THE INTERPLAY OF DIGITAL FINANCIAL LITERACY, CAPABILITY, AUTONOMY IN THE FINANCIAL DECISION-MAKING IN TODAY'S DIGITAL AGE.

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.

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DEDICATION

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For providing me an opportunity to conduct this research project.

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Supervisor who provides me with a lot of insightful feedbacks, opinions, and assistances in order to ensure that I am on the right path throughout the process of this research project.

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LIST OF ABBREVIATIONS

TPB	Theory of Planned Behavior
FDM	Financial Decision-Making
DFL	Digital Financial Literacy
FC	Financial Capability
PFWB	Personal Financial Well-Being
FA	Financial Autonomy

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PREFACE

As consumers increasingly rely on digital platforms, tools, and services to make financial decisions, there is a significant influence on their financial decisions. Financial products have become increasingly complex as a result of cryptocurrencies, robotic advisors, and online lending platforms. Financial decisions aligned with individual goals are made more challenging by this complexity.

Research in this area examines how digital financial literacy, capability, and autonomy influence financial decision-making in the digital age. To understand the complexities of modern financial offerings, digital financial literacy is essential. Their sensitive information is protected from potential fraud and security risks as they navigate digital platforms effectively.

Digital banking, budgeting, and investing are all functions that are facilitated by financial capability. Technological advancements are transforming the financial landscape, making it increasingly challenging for individuals to navigate this complexity and make well-informed decisions.

Additionally, this study examines the concept of financial autonomy and its significance in the digital age. In an era dominated by automated processes and algorithms, financially autonomous individuals maintain control over their finances. The importance of financial autonomy is further highlighted by personalized financial services and targeted advertising, which allow consumers to make choices based on their needs and goals.

ABSTRACT

The objective of this study is to explore the interplay of digital financial literacy, financial capability, and financial autonomy in financial decision-making in today's digital age. Furthermore, the three independent variables, which are digital financial literacy, financial capability, and financial autonomy have been chosen to see whether they are associated with financial decision-making, which is the dependent variable. In this study, 318 copies of the Google Form survey were distributed to Malaysian Youth. IBM SPSS Statistics 26 was used to analyse and interpret the data collected from the Google Form survey. The data were analysed using descriptive analysis and inferential analysis. The results of this study showed that financial decision-making was affected by digital financial literacy, financial capability, and financial autonomy. Lastly, limitations, and recommendations for future research was discussed in later chapters.

CHAPTER 1: RESEARCH OVERVIEW

1.0   Introduction

A research overview is presented in this chapter. Background, problem statement, research questions, research objectives, and significance of the study are included.

1.1 Background of the Study

A person's financial decision-making is increasingly influenced by the interplay between digital financial literacy, financial capability, and financial autonomy. In today's digital age, financial planning elements are further affected by technology. With technology continuously transforming the financial landscape, individuals must possess the skills, knowledge, and autonomy to make informed and responsible financial decisions as they are increasingly exposed to digital financial products and services.

Making good financial decisions is determined by one's level of digital financial literacy. An individual must possess certain knowledge, understanding, and skills to manage finances effectively (Fernando,2023). With the advent of the digital age, the concept of digital financial literacy has expanded and encompassed digital financial literacy. A thorough understanding of the risks associated with digital financial products and services is essential to investing in these products and services (Choung et al., 2023).

Research and statistics show that individuals are struggling to achieve enough

digital financial literacy. Based on Standard & Poor's Global Financial Literacy Survey conducted in 2021, 57% of global adults lack essential financial education, which indicates that a significant percentage of the population is financially illiterate. The digital financial literacy rate in some regions is even lower, at 30% and 33%, respectively, in Sub-Saharan Africa and the Middle East.

1.2 Problem Statement

Modern digital financial literacy is closely intertwined with individual capabilities and autonomy in financial decision-making, which have significant impacts on the landscape. Using digital tools and platforms to integrate into financial systems has placed an increased requirement on individuals to comprehend digital financial mechanisms, such as online security measures, digital payment systems, and investment opportunities (Tay et al., 2022). In addition, factors such as technological access, familiarity, and confidence are crucial to their ability to navigate and utilize these tools effectively (Falloon, 2020). In this digital age, achieving financial autonomy entails not only the ability to assess well-informed decisions but also the ability to direct and shape one's financial future. The uneven distribution of these essential attributes poses a persisting problem, which results in pronounced financial disparities. Aiming to understand how digital financial literacy levels, individual capacities, and the resultant autonomy influence financial decision-making, this study aims to meticulously analyze these intricate relationships (Lyons, 2020). It identifies the challenges preventing certain individuals from taking advantage of digital financial landscapes and proposes strategies to improve digital financial literacy, individual proficiency, and financial autonomy, thus fostering an equitable financial future for all.

1.3 Research Questions

1.3.1 General Research Question

The general question of this research is what relationship between the interplay ofdigital financial literacy, capability, and autonomy in the financial decision-makingin today's digital age.

1.3.2 Specific Research Questions

i.   What is the relationship between digital financial literacy in financial decision-making in today's digital age?

ii. What is the relationship between financial capability in financial decision-making in today's digital age?

iii. What is the relationship between financial autonomy in financial decision-making in today's digital age?

1.4   Research Objectives

1.4.1 General Research Objective

The general objective of this research is to examine the interplay of digital financial literacy, capability, autonomy in financial decision-making in today's digital age.

1.4.2 Specific Research Objectives

i. To study the relationship between digital financial literacy towards financialdecision-making in today's digital age.

ii. To analyze the relationship between financial capability towards financial decision-making in today's digital age.

iii. To identify the relationship between financial autonomy towards financial decision-making in today's digital age.

1.5 Significance of Study

Since financial decision-making is influenced by the digital age, this research examines the factors that cause financial decision-making to be made. A study examined how digital financial literacy, capability, and autonomy influence financial decision-making in today's digital age.

Runde and Nealer (2018) claimed that the financial products market is complex in the digital age with cryptocurrencies and robotic advisors, as well as online lending platforms. Making informed decisions aligned with one's financial goals requires digital financial literacy, which helps individuals understand these complex offerings. The survey also mentioned concerns about digital security and privacy. Individuals need to be aware of potential security and privacy risks associated with online transactions and the use of digital platforms for banking and investing. Through digital financial literacy, individuals are empowered to protect their sensitive information and avoid becoming victims of scams and fraud.

Other than that, financial capability enables individuals to use digital platforms and tools efficiently for banking, budgeting, investing, and other financial activities. According to Farhana and Sabri (2013), navigating a Complex FinancialLandscape mentioned that technologies can be effectively leveraged to improve financial outcomes. Financial products and services have expanded in the digital era, increasing complexity of the financial landscape. An individual's ability to navigate financial complexity and make well-informed decisions is a function of their financial capability.

Besides, there may be valuable insights to be gained from this study regarding empowerment and independence. Financially autonomous individuals could manage their own financial lives independently. A person's financial autonomy becomes more crucial if one wishes to maintain control over their finances in the digital age. According to Tkaczyk (2016), these decisions can be affected by automated processes and algorithms. Personalizing financial decisionsto meet the needs and goals of each individual can lead to financial autonomy. Particularly in the digital age, consumers have a greater ability to make choices based on targeted ads and personalized financial services.

1.6   Organization of the study

The study is divided into five chapters. A description of the research background, research problem, research objectives, research question, and significance of the research is provided in Chapter 1. Chapter 2 provides an overview of underlying theories, proposed theoretical, and hypotheses development. Data collection methods, data analysis tools, and research design are discussed in Chapter 3. A brief overview of descriptive and inferential analysis is provided in Chapter 4. Several chapters in chapter 5 review the study's major findings, implications, limitations, recommendations for future research, appendices, and references.

1.7   Summary

This chapter provides an overview of the research background with the interplay of digital financial literacy, capability, and autonomy in financial decision-making in today's digital age. The subsequent chapter covers the discussion of thevariables of interest based on the past literature.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

A dependent variable in this chapter is financial decision-making, and an independent variable are digital financial literacy, financial capability, and financial autonomy. The literature on each variable is also reviewed in this chapter. The results of this research are presented in this chapter along with a conceptual framework and hypotheses.

2.1 Review of Relevant Theoretical Model

2.1.1 Theory of Planned Behavior

An important aspect of the Theory of Planned Behavior (TPB) is the modern formulation of the theory by Ajzen (2020). TPB can also be considered a form of cognitivetheory (Brookes, 2021). According to (Fritzscher, 2020), the cognitive theory explains human behavior by studying human thought. It is possible to predict and explain human behavior using the theory of planned behavior (Ajzen, 2011). Various factors determine human behavior, including attitudes, subjective norms, and a perception of control (Brookes, 2021). In Kamarudin & Hashim (2018), three independent variables, including digital financial literacy, financial capability, and financial autonomy, were examined in relation to financial decision-making.

