FACTORS AFFECTING FINANCIAL FRAUD AWARENESS AMONG UNIVERSITY STUDENTS

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BY

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DECLARATION

I hereby declare that:

(1) This undergraduate FYP is the end result of my own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.

(2) No portion of this FYP has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.

(3) Sole contribution has been made by me in completing the FYP.

(4) The word count of this research report is __10,957 words_____.

Name of student: Student ID: Signature:

__Liew Yoon Ler_____   __2001332_____   _____

Date: __1 – 5 – 2024 _____

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DEDICATION

Firstly, this research is dedicated to my tertiary education institution, University Tunku Abdul Rahman (UTAR) whereby UTAR had provided a lot of valuable knowledge throughout my 3-year international business degree. All these knowledges that I learned allowed me to apply into this research project.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

Page

LIST OF ABBREVIATION

PDRM	Royal Malaysia Police
FTC	Federal Trade Commission
RO	Research Objectives
RQ	Research Questions
TPB	Theory of Planned Behaviour
PMT	Protection Motivation Theory
ACFE	Association of Certified Fraud Examiners
DV	Dependent Variable
IV	Independent Variable
SPSS	Statistical Package for the Social Sciences
PDPA	Personal Data Protection Notice
UTAR	Universiti Tunku Abdul Rahman
VIF	Variance Inflation Factor
FFA	Financial Fraud Awareness
AFE	Anti-Fraud Education
ATF	Attitudes Towards Fraud
DAF	Defensiveness Against Fraud
ANOVA	Analysis of Variance

PREFACE

Nowadays, it is undisputed that we can see the number of financial fraud cases are keep on increasing in Malaysia recently. The victims of financial frauds not only involve the elderly, but it is also vulnerable towards the teenagers such as university students. This may be due to the fact that the university students nowadays may have become unaware of the financial frauds or traps that surrounding them in their daily lives which may possibly harm their financial affairs critically.

Therefore, this research project aims to investigate the factors affecting the financial fraud awareness among university students in Malaysia. This study is conducted based on the primary data that had been collected by the researcher through a survey of 250 respondents in Malaysia. There were 3 factors (Anti-Fraud Education, Attitudes Towards Fraud and Defensiveness Against Fraud) that could affect the financial fraud awareness among university students had been identified by the researcher in this report. The objective of this research is to determine whether the factors that had been identified by researcher are able to affect or increase the financial fraud awareness among the university students in Malaysia and examine the relationship between the factors that affecting the financial fraud awareness among university students. Thus, this research is contributed to improve the financial fraud awareness among tertiary education students in order to limit and reduce their risk of becoming the victims of financial scams.

In conclusion, this research project will provide valuable insights into the determinants that affect financial fraud awareness among university students. It is undeniably that the findings in this research may help and assist the policymakers in designing and implementing more effective ways to detect and prevent financial frauds.

ABSTRACT

This purpose of this research is to evaluates the factors that affecting the financial fraud awareness among university students. In this research, the independent variables which had been identified by the researcher are anti-fraud education, attitudes towards fraud and defensiveness against fraud while the dependent variable is the financial fraud awareness among university students. The 2 underlying theories that had been applied in this study are the Theory of Planned Behaviour (TPB) and the Protection Motivation Theory (PMT). Furthermore, a conceptual framework for the variables had been developed in this research as well. This study uses primary data to collect all the 250 respondents by utilizing the survey questionnaire. A pilot test had been conducted by the researcher as well before the commencement of the main and actual survey. The researcher also uses the descriptive analysis, reliability test and the inferential analysis (Multiple Regression Analysis & Pearson Correlation Coefficient Analysis) as the data analysis tools to conduct the study. Finally, the results successfully showed and proved that all of the identified 3 factors (Anti-Fraud Education, Attitudes Towards Fraud & Defensiveness Against Fraud) will have a significant positive relationship with the financial fraud awareness among university students. The main contribution in this research is this study could help and assist in providing an excellent insight and better understanding for the university students, organizations, policy makers as well as the Malaysians on the financial fraud in order to boost their awareness and knowledge on it. The implications, limitations and certain recommendations of this study had also been reported and stated by the researcher in this research as well.

CHAPTER 1: RESEARCH OVERVIEW

1.0 Introduction

The research study will assesses the factors affecting financial fraud awareness among university students. It comprises of 3 main factors, which are anti-fraud education, attitudes towards fraud and defensiveness against fraud. In Chapter 1, a thorough and detailed introduction for this research topic will be evaluated. There are 7 sections in this chapter where the research background is identified in section 1.1, the research problem is stated in section 1.2 whereas the research objectives are listed in section 1.3. After that, the other 3 parts which are the research questions, hypotheses of the study and the research significance are stated in section 1.4, 1.5 and 1.6 respectively. All these sections will give a brief and detailed introduction to the research topic.

1.1 Research Background

The biggest issue that the society facing today is fraud (Palshikar, 2002; Smith et al., 2005). Bank Negara Malaysia (2013) has described fraud as a deliberate act of deception involving financial transactions for the objective of personal gain. It is a general phrase that may also refer to all the various ways that human inventiveness might produce when someone discovers a method to deceive others in order to obtain an advantage over them (Latif et al., 2021). According to Black's Law Dictionary (1968), fraud is the misrepresentation of a fact, whether through behaviour or words, by making false or deceptive claims, or by hiding information that ought to have been made public. It is an illegal conduct done with intent to achieve certain goals, including deceiving or influencing a third person by providing false information to them (ACFE, 2017). Albrecht et al. (2012) stated that

fraud merely refers to any kind of human ingenuity. It is utilized in the formulation of a scheme designed to increase profits by making fraudulent claims. Fraud is done by either external parties or internal organization members directly or indirectly benefit themselves or the group. It will affect the economic law and human moral values significantly (Alexopoulos et al., 2007).

Financial fraud can be defined as an action which committed by someone with the intent to deceive a specific victim by misrepresenting, hiding, or omitting information about promised benefits that are non-existent and never intended to be given, or purposefully distorted for the purpose of financial gain (BJS, 2015). Financial fraud happens when someone deceives or engages in illegal action to get money or other assets from a specific person (Apoorva, 2023). Financial fraud cases are among the most serious crimes in today's society as majority of the people are concerned about them (Mat et al., 2013). Financial fraud can be done through numerous techniques such as identity theft or mass marketing fraud (Victim Connect, n.d.).

Firstly, the identity theft occurs when someone makes unauthorized purchases or withdrawals from the victims' accounts by using their own financial information, such as the credit card and bank account number, which resulted a significant damaged in credit rating for the particular victim of identity theft (Victim Connect, n.d.). Next, the mass marketing fraud is often committed from the fraudsters by using spam emails, phone calls, and large-scale mailings (Victim Connect, n.d.). Online lotteries and sweepstakes are the common examples of mass marketing fraud (Victim Connect, n.d.). These messages and offers are designed to obtain the personal financial information of the potential financial fraud victims (Victim Connect, n.d.). This is exemplified by the award or prize notices that people sometimes received from the internet as "10,000th Visitor" type notifications (Victim Connect, n.d.). These announcements often request the recipients supply their personal financial information or pay a fee in order for an award or prize to be delivered or made official. If the victims do not remember that they had applied or

entered into a competition for the particular award or prize before it is probably fraudulent.

According to the Royal Malaysia Police's (PDRM) Commercial Crime Investigation Department, there were a total of 51,631 incidents of cybercrime and financial fraud with a total of RM1.61 billion in damages recorded between the year 2019 and 2021; however, as of July 2022, there was an increase of 12,092 cases with RM414.8 million in losses reported (Mardhiah, 2023). Due to the severity of the situation, Bank Negara intervened and strictly ordered all Malaysian banks to stop using SMS-based authentication for online banking services (Nair, n.d.). This is because Malaysia saw a sharp rise of online scams over the last two years during the COVID-19 pandemic (Salleh, 2022). There have been 71,833 frauds recorded up to May 2022, with losses totalling over RM5.2 billion (Salleh, 2022).

Not just Malaysia, but the financial fraud situations are prevalent in the worldwide culture as well. In year 2021, the Federal Trade Commission (FTC) said that the fraudulent conduct had recorded an increase of $2.4 billion from the year 2020 if compared to previous year (2019), which resulted a total loss of $5.9 billion in the whole world (John Marshall Bank, n.d.). There was a total of 48.6% of fraud were reported to FTC, with identity theft coming in second at 25% (John Marshall Bank, n.d.). Based on the report, there are a total of 308,910 adults between the ages of 30 and 39 were the victims of identity theft, and nearly one in five respondents reported suffering a financial loss as a result of imposter fraud (John Marshall Bank, n.d.).

Figure 1.1: Total Number of Financial Frauds Reported by FTC from Year 2002 to 2020

Number of Reports by Type
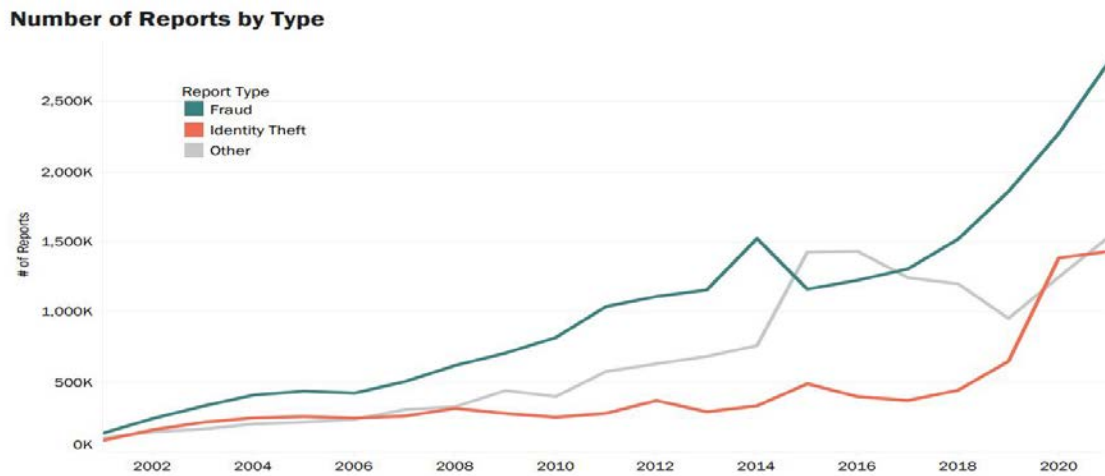
Source: John Marshall Bank. (n.d.). *Home: Resources: Fraud Prevention Security Center: Fraud Facts and Statistics*.

1.2 Research Problem

Fraud is defined as the intentional misrepresentation of facts for the purpose of personal gain, whether financial or otherwise (Fairfax, 2008). Financial fraud is defined as the use of lying, deceptiveness, or false representation in order to achieve a financial advantage or to harm the financial health of others (Williams et al., 2018). Postings (n.d.) claimed that over £1.2 billion was pilfered by financial fraudsters and it resulted a terrible impact on its victims. Nowadays, the financial fraud scams are keep on being renovated as constantly updated fraud methods have made the public and university students unpredictable (Zhang et al., 2023). Due to the fact that university students themselves may not be able to make judgments since they do not interact with the society as much as others; thus, the financial fraudsters can readily get the personal information of the university students.

Besides, a lot of students will take part in some social events and other programs as well; nevertheless, because university students are insufficiently educated about the content on the network, so they may easily get cheated by the financial criminals also (Zhang et al., 2023). Moreover, the weak and poor ability to resist temptation is also one of the reasons why the university students are easily become the victims of financial fraud (Zhang et al., 2023). University students are often drawn to contentious language that is relevant to their interests. When faced with the information of low threshold and high income, it can be rather challenging to resist temptation and ultimately fall for deception (Zhang et al., 2023). On the other hand, the criminals may take the advantage of university students who wish to cut costs and save money; hence, these university students may be more easily tricked by financial scammers and ultimately fall into the fraud scheme.

1.3 Research Objectives

Generally, there are 3 research objectives are identified to examine the relationship between the factors and financial fraud awareness among university students.

RO1: To examine whether there is a relationship between anti-fraud education and financial fraud awareness among university students.

RO2: To examine whether there is a relationship between attitudes towards fraud and financial fraud awareness among university students.

RO3: To examine whether there is a relationship between defensiveness against fraud and financial fraud awareness among university students.

1.4 Research Questions

The 3 research questions stated below will be answered and explained by the researcher. Throughout the research process, the researcher will refer the data which collected from the university students so that a clear direction of the study could be provided by the researcher.

RQ1: Will anti-fraud education affect the financial fraud awareness among university students?

RQ2: Will attitudes towards fraud affect the financial fraud awareness among university students?

