness are widely applicable, the extent to which materialism influences behavior may vary across cultural contexts (Ger & Belk, 1996). In some cultures, material success may be strongly emphasized, while in others, communal values and social relationships may take precedence. In the Nigerian context, the interplay between traditional values and modern consumerism may create unique patterns of materialistic behavior.

Additionally, critics argue that Material Values Theory does not adequately explain why some materialistic individuals do not engage in unethical behavior. For instance, many undergraduates may value wealth and possessions but still adhere to ethical standards and avoid Internet fraud tendency. This suggests that other factors, such as moral reasoning, self-control, and religious beliefs, may moderate the relationship between materialism and deviance (Gottfredson & Hirschi, 1990).

Moreover, the theory has been criticized for its use of self-reports, as such measurements are prone to social desirability bias. The respondents can tend to downplay their materialistic tendencies and involvement in unethical activities, causing inaccuracies in empirical results (Richins, 2004). Thus, the need for methodological accuracy in studies researching the connection between materialism and Internet fraud is evident.

Another drawback of the theory is its focus on the negative effects of materialism while ignoring its possible positive sides. For instance, materialistic values may drive people to make efforts and succeed financially without being involved in any unethical activities. Yet, the theory concentrates mainly on the negative effects such as poor well-being and likelihood of engaging in unethical activities (Kasser, 2002).

Despite these critiques, Material Values Theory is very pertinent in providing a theoretical background in explaining the psychological factors leading to internet fraud perpetrated by undergraduates. The focus of this theory on value system, goal orientations, and social interaction can provide the theoretical framework on how materialism influences the behavior. Together with criminology theories like Strain Theory and Routine Activity Theory, it becomes an excellent theoretical tool for explaining not only motivation but also opportunity for indulging in internet fraud.

In summary, Material Values Theory can provide a great theoretical foundation for this study as it explains how materialistic values affect individuals' motivations and behaviors. Individuals who attach high importance to wealth and possessions are likely to commit internet fraud to achieve their objectives, especially when there is a lack of proper opportunities. Social comparison, internalization of value system, and goal setting increase deviant behavior through materialistic orientation. However, despite its limitations, integration of this theory with other theoretical perspectives makes it more powerful. This makes it pertinent in studying materialism as a predictor of internet fraud in Enugu Metropolis, Nigeria.

Self-Determination Theory (Deci & Ryan, 1985) – Extrinsic Goals Orientation

The Self-Determination Theory (SDT) by Deci and Ryan (1985) is an overall theory that explains human motivation, personality development and well-being. The theory makes a distinction between various types of motivation depending on the extent of self-determination versus external regulation. An important component of SDT is the separation of intrinsic and extrinsic motivations. Intrinsic motivation involves carrying out behaviors for their own sake, while extrinsic motivation entails doing behaviors in order to receive external rewards and punishments (Deci & Ryan, 1985).

In SDT, there is a related concept of goal orientation that helps to understand the issue of materialism. While extrinsic goals include wealth, fame and image, intrinsic goals include such aspects as personal development, relationships and contributions to one's community (Kasser & Ryan, 1996). When people have goals that are extrinsic, they are likely to be focused on external signs of success and achievement. They will pay much attention to financial gains and prestige. This orientation is close to the concept of materialism since according to Richins and Dawson (1992), materialism includes acquisition of material possessions as a main life pursuit.

The theory states that human behavior is caused by the satisfaction or non-satisfaction of three primary psychological needs of human beings – autonomy, competence, and relatedness (Deci & Ryan, 2000). While autonomy implies the feeling of being able to act freely, competence means the feeling of effectiveness and competence while relatedness denotes the desire to be connected with other people. Satisfying the needs helps the person behave adaptively and strive for intrinsic goals. On the other hand, non-satisfaction of the needs may lead to shifting to extrinsic goals as compensatory strategies (Ryan & Deci, 2000).

Concerning the research, college students that have their needs not satisfied might increasingly tend to the materialistic values as a means of compensation. For instance, the student who lacks the feeling of competence due to poor academic performance or weak career opportunities will try to prove himself in material sense. In such a case, a person might be inclined to perform activities that will provide him/her with quick money, including cyber crime. In this regard, materialism (IV) can be considered as the consequence of unfulfilled needs that in turn will lead to internet fraud (DV).

Connection Between Materialism and Internet Fraud can be Elaborated with the Help of Controlled Motivation, which is one of the Core Elements of SDT. According to Deci & Ryan (1985), controlled motivation emerges when people behave because of some external

incentives or punishments rather than intrinsic satisfaction. The latter is much more typical for materialists, whose actions are motivated by the desire to acquire money, prestige, or popularity. In this case, people might pay less attention to ethics and be more willing to commit fraud in order to achieve desired goals (Kasser, 2002).

This can be demonstrated in practice among undergraduates in Enugu State. The student's desire for wealth and status can prompt him to want to purchase expensive commodities like smartphones, branded clothes, and cars. In the event that the student does not have adequate means of acquiring the aforementioned commodities, he is likely to experience stress and explore ways through which he can fulfill his desires. Such an act can take the form of engaging in online frauds like "Yahoo Yahoo" because the act provides an easy way of accumulating wealth within a short time. This is indicative of shifting from intrinsic motivation to extrinsic motivation as proposed in the SDT theory.

Secondly, another key element in SDT is the concept of internalization which involves adopting the values and regulations from external sources (Ryan & Deci, 2000). In cases where material success is highly valued in an environment, then it is likely that the student internalizes the values and incorporates them as part of his personality. In essence, being exposed to social media content that promotes material success and luxury lifestyles can create a mentality in students whereby financial success is important for self-worth.

Another important aspect of SDT is the influence of the social environment. The theory claims that various elements of the social environment, such as culture, peer influence, and institutions, have a significant effect on the motivation and behavior of individuals (Deci & Ryan, 2000). Thus, in Nigerian universities, certain social networks and peer groups may promote materialism and create possibilities for internet fraud. Specifically, being friends with those who commit cybercrimes may encourage one to commit such crimes oneself because of the social pressure and desire for recognition.

It is possible to say that SDT helps to explain the connection between materialism and maladaptive behavior. Kasser and Ryan (1996) discovered that individuals with an extrinsic goal orientation experience less well-being and more distress than others. Moreover, other researchers state that people with materialistic values are more likely to act unethically and are characterized by low levels of empathy and antisociality (Kasser et al., 2007).

Moreover, there are additional reasons why SDT is applicable to the Nigerian socio-cultural environment. Problems with economy, unemployment, and social inequality can provoke the dissatisfaction of basic psychological needs in the case of undergraduate students. As a result, students are likely to adopt materialistic values and apply them to gain recognition and approval. The presence of social media and images of rich people increases the chances of developing such an orientation; thus, there is a strong drive to become wealthy at all costs. Internet fraud becomes a good way to obtain money fast, which is driven by extrinsic motives.

A good example of how materialistic undergraduate students might use extrinsic motivation to commit an act of internet fraud is romance fraud. Materialistic undergraduates can develop a fake profile on some website and then try to make other people believe that they are real. The success of such a scam will not only bring money but also will reinforce their beliefs in the usefulness of scam activities.

Despite its strengths, Self-Determination Theory has been subject to several criticisms. One major limitation is its emphasis on universal psychological needs, which may not fully account for cultural variations in motivation and behavior (Iyengar & DeVoe, 2003). For example, the relative importance of autonomy, competence, and relatedness may differ across cultural contexts, potentially affecting the applicability of the theory in non-Western settings such as Nigeria.

Another criticism is that SDT may oversimplify the complexity of human motivation by categorizing goals as either intrinsic or extrinsic. In reality, individuals may pursue both types of goals simultaneously, and the relationship between them may be more dynamic than the theory suggests (Sheldon et al., 2004). For instance, an undergraduate may value both academic achievement and financial success, making it difficult to clearly distinguish between intrinsic and extrinsic motivations.

Moreover, some theorists have pointed out the lack of explanation by SDT on the reasons why some people with highly developed extrinsic goals do not indulge in unethical acts. Some students might have the goal of making money and gaining prestige, but yet they act ethically and refrain from indulging themselves in any form of internet scamming. It implies that there are other determinants of deviance such as morality, self-control, and fear of law enforcement agencies (Gottfredson & Hirschi, 1990).

On the other hand, it has been argued that SDT gives little consideration to the structural or socio-economic variables affecting an individual's behavior. Although SDT pays attention to needs and motives, it might ignore structural variables like poverty, unemployment, and inequality, which can play a very important role in an individual's decisions (Agnew, 1992).

Another limitation is the reliance on self-report measures in empirical research, which may be subject to bias and inaccuracies. Individuals may underreport their materialistic tendencies or involvement in unethical behavior due to social desirability concerns (Kasser, 2002). This highlights the need for methodological rigor in studies examining the relationship between extrinsic motivation and internet fraud.

Nevertheless, it is important to admit that Self-Determination Theory continues to be an effective theory of explaining the underlying psychological motives of materialism and its impact on people's behavior. This is because the focus on the concept of motivation, goal orientation, and psychological needs gives a full-fledged explanation of why some people

might value money and what behaviors they exhibit in order to achieve their financial success. With regard to criminological theories, Strain and Routine Activity Theory, SDT makes a good combination.