In terms of digital financial literacy, perceived behavioral control offers an insightful explanation for how digital financial literacy impacts financial

decision-making. According to Ajzen (1991), perceived behavioral control is the feeling that performing a behavior is easy or difficult. This means determining whether a particular behavior can be performed by an individual. Having control over the situation and knowing how to do something improves an individual's chances of success. Similarly, financial decisions must be made carefully. People with a certain level of digital financial literacy are more likely to engage in financial activities, in addition to understanding economic concepts such as interest rate, time value of money, or inflation. Predicting future behaviors, responding to changing market conditions, and taking preventive measures to avoid loss make them well-suited to prevent losses going forward. Individuals with high digital financial literacy levels may understand how interest rates are affected by different factors. Their best interests are served if theypredict future interest rate movements and act accordingly.

Furthermore, the theory of planned behavior places a subjective value on financial capability. Generally, people refer to financial capability as the ability to make good financial decisions based on the information they have (Shih et al., 2022). Financial capability is multifaceted and affected by a variety of factors despite frameworks and benchmarks existing. The ANZ & AC Nielsen,2005 study determined that short-term versus long-term focus, materialistic (aspired) goals, and being unconcerned with financial matters influence the development of financial capability. People's opinions can change how they perceive whether their actions are approved or opposed. Parents' influence on financial decisions in the digital age is related to this theory of planned behavior. The theory of planned behavior deals with how a person feels about whether to follow a particular behavior based on the beliefs of their partners and significant others (Boston University, n.d.). Based on Elisabeth's (2021) research, the theory of planned behavior is particularly strong concerning parental influence and plays an important role in both initiation and maintenance of behavior. The attitudes and beliefs of parents toward money were found to have a significant impact on their children's attitudes and beliefs regarding money (Hira, 1997). Financial

knowledge, proficiency, and attitudes of children are significantly influenced by their parents' socialization and formal education (Lyons et al., 2007;Lyons et al., 2006; Moschis, 1987).

Last but not least, the theory of planned behavior also explains how financial autonomy influences financial decision-making since it uses subjective norms to explain human behavior. According to Brookes (2021), subjective norms are people's perceptions of other people's opinions. In this study, financial autonomy isused to explain how Malaysian financial decision-making is influenced by the theory of planned behavior. Financial autonomy refers to the extent to which an individual believes they can make their own financial decisions and be financially independent. Financial autonomy can be empowering, responsible, or burdensomedepending on one's attitude, while a negative attitude may view it as risky. As wellas the value placed on beliefs regarding financial autonomy, attitudes are shaped bybeliefs about its benefits and consequences (Ajzen, 1991). Financial autonomy is perceived to be a component of perceived behavioral control by an individual. This assessment considers factors such as the degree of digital financial literacy of the individual, the number and quality of resources accessible to them, and their perception of the ease of managing financial matters on their own. People who perceive that they have a greater degree of control are more likely to pursue financial autonomy, while people who perceive that they have a lesser degree of control will be discouraged.

2.1.2 Behavioral Life-cycle Theory

Based on the behavioral life-cycle theory, the value of an asset increases and decreases during a person's lifetime. Making wise financial decisions requires self-control and mental accounting. Moreover, Shefrin and Thaler (1988) stated that how individuals control their finances and the costs associated with doing so affect their financial behavior. When examining people with low self-control, researchers use this method because such

individuals have generally a high risk of debt problems and credit problems (Stromback et al., 2017).

Other than this, behavioral life-cycle theory is primarily concerned with individuals saving for retirement and using that money in the future. An individual'sconsumption and income levels differ throughout his or her life cycle according to behavioral life-cycle theory ("Life Cycle," 2022). A behavioral life-cycle theory indicates that individuals will spend more on education or family needs during certain stages of their lives than they receive, thereby decreasing their assets. In contrast, as income increases, expenses tend to remain the same or to rise less than they did earlier in the stage. According to behavioral life cycle theory, self-control or locus of control gives individuals control over how they save money at different stages of their lives.

To understand this study, it is important to understand the behavioral life-cycle theory. Taking the locus of control as an independent variable, a model based on this theory needs to be constructed. The behavioral life cycle incorporates locus of control as mentioned above. To assess whether the locus of control is significant to this study, this theory is applied in this research.

2.2 Review of the Literature

2.2.1 Dependent Variable - Financial Decision-Making

The evaluation of financial options and selection of the best course of action comesunder the heading of financial decision-making. To achieve long-term goals, a variety of factors must be considered, including financial resources, risk tolerance,market conditions, and long-term goals. Investing in assets or financing major projects can be among the more complex financial decisions, including those madedaily such as budgeting and saving (Tuovila, 2023).

To make the most efficient use of financial resources, optimize returns, and minimize risks, financial decision-makers should maximize efficiency,

optimize returns, and minimize risks. Financial decisions are aimed at promoting economic development and social welfare and promoting financial stability and profitability for individuals. (*5 Ways Managers Can Use Finance to Make Better Decisions | HBS Online*, 2020).

Decision-making regarding financial matters has a significant impact on our economic and personal well-being (Ciumara, 2014). Making sound financial decisions can decrease financial stress, bring financial security, and enable individuals to achieve life goals. Managing unforeseen expenses and building wealth through proper financial planning and budgeting are important aspects of ensuring a prosperous future. To achieve economic and personal success, financial decision-making is crucial. Profitability, expansion, and sustainability are all dependent on effective financial decision-making.

2.2.2 Independent Variable – Digital Financial Literacy

Digital Financial Literacy (DFL) has acquired significant importance today as fintech has disrupted the financial landscape through proliferation and decentralization. A person with digital financial literacy understands the multidimensional aspects of financial products and services, in addition to their excellent understanding of these products and services. By undergoing this process, consumers are able to learn more about the risks associated with digital financial products and services (Morgan et al., 2019).

Under the goal framing theory proposed by Lindenberg and Steg (2007), the "gain goal frame" supports the relevance of digital financial literacy. Individuals are motivated by multiple goals contributing to their overall well-being, according to this theory. A hedonic, gain, and normative category can be drawn for these goals. Hedonic goals emphasize immediate satisfaction and feeling good in the present, while gain goals focus on conserving resources and increasing income. External factors can affect heuristic behaviors in normative goal frames. Individuals can have conflicting goals in the context of making financial decisions, resulting in a complex decision-making process.

Despite a gain goal frame that emphasizes saving and prudent investments for long-term financial security, a financially literate individual with hedonic motivationis likely to indulge in impulsive spending or unwise investments. A conflicting goalcan cause financial behavior to be deviated from what is rational.

Digital financial literacy has become more important due to the rise of fintech products and services, allowing consumers to take more control of their finances. Individuals are now able to accessmore financial services and manage their finances more efficiently through the decentralization of financial services through fintech (Ozili & Ozili, 2018).

Furthermore, digital financial literacy protects individuals from fraud associated with online financial transactions and digital fraud. Among the most common threats faced by digital financial institutions are phishing, hacking, and identity theft.A high level of digital financial literacy provides individuals with the ability to identify and mitigate these risks, resulting in the safety and security of their financial assets (OECD, 2020).

In a study published by Park (2011), Park shows how digital financial literacy is linked to privacy-related online behavior, providing evidence that it contributes significantly to a person's ability to protect his or her privacy in the digital world. Although digital financial literacy has become increasingly relevant, little is known about its determinants or implications (Morgan et al., 2019). Using digital financial literacy as a lens to investigate the nexus between financial decision- making (FDM) and positive financial well-being (PFWB), this study seeks to fill this gap. Individuals with digital financial literacy will be empowered to make better financial decisions in digital environments. As a result, intelligent financial decision-making and long-term financial well-being can be achieved by effortlessly navigating digital financial domains ethically and responsibly.

Additionally, digital financial literacy is cost-effective, self-motivated, and timely,making it a necessary part of financial management in the digital age (Khan &Surisetti, 2021). Having a greater understanding of digital

financial literacy will allow individuals to capitalize on fintech products and services while also protecting their financial interests.

In addition to knowledge and awareness of digital financial products and services, risk management of digital financial products, and consumer rights, Digital Financial Literacy (DFL) encompasses a multidimensional concept. Digital financial literacy is a step towardshelping individuals make informed and responsible financial decisions in the digitalage, based on the gain goal frame in goal framing theory. In an era when fintech products and services are proliferating and becoming increasingly decentralized, acquiring digital financial literacy is becoming increasingly important to achieve financial autonomy, financial inclusion, and digital security. A key objective of this study is toshed light on how digital financial literacy influences individuals' long-term financial well-being and financial behaviour by exploring the nexus between digital financial literacy, financial decision-making, and positive financial well- being. With the acquisition of financial skills and competency, individuals can improve individual digital financial literacy, leading individuals to make wise and sound financial decisions in the long run as they can navigate digital financial domains effortlessly, skillfully, and wisely.

2.2.3 Independent Variable - Financial Capability

An individual's capability to effectively manage and make informed financial decisions is determined by a multifaceted and evolving concept called financial capability (FC). This includes learning digital financial literacy, managing money, planning, choosing products, and staying informed. Keeping in mind factorssuch as product accessibility, affordability, ease of use, safety, and reliability, Sherraden (2013) defines financial capability as a dual-dimensional constructcomprising both the ability and the opportunity to act based on acquired knowledge. In addition to financial knowledge, financial capability encompasses skills,attitudes, psychological qualities, as well as socioeconomic and cultural contexts inwhich financial decisions are

made.