RQ3: Will defensiveness against fraud affect the financial fraud awareness among university students?

1.5 Hypotheses of Study

The 3 hypotheses that need to be proven in this research are stated as below:

H1: To study whether there is a positive relationship between anti-fraud education and financial fraud awareness among university students.

H2: To study whether there is a positive relationship between attitudes towards fraud and financial fraud awareness among university students.

H3: To study whether there is a positive relationship between defensiveness against fraud and financial fraud awareness among university students.

1.6 Research Significance

This research is carried out by the researcher in order to study the factors that affects the financial fraud awareness among university students. In the process of investigating the factors, there are 3 independent variables have been identified, which are anti-fraud education, attitudes towards fraud and defensiveness against fraud. Upon completing the research, the factors can be successfully determined. Nowadays, it is undisputed that the occurrences of financial fraud cases have been constantly increasing every day. For instance, according to PDRM, between the year of 2020 and 2022, there were a total of 71,833 fraud cases with more than RM5.2 billion losses were reported (Tan, 2023). Thus, in order to reduce the number of financial fraud cases in the society, no doubt that the awareness on financial fraud is crucial on deterring the financial fraudsters from scamming the public. Thus, the outcomes of this study should successfully identify the factors that affects the financial fraud awareness among university students.

According to Datuk Azman Mohd Yusof (2022), he stated that most financial scams happen due to lack of awareness on the financial security by most people and this problem has become one of the main reasons that financial crime happens in the society. Thus, it is undeniably that the society needs to concern about the financial fraud cases seriously. Next, the fact that financial fraudsters ought to be held accountable is another important significance of this study. According to Marinello (2023), he stated that the financial fraudsters tend to get off easily every time due to the reason that although fraud is illegal under both federal and state statutes; however, though fraudulent activities may not necessarily end in a criminal prosecution (Chen, 2022). Government prosecutors sometimes have a great deal of discretion when deciding whether to go with a case to trial or settle it out of court (Chen, 2022). The fraudster may only found guilty and imprisoned if the matter proceeds to trial (Chen, 2022). Yet, we must also take the undeniable fact into account that financial fraud may be a traumatic experience that often causes real and permanent impacts for victims as well as their families, jobs, and communities. The elderly, the sick, the vulnerable, and the impoverished are frequently the ones who suffer the most direct or indirect consequences from financial fraud because it

can have a severe and compounding effect on these victims, making their disadvantage, vulnerability, and inequality even worse. Financial fraud may even steal a person's life in some situations and leave the victim with long-lasting physical and psychological damage.

According to Tan (2023), in accordance with Section 417 of the Penal Code, an individual who cheats shall face a maximum sentence of five years in jail, a fine, or both. Therefore, no doubt that it is essential for all countries work together to combat and punish the financial fraudsters. For instance, in recent years, China has undertaken significant efforts to completely suppress and regulate illicit and criminal activities associated with internet fraud and telecom, which has made remarkable results (Embassy of the People's Republic of China in the United States of America, 2023). Finally, we must continue to be vigilant and shield ourselves against financial frauds. This is also one of the important research significances to conduct the study because nowadays, financial fraud has become a common thing among people and workers in the society; thus, it is vital to increase the awareness of fraud prevention.

1.7 Conclusion

Overall, nowadays, the issue of financial fraud cases can be considered as one of the trending topics in the world where we can easily notice that the financial fraudsters are surrounding us everywhere. From here, to achieve the anticipated research objectives and answered research questions, this study aims to investigate the determinants that affects the financial fraud awareness among university students by studying the stated 3 independent variables factors above, which are anti-fraud education, attitudes towards fraud and defensiveness against fraud. In short, this chapter will provides the reader a clear understanding for the background and purpose of this research, the problem statement, and the significance of study.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

The literature review will demonstrate knowledge and understanding of the academic literature on a particular subject in its proper context (The University of Edinburgh, 2023, para. 1). It is an overview of earlier research that has been published on a particular topic. For this chapter, the variables will be review and discuss by the researcher them in order for he or she to determine the correlation and relationship involving the dependent variable of financial fraud awareness among university students and the independent variables of anti-fraud education, attitudes towards fraud and defensiveness against fraud. Secondary data such as reports or documents from past research, journals and articles will be assessed and utilized by the researcher in order to for him or her to support and study the factors as well.

2.1 Underlying Theories

2.1.1 Theory of Planned Behaviour (TPB)

The Theory of Planned Behaviour (TPB) will explains and describes a particular people's intention to behave, and whether it is influenced by his or her viewpoints, values as well as the social group's subjective norms. Pessimistic people may be less inclined to participate in the activity if they believe they will have little control over the outcomes of their activities (Ajzen, 2020). The idea behind TPB is that a

person's intentions, which are influenced by 3 factors which are attitudes, personal standards, and perceived behavioural control.

This theory will describes how a person's favourable or undesirable appraisal of a behaviour and how they are impacted by the perceptions of the behaviour's results are connected to their attitude towards fraud. A person's attitude toward fraud in the context of financial fraud awareness can also be influenced by his or her own perceptions of the consequences, including the possible damage it may affect both people and the public as a whole. Thus, one may investigate people's principles and mindsets as well as the societal and personal elements that may have an impact on their behaviour by utilizing TPB to explore the link between financial fraud awareness and attitude towards fraud.

TPB also proposes that a person's impression of take over the control on their finances and their own personal views regarding financial responsibility might have an impact on their behaviours connected to financial fraud and their financial stability. According to TPB, people who are unaware of financial fraud may see financial responsibility negatively and be less likely to take preventative actions to manage and protect their assets, which might make them more vulnerable towards the financial fraud. Those who feel that they had the ability to control their finances and prevent fraud, who see societal standards supporting this behaviour, and who have a positive outlook on avoiding financial fraud may be more inclined to take precautions to protect themselves from financial scams (Burns & Roberts, 2013).

2.1.2 Protection Motivation Theory (PMT)

The protection motivation theory (PMT) is widely used in the research to study and investigate how an individual will respond when confronted with stimuli that cause he or she to perceive that himself or herself is in danger. These triggers include the fear signals that encourage people to derive precautions or abstain from actions that might endanger themselves or others.

According to PMT, the people will analyse prospective reactions by going through a process of coping appraisal and threat assessment. The process of evaluating threats involves assessing the risk and estimating the probability that a threat will materialize. Coping evaluation includes considering the effectiveness of the reaction, the difficulty of executing the response, and the degree of confidence the person has in their capacity to execute the coping response (Shafiei & Maleksaeidi, 2020). The idea describes how to prevent financial fraud from financial fraudsters, which is why it is related to defensiveness against fraud. Instead, it is a phenomenon that reflects the avoidance and approach motivations that influence people's decisions to engage in it or not. For instance, if someone is aware of the financial fraud incidents, they may be more likely to recognize the signs of possible financial fraud cases. This might increase their sense of threat and cause them to respond defensively.

Perceived danger and perceived efficacy are the two significant factors that are thought to affect people's decisions to engage in preventative activities. According to Lee et al. (2023), perceived efficacy relates to how serious and likely one considers the danger to be, whereas perceived threat relates to one's belief in one's capacity to avoid the threat. The phrase perceived threat in relation to fraud can relate to both the possibility of falling victim to fraud as well as the financial repercussions that are expected to occur.

Perceived effectiveness may depend on an individual's confidence in their ability to recognize and steer clear of fraudulent circumstances as well as their understanding of the precautions they might take to keep oneself safe from fraud. Being on the defensive against fraud can affect a threat's perception as well as its effectiveness. For example, if someone is truly aware of financial fraud, they may perceive it as a more serious danger since the financial consequences associated with it may be more serious. This awareness may prompt them to take preventative and defensive measures first. Therefore, the PMT may provide a helpful framework for comprehending the connection between financial fraud awareness and fraud defence.

2.2 Review of Variables

The factors affecting financial fraud awareness among university students is being studied in this research. The dependent variable for this research is financial fraud awareness among university students while the independent variables include anti-fraud education, attitudes towards fraud and defensiveness against fraud.

2.2.1 Financial Fraud Awareness Among University Students

A dependent variable may be used to interpret other variables. According to Yuniarti (2017), financial fraud awareness is an initiative to raise public knowledge about the importance of financial fraud prevention efforts in society. Furthermore, Yuniarti (2017) added that high fraud awareness is expected to raise the fraud awareness of others within the society. Nonetheless, a number of researchers have investigated the reasons behind financial fraud on university campuses. Wang (2020) and Dong (2019) both examine the ideological context of university students and point out that they are susceptible to financial fraud which committed by financial criminals because they lack capacity to distinguish between right and wrong. Rather, university students need to have the awareness to determine the negative or detrimental effects of financial fraud and by doing so, they are expected to avoid themselves from financial fraud (Istiningrum, 2014).

2.2.2 Anti-Fraud Education

Education is essential for deterring crime as well as fostering a law-abiding society that upholds human rights (United Nations Doha Declaration, 2016). Since the university students are any nation's future labour force, the educational system has a significant impact on the creation, interpretation, and strengthening of societal values through the information it teaches to them (Efiong, 2012). Hence, the educational system can help students to prevent fraud by raising their awareness towards fraud. According to Encarnación Sarriá et al. (2019), university students should take the effort to learn about information security and develop a

psychological defence against financial fraud. Chen and Ma (2014) suggested the universities to establish and enhance a safety education system inside the campuses by using the classroom as a means of educating students about anti-fraud education.

Outside the business context, it is clear that more and more people are being targeted out and becoming the victims of financial fraud (Kranacher et al., 2008). Therefore, raising anti-fraud education in all university courses is a crucial step in combating this issue (Jamieson et al., 2019). A case in point, American universities are increasingly recognizing the need for anti-fraud education and are responding to that demand actively (Kranacher, 2005). In 1999, there are only 20 out of the roughly 900 accounting programs included a course on fraud examination (Kranacher, 2005). There are now approximately 250 accounting programs already provide anti-fraud education, largely as a result of the ACFE's Higher Education Initiative (Kranacher, 2005).

2.2.3 Attitudes Towards Fraud

The standards describe the financial fraud attitude is a mindset, moral guidelines, and explanation for engaging in fraudulent behaviour. The attitude reflects one's feeling towards performing a particular behaviour. Whereas subjective norm refers to the influence of referent groups such as family, friends or those close to an individual, that could change one's opinion or ideas, or how much the person feels social pressure to do it (Francis et al., 2004; Carpenter & Reimers, 2005; Gillett & Uddin, 2005). An individual's desire to undertake a specific behaviour is higher if they view it as beneficial (Fishbein & Ajzen, 1975). This is because the behavioural intention is significantly predicted by an individual's attitude (Ajzen & Fishbein, 1980; Doll & Ajzen, 1992; Peterson, 2002; Buchan, 2005; Harding et al., 2007).

When it comes to financial fraud awareness, it's quite probable that an individual's attitude is positive towards the awareness of financial fraud if they have a favourable attitude about the topic and believe it to be the correct thing to do, it is most likely that his or her decision intentions are inclined towards it. Hence, greater

awareness of financial fraud would result from a more positive attitude toward the particular behaviour (Gillett & Uddin, 2005). Handling contacts with suspected financial fraudsters requires a certain set of attitudes toward fraud and financial fraud knowledge. People who have higher attitudes against fraud, for instance, will be extremely careful while transacting financially since morals and ethics have always given them knowledge into how to prevent fraud.

2.2.4 Defensiveness Against Fraud

It is necessary for people to be sufficiently defensive against fraud in order to increase their awareness on the financial fraud. According to Nadig (2023), fraud can result in significant financial losses for a particular person. Conversely, if the person is continuously staying defensive against the financial fraud, he or she may reduce the risk of suffering financial losses and increase his or her awareness on financial fraud. This is because by implementing effective fraud prevention procedures, an individual can lessen or reduce his or her own financial losses as a result of fraudulent transactions which include preventing unauthorized access to their own financial accounts and stopping fraudulent transactions before they are completed (Nadig, 2023).

The term "fraud defence" describes a person's defensiveness against fraudulent activities in order to prevent falling victim into financial fraud traps like financial scams. It also indicates the degree to which a person is aware of the significance of financial fraud defence and the need to take preventative action to protect one's own financial well-being (Zwiling et al., 2020). The majority of financial scams occur mostly as a result of victims' lack of defensiveness, which keeps them from falling into the trap. Das and Patel (2017) claimed that due to individuals are less resistant against fraud, they are more susceptible to financial fraud and are unaware of the hazards while disclosing personal financial information on social networking platforms. When a victim is not protective, they are more likely to trust others and don't take any preventative measures to keep them from being the victims of financial scams.