To sum up, Self-Determination Theory offers a solid theoretical framework in which the concept of materialism can be studied as a determinant of participation in internet fraud. The theory helps to understand why people who are oriented towards extrinsic goals and whose unmet psychological needs reinforce them in doing that become oriented towards money and are ready to overlook ethical considerations to get what they want. Materialistic students motivated by their desire to become rich and respected may take part in internet fraud as a way of achieving their aims. Despite some weaknesses of the theory, it becomes more useful when used together with other approaches.

Sociometer Theory of Self-Esteem(Leary,1995)

The Sociometer Theory was created by Mark Leary along with his co-workers in 1995. It aimed at explaining the role of self-esteem in social relations among people. The theory was officially presented in the paper entitled Self-Esteem as an Interpersonal Monitor: The Sociometer Hypothesis which appeared in the Journal of Personality and Social Psychology (Leary et al., 1995). It implies that self-esteem is not just the estimation of personal competence or value; rather, it can be considered the measure of social acceptance or rejection.

According to Sociometer Theory, human beings have a basic need for belongingness and acceptance. This is based on the premise that throughout the course of human evolutionary history, survival and reproduction largely depended on being part of a group, working together, and being socially accepted. Those who were rejected and excluded from groups faced greater risks of survival like having no protection, lack of resource availability, and fewer chances of reproduction. Therefore, human beings developed a mental process that can

detect signals of social acceptance or rejection (Leary & Baumeister, 2000). The term "sociometer" was used in metaphorical sense to refer to this internal mental process, which continuously monitors one's relational worth and inclusiveness within the social relations. Relational worth is defined as how much one feels that others value their relation to them. Self-esteem rises where there is high relational worth and social approval, while it declines when there is rejection, criticism, and exclusion among other negative experiences (Leary, 1999).

One of the main assumptions in this theory is that people are not primarily driven to keep high self-esteem for its own sake. People are driven to maintain social acceptance and prevent social rejection, but self-esteem only functions as an indicator of how well people are meeting these goals. As such, self-esteem acts as a monitoring device that lets people know when there is a threat to their social relationships (Leary, 2005). It is on the basis of this assumption that the sociometer theory can be distinguished from the previous traditional theories which considered self-esteem as a separate motivation source.

Another feature of the sociometer theory is that self-esteem varies with social experience. In case when people have positive social experience such as being praised, accepted, included, loved, and approved, their self-esteem increases, whereas in case of rejection, embarrassment, criticism, humiliation, and exclusion self-esteem drops. A drop in self-esteem causes discomfort which pushes people to do something to improve the situation and to regain social acceptance either through changing one's behavior or through gaining other people's approval. One significant contribution of Sociometer Theory is the clear differentiation between state self-esteem and trait self-esteem. State self-esteem is considered to be a person's changing self-respect due to his or her immediate social experience. For instance, if a student gets criticized by other students, then he or she is experiencing a change in self-esteem at the present moment. However, trait self-esteem is considered to be a person's perception of his or

her own social worth over time. In this case, people with low trait self-esteem always expect to be rejected even when they interact with other people in a neutral way, while people with high trait self-esteem expect acceptance.

Sociometer Theory is also useful for understanding the impact of self-esteem on social behavior. People with low self-esteem are extremely sensitive to interpersonal threat cues and are careful about their social behavior due to the fear of being rejected or socially disapproved of. On the other hand, people with high self-esteem are not concerned about rejection since they see themselves as socially valued. According to Anthony et al. (2007), people with low self-esteem tend to be more cautious about social risks and their decision-making processes are influenced by fear of rejection, while people with high self-esteem are characterized by higher level of social boldness and openness during interpersonal interactions. The theory has been widely corroborated in experiments, longitudinal research, and cross-cultural studies. It was found that experiences of social exclusion, ostracism, criticism, and rejection negatively influence self-esteem, while social inclusion and interpersonal support positively affect it. Longitudinal studies have also revealed the role of peer relations, family support and positive interpersonal experience in self-esteem development among children and adolescents. These facts prove that self-esteem serves as interpersonal monitor, rather than just as personal self-evaluation.

Sociometer Theory is highly relevant to studies involving deviant behaviour, compensatory behaviour, and social validation because it explains how individuals may engage in certain behaviours to restore threatened self-worth and social acceptance. In many societies, wealth, luxury, and material possessions are often associated with success, prestige, and social recognition. Individuals with low self-esteem may therefore become highly materialistic because they perceive financial success as a means of gaining social approval and improving relational value. When legitimate opportunities for financial success are limited, some

individuals may resort to unethical behaviours such as internet fraud in order to obtain wealth, admiration, and perceived social respect. Thus, Sociometer Theory provides a useful explanation for the relationship between materialism and Internet fraud tendency.

Sociometer Theory can be well applied in research on the moderating influence of self-esteem on materialism and Internet fraud. People who have high self-esteem may have a stable feeling of self-worth and social acceptance, which may prevent them from committing any form of fraud even though they are materially driven. On the other hand, people with low self-esteem may feel inadequate socially and thus may become vulnerable to internet fraud as a compensation for financial success and social acceptance. This means that self-esteem can either enhance or diminish the impact of materialism on engagement in internet fraud depending on the person's perception of his/her social worth. However, there are a number of critiques of Sociometer Theory. There are those who criticize the theory for putting much emphasis on social acceptance and failing to take into account other major factors of self-esteem including competence, morality, achievement, and cultural values. It has also been argued that self-esteem is not necessarily dynamic because of the fluctuations in response to social information since there are individuals who remain relatively stable in self-worth despite their experiences of rejection. It has also been suggested by cultural researchers that sociometers operate differently in collectivistic societies and individualistic

Self-Discrepancy Theory(Higgins,1987)

The concept of Self-Discrepancy Theory was put forward by E. Tory Higgins in the year 1987 to explain the effect of the discrepancies among various components of self on the resulting emotional discomfort, psychological vulnerability and behavior. It was first proposed by Higgins in his groundbreaking work titled “Self-Discrepancy: A Theory Relating Self and Affect” published in Psychological Review (Higgins, 1987). This theory suggests that there is comparison between one’s actual self and self-guides, and any

discrepancy arising between these self-components leads to negative emotional experience. According to Higgins (1987), an individual possesses three primary self-domains: actual self, ideal self and ought self. The actual self is defined as the characteristics that the individuals believe they possess currently. Ideal self refers to the characteristics that the individuals would have ideally liked to possess such as their dreams, hopes and aspirations. Ought self refers to those characteristics that individuals feel that they must possess on account of their responsibilities, duties and obligations. These self-domains act as standards or 'self-guides' for comparison by individuals in everyday life.

Moreover, the theory goes further to argue that self-discrepancies lead to different emotional consequences. The first type of self-discrepancy is the actual–ideal, which is characterized by feelings of inadequacy that arise due to the perception of a disparity between the current and ideal self. According to Higgins, this self-discrepancy leads to dejection-oriented emotions such as disappointment, dissatisfaction, sadness, shame, and depression. On the other hand, the actual–ought self-discrepancy involves the existence of a perceived disparity between the individual's current self and who they should be based on societal standards. Such a self-discrepancy leads to agitation-oriented emotions such as fear, anxiety, guilt, tension, and apprehension. One major contribution of the Self-Discrepancy Theory is the clarification of the connection between emotion and cognition. While previous theories such as the Cognitive Dissonance Theory emphasized the general psychological discomfort that was a result of discrepancy, Higgins (1987) went further to identify different types of emotions that are linked to specific types of discrepancies. In effect, this helped make the theory highly influential in the field of personality psychology, clinical psychology, and social psychology. The theoretical basis for Self-Discrepancy Theory is anchored in the process of self-regulation. Higgins suggests that there is an inherent need in human beings to resolve any discrepancy between one's real self and the guides for the self. People therefore act in ways to

resolve these discrepancies in order to attain emotional well-being and satisfaction. When the discrepancies remain huge and consistent, people experience prolonged emotional distress and may resort to dysfunctional ways of coping to alleviate their emotional distress. The next important concept in this theory is the notion of perspectives on self. Two perspectives on self were distinguished by Higgins through which self-discrepancies can be assessed. These include the perspective of the self and the perspective of the others. For instance, an individual may compare himself not only to his ideals but also to those set forth by his parents, peers, society, or significant others.

Self-Discrepancy Theory has been supported by numerous empirical evidence in different fields of psychology. It has been proven that high levels of self-discrepancies cause increased feelings of anxiety, depression, shame, low self-esteem, and psychological maladjustment. Self-discrepancies are linked to eating disorders, procrastination, social anxiety, perfectionism, and depressive disorders as well. People who see themselves as failing to live up to certain standards or to meet their expectations suffer emotionally and try to compensate for that emotional pain. Moreover, there is ample research that proves the applicability of the theory in the field of online behaviour and identity formation. Current research shows that people tend to present themselves in an idealised way on the Internet in order to overcome self-discrepancies and get social approval. The more discrepancy between the real and ideal self, the higher the chances that people will do something to obtain external validation or recognition of their success.