Financial capability involves rational decisions, including financial budgeting and planning, which optimize financial resources. An individual's ability to save and invest, as well as their financial stability and well-being (FWB), increases as a result of these informed decisions. In addition to achieving short-term goals, an individual is better able to plan for long-term financial security and peace of mind when they manage their financial resources effectively.

Using the capability approach introduced by Amartya Sen and Martha Nussbaum as a foundation, the concept of Financial Capability highlights that individual well-being is not separate from the social and political environments in which we live. The process transforms available resources into valuable outcomes rather than as a conversion process(Çera et al., 2020b). It emphasizes the dynamic relationship between the financial resources available to an individual, their ability to utilize those resources effectively, and the larger context in which these actions areperformed.

Although financial knowledge can help facilitate goal-oriented behavior, several cognitive biases can impede its implementation. Information overload, loss aversion, and status quo bias may make it difficult for individuals to translate their financial knowledge into effective and practical decisions. Therefore, to overcome these biases and act, it is imperative that not only do you know, but also the skills and mindset necessary to do so. In previous research, financial capability has been extensively examined and its relationship with entrepreneurial performance explored, but it has received limited attention to understand how financial capability mediates financial decision-making (FDM) andpersonal financial well-being (PFWB)(Xiao et al., 2022). By exploring the mediating roles of Digital Financial Literacy (DFL) as well as Financial Capability, this study seeks to bridge this gap between individual skills and their FDM-PFWB outcomes.

Digital financial literacy enables individuals to develop the resilience,

cognitive abilities, and confidence needed to effectively leverage dormant assets into valuableassets using financial services (Çera et al., 2020). The ability to navigate the digital financial landscape adeptly, identify opportunities, and mitigaterisks can be achieved by possessing strong digital financial literacy. Individuals arebetter equipped to make sound financial decisions aligned with their goals when they combine financial capability, which includes financial knowledge, skills, and the capability to act.

Financial capability involves a variety of factors, including knowledge, skills,attitudes, and the environment in which one lives. To achieve improved financial stability and well-being, it is important to combine digital financial literacy, skills, and the capability to act. Using the meditating mechanisms of digital financial literacy and financial capability, this study uncovers the critical roles these factors play in enhancing financial well-being and making informed financial decisions.

2.2.4 Independent Variable - Financial Autonomy

A concept of financial autonomy refers to being able to make independent and informed choices regarding financial decisions and having less reliance on externalsources of information. A gain goal frame is a framework in which financial autonomy can be understood within the context of goal framing theory, which suggests that achieving financial goals necessitates enhancing resources (Collins etal., 1997; Lindenberg & Steg, 2007), with financial autonomy serving as anintangible resource.

Research indicates that men acquire financial independence at a faster rate than women during the emerging adulthood phase (Botha et al., 2020). Adulthood brings greater responsibilities and an increase in financial autonomy, which suggests individuals become more financially autonomous as they become adults. The role of financial education in enhancing financial autonomy has also been identified, particularly among female participants,

as contributing to reflexive autonomy, emotional autonomy, and functional autonomy (Jariwala & Dziegielewski, 2017).

A digital financial literacy and knowledge program is essential to fostering financial autonomy. A concept of financial autonomy refers to being able to make independent and informed choices regarding financial decisions and having less reliance on external sources of information. Under the goal framing theory, the notion of financial autonomy can be understood within the context of the "gain goal frame," where financial goals can only be achieved by enhancing resources, which is why financialautonomy serves as an intangible resource (Collins et al., 1997; Lindenberg & Steg,2007).

It has been widely acknowledged that socialization agents, such as parents, are crucial to developing individuals' financial autonomy during their formative years (Jariwala & Sharma, 2013). Children who are exposed to responsible financial behaviors and receive positive interactions with their parents may develop financial independence and, in turn, make better financial decisions, leading to greater financial well-being (Jorgensen et al., 2017; Xiao et al., 2014).

It is the purpose of this study to investigate the mediating effects of financial autonomy on skills and financial decision-making. It is argued that developing financial skills, including digital financial literacy, cultivate a sense of financial independence in an individual by increasing their knowledge, confidence, and willpower to face financial challenges. As a result of this independence, rational and informed decisions are made regarding finances and financial well-being is ultimately enhanced.

There has been previous research on the factors contributing to financial autonomy (Botha et al., 2020). This study aims to bridge this gap by examining how individuals can make independent and sound financial

decisions as a result of their interactions with family members, enhanced decision-making skills, and increased responsibility for their financial actions.

Furthermore, the study emphasizes the individual perception of financial autonomy,complementing existing research that has been primarily focused on macroeconomic or organizational dimensions of financial autonomy (Scutariu, 2015). It provides valuable insights into how individuals perceive and exercise control over their financial decision-making, affecting the quality of their financial well-being and overall life satisfaction by studying psychological and behavioral aspects of financial autonomy.

In conclusion, financial autonomy is the ability to make financial decisions independently and to reduce the need for financial assistance from external sources.Goal framing theory underpins this concept with a "gain goal frame" whichenhances financial well-being. It has been demonstrated that financial education, family interactions, and socialization agents play a critical role in the developmentof financial autonomy, particularly during the transition to adulthood phase. It aimsto shed light on individual perception of financial autonomy and its implications forfinancial education and policy interventions by examining the mediating effects offinancial autonomy between financial skills and financial decision-making.

2.3 Proposed Conceptual Framework
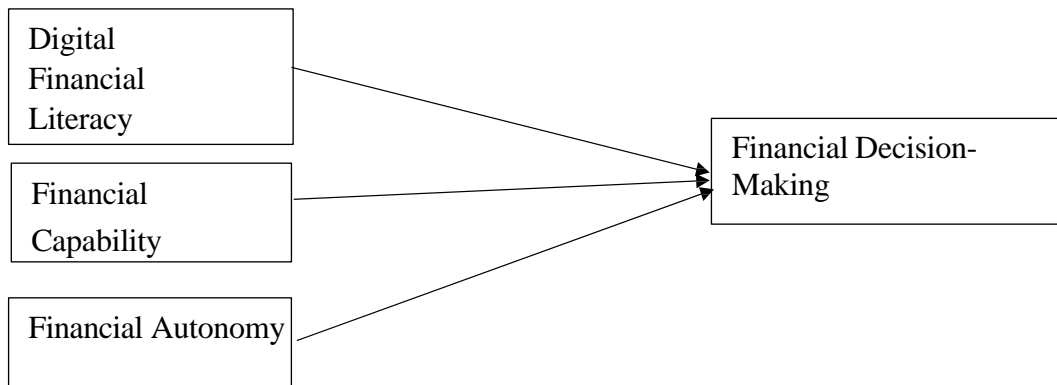
Table 2.3. Proposed Research Framework

According to Table 2.3, financial decision-making is influenced by several factors. Based on Table 2.3, dependent variables and independent variables are related in the theoretical framework. Digital financial literacy, financial capability, and financial autonomy are independent variables while financial decision-making is the dependent variable.

2.4 Hypothesis Development

Below are the relationships between the dependent variable which is financial decision-making in today's digital age and the independent variables which include digital financial literacy, financial capability and financial autonomy.

H_{01}: There is no relationship between digital financial literacy and financial decision-making in today's digital age.

H_1: There is a relationship between digital financial literacy and financial decision-making in today's digital age.

H_{02}: There is no relationship between financial capability and financial decision-

making in today's digital age.

H_2: There is a relationship between financial capability and financial decision-making in today's digital age.

H_{03}: There is no relationship between financial autonomy and financialdecision-making in today's digital age.

H_3: There is a relationship between financial autonomy and financial decision-making in today's digital age.

2.5 Conclusion

In this research, digital financial literacy, financial capability, and financial autonomy are the independent variables used to test the financial decision-making process. Based on past researchers' understandings, the proposed research framework was developed. The subsequent chapter explains the research methodology used to operationalize the study.

CHAPTER 3: METHODOLOGY

3.0 Introduction

An explanation of the research approach, including data collection techniques, sample selection method, research tool, measurement of constructs, processing of data, and analysis of data is given in this chapter.

3.1 Research Design

Through quantitative research methods, this study describes, tests, and investigates the relationship between digital financial literacy, financial capability, and financial autonomy when making financial decision-making in today's digital age. This allows researchers to better identify their target population by identifying their varied reactions and behaviors. In a quantitative approach, researchers need to survey respondents. For researchers to answer research questions, words may have to be converted into numbers (Bhandari, 2020). This can lead to the development of quantitative research methods using ordinal scales (Bhandari, 2020). This information can be collected using a primary data collection method (Hassan, 2022). Primary data will be collected using self-administered survey questionnaires, which are easily administered (Marcano Belisario et al., 2015). The survey will be given to the respondent with multiple answers in order for the multiple-choice questions to be used a multiple-choice question can have either a single answer or more than on. Respondents can be asked to choose from a limited number of options in multiple choice questions, so the results will not be outside the topic research. Besides that, questionnaires for this study will also use the Five Likert scales (Mcleod, 2023). Based on respondents' statements of agreement, Likert scales can measure several types of variances (*25 Likert Scale Examples to Add to Your Survey*, 2021). Using a scale from strongly disagree to strongly agree, respondents must indicate their level of agreement with the statement. (Bhandari & Nikolopoulou,

2023). From the perspective of participants, the Likert scale is straightforward to construct since it is simple to read and complete (Joshi et al., 2015).