2.3 Proposed Theoretical / Conceptual Framework

Figure 2.1 below shows the conceptual framework which illustrates the links between all the independent and dependent variables and represents an integrated understanding of concepts. Besides, the proposed conceptual framework suggested below will allow the researchers to address specific research issues. In this research, the conceptual framework will be used in place of the theoretical framework due to the reason that this research will analyse the concepts of the variables and the relationships among them (Hecker & Kalpokas, n.d.). The financial fraud awareness among university students is chosen as the dependent variable (DV) whereas the anti-fraud education, attitudes towards fraud and defensiveness against fraud is used as the independent variable (IV) in this study.

Figure 2.1: Proposed Conceptual Framework
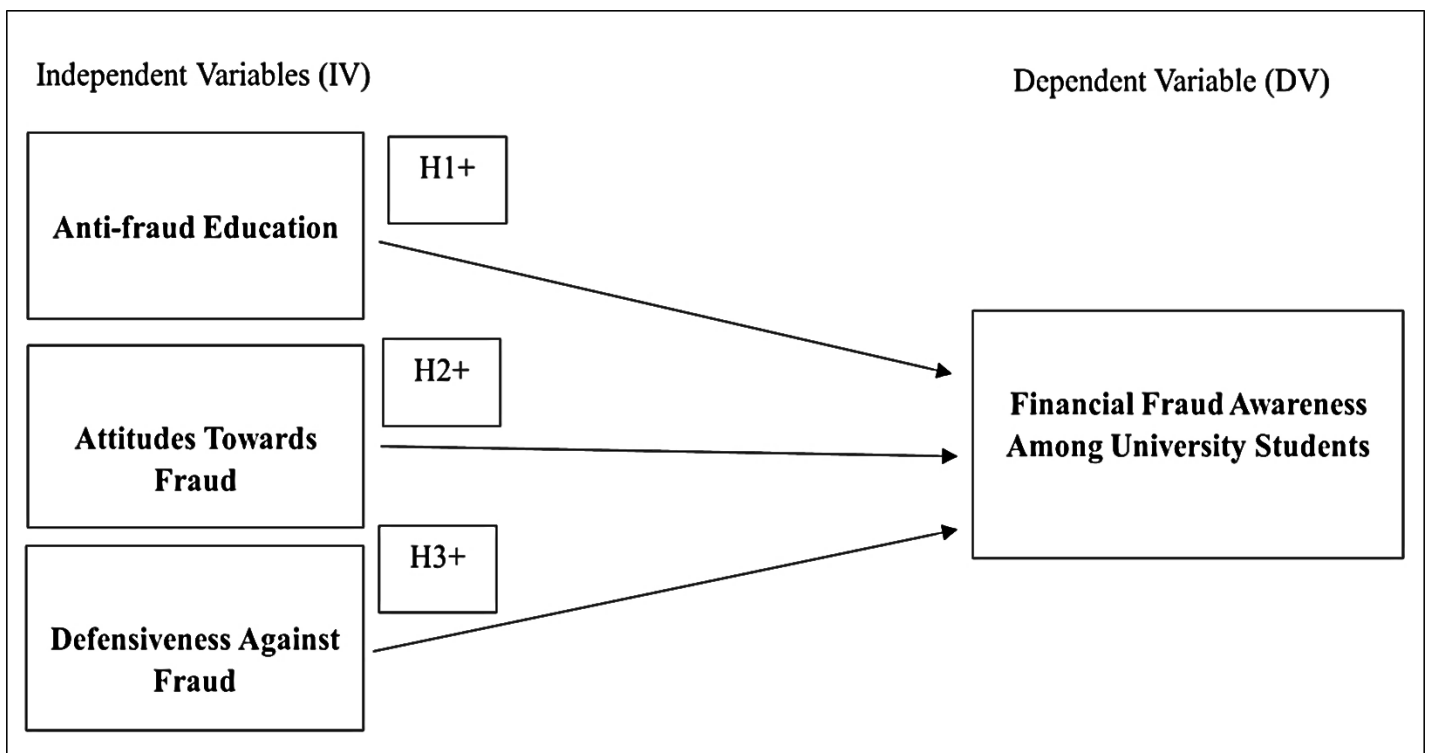
Source: Developed for the Research

2.4 Hypotheses Development

The research discovered that out of the 3 independent variables, which are anti-fraud education, attitudes towards fraud and defensiveness against fraud, they have a strong positive relationship against the dependent variable, which is the financial fraud awareness among university students.

2.4.1 The Relationship Between Anti-Fraud Education and the Financial Fraud Awareness Among University Students.

HA1: There is a relationship between anti-fraud education and the financial fraud awareness among university students.

H1: There is a positive relationship between anti-fraud education and the financial fraud awareness among university students.

The hypothesis will be developed as the anti-fraud education will affect the financial fraud awareness among university students if the hypothesis is accepted. However, the statement would be rejected if the hypothesis is incorrect. If the hypothesis is confirmed, then the anti-fraud education is one of the factors that will affect the financial fraud awareness among university students. The question for this hypothesis will be asked and considered properly, and it will also be analysed critically so that a foundation can be established as the foundation will assist the researcher in clarifying whether this is a factor that will not only prove to be true but also play as a crucial role in the research progress.

2.4.2 The Relationship Between Attitudes Towards Fraud and the Financial Fraud Awareness Among University Students.

HA2: There is a relationship between attitudes towards fraud and the financial fraud awareness among university students.

H2: There is a positive relationship between attitudes towards fraud and the financial fraud awareness among university students.

The hypothesis will be developed as the attitudes towards fraud will affects the financial fraud awareness among university students if the hypothesis is accepted. If the hypothesis fails, then the statement will be disproven. With attitudes towards fraud is also one of the important factors that affecting the financial fraud awareness among university students, the question for this hypothesis will be carefully considered in order to lay a foundation that will help to clarify whether this is a factor that will not only prove to be true but will also play as a significant role in research advances.

2.4.3 The Relationship Between Defensiveness Against Fraud and the Financial Fraud Awareness Among University Students.

HA3: There is a relationship between defensiveness against fraud and the financial fraud awareness among university students.

H3: There is a positive relationship between defensiveness against fraud and the financial fraud awareness among university students.

Growing awareness on anti-fraud can also do fraud prevention (Jalil, 2018, p. 3). Suprajadi (2009) stated that fraud awareness and the fraud prevention methodology are systematic steps that can be performed and carried out in order to detect and

reduce fraud. The hypothesis will be developed as the defensiveness against fraud will affect the financial fraud awareness among university students if the hypothesis is approved. The assertion will be disproven if the hypothesis is false. If the hypothesis is confirmed, then the defensiveness against fraud will be shown to influence the financial fraud awareness among university students. If the hypothesis is rejected, then the opposite will be demonstrated. With defensiveness against fraud is also one of the factors that may influence the financial fraud awareness among university students, the question for this hypothesis would be measured cautiously so that a strong foundation would be created. This foundation will assists the researcher in clarifying whether this is a factor that will not only prove to be correct but will also play as a significant role in his future research.

2.5 Conclusion

In this chapter, all of the variables have been explained and evaluated in detail by the researcher. Besides, the underlying theories in this study and the proposed conceptual framework by the researcher have been examined and reviewed as well. A total of 3 hypotheses have been formed and developed in this chapter also.

CHAPTER 3: METHODOLOGY

3.0 Introduction

The term "methodology" refers to a group of organized procedures such as study guides and methods of execution that were utilized in the research (Igwenagu, 2016). Igwenagu (2016) states that the methodology will help the researcher to clarify assumptions and implications as well as define and analyse the techniques of constraints and leverage throughout the process of conducting his or her research. All the research approaches that had been used in this research is outlined in detail in this chapter.

3.1 Research Design

In order to ensure that information and data collection is done correctly, it is imperative to choose a suitable research design since the research design is a comprehensive strategy that outlines the methods and approaches on gathering and analysing the necessary data (Zikmund, 2013). The goal is to ascertain whether the information gathered is sufficient to address the issue (Zikmund, 2013). This section will states all of the research design that will be used in the research.

3.1.1 Quantitative Research

First and foremost, this research will be adopting the quantitative research method by using numerical data in order to learn and understand the topic in a formal, objective, and systematic manner (Apuke, 2017). By utilizing the quantitative approach, the predictions may be made, and it can be used to check or test the stated

hypothesis and quantify the cause-and-effect relationship between the independent and dependent variables. Additionally, the quantitative approach allows the researcher to encompass a larger population sample size. Moreover, the outcomes that achieved and found from the quantitative research are statistical analyses whereby it will allow the researcher to assess all the collected data by supporting or refuting the hypothesis stated in this research. The survey questionnaire and the Statistical Package for the Social Sciences (SPSS) version 29 will be adopted in this research.

3.1.1.1 Descriptive Research

This study uses descriptive research under quantitative research. It is a type of research approach that looks for information in order to provide a thorough explanation of events, situations, or people. According to Nassaji (2015), by utilizing the descriptive research, the data may be statistically analysed, and the relationships can be established by using statistics such as means, frequencies, and percentages.

3.2 Sampling Design

It is undisputed that the samples are utilized to acquire the primary information about the research topic; hence, a sampling strategy was required to obtain the necessary data for a study. Sampling design refers to developing a strategy for a selected sample from a certain demographic. The main goal of sampling is to improve knowledge and comprehension of the characteristics for a chosen group. Therefore, the sampling strategy that is being utilized will be demonstrate and justify by the researcher in order to gather all of the required information on factors affecting financial fraud awareness among university students.

3.2.1 Target Population

The whole group of samples that is being taken to aid and support the study is known as the target population. It is essential for the research study to have a well-defined target audience whereby all of them were successfully meet the norms and requirements (Mohsin, 2016). The researchers need to identify the intended respondents precisely and meticulously so that the level of accuracy and the reliability of the data could be guaranteed. The evaluation of factors affecting financial fraud awareness among university students is the main goal of this research study. As a result, the research only looks at the university students. The rationale for selecting this particular group of population is to gather precise and pertinent data for the research (Saunders et al., 2009). Besides, university students nowadays are more vulnerable towards financial fraud due to the reason that they have low awareness on the issues and some of them even tend to trust their peers or people they met online easily (Jeevita, 2023). Thus, they will be the ideal candidates for this research.

3.2.2 Sampling Frame

The sample frame is not necessary for this research investigation since non-probability will be used as the sampling approach. The investigator intends to choose university students from several Malaysian regions.

3.2.3 Sampling Techniques

It is not feasible to conduct the survey among all members of the targeted group since this study is being conducted in Malaysia. Therefore, in order for the researcher to collect all of the required data by analysing the findings of a particular group of population without having the requirements to examine each person's replies personally, it will be essential to select samples by using the non-random sampling since not every university student in Malaysia has an equal opportunity of getting chosen to join into the poll (Stephanie, 2015).

The types of non-probability sampling that is being implemented in this study is the convenient sampling since the sample for this study will be chosen to be an easy-to-recruit and convenient source of data. Zikmund et al. (2013) defined the convenience sampling as the sampling strategy that comprises of collecting and reaching to the target populations with ease. The convenience sampling is a popular sampling technique that is being chosen in conducting research since it is inexpensive, convenient, and quick at acquiring the necessary data.

Besides, the convenience sampling has the benefit of being economical and easy for the researcher to implement on the questionnaire. The researcher will choose the respondents from the sample who are easy for them to reach by using convenience sampling. As a result, this makes it easier for the researcher to monitor and look into the factors that affecting the financial fraud awareness among university students in the chosen sample's knowledge of financial fraud conveniently.

3.2.4 Sample Size

The number of independent samples that have been examined and utilized in the research is the definition of sample size. This study tends to include 250 respondents.

3.3 Data Collection Methods

The dependability of the data collected from those targeted respondents defines the research's quality and conclusion, hence data collecting is crucial to a study. Whatever the subject of study, gathering data is the foundation of every research design (Parveen & Showkat, 2017). The act of systematically obtaining the anticipated information with the minimum amount of bias and falsification possible so that the analysis can produce the results which are believable and logical can be referred as data collection (Sapsford & Jupp, 2006). Sekaran & Bougie (2010) stated that the primary and secondary data are the two types of sources of

information that a researcher would often use. This research entitled the factors affecting the financial fraud awareness among university students whereby the primary data needed to be collected in order to conduct this research and execute the data analysis.

3.3.1 Primary Data

In order to get first-hand information from the targeted participants, primary data were used in this study (Kabir, 2016). There are numerous techniques including surveys, interviews and focus groups may be used to gather the primary data (Parveen & Showkat, 2017). The purpose of gathering the primary data is to give major or fundamental quantitative evidence of the factors that affecting the financial fraud awareness among university students. As stated by Kabir (2016), because primary data comes directly from respondents, it can enhance the data accuracy easily. In this research, the questionnaire survey will be utilized in this study so that the primary data on the independent and dependent variables can be collected.