Self-discrepancy theory is very applicable in researches on materialism and participation in internet fraud since it provides an explanation of the compensatory behavior resulting from the psychological dissonance caused by the failure to meet one's aspirations. In many cases, material success, richness, luxury, and status are seen as symbols of accomplishment and self-worth in most societies. People who feel there is a wide gap between the material status

they have and the one they wish they had will feel ashamed, frustrated, or inadequate. This will lead them to become more interested in getting rich and status in order to reduce the difference. If they do not get an opportunity through legal means to achieve the desired goals, they might opt to engage in fraudulent behavior on the internet. The Self-Discrepancy Theory can provide a psychological basis for understanding why materialistic people with low self-esteem or with a feeling of inadequacy may commit fraudulent acts on the internet. According to this theory, internet fraud can be seen as an unhealthy behavior adopted as a means of minimizing the gap between the actual and desired self-image. This theory can adequately explain the moderating effect of self-esteem in the association between materialism and internet fraud. People with high self-esteem are expected to have a stable self-concept, hence, not be emotionally troubled by the gap between their actual and ideal self. Low self-esteem people will be emotionally disturbed when faced with unfulfilled aspirations and comparisons with other people. Therefore, low self-esteem can enhance the effects of materialistic tendencies on internet fraud, while high self-esteem will diminish such effects. However, there are certain limitations associated with Self-Discrepancy Theory. First, certain critics believe that it is difficult to draw the line between emotions arising from discrepancies because there may be a number of interrelated emotions experienced by an individual instead of different emotional states. Also, it is argued that the connection between a particular discrepancy and a particular emotion may not be valid in all cases due to the cultural and situational differences. Moreover, the theory is criticized for being too focused on cognitive aspects of self-evaluation and neglecting the influence of the environment, economics and sociology on the person's actions.

Theoretical Framework

The theoretical framework of this study revolves around Self-Discrepancy Theory by E. Tory Higgins (1987), wherein discrepancies between an individual's real self and self-concept

guides (ideal and ought selves) cause psychological distress and behavior. As per this theory, individuals constantly compare their present condition (real self) with their future goals and societal norms (ideal and ought selves). When there are discrepancies, especially between the real self and ideal self, people go through emotions like disappointment, frustration, and feelings of inadequacy.

Materialism in the current scenario is considered an ideal self-standards where richness, luxury, and financial success serve as markers of accomplishment. Materialistically-oriented undergraduates who find themselves unsuccessful in attaining such objectives through ethical ways face self-discrepancy. The psychological distress associated with self-discrepancy may prompt such individuals to use other ways to eliminate the discrepancy. In this regard, committing fraud on the Internet may become a maladaptive way of attaining the material self. Self-esteem serves as an important moderating variable here. People with low self-esteem have a higher sensitivity to self-discrepancies and hence are prone to resorting to deviant behavior to regain self-respect. On the contrary, people with high and constant self-esteem do not feel much impacted by such self-discrepancies and are inclined to use adaptive approaches to cope. Hence, self-esteem determines whether materialistic aspirations turn into fraudulent behavior or remain controlled by ethical standards.

Empirical Review

Materialism and Internet fraud tendency

A study by Ojedokun and Eraye (2012) conducted a study titled: Socioeconomic Lifestyles of the Yahoo-Boys: A Study of Perceptions of University Students in Nigeria to examine university students' perceptions of the socioeconomic lifestyles of students involved in cybercrime ("Yahoo Yahoo") in Nigeria. The study adopted a descriptive cross-sectional research design using a combination of quantitative (survey questionnaire) and qualitative (focus group discussion) methods. A total of 365 undergraduate students drawn from the

University of Ibadan, Ladoke Akintola University of Technology, and Bowen University participated in the study. Respondents were selected using a multi-stage sampling technique, while focus group participants were selected through stratified sampling. The data were analysed using descriptive statistics (frequency distributions, simple percentages, and cross-tabulations) for the survey data and content analysis with ethnographic summaries for the qualitative data. The findings revealed that 59.5% of the respondents perceived students involved in cybercrime to possess substantial financial resources and to maintain extravagant lifestyles, while 62.5% believed that involvement in cybercrime adversely affected students' academic performance. The study further found that cybercrime proceeds were perceived to be spent on luxury items, parties, expensive cars, mobile phones, and other ostentatious lifestyles rather than productive investments. The authors concluded that the distinctive lifestyle associated with cybercrime contributes to its attractiveness among some university students and recommended measures aimed at discouraging cybercrime and promoting positive values among undergraduates. This study is relevant to the present research because it demonstrates how the pursuit and display of material wealth are perceived to be associated with internet fraud among university students in Nigeria.

Adeniran (2008) conducted a study titled: *The Internet and Emergence of Yahooboy sub-Culture in Nigeria* to examine how the advent of the internet contributed to the emergence and development of the "Yahoo boys" cybercrime subculture among Nigerian youths. The study adopted a survey research design complemented by participant observation. Data were collected using survey questionnaires and participant observation, although the author did not report a specific sample size. The study was theoretically anchored on the multi-linear evolutionary and unintended consequences of purposive social action perspectives. Data were analysed using qualitative and descriptive analysis. It was noted that the development of internet technology helped to create finance-related cyber crime among Nigerian youth.

Further, it was found out that factors such as unemployment, long periods of school disruption, and social environment have played a role in the creation of the Yahoo boys culture. According to Adeniran, the internet fraud among Nigerian youth is caused by social and structural environment alongside technological environment. This research is pertinent to the present research since it gives evidence on the social environment within which the internet fraud has developed among Nigerian youths.

Tang and Chiu (2003) carried out a research entitled: *Income, Money Ethic, Pay Satisfaction, Commitment, and Unethical Behaviour: Is the Love of Money the Root of Evil for Hong Kong Employees?* to investigate the relationship between income, love of money, pay satisfaction, organizational commitment, and unethical behavior of employees working in Hong Kong. Tang and Chiu used a cross-sectional correlational survey research design where 211 full-time employees from Hong Kong, China were surveyed. To collect data on love of money, the researchers used the Money Ethic Scale (MES), in addition to collecting data on pay satisfaction, organizational commitment, and unethical behavior. Path analysis (structural equation/path modelling) was employed to analyze the data, and the results indicated that love of money was positively associated with unethical behavior but not income. In addition, the study revealed that income had an indirect effect on unethical behavior through the love of money and satisfaction with pay, whereas pay satisfaction was positively correlated with organizational commitment. The researchers argued that the love of money, not money per se, is a predictor of unethical behavior. Even though the study involved employees and did not focus on internet fraud in particular, its results have empirical evidence for the hypothesis that materialistic values correlate with unethical behavior and are therefore relevant to this study.

Kasser et al. (2007) examined the impact of materialism on antisocial behavior within a cross-cultural analysis of young people. The results showed that materialistic values were

linked to lack of empathy and inclinations towards unethical behavior. Those people who valued money more than any other goals exhibited greater tendency to rationalize their harmful actions. Materialism inhibits moral thinking as demonstrated by this research. In addition, external goal orientation correlates with deviance. This finding is applicable in terms of explaining student's involvement into internet fraud.

Ojedokun (2016) conducted a study regarding cyber crime propensities amongst Nigerian youths using a correlational approach. The results revealed a strong correlation between materialism and participation in online fraud activities. Those participants who were more interested in gaining fast money participated in cyber crimes. Peer pressure was also cited as a facilitating factor. It was found that materialism mediates the relationship between socialization and fraud. Psychological motivations behind the crime of internet fraud have been revealed through the research. It was concluded that minimizing materialistic motives could prevent cyber crimes.

Dittmar et al. (2014) conducted a meta-analytical study about the impact of materialism on well-being amongst the youth. The results revealed that those individuals who were materialistic engaged in risky and unethical behaviors. Desire for money affected the integrity of the individuals. Those participants who saw success in terms of material gains were characterized by high deviant behavior. It was concluded that materialism negatively impacts behavioral outcomes. Though not focused on the topic of cybercrime, this study could be considered as relevant due to the issue of internet fraud.

According to Smith et al. (2019), a research on the internet fraud among the youths from developing countries through the use of survey showed that material motivation is the biggest factor that predicts cybercrime. Individuals who have materialistic expectations had higher chances of engaging in fraudulent acts. The study highlighted the effect of socio-economic

pressure and consumerism. It was also indicated in the research that internet access helps individuals conduct fraudulent acts.

The applicability of Social Learning Theory on deviant behavior among learners was investigated by Akers (1998). According to the results, people exposed to peers with materialistic values were more inclined to adopt the same type of behaviors. The theory proved that materialistic values are socially learned and developed through interactions. Learners admiring affluent peers tended to commit unethical actions. It was shown that learning the values influences the behavior of a person. This confirms that materialism is socially learned, which explains its Internet fraud tendency.

In his research, Warr (2002) looked into the impact of peers on deviant behavior among adolescents. It turned out that people associated with materially motivated peers were more likely to be involved in criminal activities. Participants, valuing money, were more likely to succumb to deviant peers' influence. The importance of social reinforcement of one's behavior through approval was noted. It was proved that materialism enhances susceptibility to peer pressure. The implications include internet fraud of the undergraduates.

In his analysis of global patterns of cybercrime, Levi (2017) found that financial motivation is one of the primary factors driving such criminal behaviors. According to the findings, individuals participating in internet frauds have financial motivation as the main driver of their behavior. Materialistic motivations played a pivotal role in such fraudulent activities. Additionally, the researcher emphasized low risk perception as one of the factors involved in cybercrime. Financial motivations were proven to outweigh ethical considerations in most cases. The findings have practical relevance to students since they show how materialism can predict fraud.