3.1.1 Correlational Research

To identify relationships between variables, correlation research is being used in this study. The purpose of this measure is to determine whether an increase or decrease in one variable leads to an increase or decrease in another. By analysing correlational studies, researchers can determine if and to what extent two variables alter together. A positive correlation occurs when two variables move together. When two variables oscillate in opposite directions, there is a negative correlation (Bhandari, 2021).

3.2 Data Collection Methods

Primary data are the first category of data analyzed in this study, the second being secondary data.

3.2.1 Primary Data

Information obtained through first-hand experience is called primary data (Wagh, 2023). The target respondents will be asked to complete questionnaires for the purpose of collecting primary data for answering the hypotheses and research questions (Bhandari, 2021).

3.3 Sampling Design

3.3.1 Target Population

Digital natives, millennials, Generation Z, professionals, seniors, entrepreneurs, students, socially engaged individuals, and many others are the target population for this study as it examines the factors that greatly influence financial decisions in the digital age (Pilette, 2021). Among the groups considered in Yunus and Landau's (2017) study are digital natives, millennials, Generation Z, professionals, seniors, entrepreneurs, students, and those actively involved in society. Following this approach, the target population of this study is digital natives, millennials, Generation Z, professionals, seniors, entrepreneurs, students, people who are socially engaged, and many other groups of people between the ages of 15 to 50 years old in Malaysia.

3.3.2 Sampling Frame

According to Taherdoost (2016), a survey frame is a description of the elements that can be included in a sample. A sampling frame is another name for a functioning population since they are ultimately used to generate analysis units (Zach, 2020). Generally, the sampling frame should match the population, but practical issues with access to information often lead to differences (McCombes, 2022). It is also recommended that the sample size and sampling frame coincide, as the sample size should ideally correspond to the population's size (Andrade, 2020).

The non-probability, deliberate sampling process below was used to select financial decision-making in the digital age (Nikolopoulou, 2022).

3.3.3 Sampling Method

There is a very low probability that every individual in a group of people will be asked for data during research. It is instead the researcher who chooses a sample representative of the actual study's participants (Khan Academy, 2018). When choosing a sample representative of a whole group, an

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investigator must assess it correctly to be able to draw accurate conclusions (Martínez-Mesa, 2016). Among the most common sampling techniques are probability sampling and non-probability sampling (Surbhi, 2017). According to (Berndt, 2020), probability sampling with randomization and probability sampling without randomization. The most appropriate sampling strategy should be chosen first, followed by a broad sampling methodology (Jansen, 2023).

The sampling method in research methodology; and the choice of a sampling technique for research was adapted from (Taherdoost, 2016). Convenience sampling was used in my study to reach the respondents easily (Nikolopoulou, 2023). A convenience sampling method selection is based on accessibility to the researcher when selecting units for a sample (Nikolopoulou, 2022) specifically digital natives, millennials, Generation Z, professionals, seniors, entrepreneurs, students, people who are socially engaged, and many other groups of people between the ages of 15 to 50 years old in Malaysia.

Therefore, this research can gain a comprehensive understanding of the phenomenon known as "today's digital age" under similar conditions.

3.3.4 Sample Size

A random sample must be large enough to enable generalization without biases or sampling errors (Nikolopoulou, 2022). Survey respondents are commonly confused by a variety of factors when answering a first-time questionnaire (Ponto, 2015). Since the investigator's goal, the complexity of the population, and the quantitative techniques being used to analyze the results will determine the size of the sample, this is a difficult problem to solve (quantilope, 2023). According to Taherdoost (2016), sample sizes do not matter. It is undeniable that the larger the sample, the less likely the results will be biased, even though there may be diminishing returns for a

given sample size due to the investigator's resources (*Determining Sample Size; How to Calculate Survey Sample Size*, n.d.). As a result, large sample sizes can minimize sampling errors, but they tend to disappear over time. There are several statistical formulas available for calculating sample size. A precise set of data requires a sample size as shown in Figure 3.3.4.

Figure 3.3.4: Sample Size Determined on Required Precision

| | Variance of the population P=50% | | | | | |
| | Confidence level=95% Margin of error | | | Confidence level=99% Margin of error | | |
Population Size	5	3	1	5	3	1
50	44	48	50	46	49	50
75	63	70	74	67	72	75
100	79	91	99	87	95	99
150	108	132	148	122	139	149
200	132	168	196	154	180	198
250	151	203	244	181	220	246
300	168	234	291	206	258	295
400	196	291	384	249	328	391
500	217	340	475	285	393	485
600	234	384	565	314	452	579
700	248	423	652	340	507	672
800	260	457	738	362	557	763
1000	278	516	906	398	647	943
1500	306	624	1297	459	825	1375
2000	322	696	1655	497	957	1784
3000	341	787	2286	541	1138	2539
5000	357	879	3288	583	1342	3838
10000	370	964	4899	620	1550	6228
25000	378	1023	6939	643	1709	9944
50000	381	1045	8057	652	1770	12413
100000	383	1056	8762	656	1802	14172
250000	384	1063	9249	659	1821	15489
500000	384	1065	9423	660	1828	15984
1000000	384	1066	9513	660	1831	16244

3.4 Data Collection Method

The process of gathering and analyzing data in an existing framework is called data collection (Bhandari, 2022). Primary data collection and secondary data collection are the two types of data collection (Jotform, 2023). It is therefore considered primary data that was collected for this study. Generally, primary data refers to data collected by the researcher personally (Simelane, 2022). Several ways are presented for collecting and gathering information using primary data. Among the methods the researcher could use to collect information from the respondents are online surveys, questionnaires, and personal interviews (Mcleod, 2023). As this survey relies on primary data, the questionnaire can be considered self-administered since the respondents may find it easier to administer (Blog, n.d.). By self-administering the survey, respondents won't feel too stressed since it will be simple and short (Saunders & Kulchitsky, 2021). Respondents do not have to submit their

questionnaire right away if other conditions are met. Furthermore, surveying through self-administered questionnaires can save the researcher time since no appointments are required to interview respondents (Boynton, 2004). As a result, results will be gathered more quickly from respondents (McCombes, 2019). Another example of self-administered surveys is sending invitations through e-mail to respondents to complete online questionnaires, another way to conduct surveys with a high sample size. (Formplus, 2021).

3.4.1 Pre-Test

Pre-tests involve assessments, evaluations, and tests conducted before a certain event, learning experience, or intervention occurs(Berry, 2011). An individual or group is exposed to some type of instruction, training, treatment, or intervention before a pretest is administered to measure their current knowledge, skills, abilities, or characteristics(Education Endowment Foundation, 2021). To check for errors in the questionnaire and identify any problems, a pre-test is conducted before distributing it to the researcher's target respondents (Qualtrics, n.d.). Muhamad Saiful Bahri Yusoff (2019) argues that the highest content validity index can be achieved by having at least six experts. To test the questionnaire, the researcher distributed it to one UTAR lecturer and two UTAR staff with expertise in Finance. Additionally, the researcher tested three retail employees' ability to understand the questionnaire(Meng et al., 2021). In general, the experts understood the researcher's questions and did not have much difficulty answering them.

3.4.2 Source of Questionnaire

Three sources were primarily used to construct the questionnaire. Several questions were taken from previous research to create the questionnaire. Moreover, researcher used evidence from internet sites to develop some questions for this questionnaire.

3.5 Construct Measurement

To gauge quality, surveys are commonly used. Likert scales are commonly used in surveys as a rating format. According to *Likert Scales and Data Analyses* (n.d.), respondents are rated based on their quality on a scale of highest to lowest.

Construct	Items	Measurement Items	Sources
IV1: Digital Financial Literacy	DFL 1	1.An understanding of digital payment products including E-Debit, E-Credit, E-Money, mobile.	Rahayu et al. (2022) Morgan and Trinh (2019)
	DFL 2	2.Understanding digital asset management for product development.	
	DFL 3	3.Having a thorough understanding of digitalalternatives.	
	DFL 4	4.Understanding insurancedigitally.	
	DFL 5	5.Understanding customer rights, protection, and complaints procedures when dealing with digital financial services.	
IV2: Financial Autonomy	FA 1	1.Planned domestic expenses arepart of my job.	Jariwala(2020a) (Vyvyan, n.d.)
	FA 2	2.When it comes to money, I'musually critical of my friends.	
	FA 3	3.My goal is to save some moneyso that I can do activities I reallyenjoy.	
	FA 4	4.When I buy, I always negotiate prices.	
	FA 5	5.When I buy something, I like to research the price.	

IV3: Financial Capability	FC 1	1.My money management is very organized on a daily basis.	(Vyvyan, n.d.)
	FC 2	2.My personal finances areclosely monitored.	Rahayu et al. (2022)
	FC 3	3.My savings and spending arewell balanced.	
	FC 4	4. I handle financial matters daily.	
	FC 5	5. I feel confident about myfinancial decisions.	
DV: Financial DecisionMaking	FDM 1	1. My financial decisions can be quickly adjusted based on changesin circumstances.	Chavali et al. (2021b)
	FDM 2	2. My financial decisions are based on comparing historicalresults.	Morgan and Trinh (2019)
	FDM 3	3.My financial decisions are based on long-term and short-term considerations.	
	FDM 4	4. During financial decision-making, I can search for economicoptions.	