3.3.2 Questionnaire Design

The questionnaire is also one of the data collecting tools that is being implemented to obtain the necessary data from the survey participants. It is made up of a set of questions. To gather the primary data from the intended respondents, the research instrument used in this research is the self-administered questionnaires. The self-administered questionnaire approach is preferred because it can gather a large amount of standardized data quickly and easily by using the same set of questionnaires. Besides, the self-administered questionnaires will make information more accessible to everybody.

Furthermore, one benefit of employing the questionnaire is that the questionnaire is the least expensive methods for gathering the research information. Additionally, it

is an affordable method of obtaining a large number of responders quickly and it enables this study to get the necessary data more effectively. Because of this, the researcher will create the questionnaire that includes a number of questions whereby they were being organized in a sensible and suitable way.

The questionnaire which created for this study has encompassed a variety of question formats, including multiple-choice and scaled-answer questions. The Section A listed the Personal Data Protection Notice (PDPA) of Universiti Tunku Abdul Rahman (UTAR) to the responders in order to seek for their final agreement and acknowledgment on participating in the survey. Next, Section B had provided a total of 6 items of demographic factors to the respondents whereas Section C will study the tendencies of the dependent variables. Lastly, the Section D, E and F will examine the tendencies of all the independent variables. In order to quantify the likelihood of respondents' responses, a Likert scale was selected for the third section onwards (Churchill & Brown, 2004). In general, Section C to Section F measures the data by using the rating scale methodologies. This is because of its directness, clarity, and ease of comprehension, which spares the respondents from confusion (Babakus & Mangold, 1992).

Moving forward, the Google Forms will be used to conduct this survey. With the assistance from the researcher, the participants of the survey need to complete the questionnaire where this will be one of the measuring instruments for the research. In short, by using Google Forms, the researcher can collect the required data from the 250 respondents easily.

3.3.3 Pilot Test

A pilot test is a small-scale preliminary study that is conducted before any large-scale quantitative research as the pilot test is able to determine whether a future full-scale project is feasible or not. The main objective of conducting the pilot test is to help the researcher to get more data on the population that is being studied. A pilot test is one of the crucial phases of a research project. This paper strives to explain

the significance and procedures involved in conducting the pilot test by using the example of a descriptive study (Hassan, Z. A. et al., 2006). A pilot test will be conducted in order to ascertain whether the design of this research is feasible first before beginning to dispense all the questionnaires to the intended audiences. The pilot test can also help in identifying the success of a research project by depending on the comments from the respondents.

Moreover, the pilot study is effective in formulating the right queries and a cohesive or optimal research plan for a subject as well. Furthermore, in order to enhance the overall quality for the questionnaire survey, the respondents' input will be gathered and put to use by removing any probable mistakes discovered in the questionnaire. For example, the respondents may offer some constructive feedback to the researcher on making the questions of the survey become better and steer clear of any jargon that the public might not understand. In short, before officially conduct the survey towards the targeted audiences, it is essential for the researcher to choose a subset of audiences in advance from the sample so that the viability of the survey questionnaire can be evaluated.

3.4 Proposed Data Analysis Tool

Zikmund et al. (2013) stated that the data analysis is the procedure of understanding the obtained raw data and converting it with reasonable understanding. The 3 primary goals of data analysis are to assess the validity of the data, derive conclusions from the data, and examine the hypotheses (Sekaran & Bougie, 2013). As a result, the collected data from the survey questionnaire will be examined statistically by utilizing the SPSS as the SPSS could assist the researcher in generating the descriptive analysis, reliability test and inferential analysis. Besides, it is also necessary to analyse the collected data by utilizing the SPSS in order to verify the hypotheses and research questions presented in previous chapter. The researcher will need to conduct a number of tests during this procedure to make sure that the finding is adequately supported.

3.4.1 Descriptive Analysis

In order to generate a data that is easy to interpret, it is necessary for the researcher to conduct a descriptive analysis first. Researchers can use the descriptive statistics to anticipate the demographic characteristics based on the responses from the respondents (Zikmund et al., 2013). Descriptive analysis is defined as the basic data transformation that describes the fundamental features including variability, distribution, and central tendency (Zikmund et al, 2013). Descriptive statistics are frequently used in the research studies to analyse the central tendency such as mean, median, and measures of variability such as standard deviation.

The descriptive analysis is a basic analysis that is divided into two components. The first component is the central tendency which involves frequency and percentage (Aldrich, 2019). The second component is the measure of variability, in which the mean and standard deviation are used to investigate specific variables. To facilitate the analysis and understand all the information gathered from the questionnaire, the descriptive analysis will be tallied and presented graphically such as table and pie chart. In Section B, the data (nominal and ordinal scale) are analysed by using frequency, percentage, and cumulative percentage. Besides, visual summaries such as pie charts and tables are provided in the descriptive analysis as well. Meanwhile, the interval scale data for Section C to F are tabulated and shown in a tabular format along with percentages, means and standard deviations.

3.4.2 Scale Measurement

To assess the reliability and validity of the questionnaire, the scale of measurement is employed in this research study. A measure is considered to be good when it is valid, dependable and sensitive (Zikmund et al., 2013). The scale measurement will help in assessing the reliability of data in this research.

3.4.2.1 Reliability Test

A reliability test is performed to ensure the reliability of the scales. In this research, the Cronbach's Alpha is used to evaluate the validity of the scales. A higher number indicates a higher level of reliability when the statistic is between 0 and 1. The Cronbach's rule of thumb is displayed in the Table 3.1 below.

Table 3.1: Cronbach Rule of Thumb

Cronbach's Alpha	Reliability level
$\alpha < 0.6$	Poor
$0.6 \leq \alpha < 0.7$	Fair
$0.71 \leq \alpha < 0.8$	Good
$0.81 \leq \alpha \leq 0.95$	Excellent

Source: Zikmund et al. (2013)

Based on the table above, if the alpha level is less than 0.6, then the level of reliability is poor. The reliability is regarded as fair when the alpha level is between 0.6 and 0.70. Moreover, the scales are considered to have acceptable reliability if the alpha value is between the range of 0.71 to 0.8 and excellent if the value is within the range of 0.81 to 0.95.

3.4.3 Inferential Analysis

The inferential analysis will discuss and assess the relationship between the cause and effect among the variables (Ab Hamid, 2006). The inferential analysis is being applied in this study whereby it is used to test the 3 hypotheses and to anticipate the population's accurate value by using the sample data that has been supplied. This is

an important data study that draws implications regarding the population. In this instance, a collection of 250 responses can study on the financial fraud awareness. The multiple regression analysis and Pearson correlation has been modified and adapted for use in this work.

3.4.3.1 Multiple Regression Analysis

The multiple regression analysis is appropriate to apply when there is only 1 dependent variable and more than 1 independent variable (Aldrich, 2019). Therefore, with only 1 dependent variable and 3 independent variables, this makes the multiple regression analysis suitable to use in this study. The multiple regression analysis is examined and analysed in the model summary table whereby it consists of every necessary piece of data or indication. The R-squared is a statistical metric that is used to assess how well a regression model fits the data and shows how much of the variance in the dependent variable can be explained by the independent variables (Ozili, 2023). The multiple regression analysis is applied in this research so that the researcher is able to verify the type and number of cause-and-effect interactions. The aim of utilizing the multiple regression analysis is to analyse a scenario that clarifies the patterns of links between the variables.

3.4.3.2 Pearson Correlation

The Pearson correlation is a statistical metric that assesses the strength and direction of the linear relationship between the variables. It ranges from -1 to +1 where perfect negative correlation is represented by a value of -1. No correlation is represented by a value of 0 and a perfect positive correlation is represented by a value of +1. The Pearson correlation coefficient relies on the assumption of normal distribution and the linearity between the two variables. The researcher may use the "correlate" tool on 2 variables at once in order to show the associations among the variables.

3.4.3.3 Multicollinearity

The multicollinearity test is being utilized to detect the substantial correlation between the 2 independent variables since a larger correlation indicates a greater amount of error (Abdulwahab et al., 2011). For every variable, one may observe the VIF statistics to determine whether multicollinearity is present. When the VIF value is in the range from 1 to 10, there will be no issue with multicollinearity. In contrast, when the VIF value is higher than 10, then there would be a multicollinearity issue.

3.5 Conclusion

In a nutshell, Chapter 3 has covered a variety of research approaches that adhere to a set of guidelines in a particular study area. Before administering the actual test to the 250 respondents, a pilot test will be done. The discussion on the research design, sampling design and data processing is achieved as well. The data analysis will be covered and discussed continuously in the next chapter.

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

In order to determine the mean and standard deviation from the 250 responses, this chapter starts with a descriptive study of the respondents' demographic factors, dependent and independent variables. Next, a thorough examination on the reliability test and inferential analysis that accounts every connection among the variables will be carried out to verify the dependability of the scales. For these analyses, the SPSS version 29.0 is employed.

4.1 Descriptive Analysis

Firstly, a descriptive analysis is being conducted in order to simplify the data. The descriptive analysis will be performed on the demographic information that was collected in the Section B of the questionnaire. Both the tables and pie charts are generated in each demographic items. And not only that, but the data from Section C to F is being applied to the descriptive analysis as well.

4.1.1 Respondent's Demographic Profile

For this section, the demographic profile of the respondents such as gender, race, age, monthly income, education level and the number of respondents that experienced financial fraud before will be covered and discussed.

4.1.1.1 Respondents' Gender

Initially, the responses are categorized into groups according to gender. A total of 250 university students participated in this study. Table 4.1 and Figure 4.1 present the sex ratio of 56.8% to 43.2%, with a total of 142 male and 108 female respondents.

Table 4.1: Descriptive Analysis (Gender)

Gender	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
Male	142	56.8	142	56.8
Female	108	43.2	250	100

Figure 4.1: Descriptive Analysis (Gender)
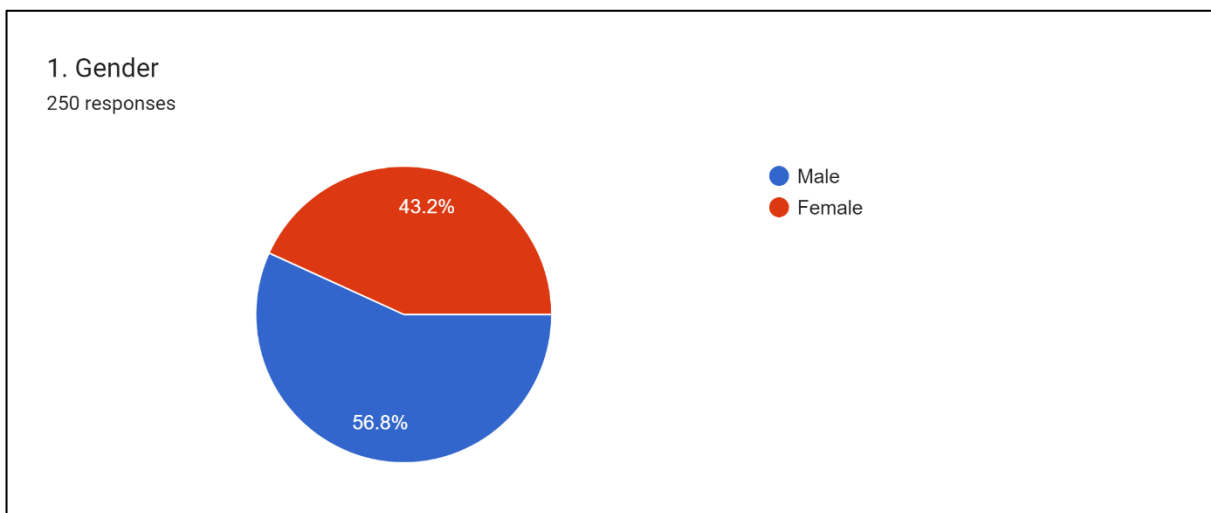
Source: Data collected from Google Forms.

4.1.1.2 Respondents' Age

Besides gender, the responses are divided into classifications according to age ranges as well. The age data of the respondents is displayed in Table 4.2 and Figure 4.2. The age range of 166 respondents (66.4%) out of the 250 total responses falls between 20 and 25 years old. Besides, there are 38 respondents are above older than 26 (15.2%) and 46 respondents are between the ages of 16 and 19 (18.4%).