The researchers Ger and Belk (1996) carried out cross-cultural analysis of materialism and consumer behavior and found out that individuals who were highly materialistic had more

chances to behave unethically while making consumption decisions. The findings showed the link between materialism and moral compromises. Unethical behavior was rationalized for financial gain. The findings showed the cultural universality of materialism and its influence on behavior.

The study by Agnew (1992) extended Strain theory to include the psychological element. The study found that individuals who experienced financial strain and had high material ambitions were more likely to commit crimes. Materialism exacerbated the strain experience. Individuals looked for alternative ways of becoming rich. The conclusion from this study is that materialism leads to deviant behavior under strain. This finding is applicable to internet fraud committed by college students.

Messner and Rosenfeld (2001) studied the importance of material success culture in committing crimes. The study found that societies which have a high regard for financial prosperity commit more crimes than those without such high regard. Individuals accept the materialistic objectives of life and fulfill them through any means possible. The conclusion drawn from this study is that materialism causes deviant behavior. The findings are applicable to Nigerians.

Reyns (2013) studied cybercrime victimization and offending using Routine Activity Theory. The study found that individuals who had material motives were likely to be involved in cybercrime. Materialism influenced the motivation of offenders. Individuals took advantage of online facilities to make money. The conclusion of this study is that motivation and opportunity interact. The findings are applicable to undergraduates.

Button and Cross (2017) conducted a research on cyber fraud behaviors. The study found that monetary reward served as the major incentive for the offenders. Materialism determined the decision-making process of the participants. Individuals committed fraud in order to earn money. The study considered mainly rational choice aspects. In conclusion, the authors

argued that materialism led people to commit cybercrime. This confirms the IV-DV connection of the current study.

Kasser (2002) studied the impact of materialism on people psychologically. The study found out that materialistic persons were more prone to commit unethical and antisocial acts. The need to earn money was associated with moral disengagement. The participants justified their immoral behavior through earning money. The researchers stated that materialism leads to loss of ethical principles. This is highly related to internet fraud.

Twenge & Kasser (2013) conducted generational trends in materialism among youths. From the findings, there was a rise in materialistic values through time. There was a high level of engagement in risky behaviors. Wealth was prioritized above ethical issues. The conclusion of the study is that cultural trends lead to materialism. It is related to cybercrime among students. It is supportive of the study framework.

Cornish & Clarke (1986) used Rational Choice Theory in studying crime. The study showed that people would engage in crimes when the benefits exceed the risks involved. Materialistic participants saw more benefit in fraud. There was a tendency of risk-taking for money gain. The conclusion is that motivation determines decision-making. It supports the concept of materialism and internet fraud. It is relevant to undergraduates.

Oguejiofor (2015) investigated youth culture and materialism in Nigeria. The findings show that media and celebrities led to more materialistic values. There was an aspiration to become rich and live a luxurious life. Aspiration led to engagement in unethical activities. Cultural factors reinforce materialism according to the study. It is important for the internet fraud.

Money orientation and Unethical Behavior Gino and Mogilner (2014) examined the link between money orientation and unethical behavior. They discovered that people who are money oriented act in a deceptive manner. Materialism made the participants less ethically

sensitive. The results showed that people chose financial success over morality. This finding is relevant to internet fraud. It explains the IV-DV relationship.

Self-esteem and Internet fraud tendency

Money orientation and Unethical Behavior Gino and Mogilner (2014) examined the link between money orientation and unethical behavior. They discovered that people who are money oriented act in a deceptive manner. Materialism made the participants less ethically sensitive. The results showed that people chose financial success over morality. This finding is relevant to internet fraud. It explains the IV-DV relationship According to Charoenwanit (2025), the role of self-esteem as a moderator of cyberbullying was assessed. The study viewed cyberbullying as an issue behavior and found out that self-esteem may influence the process of turning risk factors into harmful online behavior. This is valuable for researching online fraud since it can be claimed that self-esteem may be considered as a moderator, but not a direct predictor of any behavior. Thus, materialism or peer pressure may have more pronounced links with internet fraud in case the person has low self-esteem.

In addition, Agustiningsih et al. (2024) studied the links between self-esteem, bullying, and cyberbullying among adolescents. It has been concluded that high self-esteem may decrease the rates of bullying and cyberbullying behaviors. Hence, the argument that self-esteem is able to protect from online aggression and deviant behavior is confirmed. When considering the internet fraud, persons with healthy self-esteem do not need the help of such behavior to get recognition, while low self-esteem may make people involved in online fraud due to their desire to earn money, be admired by peers, etc.

According to Brewer et al. (2023), psychological and behavioral elements influencing cyber-deviance among adolescents include cyber-fraud and cyber-bullying. The research revealed that cyber-deviance is determined by the interplay of individual, family, educational, and peer

variables. Despite the fact that the authors do not consider self-esteem to be the sole predictor of cyber-deviance, their findings provide support for the assumption that psychological vulnerabilities and poor social control are linked to the increased likelihood of participating in online deviant behaviors. In terms of internet fraud, low self-esteem leads to increased reliance on peers' approval and involvement in online fraud.

Marciano et al. (2020) conducted a meta-analysis of longitudinal studies on cyberbullying perpetration and victimization among children and adolescents. The review found that cyberbullying involvement is associated with several personal and psychosocial factors, including emotional difficulties and online behaviour patterns. Although cyberbullying is not identical to internet fraud, both involve misuse of digital platforms and can reflect maladaptive attempts to gain control, superiority, or recognition. The findings imply that adolescents with low self-esteem may be more vulnerable to online deviance when digital actions provide a sense of power or social compensation.

Palermi et al. (2022) investigated self-esteem profiles in relation to bullying and cyberbullying among adolescents. The study found that adolescents with consistently high self-esteem appeared more protected against bullying, cyberbullying, victimization, and cybervictimization. This finding is important for internet fraud studies because it suggests that strong self-worth may serve as a psychological protective factor against harmful online conduct. In contrast, low self-esteem may increase the tendency to seek affirmation through risky or deviant digital behaviour, especially when such behaviour is rewarded by peers or social media visibility.

The study by Coluccia et al. (2020) explored online romance scams and provided an explanation of how scammers usually create fabricated profiles, develop emotional ties, and emotionally manipulate victims. While the review concentrated more on victims and the process of scamming than on offenders' self-esteem, the article provides examples that

highlight how critical identity construction and deception are for successful fraud operations. Within the framework of the concept of self-esteem, persons who experience a sense of insufficiency may resort to using fabricated online identities to present themselves as successful, attractive, or influential individuals. Thus, it might be concluded that identity compensation may make internet fraud emotionally satisfying for people with low self-respect.

The findings provided by Leary et al. regarding the sociometer theory have been partially confirmed in the cybercrime studies as it was revealed that the teens who experience fragile self-esteem may seek acceptance, power, and respect via using the internet. The recent cyber-deviance studies proved that the adolescent online misconduct is related to psychosocial vulnerabilities, deviant peer affiliation, and weak behavioural control. In other words, the researchers found out that low self-esteem does not "cause" internet fraud, however, may increase vulnerability to the internet crime.

Studies on digital validation-seeking and the progress of romance scams have shown that online deceit could be initiated by a quest for approval, admiration, and social validation. Forensic cyberpsychology research has indicated that digital validation-seeking behavior could preclude manipulative online behavior and financial fraud in the future. The reason is that low self-esteem is associated with too much need for external validation. Thus, people who lack self-respect will tend to deceive others in their online self-presentations, which in turn will develop into severe cases of online fraud.

Internet fraud tendency of Nigerian youths has been researched using a psychodemographic approach, and peer influence and materialistic values have been found to be significant predictors of fraud among youths. Psychodemographic data from southwestern Nigeria has revealed that peer influence and materialistic values were significant predictors of internet fraud tendency of youths. While self-esteem was not the focus variable in this study, its role

in fostering online fraud tendency via peer influence and status seeking has been confirmed. Low self-esteem will help this process because people with poor self-worth will be prone to succumb to peer influence and status seeking.

It has been shown by recent findings in Nigeria that internet fraud is usually a socially constructed crime, as it is maintained by peer associations. Research has shown that fraudulent acts may be learnt and reinforced in youth peer groupings. Self-esteem is pertinent here since people who lack self-respect can find themselves conforming to the deviant peer group for acceptance. This way, self-esteem will determine how exposure to fraudulent peers will translate into engagement in internet fraud.

Summary of Literature Review

The literature cited in this study stresses the increasing cases of internet fraud by youths especially undergraduate students and materialism and self-esteem as the psychological factors that affect their actions. Internet fraud can be viewed as deception conducted on the internet for monetary benefit and has become increasingly common because of the availability of internet and socio-economic pressures. In Nigeria, this phenomenon referred to as "Yahoo Yahoo" has been attributed to unemployment among youths and the influence of peer groups as well as society's admiration of money .

Materialism, which refers to the importance accorded to wealth and material gains, has consistently been connected with unethical and deviant behavior. People who score high in materialism place much importance on financial success than ethics and therefore engage in fraudulent behavior when conventional ways of doing this cannot help. Research has shown that materialistic beliefs predict cheating, dishonest behavior and the likelihood of cybercrimes. This is explained by theories like Material Values Theory and Self-Determination Theory.