3.5.1 Scale of Measurement

To determine how precisely variables are captured, researchers use measurement levels, also known as scales of measurement (*How Do I Decide Which Level of Measurement to Use?* n.d.). A variable in scientific inquiry is a concept that can take on different meanings depending on the data collected (Arnold et al., 2021). It is possible to measure something in four ways, there are nominally, ordinally, and rationally (Zach, 2020). Levels are classified according to their level types (Stevens, 2023), and nominal scales use labels only for identifying or categorizing objects. An ordinal scale is derived from the rank-ordering process(Frost, 2022). A scale that preserves

order is known to have an isotonic structure, which means that any transformation that preserves order will render the scale form invariant (*Isomorphisms: Preserve Structure, Operation, or Order?* n.d.).According to Dalati (2018) arranged and classified items based on their degree using an ordered relationship and an ordinal scale. The researcher's goal in Section A is to collect data on participants' age, gender, education qualification, occupation, monthly income, and marital status using a nominal and ordinal scale. Most common statistical measures operate on an interval scale, save for those requiring knowledge of a "real" zero (Zach, 2021). There is a distinct sequence in interval scales as well as even spacing between points(Easily, 2023). In some cases, Likert-scale data is considered interval data since it is a composite score created by aggregating responses to at least four questions (Wu & Leung, 2017). The 5-point Likert scale will be applied to Section I of the questionnaire in Section B and Section C. A 5-point Likert scale is shown in Table 3.5.1.

Table 3.5.1: 5-point Likert scale

5	Strongly Agree
4	Agree
3	Neither Agree or Disagree
2	Disagree
1	Strongly Disagree

3.5.2 Scaling Techniques

It is the research objective that provided the basis for the development of the Likert scale. It is sometimes the purpose of the study to gain a better understanding of respondents' perceptions and attitudes regarding a single "hidden" variable (Einola & Alvesson, 2020). This questionnaire reveals several "observable" characteristics that are "hidden.". This method creates components that each address a specific aspect of the phenomenon being examined, and when combined, the entire phenomenon is measured

(Schoonenboom & Johnson, 2017). This study produces a combined score by adding up the results from each questionnaire component, to logically evaluate a single trait(Sin Yin et al., 2016). Known as the Likert scale, this tool measures responses. An individual can express how strongly he or she agrees or disagrees with an idea by using the Likert scale. As the name implies, Likert scales generally are used to rate respondent's agreement or disapproval of a question or statement using a negative-to-positive scale (*The Power of Likert Scales in Market Research | Aytm*, n.d.).

3.6 Data Processing

It is the process of gathering and converting data into a useful form that can be used. Research data are checked, edited, coded, and transcribed during data processing (Fleetwood, 2022). The processing of data must be done correctly in order to avoid negatively impacting the final result (Pearlman, 2018).

3.6.1 Data Cleaning

Market research studies require auditing of data to ensure the quality of information and responses obtained (*Quality Data: How to Ensure Effective Market Studies*, n.d.). When errors occur during data entry, the study may be ruined (Barchard & Pace, 2011). The validity of the responses received in the questionnaires has to be established during this stage of the study (Ranganathan & Caduff, 2023). During editing, questionnaires are evaluated to ensure that they are more precise and accurate (De et al., 2021). When questionnaires are edited, responses are checked for incompleteness, unclearness, inconsistency, or unreasonableness (Choi & Pak, 2005). In order to verify the content for completeness, the method of data collection will be critical. A review of questionnaire responses is also recommended to reduce some possible issues (Roopa & Rani, 2012).

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3.6.2 Data Coding

The process of data coding facilitates the transformation of information or observations into meaningful and cohesive groups by developing and assigning codes (Crosley & Jansen, 2020).

The answer for each question in Section A is coded as below:

No.	Question	Coding
1	Age	"20 years old or below" is coded as 1
		"21 to 29 years old" is coded as 2
		"30 to 39 years old" is coded as 3
		"40 to 49 years old" is coded as 4
		"50 to 59 years old" is coded as 5
		"Missing Data" is coded as 99
2	Gender	"Male" is coded as 1
		"Female" is coded as 2
		"Missing Data" is coded as 99
3	Education Qualification	"Secondary School" is coded as 1
		"Foundation/Diploma" is coded as 2
		"Bachelor of Degree" is coded as 3
		"Master" is coded as 4
		"PHD" is coded as 5
		"Missing Data" is coded as 99

4	Occupation	"Student" is coded as 1
		"Employed" is coded as 2
		"Unemployed" is coded as 3
		"Missing Data" is coded as 99
5	Monthly Income	"Not applicable" is coded as 1
		"RM 1001 - RM 2000" is coded as 2
		"RM 2001 - RM 3000" is coded as 3
		"RM 3001 - RM 4000" is coded as 4
		"RM 4001 - RM 5000" is coded as 5
		"RM 5001 and above" is coded as 6
		"Missing Data" is coded as 99
6	Marital Status	"Single" is coded as 1
		"Married" is coded as 2
		"Prefer not to answer" is coded as 3
		"Missing Data" is coded as 99

The dependent and independent variables are coded as follows in Sections B and C of the questionnaire:

"Financial Decision Making" is coded as FDM

"Digital Financial Literacy" is coded as DFL

"Financial Autonomy" is coded as FA

"Financial Capability" is coded as FC

The answers for the variables in each of the questions in Section B and C are coded as below:

"Strongly Disagree (SD)" is coded as 1

"Disagree (D)" is coded as 2

"Neutral (N)" is coded as 3

"Agree (A)" is coded as 4

"Strongly Agree (SA)" is coded as 5

"Missing Data" is coded as 99

3.6.4 Data Transcribing

Upon transcribing the coded data, this research will utilize SPSS software to transform the information into useful information so that it can be analyzed in the final step of the data analysis process.

3.7 Proposed Data Analysis Tool

In social statistics, quantitative data analysis is the most fundamental use, which consists of analyzing and explaining trends with numbers (Rahman, 2021). As soon as data has been collected, it must be prepared for analysis. A statistical software program is required to enter data into an electronic file(*How to Enter Data in SPSS: 8 Steps (with Pictures)*, n.d.). Following the summarization of the data, statistical analyses must be performed (Cooksey, 2020). Statistical analysis of the collected data will be conducted using SPSS.

3.7.1 Descriptive Analysis

Statistical descriptions of data are called descriptive statistics (Bhandari, 2020). The raw data is converted into words by researchers who analyze it and describe what the data shows (Naeem et al., 2023). Readers can gain a

thorough understanding of data through descriptive analysis, which only simplifies a lot of data (Hassan, 2023). Statistics are presented in the form of histograms, pie charts, or bars together with a summary or explanation (admin, 2021). In a survey, for example, the occupations of those in the sample will be indicated. A better understanding will be provided by describing in words the percentage of each occupation that occupies the workplace. The questions under Section A, demographic profile are the ones that will be analyzed descriptively in my study. Based on Prasanna (2021), frequency distributions enhance estimation efficiency and accuracy and provide support for focusing on relevant subpopulations while ignoring irrelevant ones (Uffelmann et al., 2021). Both pie charts and bar charts can be used to represent demographic and ranking data (Yi, n.d.). Section A questions were represented by a pie chart.

3.7.2 Reliability Analysis

Several factors influence the quality of research, including reliability (Middleton, 2019). An error-free trial is measured by its reliability test. There is a strong correlation between it and test validity (Middleton, 2019). An important aspect of reliability is precision, the absence of error in measurement (Trajković, 2008). A hypothetical infrastructure is tested to determine the extent of its existence Testing reliability is not a constant attribute of a test as it differs between populations and levels of measuring structure (Middleton, 2022). It is the reliability of measurements that is measured with Cronbach's Alpha, which measures a measurement's consistency when measuring a concept (Frost, 2022). A set of scales or test items is tested for their reliability using Cronbach's Alpha as a metric (Goforth, 2015).

3.7.2.1 Cronbach's Alpha (CA)

When it comes to multi-scale projects, Cronbach's Alpha can be considered a reliable indicator of consistency between projects (Taber, 2018). Using Cronbach's Alpha, similar answers can be found when the same questions are rewritten and applied to the same respondents (Bujang et al., 2018). Following a repeat of the test, Chandhary's (2016) study found the variables to be reliable and participants' responses consistent. As can be seen in the following table, Cronbach's Alpha coefficient values follow empirical rules (Zach, 2021).

Table 3.7.2.1: *The rule of Cronbach's Alpha coefficient value*

Alpha Coefficient Range	Internal Consistency
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

Sources: Chaudhary, 2016

3.7.3 Validity Analysis

Validation of content as well as construction is included in the validity analysis (Nikolopoulou, 2022). Based on the results of the pre-test (Section 3.3.2), the experts did not have any issues with our questions regarding content validity. A Pearson correlation was also conducted to examine the construct validity of the questionnaire (Gravesande et al., 2019). It is possible to conduct validity testing using Pearson Correlation (Turney, 2022). Any item with a correlation value greater than the critical value (0.254 as determined by the table) is deemed to be a valid predictor of the corresponding variable by the correlation table algorithms (*Critical Correlation Calculator*, 2017).