Table 4.2: Descriptive Analysis (Age)

Age	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
16 – 19	46	18.4	46	18.4
20 – 25	166	66.4	212	84.8
26 & above	38	15.2	250	100

Figure 4.2: Descriptive Analysis (Age)
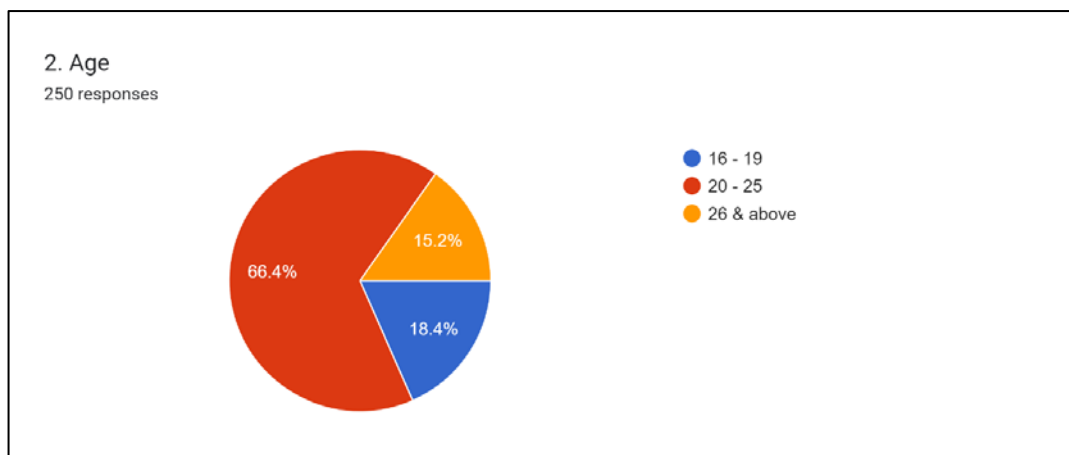
Source: Data collected from Google Forms.

4.1.1.3 Respondents' Education Level

The table and figure below show the data on the education level for the responders. Among the 250 responders in total, there are 163 (65.2%) of the university students had a bachelor's degree or above as their form of education. Additionally, there are also 34 respondents (13.6%) and 53 respondents (21.2%) are in the Foundation and Master categories respectively.

Table 4.3: Descriptive Analysis (Education Level)

Education Level	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
Foundation	53	21.2	53	21.2
Undergraduate (eg: Degree)	163	65.2	216	86.4
Postgraduate (eg: Master & above)	34	13.6	250	100

Figure 4.3: Descriptive Analysis (Education Level)
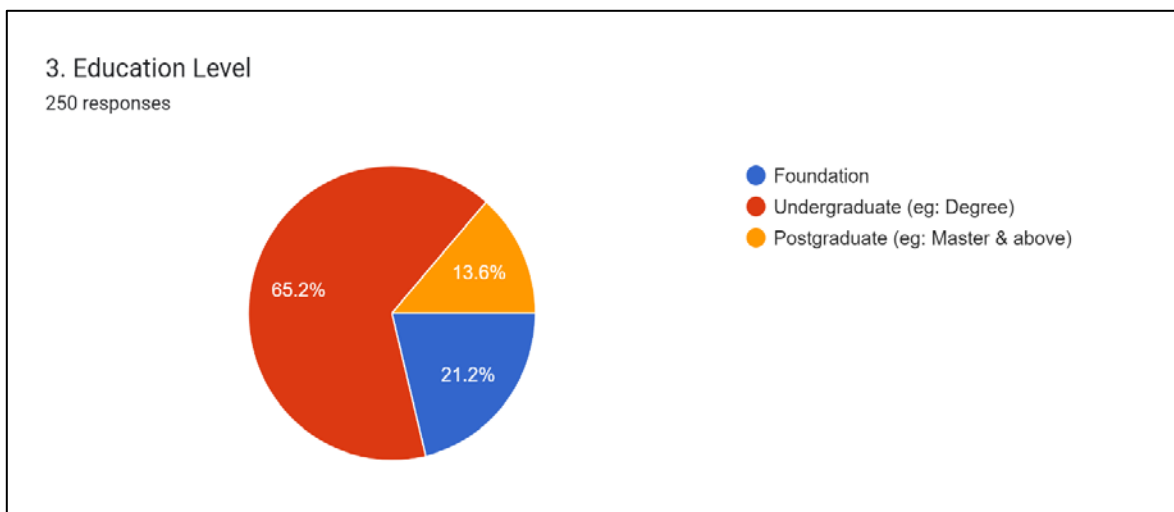
Source: Data collected from Google Forms.

4.1.1.4 Respondents' Race

The table and figure below also present the race-related statistics of the respondents. The Chinese respondents had made up 167 (66.8%) of the total 250 respondents, making them the mode of race. In addition, 42 respondents (16.8%) are Malay, 40 respondents (16%) are Indian, and 1 respondent (0.4%) belongs to Iban.

Table 4.4: Descriptive Analysis (Race)

Race	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
Malay	42	16.8	42	16.8
Chinese	167	66.8	209	83.6
Indian	40	16	249	99.6
Iban	1	0.4	250	100

Figure 4.4: Descriptive Analysis (Race)
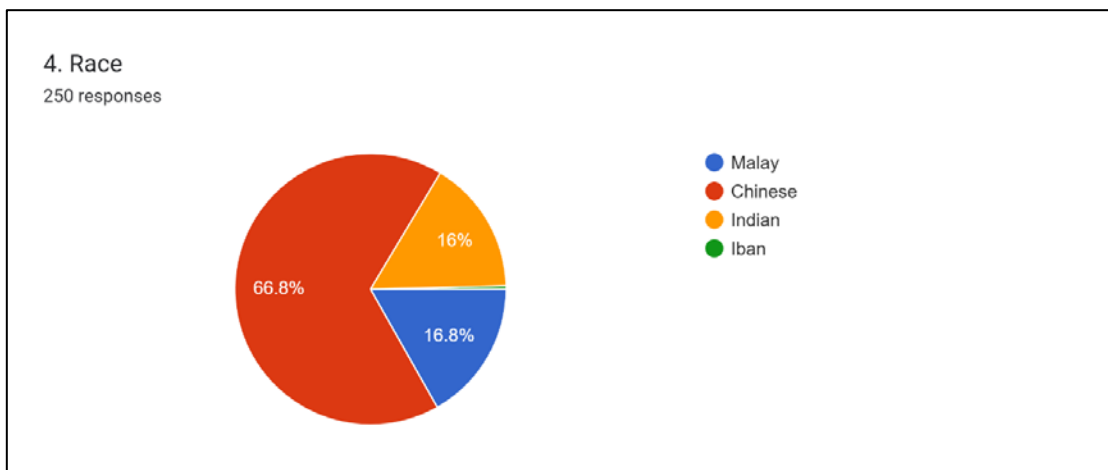
4.1.1.5 Respondents' Monthly Income

In addition, one of the criteria used to classify the respondents is their monthly income. As full-time university students, 55.6% of the respondents indicated they have no monthly income (Table 4.5 and Figure 4.5). Nonetheless, 49 respondents (19.6% of the total) stated that their monthly salary exceeds RM 2000. Furthermore, 32 respondents, or 12.8% of the total, reported having a monthly income of between RM1001 and RM1500. Additionally, there are also 30 respondents (12% of the respondents) reported that they have a monthly income of RM1000 or below as well.

Table 4.5: Descriptive Analysis (Monthly Income)

onthly Income	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
low RM1000	30	12	30	12
001 – RM1500	32	12.8	62	24.8
ove RM2000	49	19.6	111	44.4
Not Applicable)	139	55.6	250	100

Figure 4.5: Descriptive Analysis (Monthly Income)
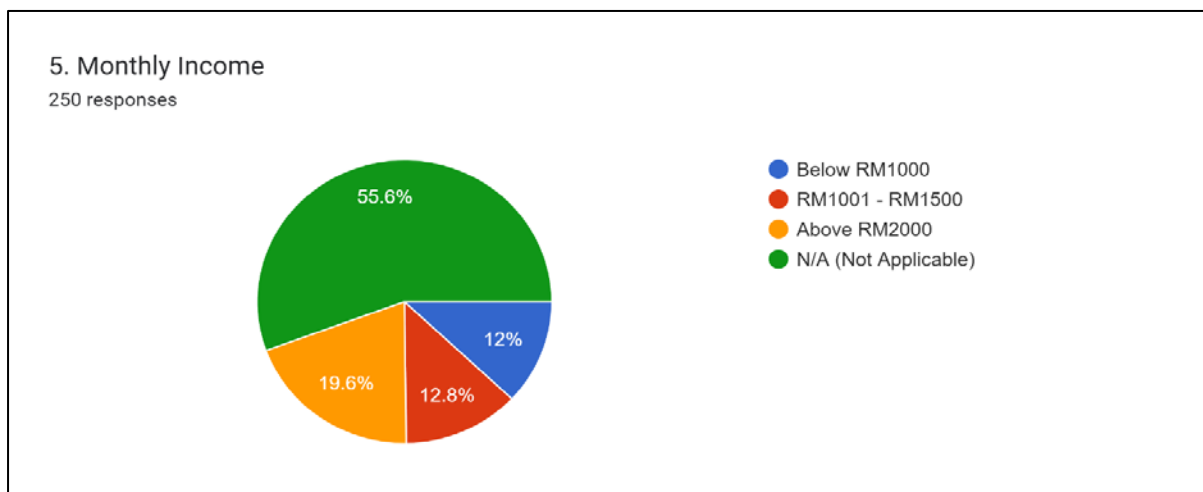
Source: Data collected from Google Forms.

4.1.1.6 Number of Respondents that Experienced Financial Fraud Before

Apart from that, the respondents are further divided into groups according to whether they have previously experienced or faced any financial fraud incidents or cases before. Out of the 250 respondents, 184 respondents (or 73.6%) said they had never experienced financial fraud, as shown in Table 4.6 and Figure 4.6. However, a total of 28 respondents (11.2%) reported having previously encountered financial fraud and an additional 38 respondents (15.2%) reported they would have liked to remain anonymous when asked if they had ever encountered any financial fraud cases.

Table 4.6: Descriptive Analysis (Financial Fraud Experience)

Are You a Victim of Financial Fraud before?	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
Yes	28	11.2	28	11.2
No	184	73.6	212	84.8
Prefer not to say	38	15.2	250	100

Figure 4.6: Descriptive Analysis (Financial Fraud Experience)
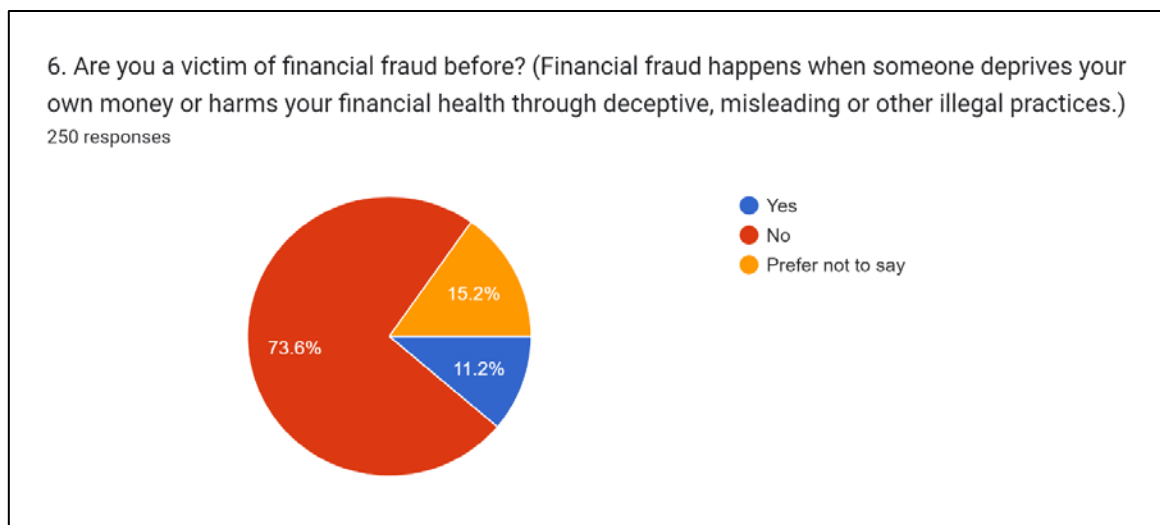
Source: Data collected from Google Forms.

4.1.2 Central Tendencies and Measurement of Constructs' Dispersion

The results of the responses for the survey questions that were provided by the participants are being examined and analysed by utilizing the central tendency (mean) and the dispersion of measurement (standard deviation). The researcher will rank each of the measurement individually.