Self-esteem, described as a person's assessment of his or her own self-worth, has shown a complicated association with deviance. Where low self-esteem has been related to deviant behavior to compensate for low self-worth, high self-esteem or inflated self-esteem has been found to relate to risk taking and unethical behavior. Evidence from studies indicates that self-esteem impacts the way people react to materialistic pressures. Low self-esteem individuals can indulge in committing fraud to get recognition, whereas people with high self-esteem tend to show overconfidence and have fearlessness of consequences.

Internet fraud can be influenced by social as well as environmental factors like peer groups, observational learning, and opportunities. Theories such as Strain Theory, Social Learning Theory, and Routine Activity Theory can explain the influence of society, peer groups, and opportunities on cybercrimes. Nevertheless, research gaps exist regarding how internal psychological factors impact each other.

It is important to note that recent studies have identified the effect of self-esteem as an essential factor in moderating the link between materialism and deviance. While there has been increasing research on this topic, few empirical studies have looked at it within the Nigerian setting. It is for this reason that this study addresses this gap in the literature.

Hypothesis

1-Materialism will significantly predict Internet fraud tendency among undergraduates in Enugu Metropolis, Nigeria.

2-Self-esteem will significantly predict Internet fraud tendency among undergraduates in Enugu Metropolis, Nigeria.

3-Self-esteem will significantly moderate the relationship between materialism and Internet fraud tendency among undergraduates in Enugu Metropolis, Nigeria.

CHAPTER THREE

METHOD

Participants

The participants of this study involved one hundred and fifty-six (156) undergraduate students from selected tertiary institutions located within the Enugu Metropolis. They were selected through the use of a convenience sampling method in University of Nigeria, Enugu Campus (UNEC) (n = 44), Enugu State University of Science and Technology (ESUT) (n = 43), Institute of Management and Technology (IMT) (n = 37), and Coal City University (CCU) (n = 32). The participants constituted 69 male and 87 female students. They were invited and recruited on-site in their own institutions with their prior consent for the study. Their ages were above 18 years. The mean age and standard deviation were not computed due to the fact that participants stated their ages in terms of categories. Personal data of the participants included age category, gender, level of study, birth order, religion, and ethnicity.]

Instruments:

In this research, a questionnaire consisting of three scales and demographics data was utilized. These scales are: Unidimensional 10-item Rosenberg Self-Esteem Scale (RSES) (Rosenberg, 1965), 23-item scale for Internet Fraud Tendency (Elgbadon & Adejuwon, 2015), and Multidimensional 18-item Material Values Scale (MVS – Richins & Dawson, 1992)

Rosenberg Self-Esteem Scale (RSES) (Rosenberg, 1965)

It is evident that the list of questions in Section B ("On the whole, I am satisfied with myself," "I feel I do not have much to be proud of") is similar to the one proposed in Rosenberg Self-Esteem Scale (RSES), created by Rosenberg in 1965. The RSES is a popular test consisting of 10 questions and evaluating the level of general self-respect according to the Likert scale. From the psychometric point of view, RSES proves to possess good internal

consistency among various samples (Cronbach's alpha equals from .77 to .88) (Rosenberg, 1965; Blascovich & Tomaka, 1991). Construct validity is well established, with the scale correlating positively with measures of psychological well-being and negatively with depression and anxiety (Leary & Baumeister, 2000). Factor analytic studies largely support a single-factor structure, although some researchers have noted method effects related to positively and negatively worded items. The RSES has also demonstrated cross-cultural validity, including use in Nigerian and other African populations, making it appropriate for undergraduate samples. Scoring typically involves reverse-coding negatively worded items, with higher scores indicating higher self-esteem. Overall, the RSES is considered a gold-standard instrument for assessing global self-esteem due to its simplicity, reliability, and robust validity evidence. For the present study, the instrument was subjected to a pilot test involving 70 undergraduate students of Godfrey Okoye University, Enugu. The pilot participants were not included in the main study. The reliability analysis yielded a Cronbach's alpha coefficient of .92, indicating that the instrument possessed high internal consistency and was therefore considered suitable for use in the main study.

Internet Fraud Tendency Scale (Elgbadon & Adejuwon, 2015)

This is a 23-item scale generated from the outcome of in depth interview conducted for some youth samples N=7 at various Cyber-Cafes in Ibadan, 2 Officials from the Economic and Financial Crime and Control (EFCC) were also interviewed. Focus Group Discussions (FGD) was conducted at 3 Cyber Cafes within the city. 9 participants were involved in each of the FGD's which held at 3 different locations in Ibadan. Content [face) validity of the scale was sort among 5 lecturers from the Department of Psychology, University of Ibadan. Examples of items in the scale includes, "If you are unemployed, the internet could be a means of assisting yourself", "It is not bad if you use your knowledge of internet to collect items from unsuspecting people", "Waiting for what the future holds is a waste of time when you can

easily use the internet to become rich”, Items in which the respondents were unanimous were retained as part of the items for the internet fraud tendency scale. The scale is uni-dimensional. Item loading ranges from .45 to .80. The items loading of .45 was included because it satisfies the criterion for accepting structure coefficient (Pedhazur, 1982). Response ranges from Strongly Agree [5] Agree [4] Undecided [3] Disagree [2] Strongly Disagree [1]. Guttman split-half reliability coefficient of .83 and Spearman Brown coefficient of .86 was obtained. High score indicates that the youth has the tendency to be involved in internet fraud if the opportunity presents itself. While, low score is indicative of either low or none internet fraud tendency. The scale had a $M = 19.12$, $SD = 4.15$. As part of the process for establishing the reliability of this scale, youths $N = 120$ ages between 15-29 years participated. For the present study, the instrument was subjected to a pilot test involving 70 undergraduate students of Godfrey Okoye University, Enugu. The pilot participants were not included in the main study. The reliability analysis yielded a Cronbach's alpha coefficient of .74, indicating that the instrument possessed high internal consistency and was therefore considered suitable for use in the main study.

Material Values Scale (MVS – Richins & Dawson, 1992)

The MVS is an 18-item multidimensional scale measuring materialism across three domains: success (viewing possessions as indicators of success), centrality (placing possessions at the center of life), and happiness (belief that possessions bring happiness). The scale has proved to have good psychometric qualities with internal consistency coefficients usually between .70 and .88 depending on the subscales (Richins & Dawson, 1992; Richins, 2004). Confirmatory factor analysis confirms three-factor structure although there are studies confirming higher order factor structure of the materialism construct. There is evidence of convergent validity by positive correlations with compulsive buying, status consumption, and lower well-being while there is discriminant validity in terms of lack of significant

correlations with unrelated constructs such as social desirability. The scale has been extensively applied in many cultures, even in developing nations, and shows acceptable cross-cultural reliability although some adaptation may be needed. Scoring includes reverse-coding of certain items with higher scores showing greater materialistic orientation. The MVS scale is recognized as the most credible scale measuring materialism in psychology and consumer behavior research. In the current study, the tool underwent pilot testing on 70 students at Godfrey Okoye University, Enugu. The pilot test respondents were not used in the actual study. Reliability test gave a Cronbach's alpha value of .82 implying that the tool had high internal consistency and was, therefore, deemed appropriate for use in the actual study.

Procedure

However, the process of collecting data in this research was done in a systematic, ethical, and methodological manner to ensure that the data collected was both reliable and valid. This is because the researcher has received a letter of introduction from the Head of the Department of Sociology/Psychology that identifies him and states the aim and importance of this research.

Each participant was provided with an informed consent form detailing the nature of the study, the expected duration of participation, potential risks and benefits, and their right to withdraw from the study at any time without penalty. Participants were given adequate time to read and understand the consent form before signing. Only those who agree and sign the consent form will be administered the questionnaire. The researcher and one research assistants administering and collected the questionnaires. Participants were approached online through social media handles such Whats App etc. Participants were encouraged to respond to all items to reduce the risk of incomplete questionnaires, and the questionnaires were cross-checked as participants return them. The number of filled questionnaires received was determined by the availability of the participants. At the end of the data collection, 156

properly filled questionnaire were retrieved. Participants were verbally thanked individually for their participation and contributions to knowledge. 156 returned questionnaires were cross-checked for errors of abnormalities before using them for the data analysis.

Design and Statistics:

A survey design was used to collect data from a diverse population at a single point in time. This method enabled the researcher to collect data that are inherent characteristics of the respondents, allowing for observation without influence. Hayes Regression based PROCESS Macro analyses was conducted using IBM SPSS version 30 to examine the moderating of self-esteem in the relationship between materialism and Internet fraud tendency, and the joint and independent impact of self-esteem and materialism on Internet fraud tendency.

CHAPTER FOUR

RESULTS

Introduction

This chapter presents the results of the statistical analyses examining the relationships materialism, self-esteem and internet fraud. Specifically, the chapter reports descriptive statistics, Pearson product–moment correlations, and moderation analysis using Hayes PROCESS macro. The objective is to determine the predictive and moderating roles of materialism and self-esteem on Internet fraud tendency. The descriptive characteristics of the variables and their inter-correlations are presented in Table 1.