3.7.3.1 Pearson Correlation Analysis

In the field of statistics, Pearson correlation analysis also referred to as the correlation coefficient, determines the R-value used to express correlation coefficients. If two variables are linearly associated (Cleophas & Zwinderman, 2018). An R-value represents a correlation coefficient(Leung, 2020). There is always a value between -1 and 1A negative value indicates a negative relationship between two variables if one variable increases and the other decreases (Picardo, 2022). If the R-values are positive, the effects of one variable on the other are mirrored, which indicates a positive correlation between both variables (Frost, 2018). In the case of the same variables having the same R-value, there is no relation between them (Mcleod, 2023). In other words, if the R-value is 1, this indicates that the variables are perfectly correlated (Nickolas, 2021).

3.7.4 Inferential Analysis

Independent and dependent variables were analyzed using inferential analysis. In most cases, data from samples is the most often acquired rather than data from the entire population (Majid, 2018). By using inferential statistics, researchers to make reasonable assessments of the large population based on data from samples(Bhandari, 2020). The research will be able to be predicted using the algorithm (Pugliese et al., 2021). It is important to use random sampling methods if the sample does not represent the entire population (Hayes, 2022). Tests of statistical hypotheses and estimation of parameters are the two main methods of inferential statistics (Bevans, 2020). Parameter estimation is the process by which a statistic from the sample data, such as the sample mean, is used to elaborate on a parameter from the population data, for example, the population mean (*What Are Parameters, Parameter Estimates, and Sampling Distributions?*, n.d.). By analysing the sample data, researcher can determine whether this research question can be answered statistically (Bhat, 2019).

3.7.4.1 Multiple Linear Regression

Econometric Model

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

Where:

Y = Financial decision making

β_0=Intercept

X_1= Financial Digital Literacy

X_2= Financial Capability

X_3= Financial Autonomy

$\beta_1 \beta_2 \beta_3$=Slope Coefficient

e = error term

Financial decision-making was the dependent variable in the econometric model created above, while financial literacy, capability, and autonomy represented the independent variables. For the analysis of multiple independent variables, multiple regression is a standard statistical technique (Bevans, 2020). The purpose of using multiple regression analysis is to predict the value of the single dependent variable from the independent variables whose values are known (*What Is Multiple Regression? | Built In*, n.d.). Through the application of this approach, more precise and accurate knowledge can be gained of the relationship between each independent variable and the dependent variable (Cuthbertson et al., 2020).

3.8 Conclusion

A description of the research methodology used for this study is provided in this chapter. The various research was discussed and the subsequent chapter provides the results and analysis proposed in this study.

Chapter 4: DATA ANALYSIS

4.0 Introduction

By analyzing, organizing, and interpreting raw data, data analysis helps to turn raw information into actionable insights. A total of 326 invitations to participate in the study were sent out from 13 July 2023 to 6 September 2023. A total of 318 complete responses were collected using Google Forms, the remaining 8 disagreed on the acknowledgment of notice. Using Google Forms, 318 responses were collected, and 8 disagreed with the acknowledgment of notice. Therefore, their data will not be processed. This research objective is achieved by analyzing and interpreting the results obtained from the questionnaire using IBM SPSS Statistics Version 28. An explanation of descriptive analysis, reliability analysis, and inferential analysis is provided using numbers and tables within this chapter.

4.1 Descriptive Analysis

A descriptive analysis involves the process of organizing, rearrangement, and manipulating data so that they can be effectively analyzed and interpreted. The data points are summarized and explained in a meaningful way. A questionnaire under Section A is used to collect demographic information, and the results are presented as frequency tables. The group of respondents comprises are digital natives, millennials, Generation Z, professionals, seniors, entrepreneurs, students, socially engaged individuals, and more.

4.1.1 Demographic Profile

Respondents' personal information is displayed in this section, including

their age, gender, education qualification, occupation, monthly income, and marital status. Frequency tables are used to analyze and present the number of responses for each item.

4.1.1.1 Age

Table 4.1.1.1: Respondents' Age

Age		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20 years old and below	21	6.6	6.6	6.6
	21 to 30 years old	100	31.4	31.4	38.1
	31 to 40 years old	110	34.6	34.6	72.6
	41 to 50 years old	87	27.4	27.4	100.0
	Total	318	100.0	100.0	

Figure 4.1.1.1

Sources: Data from SPSS

According to Table 4.1.1 and Figure 4.1.1, respondents 20 years old and below, 21 to 30 years old, 31 to 40 years old, and 41 to 50 years old are categorized into four age groups. Out of 318 respondents, 6.6% or 21 are 20 years old and below, and 31.4% or 100 out of 318 respondents are between 21 to 30 years old. In total, 110 respondents out of 318 were 31 to 40 years

old which represents 34.6% of the respondents. The survey was conducted among 318 respondents between the ages of 41 to 50, with 27.4% or 87 taking part.

4.1.1.2 Gender

Table 4.1.1.2: Gender

Gender		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	115	36.2	36.2	36.2
	Female	203	63.8	63.8	100.0
	Total	318	100.0	100.0	

Figure 4.1.1.2
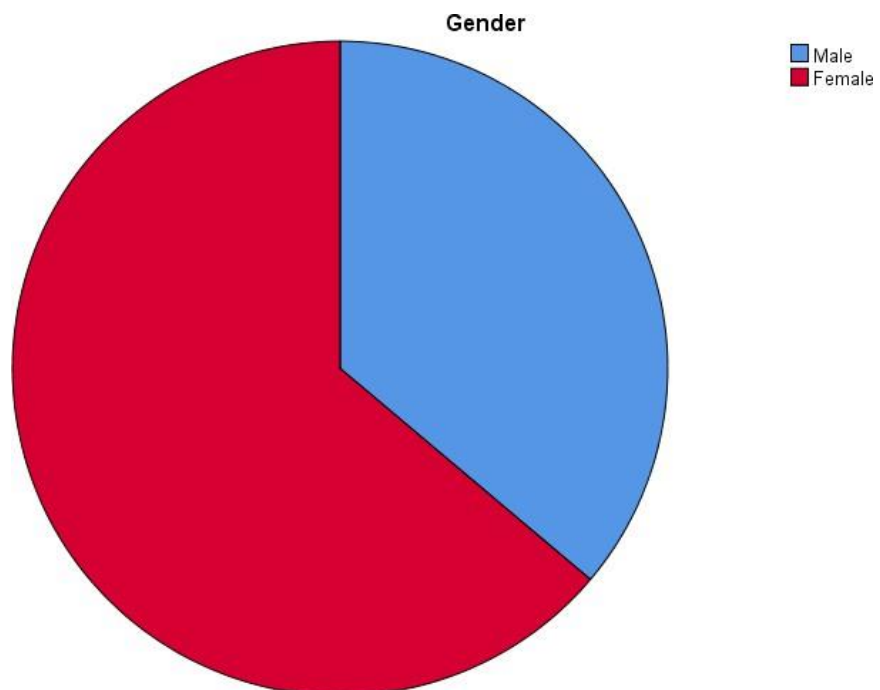
In Table 4.1.1.2 and Figure 4.1.1.2, 115 out of 318 (36.2%) were males, and 203 out of 318 (63.8%) were females. Female respondents to this study were more likely than male respondents to participate.

4.1.1.3 Education Qualification

Table 4.1.1.3: Education Qualification

Education Qualification		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Secondary School	15	4.7	4.7	4.7
	Foundation/Diploma	57	17.9	17.9	22.6
	Bachelor of Degree	196	61.6	61.6	84.3
	Master	33	10.4	10.4	94.7
	PHD	17	5.3	5.3	100.0
	Total	318	100.0	100.0	

Figure 4.1.1.3

According to Table 4.1.1.3 and Figure 4.1.1.3, 196 of 318 respondents were bachelor's degree holders, or 61.6%. Foundation/Diploma degrees represent 17.9% of respondents, or 57 out of 318; and Master's degrees represent 10.4% of respondents, or 33 out of 318. The proportion of respondents with a PhD stands at 5.3% or 17 out of 318 respondents. 15 out of 318 respondents are in secondary school, which is 4.7%.