4.1.2.1 Financial Fraud Awareness Among University Students

Table 4.7: Central Tendencies Measurement (Financial Fraud Awareness)

No.	Question(s)	Sample size (N)	Mean	Standard Deviation	Mean Ranking	Standard Deviation Ranking
FFA1	Fraud awareness will increase the honesty and integrity among people.	250	3.74	1.339	3	4
FFA2	The frequency of fraud awareness communication is less in the society.	250	3.30	1.467	5	1
FFA3	You are suspicious of people you don't know when they approach you in person.	250	3.88	1.312	1	5
FFA4	You perform checks on the credibility of the vendor.	250	3.83	1.355	2	3
FFA5	You read terms and conditions carefully.	250	3.73	1.405	4	2

Source: Data generated by SPSS v.29.0

The table above indicates that the FFA2 has the largest standard deviation (1.467) whereas FFA3 has the highest mean (3.88). It was then followed by FFA4 whereby it has the second-highest mean score (3.83) while FFA5 has the second-highest standard deviation (1.405) of any group. In addition, the mean for FFA1, 3.74, is the third highest in the data, but the standard deviation (1.339) for FFA1 is the second lowest among others. Despite having the second-highest standard deviation (1.405), FFA5 has the second-lowest mean (3.73). Finally, at 3.30 and 1.312, respectively, FFA2 and FFA3 had the lowest mean and standard deviation.

4.1.2.2 Anti-Fraud Education

Table 4.8: Central Tendencies Measurement (Anti-Fraud Education)

No.	Question(s)	Sample size (N)	Mean	Standard Deviation	Mean Ranking	Standard Deviation Ranking
AFE1	I will attend training (formal or informal) about anti-fraud practices or fraud awareness if there's any.	250	3.55	1.425	6	2
AFE2	I have been taught how to communicate concerns about known	250	3.60	1.494	5	1

	or potential wrongdoing.					
AFE3	I support the idea that the society needs more frequent and suitable fraud awareness training methods to support an anti-fraud culture.	250	3.78	1.401	3	3
AFE4	Anti-fraud education will teach the public in finding methods to promote early fraud detection.	250	3.84	1.316	2	7
AFE5	The anti-fraud education will improve the morale and teamwork of the people to create and shared professional	250	3.77	1.392	4	4

	values and norms.					
AFE6	Anti-fraud education will improved the knowledge of possible signs/actions which may indicate fraud for the people in the society.	250	3.88	1.378	T-1	5
AFE7	The anti-fraud education will increase the honesty and integrity among the people in the society.	250	3.88	1.373	T-1	6

Source: Data generated by SPSS v.29.0

The 7 questions regarding anti-fraud education that were evaluated and answered by respondents are included in Table 4.8 under the independent variable. The mean rating of AFE6 and AFE7 is 3.88, where both questions have the same and greatest value in the data. Besides, although AFE4 holds the second highest ranking on its mean value (3.84); however, its own standard deviation value (1.316) is the lowest among others. With mean averages and standard deviations of 3.78 and 1.401 respectively, AFE3 has the third-highest values. Furthermore, AFE5 has the fourth-highest mean and standard deviation which is 3.77 and 1.392 as well. Finally, in this central tendency measurement for anti-fraud education, the mean value (3.55) for AFE1 scored the lowest, while having the second biggest standard deviation at 1.425.

4.1.2.3 Attitudes Towards Fraud

Table 4.9: Central Tendencies Measurement (Attitudes Towards Fraud)

No.	Question(s)	Sample size (N)	Mean	Standard Deviation	Mean Ranking	Standard Deviation Ranking
ATF1	Fraud is a serious problem.	250	3.92	1.333	1	3
ATF2	Fraud awareness is always highlighted and prioritized by me.	250	3.86	1.303	3	5
ATF3	I find difficulties in being capable of empathizing with the fraudsters' perspective.	250	3.84	1.237	T-4	7
ATF4	It is quite common for me to criticize fraudsters that I feel are unfair or harmful.	250	3.76	1.326	T-5	4

ATF5	Fraudsters are not a person that I feel empathy toward.	250	3.90	1.345	2	1
ATF6	I tend to lose control if I am falling into an online fraud trap.	250	3.76	1.300	T-5	6
ATF7	I think appropriate action needs to be taken against fraudulent behaviour.	250	3.84	1.344	T-4	2

Source: Data generated by SPSS v.29.0

The table above also displays the 7 questions under attitudes towards fraud which responded by the responders and are being tested and observed as well. Refer to the outcomes recorded in the table, ATF9 has the greatest mean average, with a score of 3.92 while both ATF4 and ATF6 have the same and lowest mean values, which is 3.76. Next, at 3.90, ATF5 has the second-highest mean while on the other hand, ATF5 has the greatest standard deviation rating at 1.345 as well. After that, it is followed by ATF7 whereby its standard deviation has the second highest ranking at 1.344 but the value of its mean of 3.84 is ranked fourth in the data, which is same as ATF3 also. However, with respective standard deviation values of 1.237 and 1.300, ATF3 and ATF6 had the lowest and second-lowest values.

4.1.2.4 Defensiveness Against Fraud

Table 4.10: Central Tendencies Measurement (Defensiveness Against Fraud)

No.	Question(s)	Sample size (N)	Mean	Standard Deviation	Mean Ranking	Standard Deviation Ranking
DAF1	I avoid clicking links in emails or text messages unless I know the sender.	250	3.84	1.284	1	5
DAF2	I install anti-spam software or anti-virus software.	250	3.56	1.408	5	3
DAF3	I only provide my identity card or information on a secured application.	250	3.73	1.399	2	4
DAF4	I subscribe to a specific service to avoid commercial calls.	250	3.61	1.416	3	2
DAF5	I am suspicious of letters or emails containing spelling and	250	3.58	1.421	4	1

Source: Data generated by SPSS v.29.0

The 5 questions on defensiveness against fraud that have been answered by respondents and are now being evaluated are included in Table 4.10. According to the table, DAF1 has the lowest standard deviation (1.284) and the greatest mean average (3.84). It is then followed by DAF3 where it has the second-highest of mean value which is 3.73 and the second-lowest standard deviation (1.399). DAF4, which has the second-highest standard deviation of 1.416 and the third-highest mean ranking of 3.61, came next. Additionally, DAF5 had the second-lowest mean score (3.58) in this data, while having the biggest standard deviation (1.421) out of the five items. Lastly, the lowest ranking of means goes to DAF2 where it has a mean value of 3.56.

4.2 Scale Measurement

4.2.1 Reliability Test

Table 4.11: Reliability Analysis

No.	Variable(s)	Name of Variable(s)	Number of Item(s)	Cronbach's Alpha	Results of Reliability
1.	Dependent Variable	Financial Fraud Awareness Among University Students	5	0.793	Good
2.	Independent Variable	Anti-fraud Education	7	0.915	Excellent
3.	Independent Variable	Attitudes towards Fraud	7	0.874	Excellent
4.	Independent Variable	Defensiveness against Fraud	5	0.808	Excellent

Source: Data generated by SPSS v.29.0

Table 4.11 above demonstrates the reliability analysis results for the independent and dependent variables. According to the results, all variables have Cronbach's Alpha values greater than 0.7. For example, the dependent variable (Financial Fraud Awareness) is considered to have good reliability since its Cronbach's Alpha value of 0.793 is larger than 0.7 but fewer than 0.8. Furthermore, all the other 3 of the independent variables (Anti-Fraud Education, Attitudes Toward Fraud, and Defensiveness Against Fraud) are considered to have excellent reliable variables since their Cronbach's Alpha's values are better than 0.8 but less than 0.95. Thus, all the items can be kept and reviewed for this research project.

4.3 Inferential Analysis

4.3.1 Multiple Regression Analysis

The multiple regression analysis was proposed by Hair et al., (2003), it involves the use of more than 1 independent variables to predict a dependent variable. To evaluate the study's hypotheses, this will be utilized as a statistical tool for inferential analysis.

Table 4.12: Model Summary

del	R	R-square	Adjusted R-square	Standard Error of the Estimate	Durbin-Watson	F-test	Probability of F-test
	0.831	0.691	0.687	3.10849	1.886	183.016	<.001

Source: Data generated by SPSS v.29.0

According to Table 4.12, the R-squared value is 0.691, this means that 69.1% of the variance in financial fraud awareness can be accounted by the model that includes anti-fraud education, attitudes towards fraud and defensiveness against fraud. In social science research, an R-squared of 0.50 to 0.99 is considered appropriate, particularly when the majority of the explanatory factors exhibit statistical significance (Ozili, 2023). The r-squared value in Table 4.12 is within the acceptable range. Because of this, the R-squared value of 69.1% is appropriate for this research study and shows that the regression equation's predictions are generally dependable and reliable.

Next, the Durbin-Watson statistic is 1.886 based on Table 4.12. Typically, a Durbin-Watson value that is lower than 1.5 will indicates a positive autocorrelation while the value above 2.5 will signify a negative autocorrelation for the data. Generally,

a number between 1.5 and 2.5 indicates the lack of substantial autocorrelation. Since the Durbin-Watson statistic is close to 2, it can be said that this specific model does not have an autocorrelation problem. Besides, referring to Table 4.12, the ANOVA's F-value is 183.016, and the p-value is lesser than the significance level of 0.05. As the p-value is below the significance level of 0.05, this manifested the sign of statistically significant relationship that the 3 independent variables have with the dependent variable. In short, the overall model's reliability and high level of significance make it a good and reliable choice for figuring out how these variables relate to one another.

Table 4.13: Multiple Regression Analysis

Model 1	Unstandardized Beta	Coefficient Standard Error	Standardized Beta	t-statistics	P-value (Sig.)	Collinearity Tolerance	Statistics VIF
Constant	3.290	0.691		4.761	<0.001		
AFE	0.307	0.042	0.481	7.235	<0.001	0.285	3.511
ATF	0.164	0.050	0.241	3.270	0.001	0.232	4.315
DAF	0.148	0.055	0.163	2.665	0.008	0.334	2.992

Source: Data generated by SPSS v.29.0

The unstandardized beta presented in multiple linear regression analysis implies that there is a positive relationship between the financial fraud awareness and anti-fraud education. In particular, there is a 30.7% rise in financial fraud awareness for every unit increase in anti-fraud education. Furthermore, there is also a positive relationship occurred between the financial fraud awareness and attitudes towards fraud as well as defensiveness against fraud, with an increase of one unit in each of these independent variables translating into a 16.4% and 14.8% increase in financial fraud awareness respectively.

The p-value (2-tailed) for each independent variables are displayed in the "Sig." column of the coefficients table. If a particular variable's p-value is less than 0.05, it is often considered statistically significant. It is possible to conclude that the p-values for the variables above are all highly statistically significant since their p-values are all less than 0.05. For every variable, one may observe the VIF data to determine whether the multicollinearity is present. The absence of a multicollinearity problem is shown when the VIF value falls between 1 to 10. On the other hand, the multicollinearity occurs when the VIF value exceeds 10. The VIF values in this instance are 3.511, 4.315, and 2,992 for each predictor variable. It is possible to conclude that the existence of the multicollinearity is none among the independent variables because all of these VIF values fall between 1 and 10.

4.3.2 Pearson Correlation Coefficient Analysis

Table 4.14: Pearson Correlations

		Financial Fraud Awareness	Anti-Fraud Education	Attitudes Towards Fraud	Defensiveness Against Fraud
Financial Fraud Awareness	Correlation	1	.805''	.774''	.718''
	Sig. (2-tailed)		<.001	<.001	<.001
	N	250	250	250	250
Anti-Fraud Education	Correlation	.805''	1	-.835''	.750''
	Sig. (2-tailed)	<.001		<.001	<.001
	N	250	250	250	250
Attitudes Towards Fraud	Correlation	.774''	.835''	1	.803''
	Sig. (2-tailed)	<.001	<.001		<.001
	N	250	250	250	250
	Correlation	.718''	.750''	.803''	1

Defensiveness Against Fraud	Sig. (2-tailed)	<.001	<.001	<.001	
	N	250	250	250	250
**The significance level for correlation is 0.01 (2-tailed).					

Source: Data generated by SPSS v.29.0

Pearson correlation is a statistical measure that is used to quantify the direction and strength of a linear relationship between two variables. Perfect negative correlation is represented by a value of -1, no correlation is represented by a value of 0 and perfect positive correlation is represented by a value of +1. The Pearson correlation coefficient relies on the assumption of normal distribution and linearity between the two variables. The "correlate" feature can be employed to several variables at once, which shows all of the correlations among the variables.

Table 4.14 indicates that there is a .805 correlation between financial fraud awareness and anti-fraud education. Based on the widely used standards which established by Cohen, a correlation coefficient of r =.1 is considered modest, r =.3 is fair and r =.5 is big. Hence, there is a strong positive association in this case. Besides, the p-value is lesser than .001, which is reported as p < 0.001 and it is smaller than 0.01. Thus, there is significant evidence to reject the null hypothesis that the correlation is smaller than 0.001.