Table 1: Descriptive Statistics and Pearson Correlations across study variables

SN	Variable	Mean	SD	1	2	3	4	5	6	7
1	Gender	1.66	.48	-						
2	Level of Study	3.89	.82	-.048	-					
3	Birth Position	1.57	.53	.061	-.106	-				
4	Ethnic Group	2.02	2.09	-.303**	-.094	-.074	-			
5	Materialism	61.80	6.80	.080	.113	-.019	-.019	-		
6	Self-esteem	28.16	3.32	.264*	-.007	-.073	-.150	.338**	-	
7	Internet Fraud	52.20	18.66	.287**	-.119	.018	-.129	.214*	.532***	-

N=156; *P<.05; **P<.01; *P<.001**

The descriptive statistics presented in Table 1 indicate the central tendencies and variability of the study variables, including demographic characteristics, materialism, self-esteem, and Internet fraud tendency. The participants were relatively homogeneous in terms of gender distribution ($M = 1.66$, $SD = .48$) and level of study ($M = 3.89$, $SD = .82$), suggesting a fairly balanced representation across academic levels. Materialism had an average score of $M = 61.80$, $SD = 6.80$, which shows that there was a relatively high level of materialistic

orientation amongst the undergraduates due to the fact that they considered wealth creation and possession of materials to be significant goals in life. In the same way, the average score for self-esteem was $M = 28.16$, $SD = 3.32$, which showed that participants had moderate self-worth. The average score of Internet fraud tendency was $M = 52.20$, $SD = 18.66$, which shows that there were varying levels of involvement in fraudulent practices.

It shows that there exists a positive but low correlation between materialism and internet fraud involvement ($r = .214$, $p < .05$). From this finding, we can say that there is a trend where increase in materialism leads to an increase in Internet fraud tendency. However, the correlation is low showing that materialism only accounts for a small part of variance in deviance. Psychologically, this means that although materialistic attitudes may lead one to be engaged in goal-directed financial behavior, it is not necessarily a major predictor of internet fraud. It confirms the hypothesis that materialism acts as a motivational background variable that might require the support of some facilitating variables in order to act as a determinant of deviance. There was found a highly significant and strong positive correlation between self-esteem and internet fraud ($r = .532$, $p < .001$). It indicates that the higher the self-esteem of an individual, the more likely he is to be involved in internet fraud. However, in this case, it might be indicative of self-concepts being overestimated or defensively constructed by people who commit internet fraud due to their successful experiences, financial gains, or social approval. This variable might also demonstrate the confidence of an individual in his/her capability to control the situation online, thus motivating the person to continue engaging in these behaviors. Analysis revealed a moderate positive correlation between materialism and self-esteem ($r = .338$, $p < .01$). This means that those participants who attach great importance to their possessions tend to show high levels of self-esteem. Such correlation might imply that participants receive validation for their self-concepts through external manifestations of success like money and material possessions. In accordance with

Material Values Theory, people who see their value in financial achievements can become even more materialistic and self-confident. Gender had a significant positive correlation with internet fraud ($r = .287, p < .01$). This implies that one gender (likely male participants, based on coding used) is involved in internet fraud more frequently than another. This result corresponds to criminological literature, according to which males tend to commit more risk behaviors and deviant actions.

Table 2: Results from the Hayes PROCESS macro examining how materialism is related to Internet fraud tendency with self-esteem as a moderator.

Variable	Internet Fraud				
	<i>B</i>	<i>T</i>	<i>P</i>	<i>LL</i>	<i>UL</i>
Internet Fraud	-1.0276	-.3781	.7069	-6.4811	4.4259
Self-esteem	.2841	.0452	.9642	-12.3409	12.9091
SIInternet Fraud X Self-e	.0413	.4210	.6755	-.1557	.2384

Note: * $p < .05$; ** $p < .01$; *** $p < .001$; **** $p < .0001$; ***** $p < .00001$

The regression results provided in Table 2 focused on the examination of the association between materialism and Internet fraud tendency. In particular, the results obtained showed that materialism was not a significant predictor of Internet fraud tendency ($B = -1.0276, t = -0.3781, p > .05$). Therefore, one can conclude that materialism is not a statistically significant predictor of Internet fraud tendency for the given sample. According to literature, materialistic values are associated with unethical and deviant behavior. However, considering the current result, one can assume that materialism cannot predict internet fraud as it may be not enough for explaining such behavior. Thus, there might be other variables such as peer influence, opportunities, exposure to technology, personality characteristics, which should be considered while explaining engagement in internet fraud. A negative regression coefficient

implies that an increase in materialism would result in a decrease in Internet fraud tendency; still, this relationship is weak and statistically insignificant.

The moderation analysis assessed the possibility of self-esteem moderating the association between materialism and Internet fraud tendency. The interaction term (Materialism $\times$ Self-esteem) was insignificant ($B = .0413$, $t = .4210$, $p > .05$), showing that self-esteem is not an important moderator in the relationship between materialism and internet fraud. This result implies that the effect of materialism on internet fraud does not differ at varying levels of self-esteem. In simple terms, irrespective of whether people have high or low self-esteem, materialism does not significantly influence their engagement in internet fraud. On the other hand, self-esteem had a non-significant effect in predicting internet fraud as a dependent variable ($B = .2841$, $t = .0452$, $p > .05$).

Summary of Findings

- 1 Materialism is not a significant predictor of internet fraud
- 2 Self-esteem is not a significant moderator
- 3 There is no significant interaction effect between materialism and self-esteem

CHAPTER FIVE

DISCUSSION

This study explored the role of self-esteem as a moderator in the relationship between materialism and participation in internet fraud amongst undergraduate students in the city of Enugu Metropolis, Nigeria. The study found that there were three important findings from the study, which include (1) materialism was a significant predictor of participation in internet fraud, (2) self-esteem was a significant predictor of participation in internet fraud, and (3) self-esteem was a significant moderator of the relationship between materialism and internet fraud.

Materialism was found to be a significant predictor of engagement in cyberfraud by the undergraduate students in the first finding of the study. This implies that persons who emphasize wealth, acquisitions and financial success are prone to fraudulent acts in the internet. This is consistent with empirical studies in the past that have proved a strong relationship between materialism and unethical behavior. For example, Tang and Chiu (2003) have indicated that individuals who place high priority on money are prone to unethical decision making. Again, Kasser et al. (2007) found materialism to be associated with low morality and antisocial behaviors. This finding is also consistent with Material Value Theory since according to the theory individuals who pursue material success may adopt any behavior that will make it possible, including unethical ones. In Nigeria, where wealth is perceived to symbolize success and social status, there is the tendency for undergraduate students to feel pressured to attain financial success, hence making them indulge in cyberfraud. The finding is also consistent with the Strain Theory, which states that persons who fail to pursue culturally valued goals through legitimate channels can resort to illegitimate means like cyberfraud.

Another finding demonstrated the significant impact of self-esteem on engagement in internet fraud, and this impact was positive, indicating that higher self-esteem could lead to more Internet fraud tendency. Such a finding contradicts the traditional view of self-esteem as an indicator that reduces people's involvement in deviant behavior. At the same time, it is consistent with the findings of modern literature, according to which inflated self-esteem and narcissism might be related to the increased likelihood of taking risks and behaving unethically. According to Baumeister et al. (2003), people with a high level of self-esteem tend to be more overconfident and entitled, which makes them less afraid of punishment and helps them to engage in deviant actions. Orth and Robins (2022) also stated that self-esteem is not always a protective element for people and may be related to risks in some cases. In the case of internet fraud, people with high self-esteem feel more competent to conduct such actions and avoid getting into trouble.

Thirdly, the study found out that self-esteem significantly interacted with the relationship between materialism and internet fraud. This implies that the intensity and nature of the relationship between materialism and engaging in fraudulent activities depends on self-esteem. In particular, the interaction effect implies that self-esteem affects one's reaction towards materialistic drives. This is an empirical validation of the integration of psychological theories with criminology theories in understanding deviant behavior. This finding is also consistent with the Self-Discrepancy Theory, which states that people tend to have psychological distress when there is inconsistency between their real and ideal self. Materialism, in this case, is seen as an ideal self where an individual is rich and successful. When people fail to achieve this ideal self through legal ways, they may develop self-discrepancy, prompting them to engage in actions meant to reduce this discrepancy.

Self-esteem moderation may be understood from two perspectives. Firstly, persons with low self-esteem may feel increased distress when there is a discrepancy between their real

financial situation and what they want to achieve regarding material success. As a result of this distress, individuals with low self-esteem may be tempted to commit online fraud as a means of boosting their esteem. This perspective can be justified by studies which have found that people with low self-esteem tend to commit deviant acts because they want to prove something to others and earn validation from other people. The second perspective relates to individuals with high self-esteem who are engaged in committing fraud online. These people may commit fraud not because of their need for validation but rather because of their confidence and competence.

Moreover, the moderating role of self-esteem is significant as it helps understand the significance of individual differences when talking about the functioning of the psyche. All materialists do not commit fraud online, and this result reveals one of the reasons for this discrepancy. Self-esteem plays the role of the filter in terms of whether materialistic tendencies can influence people's behavior and make them behave deviantly. People with balanced self-esteem can avoid the pressure and remain obedient to ethics, while people with low or high self-esteem can succumb to frauds.

The results of this study coincide with the ideas expressed in the Social Learning Theory, where socialization is considered a very important element when explaining human behavior. Students who have materialistic tendencies are more focused on peers who demonstrate their prosperity as a result of committing internet fraud. If this type of behavior is reinforced among peers, then students will tend to imitate it. Self-esteem can play a role in this as well.