4.1.1.4 Occupation

Table 4.1.1.4: Occupation

Occupation		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Student	99	31.1	31.1	31.1
	Employed	201	63.2	63.2	94.3
	Unemployed	18	5.7	5.7	100.0
	Total	318	100.0	100.0	

Figure 4.1.1.4
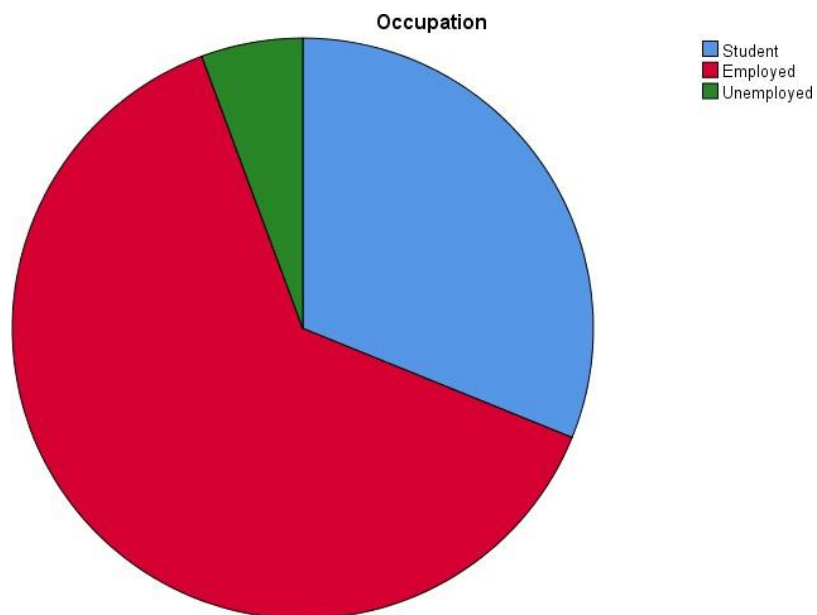
Student, employed, and unemployed are the three types of occupations depicted in Table 4.1.1.4 and Figure 4.1.1.4. There are 99 students out of 318 respondents in this survey, which is 31.1%. 63.2% of the respondents are employed, or 201 out of 318. Lastly, 18.5% of respondents, or 18 out of 318, were unemployed.

4.1.1.5 Monthly Income

Table 4.1.1.5: Monthly Income

Monthly Income		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Applicable	102	32.1	32.1	32.1
	RM 1001 - RM 2000	9	2.8	2.8	34.9
	RM 2001 - RM 3000	33	10.4	10.4	45.3
	RM 3001 - RM 4000	67	21.1	21.1	66.4
	RM 4001 - RM 5000	61	19.2	19.2	85.5
	RM 5001 and above	46	14.5	14.5	100.0
	Total	318	100.0	100.0	

Figure 4.1.1.5

Figure 4.1.1.5 and Table 4.1.1.5 show that 31.1% or 102 out of 318 respondents do not have a monthly income applicable to their situation. A total of 2.8% or 9 respondents out of 318 belong to the RM 1001 - RM 2000 monthly income categories. The survey results revealed that respondents with incomes between RM 2001 - RM 3000 accounted for 10.4% or 33 respondents out of 318 respondents, and those with incomes between RM 3001 - RM 4000 accounted for 21.1% or 67 respondents out of 381 respondents. Furthermore, 19.2% of respondents, or 61 out of 318, fall into

41

the RM 4001 - RM 5000 income category, while 14.5% or 46 out of 318 fall into the category of RM 5001 and above.

4.1.1.6 Marital Status

Table 4.1.1.6: Marital Status

Marital Status		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	175	55.0	55.0	55.0
	Married	127	39.9	39.9	95.0
	Prefer not to answer	16	5.0	5.0	100.0
	Total	318	100.0	100.0	

Figure 4.1.1.6
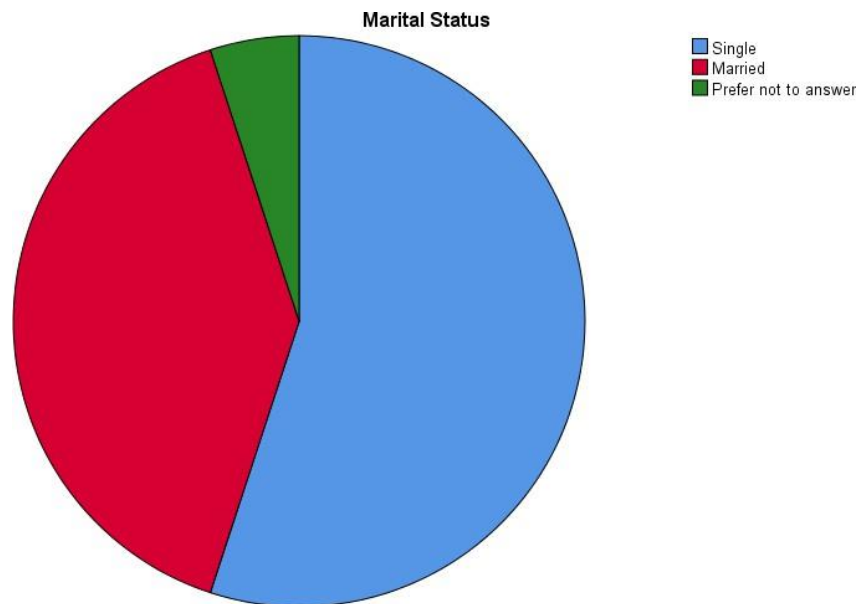
Among the 318 respondents in Table 4.1.5, 55%, or 175 out of 318, are single. The study found that 39.9% of the respondents were married, or 127 out of 318. There were 16 respondents out of 314 who preferred not to answer, contributing 5.0%.

4.2 Reliability Test

In addition to measuring scale reliability, Cronbach's Alpha can also be used as an internal measure of consistency. A measure may also be taken of the interconnectedness between items within a group. Cronbach's Alpha will be close to 1 when the reliability is high (Zach, 2021).

Table 4.2: Summary of Reliability Statistic

Variables	Cronbach's Alpha	No. of Items	Internal Consistency
Dependent Variable			
FDM	0.724	4	Acceptable
Independent Variable			
DFL	0.716	5	Acceptable
FA	0.732	5	Acceptable
FC	0.735	5	Acceptable

Sources: Data from SPSS

Note:

FDM=Financial Decision-Making

DFL= Digital Financial Literacy

FA= Financial Autonomy

FC=Financial Capability

According to the table above, Cronbach's coefficient reliability tests the research instrument. It is acceptable to use dimensions with a Cronbach's Alpha greater than 0.7 (Zach, 2021). The Cronbach's Alpha of all sizes exceeds the minimal alpha of 0.7. As a result, the building measurement can be considered reliable across all measurements, and all the components are maintained. To study digital financial literacy in today's digital age, five questions were examined on the Likert scale. According to Cronbach's Alpha, this area is within the acceptable range with 0.716. This results in a reliable and satisfactory coefficient for this part.

Furthermore, five questions were analyzed using the Likert scale to understand how

financial autonomy influences financial decision-making in the digital age. A Cronbach's Alpha of 0.732 is obtained in this section, which is acceptable. This results in a satisfactory and reliable coefficient.

Moreover, the Likert scale was used to analyse five questions to study the financial capability in financial decision-making in today's digital age. This section has a Cronbach's Alpha of 0.735, which is acceptable. Therefore, the coefficient derived in this part is reliable and satisfactory.

Lastly, four questions were analysed using the Likert scale model to test the dependent variables (financial decision-making). The Cronbach's Alpha value in this section is 0.724, which is within the acceptable range. Thus, this section's coefficient is both reliable and acceptable.

4.2.1 Validity Analysis

Based on the correlation table calculations, any question item with a correlation value greater than 0.083 qualifies as a valid predictor (Fatonah et al., 2020).

Table 4.2.1.: Validity Analysis for Digital Financial Literacy

Items	r_{item}	r_{table}	Information
DFL1	0.285	0.083	Valid
DFL2	0.440	0.083	Valid
DFL3	0.398	0.083	Valid
DFL4	0.280	0.083	Valid
DFL5	1.000	0.083	Valid

According to Table 4.2.1, the correlation values for Digital Financial Literacy items 1 to 5 range from 0.285 to 1.000, indicating that all the items are valid.

Table 4.2.2: Validity Analysis for Digital Autonomy

Items	r_{item}	r_{table}	Information
DA1	0.281	0.083	Valid
DA2	0.482	0.083	Valid
DA3	0.409	0.083	Valid
DA4	0.305	0.083	Valid
DA5	1.000	0.083	Valid

According to Table 4.2.2, the correlation values for Digital Autonomy items 1 to 5 range from 0.281 to 1.000, indicating that all the items are valid.

Table 4.2.3: Validity Analysis for Digital Capability

Items	r_{item}	r_{table}	Information
DC1	0.404	0.083	Valid
DC2	0.477	0.083	Valid
DC3	0.316	0.083	Valid
DC4	0.280	0.083	Valid
DC5	1.000	0.083	Valid

According to Table 4.2.3, the correlation values for Digital Capability items 1 to 5 range from 0.404 to 1.000, indicating that all the items are valid.

Table 4.2.4: Validity Analysis for Financial Decision-Making

Items	r_{item}	r_{table}	Information
FDM1	0.562	0.083	Valid
FDM2	0.386	0.083	Valid
FDM3	0.409	0.083	Valid
FDM4	1.000	0.083	Valid

According to Table 4.2.4, the correlation values for Financial Decision-Making items 1 to 4 range from 0.562 to 1.000, indicating that all the items are valid.