Next, the correlation between the financial fraud awareness and attitudes towards fraud takes the value of .774. In this condition, there will be a large positive correlation. Moreover, the p-value is also smaller than .001, which reported as p < 0.001 and it is lesser than 0.01. Hence, there is also significant indication to reject the null hypothesis that the correlation is less than 0.001.

Other than that, the correlation between financial fraud awareness and defensiveness against fraud takes the value of .718. In this instance, the two

variables also exhibit a strong positive correlation. The p-value is <.001 and reported as p < 0.001 whereby it is less than 0.01. Therefore, there is substantial evidence to refute the null hypothesis that the correlation is less than 0.001.

4.5 Conclusion

In overall, the goal of the data analysis which shows the patterns of the findings and analyses of the findings that are pertinent is successfully achieved in this chapter. And not only that, all the stated research questions and objectives had been successfully satisfy as well.

CHAPTER 5: DISCUSSION, CONCLUSION AND IMPLICATIONS

5.0 Introduction

The results from Chapter 4 are expanded upon in this chapter. Firstly, the explanations behind these results are looked and examined. Next, some implications on utilizing the results are made. Lastly, the study's limitations and the future research recommendations will be discussed and reviewed in this chapter as well. Similar to the previous 4 chapters, this chapter will be ended with a conclusion.

5.1 Discussions of Major Findings

5.1.1 Anti-Fraud Education and Financial Fraud Awareness Among University Students

RO1: To examine whether there is a relationship between anti-fraud education and financial fraud awareness among university students.

RQ1: Will anti-fraud education affect the financial fraud awareness among university students?

H1: There is a positive relationship between anti-fraud education and the financial fraud awareness among university students.

The results show that anti-fraud education has a relationship with financial fraud awareness among university students based on the multiple linear regression analysis. The p-value of anti-fraud education is <0.001 which is lesser than the significance level of 0.05. This means that the anti-fraud education can be considered as one of the determinants in affecting the dependent variable. Therefore, the stated H1 in Chapter 2 is accepted in this research.

5.1.2 Attitudes Towards Fraud and Financial Fraud Awareness Among University Students

RO2: To examine whether there is a relationship between attitudes towards fraud and financial fraud awareness among university students.

RQ2: Will attitudes towards fraud affect the financial fraud awareness among university students?

H2: There is a positive relationship between attitudes towards fraud and the financial fraud awareness among university students.

The outcomes of the study also show that attitudes towards fraud have a relationship with financial fraud awareness among university students as well based on the multiple linear regression analysis. The p-value of attitude towards fraud is 0.001, which is fewer than the significance level of 0.05. This indicates that attitude towards fraud is also one of the factors affecting the dependent variable. Therefore, H2 can also be accepted. In related study, Bédard et al. (2015) examined how university students perceived financial fraud and how would it affected their moral judgments and actions. The research discovered a link between the ethical behaviour and the awareness of financial fraud. For instance, university students who demonstrate more awareness and consciousness on financial fraud will exhibit a higher ethical action and cognition based on the study.

5.1.3 Defensiveness Against Fraud and Financial Fraud Awareness Among University Students

RO3: To examine whether there is a relationship between defensiveness against fraud and financial fraud awareness among university students.

RQ3: Will defensiveness against fraud affect the financial fraud awareness among university students?

H3: There is a positive relationship between defensiveness against fraud and financial fraud awareness among university students.

The findings also demonstrate a significant relationship between financial fraud awareness among university students and their defensiveness against fraud. The p-value of defensiveness against fraud is <0.001, which is below than 0.05. This suggests that the defensiveness against fraud will influence the dependent variable as well. Hence, H3 should also be approved.

5.2 Implications of the Study

5.2.1 Practical Implications

The research presented a positive and significant relationship between anti-fraud education and the financial fraud awareness among university students. The findings demonstrated that the higher the anti-fraud education, the higher the financial fraud awareness among university students. Consequently, enhancing anti-fraud education in higher education institutions can play a significant role in lowering the likelihood that the university students getting scammed and become the victims of financial fraud. In addition to that, public awareness campaigns that

highlight the seriousness of financial fraud cases and encourage people to be more vigilant and cautious about financial scams can be carried out by the policymakers or the government.

Next, there has been a positive and significant relationship found between attitude towards fraud and financial fraud awareness among university students as well. University students that have a positive attitude will constantly be up to date on the newest and latest financial fraud trends and scams. This could make it easier for them to identify suspicious activities and take preventative action. Therefore, the universities have to advise and encourage their students to exercise caution when considering offers that may appear too good for them or the attractive offers that necessitate them to reveal their own financial information to the third-party. And not only that, but the university students should also be alert and sensitive towards all the suspicious calls, texts, or mail messages that ask for sensitive information. As for policymakers, they will have the opportunity to leverage the influence that the tertiary education students have over one another in order to cultivate a shared value of being aware against financial frauds. This may be accomplished by working together with public influencers or social media platforms, where there are among the famous or well-known ones for university students.

Finally, the study also shows that the defensiveness against fraud and financial fraud awareness are positively and significantly associated among university students. It is undisputed that the best way for university students to protect themselves against financial scams is to prepare themselves with financial literacy knowledge since it is the best defence against it. This will also resulted that the university students had the ability to identify how these fraudulent financial activities work and learn some advice on how to preclude them. The policymakers or legislators should also take the advantage on it by creating guidelines and policies that can combat financial fraud. For example, the policymakers may create a more comprehensive laws that protect consumers by clearly outlining how to report such financial scams or fraudulent financial activity. This will facilitate the policymaker's prompt response and shield the impacted parties from additional financial damage. In addition, the

government may utilize advertising as a method to educate university students about financial scam avoidance and lower their chances of falling victim into these kinds of financial scams.

5.2.2 Theoretical Implications

The Theory of Planned Behaviour (TPB) explains financial fraud awareness issues in the context of forecasting the behaviour of university students towards financial fraud. The theoretical implications include determining the level of awareness of university students on financial fraud and the attitudes that university students ought to have against financial fraud. Due to the fact that every university student may personally behave differently when it comes to their attitude toward financial fraud in their lives, TPB can help to identify and enhance their behaviour towards financial fraud.

Next, the Protection Motivation Theory (PMT) justifies the reasons that the individuals decided to take defensive action when they anticipate a threat and they were driven to protect themselves against the particular threat. The PMT is utilized to inspire the people to adopt protective behaviours so that the university students can recognize the danger of financial fraud activities that will harm them and promote additional attentiveness in order to prevent fraud in situations that require defensiveness against fraud and financial fraud awareness.

5.3 Limitations of the Study

There are several limitations of the study had been discovered by the researcher. Firstly, due to the fact that the targeted and identified audience of this research is the university students as they are more likely to become the victims of financial fraud; as a result, every university student included in this survey belongs to Generation Z. Since this study solely focusing on the Malaysian university students,

it is unable to effectively convey the knowledge acquired about the factors affecting financial fraud awareness for other generations such as Generation X (1965 – 1979) and Millennials (1980 – 1994). It is undeniable that there is a chance that the people in subsequent generations may view the subject differently. Furthermore, as previously mentioned, the university students were chosen as the research's participants since they are all Generation Z who may be susceptible to financial fraud. Yet, there are other age groups that are more likely to experience financial fraud such as the Baby Boomer Generation (1946 – 1964). It could offer a more thorough and interesting perspective on the factors affecting financial fraud awareness among them.

Subsequently, as mentioned above, the questionnaire was used to gather the primary quantitative data for this study. The relationship between the dependent variable and the 3 independent variables has been evaluated and analysed by using the survey questionnaire. As mentioned above, the questionnaire was applied in this research since it is convenient for the researchers to collect a large amount of data and responses from the targeted audiences by using only a short period and in a cost-effective manner. Stated differently, it will enhances the effectiveness of the whole data collection procedure. Yet, the researchers might not be able to record the sentiments or feelings of the responders accurately by utilizing the survey questionnaire. In this case, it is challenging for the researchers to conduct a thorough analysis of the respondents' attitudes, beliefs, and actions about financial fraud.

5.4 Recommendations for Future Research

In order to overcome all the shortcomings as stated above, there are several recommended study mechanisms for the study are suggested in this research. Firstly, when looking at the characteristics influencing financial fraud awareness, future research should consider expanding the participant pool beyond just university students. This would mean conducting similar surveys at other generations such as

Generation X and Millennials so that the validity and reliability of the outcomes can be improved.

Next, the future research should consider on applying a mixed-method methodologies whereby it will involve both quantitative surveys together with interviews and any other relevant methods (Yoon & Kim, 2018). By using the mixed-methods methodology, the researchers would be able to understand more about the attitudes and behaviours of the respondents as well as their emotions. This may enhance the validity and dependability of the data collection techniques for the researcher on his or her future research. For this reason, it is undisputed that the researcher may consider adopting qualitative interviews such as interview-based methodologies in order to provide a more thorough information about his or her upcoming research or study.

5.5 Conclusion

In conclusion, this research had contributed on the factors affecting financial fraud awareness among university students. Based on the research performed in previous chapters, it shows that anti-fraud education, attitudes towards fraud and defensiveness against fraud have a significant influence on the financial fraud awareness among university students. Therefore, the findings prove that all of the stated hypotheses by the researcher can be accepted. Next, a thorough discussion of these findings along with potential implications is provided in this chapter as well. Lastly, the study's limitations and the recommendations for future research were being examined by the researcher also.

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APPENDICES

Appendix A: Ethical Approval for Research Project

UNIVERSITI TUNKU ABDUL RAHMAN DU012(A)

Wholly owned by UTAR Education Foundation Co. No. 578227-M

Re: U/SERC/78-212/2024

13 January 2024

Dr Fitriya Binti Abdul Rahim
Head, Department of International Business
Faculty of Accountancy and Management
Universiti Tunku Abdul Rahman
Jalan Sungai Long
Bandar Sungai Long
43000 Kajang, Selangor

Dear Dr Fitriya,

Ethical Approval For Research Project/Protocol

We refer to your application for ethical approval for your students' research project from Bachelor of International Business (Honours) programme enrolled in course UKMZ3016. We are pleased to inform you that the application has been approved under Expedited Review.

The details of the research projects are as follows:

No.	Research Title	Student's Name	Supervisor's Name	Approval Validity
1.	The Motivation for Purchasing Souvenirs Among the Domestic Tourists	Wan Shiuan Ling	Ms Annie Yong Ing Ing	
2.	Factor Affecting Healthy Food Purchase Behaviours of Generation Z	Pe Kai Wen		
3.	Factors Affecting Customer Satisfaction Among Online Shoppers	Dion Teh Jee Wei		
4.	The Factors Influences on Customer Satisfaction and Loyalty in Business Performance	Tang Wei Ping		
5.	The Impact of Social Media Influencer on Youth Online Buying Behaviour in Klang Valley	Goh Pinh Ling	Ms Chin Wai Yin	
6.	A Study on E-commerce Factors that Influence Post-purchase Behaviour of Young Adults in Malaysia	Chan Chiew Kong	Dr Corrinne Lee Mei Jyin	13 January 2024 – 12 January 2025
7.	Factors and Barriers to Attaining Mental Health Services	Chan Pei Xin		
8.	Factors Influencing the Customer Intention in Adopting Autonomous Vehicles (AVs)	Chye Chi Ern		
9.	Applying the Fraud Triangle Theory to Examine Fraudulent Cases from the Perspective of Working Adults	Alex Lau Chin Yeh	Dr Eaw Hooi Cheng	
10.	Examining the Influential Factors of Financial **Fraud on Social Media from the Perspective** of University Students	Bryan Wee Xin Jie		
11.	Factors Affecting Financial Fraud Awareness Among University Students	Liew Yoon Ler		
12.	The Impact of ChatGPT on E-commerce: The Case of Platform-based Business	Lee Siu Ying	Pn Ezatul Emilia Binti Muhammad Arif	

| 49. | Factors Influencing the Adoption of Touch 'n Go eWallet Among Consumers in Malaysia | Lim Si Ting | Dr Yeong Wai Mun | |

The conduct of this research is subject to the following:

(1) The participants' informed consent be obtained prior to the commencement of the research;

(2) Confidentiality of participants' personal data must be maintained; and

(3) Compliance with procedures set out in related policies of UTAR such as the UTAR Research Ethics and Code of Conduct, Code of Practice for Research Involving Humans and other related policies/guidelines.

(4) Written consent be obtained from the institution(s)/company(ies) in which the physical or/and online survey will be carried out, prior to the commencement of the research.