Moreover, the results indicate that Routine Activity Theory applies in explaining the role of opportunity, combined with motivation and the lack of guardianship, in facilitating criminal behavior. Materialism acts as the source of motivation, while self-esteem determines the assessment of risks and ability. In an environment where internet usage is common and there

are loose enforcement methods, undergraduate students are likely to see internet fraud as a risky business.

The results of this study bring out the multifaceted nature of psychological determinants of deviant behavior. Materialism does not alone determine participation in internet fraud, but rather, the effect of materialism depends on the level of self-esteem.

These results provide empirical proof that materialism and self-esteem have a direct relationship with committing internet frauds and that self-esteem serves as an important moderating variable in this regard. These results add value to the already existing literature on cyber-crime and will be helpful in formulating strategies for curbing internet frauds committed by youths.

Implications of the Study

Implications of the findings of this study include theoretical, practical, educational, and policy implications. The theoretical contribution of this study to the existing body of literature is that the study adds to the body of existing knowledge through incorporating psychological concepts, mainly materialism and self-esteem, in explaining the phenomenon of internet fraud. This study has added value to the previous studies by proving that being involved in cyber-crime is not a function of socio-economic or environmental factors alone, but it is also dependent on the internal psychological factors. The moderating effect of self-esteem gives greater insight into how individual differences impact behavioral outcomes and hence improves the application of psychological theories like Self Discrepancy Theory.

Practically, this study emphasizes the need for psychological intervention to increase self-esteem among university undergraduates. Given that individuals who lack self-esteem are prone to materialistic behaviors that result in internet fraud, counseling programs to help in improving self-worth, emotional management skills, and coping mechanisms can be an effective way of prevention. University counseling centers can be instrumental in the process.

From the educational perspective, this research indicates the importance of adding value-based education in the curriculum of high institutions. It has been noted that the students should be oriented away from too much materialistic attitude towards intrinsic values like personal growth, integrity, and social responsibility. Workshops, seminars, and orientation sessions can be organized to counter the societal myth which links success with wealth and material things.

From the policy perspective, this research presents evidence through which policies against youth cybercrimes could be designed. The policymakers and agencies like Economic and Financial Crimes Commission (EFCC) can use psychological components in designing interventions. Instead of punishing alone, preventive measures should be taken to counter the motives behind the crimes like internet frauds.

In terms of social implication, the research highlights the cultural aspect related to materialism within the Nigerian community. While the admiration for wealth and luxury through the media might seem harmless, it could promote deviant behavior among young people. This cultural aspect needs to be dealt with in order to lower cases of internet fraud.

Recommendations

Recommendations based on the results of this study include the following:

There is need for the universities to beef up their counseling facilities by introducing programs that will help enhance self-esteem, emotional fortitude, and ethical judgment among the student population.

The educational facilities should conduct regular seminars and workshops meant to reduce materialistic inclination and foster the value of integrity, hardworking nature, and self-improvement.

Ethics, digital responsibility, and knowledge about cybercrime should be part of the university courses in order to help inform the students about the dangers of internet scams.

Parents and other societal figures should involve themselves in nurturing a good set of values among the young people and discourage them from considering illegal money as a source of prestige.

The government organizations should come up with youth-oriented programs meant to combat unemployment so as to deny the reason behind internet scam.

Media organizations should be incentivized to generate content that prevents glorification of fake rich and promotes stories of success through good means.

Future scholars could conduct research on other possible moderators like moral reasoning, self-control, and peer influence. The need for longitudinal research cannot be understated.

Limitations of the Study

However, there are several limitations to the research carried out, which need to be considered.

Firstly, the study relied on the application of a cross-sectional research design, whereby it is difficult to make any conclusion concerning causal relationships between the variables. The study established certain relationships between the variables but one cannot say that the causality between materialism and internet fraud involvement exists.

Secondly, the method of collecting data through the application of self-reporting questionnaires is prone to response biases such as social desirability bias. People tend to underreport on their Internet fraud tendency or give socially desirable answers.

Thirdly, the study was carried out amongst undergraduates of Enugu State, which makes the findings less generalizable to the entire region or other areas.

Fourthly, the Internet Fraud Tendency Scale was developed by the researcher and thus might not have been widely validated compared to standardized instruments. While an attempt was made to validate the tool for content, more psychometric work needs to be done.

Lastly, the experiment paid much attention to materialism and self-esteem; thus, some other factors that could play an important role in the problem of cybercrime were not included. They include peers' influence, moral disengagement, personality characteristics, and socio-economic status.

Summary

The study shows that materialism is a major determinant of participation in online fraud by undergraduate students and self-esteem acts as an important mediator in this correlation. People who hold materialistic values are more prone to indulging themselves in fraudulent behaviors especially when their self-esteem is low or unstable. These results suggest that online fraud is not just an economic and sociological problem but also a psychological one that depends on self-concept and value system of individuals.

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Enugu.**

Dear Respondent,

The researcher is an undergraduate student in the above-mentioned Department and Institution. Conducting research on “materialism as a predictor of Internet fraud tendency among undergraduates in Enugu Metropolis, Nigeria”, which is part of the requirements for the award of a bachelor’s degree in psychology. By agreeing to this study, you consent to taking about 10 - 15 minutes of your time to complete this questionnaire. Please note that all responses and collected information will be treated anonymously and with the utmost confidentiality. Please, kindly respond as truthfully as possible, as there is no right or wrong answer. Also, it is important to note that the exercise is purely for academic purposes.

Thank you for your participation

Emeka

Researcher/ Student.

SECTION A: DEMOGRAPHICS

Age: ----- Gender: ----- Religion: ----- Level of Study -----
---- Birth Position..... Ethnic Group

SECTION B: Instruction: Below is a list of statements dealing with your general feelings about yourself. Please indicate how strongly you agree or disagree with each statement. Kindly complete this questionnaire as accurately as possible. Response options includes: SA = Strongly Agree; A = Agree; D = Disagree; SD – Strongly Disagree

SN	Item	SA	A	D	SD
1	On the whole, I am satisfied with myself.				
2	At times I think I am no good at all.				
3	I feel that I have a number of good qualities.				
4	I am able to do things as well as most other people.				
5	I feel I do not have much to be proud of.				
6	I certainly feel useless at times.				
7	I feel that I'm a person of worth, at least on an equal plane with others.				
8	I wish I could have more respect for myself.				
9	All in all, I am inclined to feel that I am a failure.				
10	I take a positive attitude toward myself.				

SECTION B: Instruction: Your honest and sincere response to the items below will be used strictly for academic purpose only and will be treated with utmost confidentiality. Kindly complete this questionnaire as accurately as possible. Response options includes: SA = Strongly Agree; A = Agree; D = Disagree; SD – Strongly Disagree

SN	Item	SA	A	D	SD
	SUCCESS				
1	I admire people who own expensive homes, cars, and clothes.				
2	Some of the most important achievements in life include acquiring material possessions.				
3	I don't place much emphasis on the amount of material objects people own as a sign of success.				
4	The things I own say a lot about how well I'm doing in life.				
5	I like to own things that impress people.				
6	I don't pay much attention to the material objects other people own.				
	CENTRALITY				
7	I usually buy only the things I need.				
8	I try to keep my life simple, as far as possessions are concerned.				
9	The things I own aren't all that important to me.				
10	I enjoy spending money on things that aren't practical.				
11	Buying things gives me a lot of pleasure.				
12	I like a lot of luxury in my life.				
13	I put less emphasis on material things than most people I know.				
	HAPPINESS				
14	I have all the things I really need to enjoy life.				
15	My life would be better if I owned certain things I don't have.				
16	I wouldn't be any happier if I owned nicer things.				
17	I'd be happier if I could afford to buy more things.				
18	It sometimes bothers me quite a bit that I can't afford to buy all the things I'd like.				

SECTION C: Instruction: Please read each statement and tick a number 5, 4, 3, 2, or 1 which indicates how much the statement applied to you. There are no right or wrong answers. Do not spend too much time on any statement. The rating scale is as follows: Strongly Agree = 5; Agree = 4; Undecided = 3; Disagree = 2; Strongly Disagree = 1

SN	Item	SA	A	UN	D	SD
1	If you are unemployed, the internet can be a means of helping yourself financially.	5	4	3	2	1
2	It is acceptable to use internet skills to obtain money from unsuspecting people.	5	4	3	2	1
3	Waiting for legitimate opportunities is a waste of time when one can make money online quickly.	5	4	3	2	1
4	Internet fraud is justified if it helps one survive economic hardship.	5	4	3	2	1
5	There is nothing wrong with deceiving foreigners online for financial gain.	5	4	3	2	1
6	Online fraud is easier and less risky than other illegal activities.	5	4	3	2	1
7	Many successful people today made their money through questionable online means.	5	4	3	2	1
8	Using fake identities online to make money is not a serious offense.	5	4	3	2	1

9	Internet fraud is a smart way to escape poverty.	5	4	3	2	1
10	It is acceptable to manipulate people online if they are careless.	5	4	3	2	1
11	The internet provides opportunities that should be fully exploited, even if illegally.	5	4	3	2	1
12	Getting rich quickly online is more important than following due process.	5	4	3	2	1
13	Internet fraud is not really harmful since victims can recover their losses.	5	4	3	2	1
14	It is better to take advantage of online opportunities than remain unemployed.	5	4	3	2	1
15	If given the chance, I would consider using the internet to make money by any means.	5	4	3	2	1
16	Internet fraud is common and should not be taken too seriously.	5	4	3	2	1
17	One should use whatever means available online to improve their financial status.	5	4	3	2	1
18	It is acceptable to deceive people online if they are naive.	5	4	3	2	1
19	Online scams are just another form of business strategy.	5	4	3	2	1
20	The risk of being caught for internet fraud is low.	5	4	3	2	1
21	People who engage in internet fraud are simply being innovative.	5	4	3	2	1
22	It is reasonable to exploit internet loopholes for financial gain.	5	4	3	2	1
23	Financial success is more important than how it is achieved online.	5	4	3	2	1

Frequencies

		Statistics			
		Gender	Level of study	Birth position	Ethnic group
N	Valid	156	156	156	156
	Missing	0	0	0	0

Frequency Table

		Gender			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	69	44.2	44.2	44.2
	female	87	55.8	55.8	100.0
	Total	156	100.0	100.0	

		Level of study			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	1	1.8	1.8	1.8
	2.00	2	3.6	3.6	5.4
	3.00	10	17.9	17.9	23.2
	4.00	132	57.1	57.1	80.4
	5.00	11	19.6	19.6	100.0
	Total	156	100.0	100.0	

		Birth position			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	25	16.0	16.0	16.0
	2.00	130	83.3	83.3	83.3
	3.00	1	0.7	0.7	100.0
	Total	156	100.0	100.0	

Ethnic group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	43	76.8	76.8	76.8
	2.00	1	1.8	1.8	78.6
	3.00	1	1.8	1.8	80.4
	4.00	3	5.4	5.4	85.7
	5.00	2	3.6	3.6	89.3
	6.00	2	3.6	3.6	92.9
	7.00	2	3.6	3.6	96.4
	8.00	1	1.8	1.8	98.2
	9.00	1	1.8	1.8	100.0
	Total	156	100.0	100.0	

Regression

Descriptive Statistics

	Mean	Std. Deviation	N
Internet Fraud	52.1964	18.66394	156
Gender	1.6607	.47775	156
Level of study	3.8929	.82415	156
Birth position	1.5714	.53452	156
Ethnic group	2.0179	2.09320	156
Materialism	61.8036	6.80486	156
Self-esteem	28.1607	3.31814	156

Correlations

		InternetFrau d	Gender	Level of study	Birth position	Ethnic group	Materialis m	Self- esteem
Pearson Correlation	InternetFrau d	1.000	.287	-.119	.018	-.129	.214	.532
	Gender	.287	1.000	-.048	.061	-.303	.080	.264
	Level of study	-.119	-.048	1.000	-.106	-.094	.113	-.007
	Birth position	.018	.061	-.106	1.000	-.074	-.019	-.073
	Ethnic group	-.129	-.303	-.094	-.074	1.000	-.019	-.150
	Materialism	.214	.080	.113	-.019	-.019	1.000	.338
	Self-esteem	.532	.264	-.007	-.073	-.150	.338	1.000

Sig. (1-tailed)	InternetFraud	.	.016	.191	.448	.171	.056	.000
	Gender	.016	.	.363	.328	.012	.279	.024
	Level of study	.191	.363	.	.218	.246	.204	.480
	Birth position	.448	.328	.218	.	.293	.446	.296
	Ethnic group	.171	.012	.246	.293	.	.445	.136
	Materialism	.056	.279	.204	.446	.445	.	.005
	Self-esteem	.000	.024	.480	.296	.136	.005	.
N	InternetFraud	156	156	156	156	156	156	156
	Gender	156	156	156	156	156	156	156
	Level of study	156	156	156	156	156	156	156
	Birth position	156	156	156	156	156	156	156
	Ethnic group	156	156	156	156	156	156	156
	Materialism	156	156	156	156	156	156	156
	Self-esteem	156	156	156	156	156	156	156

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Ethnic group, Birth position, Level of study, Gender ^b	.	Enter
2	Materialism ^b	.	Enter
3	Self-esteem ^b	.	Enter

a. Dependent Variable: InternetFraud

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change
						F Change	df1	df2	
1	.311 ^a	.097	.026	18.41839	.097	1.369	4	51	.258
2	.374 ^b	.140	.054	18.15511	.043	2.490	1	50	.121

3	.567 ^c	.322	.239	16.28470	.182	13.145	1	49	.001
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a. Predictors: (Constant), Ethnic group, Birth position, Level of study, Gender

b. Predictors: (Constant), Ethnic group, Birth position, Level of study, Gender, Materialism

c. Predictors: (Constant), Ethnic group, Birth position, Level of study, Gender, Materialism, Self-esteem

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1857.740	4	464.435	1.369	.258 ^b
	Residual	17301.099	151	339.237		
	Total	19158.839	155			
2	Regression	2678.435	5	535.687	1.625	.171 ^c
	Residual	16480.404	150	329.608		
	Total	19158.839	155			
3	Regression	6164.451	6	1027.408	3.874	.003 ^d
	Residual	12994.389	149	265.192		
	Total	19158.839	155			

a. Dependent Variable: InternetFraud

b. Predictors: (Constant), Ethnic group, Birth position, Level of study, Gender

c. Predictors: (Constant), Ethnic group, Birth position, Level of study, Gender, Materialism

d. Predictors: (Constant), Ethnic group, Birth position, Level of study, Gender, Materialism, Self-esteem

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta	t		Lower Bound	Upper Bound
1	(Constant)	47.049	18.622		2.527	.015	9.663	84.434
	Gender	10.308	5.475	.264	1.883	.065	-.684	21.299
	Level of study	-2.579	3.056	-.114	-.844	.403	-8.714	3.555
	Birth position	-.525	4.692	-.015	-.112	.911	-9.945	8.894
	Ethnic group	-.547	1.256	-.061	-.435	.665	-3.069	1.975
2	(Constant)	14.978	27.387		.547	.587	-40.030	69.985
	Gender	9.557	5.418	.245	1.764	.084	-1.325	20.439
	Level of study	-3.138	3.033	-.139	-1.035	.306	-9.229	2.953
	Birth position	-.451	4.625	-.013	-.097	.923	-9.741	8.839
	Ethnic group	-.583	1.239	-.065	-.471	.640	-3.070	1.905

	Materialism	.574	.363	.209	1.578	.121	-.157	1.304
3	(Constant)	-32.751	27.870		-1.175	.246	-88.759	23.256
	Gender	5.594	4.981	.143	1.123	.267	-4.415	15.604
	Level of study	-2.588	2.724	-.114	-.950	.347	-8.063	2.887
	Birth position	1.076	4.170	.031	.258	.797	-7.304	9.456
	Ethnic group	-.202	1.116	-.023	-.181	.857	-2.445	2.040
	Materialism	.154	.346	.056	.446	.658	-.541	.849
	Self-esteem	2.660	.734	.473	3.626	.001	1.186	4.135

a. Dependent Variable: InternetFraud

Excluded Variables ^a						
Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	Materialism	.209 ^b	1.578	.121	.218	.980
	Self-esteem	.492 ^b	4.038	.000	.496	.916
2	Self-esteem	.473 ^c	3.626	.001	.460	.813

a. Dependent Variable: InternetFraud

b. Predictors in the Model: (Constant), Ethnic group, Birth position, Level of study, Gender

c. Predictors in the Model: (Constant), Ethnic group, Birth position, Level of study, Gender, Materialism

Matrix

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 4.2 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

Model : 1
Y : IntFrd
X : Materi
W : Self_E

Sample
Size: 156

OUTCOME VARIABLE:
IntFrd

Model Summary

	R	R-sq	MSE	F	df1	df2
p	.5353	.2866	262.8595	6.9621	3.0000	52.0000
	.0005					

Model

	coeff	se	t	p	LLCI	ULCI
constant	35.4437	172.6929	.2052	.8382	-311.0927	381.9800
Materi	-1.0276	2.7177	-.3781	.7069	-6.4811	4.4259
Self_E	.2841	6.2915	.0452	.9642	-12.3409	12.9091
Int_1	.0413	.0982	.4210	.6755	-.1557	.2384

Product terms key:

Int_1 : Materi x Self_E

Covariance matrix of regression parameter estimates:

	constant	Materi	Self_E	Int_1
constant	29822.8452	-466.1643	-1078.4317	16.7981
Materi	-466.1643	7.3858	16.7769	-.2647
Self_E	-1078.4317	16.7769	39.5835	-.6140
Int_1	16.7981	-.2647	-.6140	.0096

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
X*W	.0024	.1773	1.0000	52.0000	.6755

Focal predict: Materi (X)

Mod var: Self_E (W)

Data for visualizing the conditional effect of the focal predictor:
 Paste text below into a SPSS syntax window and execute to produce plot.

DATA LIST FREE/

Materi	Self_E	IntFrd	.
BEGIN DATA.			
55.0000	25.0000	42.8725	
63.0000	25.0000	42.9201	
67.0000	25.0000	42.9438	
55.0000	28.0000	50.5460	
63.0000	28.0000	51.5858	
67.0000	28.0000	52.1056	
55.0000	31.8800	60.4704	
63.0000	31.8800	62.7934	
67.0000	31.8800	63.9549	

END DATA.

GRAPH/SCATTERPLOT=

Materi WITH IntFrd BY Self_E .

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:
 95.0000

----- END MATRIX -----