Should the students collect personal data of participants in their studies, please have the participants sign the attached Personal Data Protection Statement for records.

Thank you.

Yours sincerely,

Professor Ts Dr Faidz bin Abd Rahman
Chairman
UTAR Scientific and Ethical Review Committee

c.c   Dean, Faculty of Accountancy and Management
       Director, Institute of Postgraduate Studies and Research

Appendix B : Survey Questionnaire

Dear respondents,

Good day to you! I am Liew Yoon Ler who is currently studying the course Bachelor of International Business (Honours) in Universiti Tunku Abdul Rahman (UTAR), Sungai Long campus. Currently, I am conducting a research project to find out the Factors Affecting Financial Fraud Awareness Among University Students.

I humbly request for your voluntary participation in this study and it is also important for you to have an understanding of the purposes and processes of the study before deciding if you're going to take part. Kindly take your time reading the following information. Should you require more information, please do not hesitate to contact me (Liew Yoon Ler) @ yoonler.3131@1utar.my.

The study aims to examine the factors that will affects the financial fraud awareness among university students with variables such as anti-fraud education, attitudes towards fraud and defensiveness against fraud. This study consists of 6 sections (Section A, B, C, D, E, F). For the first section, a consent form will be presented to you about the research and what questions will be covered in the upcoming session. As for the second section, the respondents' demographic data will be collected. For the third section onwards, questions regarding the variables will be asked.

The survey should take approximately 5 to 10 minutes to complete. Before proceed, I would like to say many thanks for your time and willingness to being a part of this research. Should you have any questions or concerns about the survey, feel free to contact me via Microsoft Teams (Liew Yoon Ler) or email me @ yoonler.3131@1utar.my.

Yours faithfully,

Liew Yoon Ler

2001332

Bachelor of International Business (Hons)

Section A

<u>PERSONAL DATA PROTECTION NOTICE</u>

Please be informed that in accordance with Personal Data Protection Act 2010 ("PDPA") which came into force on 15 November 2013, Universiti Tunku Abdul Rahman ("UTAR") is hereby bound to make notice and require **consent in relation to collection, recording,** storage, usage and retention of personal information.

1. Personal data refers to any information which may directly or indirectly identify a person which could include sensitive personal data and expression of opinion. Among others it includes:

   a) Name
   b) Identity card
   c) Place of Birth
   d) Address
   e) Education History
   f) Employment History
   g) Medical History
   h) Blood type
   i) Race
   j) Religion
   k) Photo
   l) Personal Information and Associated Research Data

2. The purposes for which your personal data may be used are inclusive but not limited to:

   a) For assessment of any application to UTAR
   b) For processing any benefits and services
   c) For communication purposes
   d) For advertorial and news
   e) For general administration and record purposes
   f) For enhancing the value of education
   g) For educational and related purposes consequential to UTAR
   h) For replying any responds to complaints and enquiries
   i) For the purpose of our corporate governance
   j) For the purposes of conducting research/ collaboration
3. Your personal data may be transferred and/or disclosed to third party and/or UTAR collaborative partners including but not limited to the respective and

appointed outsourcing agents for purpose of fulfilling our obligations to you in respect of the purposes and all such other purposes that are related to the purposes and also in providing integrated services, maintaining and storing records. Your data may be shared when required by laws and when disclosure is necessary to comply with applicable laws.

4. Any personal information retained by UTAR shall be destroyed and/or deleted in accordance with our retention policy applicable for us in the event such information is no longer required.

5. UTAR is committed in ensuring the confidentiality, protection, security and accuracy of your personal information made available to us and it has been our ongoing strict policy to ensure that your personal information is accurate, complete, not misleading and updated. UTAR would also ensure that your personal data shall not be used for political and commercial purposes.

Consent:

6. By submitting or providing your personal data to UTAR, you had consented and agreed for your personal data to be used in accordance to the terms and conditions in the Notice and our relevant policy.

7. If you do not consent or subsequently withdraw your consent to the processing and disclosure of your personal data, UTAR will not be able to fulfill our obligations or to contact you or to assist you in respect of the purposes and/or for any other purposes related to the purpose.

8. You may access and update your personal data by writing to us at

Acknowledgment of Notice

[   ] I have been notified and that I hereby understood, consented and agreed per UTAR above notice.

[   ] I disagree, my personal data will not be processed.

…………………………
Name:
Date:

Section B: Demographic

1. Gender

o Male

o Female

2. Age

o 16 – 19

o 20 – 25

o 26 & above

3. Education Level

o Foundation

o Undergraduate (eg: Degree)

o Postgraduate (eg: Master & above)

4. Race

o Malay

o Chinese

o India

o Others:

5. Monthly income

o Below RM1,000

o RM1,001 - RM1,500

o Above RM2,000

o N/A (not Applicable)

6. Are you a victim of financial fraud before? (Financial fraud happens when someone deprives your own money or harms your financial health through deceptive, misleading or other illegal practices.)

o Yes

o No

o Prefer not to say

The scales ranging are stated as below:

1- **Strongly Disagree (SD)**
2- **Disagree (D)**
3- **Neutral (N)**
4- **Agree (A)**
5- **Strongly Agree (SA)**

You are requested to choose how much you agree or disagree with each of the following statements based on a scale ranging from 1 (strongly disagree) to 5 (strongly agree) for the next section.

No.	Question(s)	SD	D	N	A	SA
		1	2	3	4	5
Section C: Financial Fraud Awareness						
1.	Fraud awareness will increase the honesty and integrity among people.	1	2	3	4	5
2.	The frequency of fraud awareness communication is less in the society.	1	2	3	4	5
3.	You are suspicious of people you don't know when they approach you in person.	1	2	3	4	5
4.	You perform checks on the credibility of the vendor.	1	2	3	4	5

5.	You read terms and conditions carefully.	1	2	3	4	5

Section D: Anti-Fraud Education

1.	I will attend training (formal or informal) about anti-fraud practices or fraud awareness if there's any.	1	2	3	4	5
2.	I have been taught how to communicate concerns about known or potential wrongdoings.	1	2	3	4	5
3.	I support the idea that the society needs more frequent and suitable fraud awareness training methods to support an anti-fraud culture.	1	2	3	4	5
4.	Anti-fraud education will teach the public in finding methods to promote early fraud detection.	1	2	3	4	5
5.	The anti-fraud education will improve the morale and teamwork of the people to create and shared professional values and norms.	1	2	3	4	5
6.	Anti-fraud education will improved the knowledge of possible signs/actions which may	1	2	3	4	5

	indicate fraud for the people in the society.					
7.	The anti-fraud education will increase the honesty and integrity among the people in the society.	1	2	3	4	5

Section E: Attitudes Towards Fraud

1.	Fraud is a serious problem.	1	2	3	4	5
2.	Fraud awareness is always highlighted and prioritized by me.	1	2	3	4	5
3.	I find difficulties in being capable of empathizing with the fraudsters' perspective.	1	2	3	4	5
4.	It is quite common for me to criticize fraudsters that I feel are unfair or harmful.	1	2	3	4	5
5.	Fraudsters are not a person that I feel empathy toward.	1	2	3	4	5
6.	I tend to lose control if I am falling into an online fraud trap.	1	2	3	4	5
7.	I think appropriate action needs to be taken against fraudulent behaviour.	1	2	3	4	5

Section F: Defensiveness Against Fraud						
1.	I avoid clicking links in emails or text messages unless I know the sender.	1	2	3	4	5
2.	I install anti-spam software or anti-virus software.	1	2	3	4	5
3.	I only provide my identity card or information on a secured application.	1	2	3	4	5
4.	I subscribe to a specific service to avoid commercial calls.	1	2	3	4	5
5.	I am suspicious of letters or emails containing spelling and grammar mistakes.	1	2	3	4	5

Appendix C: SPSS Data Analysis Output

i) Reliability Test

a) Financial Fraud Awareness Among University Students

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.793	5

b) Anti-Fraud Education

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.915	7

c) Attitudes Towards Fraud

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.874	7

d) Defensiveness Against Fraud

Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.808	5

ii) Descriptive Analysis

a) Financial Fraud Awareness Among University Students

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
@2. Fraudawarenesswillincrea sethehonestyandintegritya mon	250	1	5	3.74	1.339
@3. Thefrequencyoffraudaware nesscommunicationislessi nth	250	1	5	3.30	1.467
@4. Youaresuspiciousofpeople youdontknowwhentheyappr oac	250	1	5	3.88	1.312
@5. Youperformchecksonthecr edibilityofthevendor	250	1	5	3.83	1.355
@6. Youreadtermsandcondition scarefully	250	1	5	3.73	1.405
Valid N (listwise)	250				

b) Anti-Fraud Education

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
@1. Iwillattendtrainingformalori nformalaboutantifraud	250	1	5	3.55	1.425
@2. Ihavebeentaughthowtocom municateconcernsaboutkn ownor	250	1	5	3.60	1.494
@3. Isupporttheideathatthesoci etyneedsmorefrequentand	250	1	5	3.78	1.401
@4. Antifraudeducationwillteach thepublicinfindingmethods	250	1	5	3.84	1.316
@5. Theantifraudeducationwilli mprovethemoraleandteam wor	250	1	5	3.77	1.392
@6. Antifraudeducationwillimpr ovedtheknowledgeofpossi ble	250	1	5	3.88	1.378
@7. Theantifraudeducationwilli ncreasethehonestyandinte g	250	1	5	3.88	1.373
Valid N (listwise)	250				

c) Attitudes Towards Fraud

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
@9. Fraudisaseriousproblem	250	1	5	3.92	1.333
@10. Fraudawarenessisalwayshighlightedandprioritizedbyme	250	1	5	3.86	1.303
@11. Ifinddifficultiesinbeingcapableofempathizingwiththe	250	1	5	3.84	1.237
@12. ItisquitecommonformetocriticizefraudstersthatIfee	250	1	5	3.76	1.326
@13. FraudstersarenotapersonthatIfeelempathytoward	250	1	5	3.90	1.345
@14. ItendtolosecontrolifIamfallingintoanonlinefraud	250	1	5	3.76	1.300
@15. Ithinkappropriateactionneedstobetakenagainstfraudu	250	1	5	3.84	1.344
Valid N (listwise)	250				

d) Defensiveness Against Fraud

Descriptives

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
@1. IavoidclickinglinksinemailsortextmessagesunlessIkn	250	1	5	3.84	1.284
@2. Iinstallantispamsoftwareorantivirussoftware	250	1	5	3.56	1.408
@3. Ionlyprovidemyidentitycardorinformationonasecured	250	1	5	3.73	1.399
@4. Isubscribetoaspecificservicetoavoidcommercialcalls	250	1	5	3.61	1.416
@5. Iamsuspiciousoflettersoremailscontainingspellingand	250	1	5	3.58	1.421
Valid N (listwise)	250				

Double-click to activate

iii) Multiple Regression Analysis

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.831[a]	.691	.687	3.10849	.691	183.016	3	246	<.001	1.886

a. Predictors: (Constant), DAF, AFE, ATF
b. Dependent Variable: FFA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5305.284	3	1768.428	183.016	<.001[b]
	Residual	2377.020	246	9.663		
	Total	7682.304	249			

a. Dependent Variable: FFA
b. Predictors: (Constant), DAF, AFE, ATF

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	3.290	.691		4.761	<.001	1.929	4.652		
	AFE	.307	.042	.481	7.235	<.001	.223	.390	.285	3.511
	ATF	.164	.050	.241	3.270	.001	.065	.263	.232	4.315
	DAF	.148	.055	.163	2.665	.008	.039	.257	.334	2.992

a. Dependent Variable: FFA

iv) Pearson Correlation Coefficient

➡ Correlations

Descriptive Statistics

	Mean	Std. Deviation	N
FFA	18.4720	5.55451	250
AFE	26.2960	8.70999	250
ATF	26.8800	8.15276	250
DAF	18.3200	6.14628	250

Correlations

		FFA	AFE	ATF	DAF
FFA	Pearson Correlation	1	.805**	.774**	.718**
	Sig. (2-tailed)		<.001	<.001	<.001
	N	250	250	250	250
AFE	Pearson Correlation	.805**	1	.835**	.750**
	Sig. (2-tailed)	<.001		<.001	<.001
	N	250	250	250	250
ATF	Pearson Correlation	.774**	.835**	1	.803**
	Sig. (2-tailed)	<.001	<.001		<.001
	N	250	250	250	250
DAF	Pearson Correlation	.718**	.750**	.803**	1
	Sig. (2-tailed)	<.001	<.001	<.001	
	N	250	250	250	250

**. Correlation is significant at the 0.01 level (2-tailed).