4.3 Pearson Correlation Analysis

Table 4.3: Pearson Correlation Result

		DFL	FA	FC	FDM
DFL	**Pearson Correlation**	1	.168**	.095	.121*
	Sig.(2-tailed)		.003	.092	.030
	N		318	318	318
FA	**Pearson Correlation**		1	.255**	.095
	Sig.(2-tailed)			.000	.092
	N			318	318
FC	**Pearson Correlation**			1	.227**
	Sig.(2-tailed)				.000
	N				318
FDM	**Pearson Correlation**				1
	Sig.(2-tailed)				
	N				

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

*. Correlation is significant at the 0.05 level (2-tailed).

Sources: Data from SPSS

According to Table 4.3, financial decision making (dependent variable） is positively related to digital financial literacy, financial autonomy, and financial capability (independent variables). According to the Pearson correlation coefficient, financial capability is the most strongly correlated with financial decision making

with a significant value (p-value = 0.000). Pearson Correlations indicate strongly positive correlations, since the value represents 0.227 close to 1, when Pearson correlations range from -1 to 1.

Digital financial literacy has a Pearson correlation coefficient of 0.121 and a p-value of 0.000. Pearson correlations are between -1 to 1, so according to the Pearson correlations, the Pearson correlation is strongly positive, as it represents 0.121 close to 1. Furthermore, financial autonomy has a not significant correlation (Pearson correlation = 0.095) and a not significant value (p-value =-0.000). Pearson correlation is in the range of -1 to 1, which indicates a negative correlation between Pearson correlation and 0.095.

In conclusion, since the p-values are below the 0.05 and 0.01 significant levels, the alternative hypothesis is accepted for digital financial literacy, financial autonomy, and financial capability.

4.4 Inferential Analysis

4.4.1 Pearson Correlation Analysis

Pearson Correlation Analysis was performed using SPSS since SPSS is able to test all relationships between independent and dependent variables. Results from SPSS indicate that financial capability, financial autonomy, and digital financial literacy (independent variables) are positively correlated with financial decision-making (dependent variable). This relationship between financial capability and financial decision-making has a correlation coefficient of 0.227, indicating the strongest correlation. There is a positive correlation between digital financial literacy and financial decision-making, with a correlation coefficient value of 0.121. In addition, the correlation coefficient value for financial autonomy is 0.095, showing a strong negative association between financial autonomy and financial decision-making. Financial capability and digital financial literacy are the two independent variables with a significant impact on financial decision-making, while

financial autonomy has no significant impact.

4.4.2 Multiple Linear Regression

Multiple linear regression was used to test the independent variable and the dependent variable. A positive relationship between variables is indicated by the R-value generated by SPSS, which is 0.249. The correlation between digital financial literacy, financial capability, and financial autonomy is 0.062, which means that 6.2% of financial decision-making can be explained by these three factors. In the ANOVA table, the p-value is less than 0.05, which indicates significant significance for the model due to the 0.000 significant level. The p-values of all variables in Table 4.4.3 are less than 0.05, which indicates they have a significant effect on financial decision-making. The econometric model is shown below:

$$Y = 11.840 + 0.095\ X_1 + 0.020\ X_2 + 0.162 X_3$$

Where:

Y = Financial Decision-Making

X_1 = Digital Financial Literacy

X_2 = Financial Autonomy

X_3 = Financial Capability

Table 4.4.2: R Square

Model	R	R Square	Adjusted R Square	Standard Eror of the Estimate
1	0.249	0.062	0.053	1.97847

Sources: Data from SPSS

As reported by SPSS, the R-value equals 0.249. Relationships between variables are indicated by a positive R-value. Financial decision-making is also influenced when digital financial literacy increases. Moreover, R Square

is calculated to be 0.062, indicating that digital financial literacy, financial autonomy, and financial capability can explain 6.2% of financial decision-making.

Table 4.4.3: ANOVA Model

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	81.258	3	27.086	6.920	.000
Residual	1229.107	314	3.914		
Total	1310.365	317			

Sources: Data from SPSS

According to Table 4.4.3, the p-value for the model is 0.000, indicating that it is significant.

Table 4.4.4: Multiple Linear Regression

Variables	Coefficient	Std.Error	T-test	P-value	Decision to hypothesis
(Constant)	**11.840**	**1.558**	**7.600**	**.000**	Reject H_0
DFL	**.095**	**.054**	**1.753**	**.081**	Not Reject H_0
FA	**.020**	**.048**	**.427**	**.669**	Not Reject H_0
FC	**.162**	**.044**	**3.732**	**.000**	Reject H_0

Sources: Data from SPSS

Following Table 4.4.4, the p-value for the financial capability of the variables is less than 0.05 significant level, which means that financial capability significantly affects financial decision-making. The decision to reject H0 is therefore based on the financial capability of the variables. Therefore, the dependent variable (financial decision-making) and the independent variable (financial capability) exhibit significant relationships.

Other than that, in Table 4.4.4, the p-value for digital financial literacy and financial autonomy of the variables is bigger than 0.05 significant level, which means that digital financial literacy and financial autonomy do not significantly affect financial decision-making. This is because digital financial literacy and financial autonomy may have a weak or negligible relationship with financial decision-making. The observed relationship between financial digital literacy, financial autonomy and financial decision-making may be due to random chance rather than a true underlying relationship. Therefore, the decision to hypothesize is to not reject H0 for digital financial literacy and financial autonomy of the variables.

4.5 Conclusion

This chapter provides the results of the study with the detailed analysis generated from SPSS. The results obtained are used to make inferences about the hypotheses developed in Chapter 2. The proceeding chapter provides the discussion and conclusions of the current study.

CHAPTER 5: DISCUSSION, CONCLUSION, AND IMPLICATIONS

5.0 Introduction

Chapter 5 discusses in greater depth the results from the previous chapter. Statistical analysis is first summarized. Additionally, each variable's major findings are discussed in this chapter. A discussion implication of study is also included in this chapter. Last but not least, this chapter discusses the limitations of the study and recommends future research. This study's limitations led to its recommendations.

5.1 Discussion of Major Findings

5.1.1 Relationship between digital financial literacy and financial decision-making

Research Question 1: What is the relationship between digital financial literacy in financial decision-making in today's digital age?

Research Objective 1: To study the relationship between digital financial literacy towards financialdecision-making in today's digital age.

H_1: There is a significant relationship between digital financial literacy and financial decision-making.

As reported in SPSS, digital financial literacy has a p-value of 0.000, while Pearson's correlation coefficient is 0.121. As a result of the p-value that is lower than 0.05, this outcome indicates a positive and significant relationship between the independent variable (digital financial literacy) and the dependent variable (financial decision-making). Moreover, a positive

Pearson correlation between the variables indicates a positive relationship between the variables (Stewart, 2023). Research results obtained by previous researchers are similar to those obtained by this study. The results of this study confirm those of Seldal and Nyhus (2022), who found that financial decision skills are positively correlated with digital financial literacy. A further proof of this can be found in the research carried out by Wan Abdul Aziz et al. (2020), which found a positive correlation between financial decision-making and digital financial literacy. Based on Kumar et al. (2022), one's financial decision-making capability depends on their digital financial literacy level. A positive correlation between financial decisions and digital financial literacy is also evident in the findings of Pangestu and Karnadi (2020). Hence, digital financial literacy and savings as well as financial decision-making are significant relationships, which this study will accept.

5.1.2 Relationship between financial capability and financial decision-making

Research Question 2: What is the relationship between financial capability in financial decision-making in today's digital age?

Research Objective 2: To analyze the relationship between financial capability towards financial decision-making in today's digital age.

H_2: There is a significant relationship between financial capability and financial decision-making.

It is clear that financial capability and financial decision-making are significantly associated. The p-value for financial capability is 0.000, which is below the significant level of 0.05. A positive correlation is also indicated by the coefficient of correlation of 0.227. Based on these results, this study's financial capability matches that of Chapter 2. Financial capability and financial decision-making demonstrate a significant positive relationship, which agrees with Noor et al. (2020). Youths' financial decision-making

behavior is also influenced by financial capability, according to Era et al. (2020).According to the survey results of Juliana and Dewi (2022), financial capability has a significant influence on the behaviors of students when it comes to making financial decisions. Russell et al.'s (2022) research also suggests that children's financial decision-making behavior is affected by financial capability as well. Financial capability and financial decision-making are therefore significantly correlated.

5.1.3 Relationship between financial autonomy and financial decision-making

Research Question 3: What is the relationship between financial autonomy in financial decision-making in today's digital age?

Research Objective 3: To identify the relationship between financial autonomy towards financial decision-making in today's digital age.

H_3: There is no significant relationship between financial autonomy and financial decision-making.

In terms of p-value, SPSS generates a value of not 0.000 for variable financial autonomy while the Pearson correlation is 0.095. As the p-value is below 0.05, there is no significant relationship between the dependent variable (financial decision-making) and the independent variable (financial autonomy). Furthermore, a negative Pearson correlation indicates a negative relationship between the variables (Investopedia Team, 2019). According to the empirical results, the research outcome is similar to that of previous researchers. According to Lusardi and Messy (2023), if an individual lacks digital financial literacy, financial autonomy might not translate directly into improved financial decision-making. It is not inherently necessary to know how to make good financial decisions for an individual to have autonomy(Morris et al., 2022). In addition, Ruggeri et al. (2023) also point out that A person's level of financial autonomy is not affected by emotions, psychological biases, or behavioral biases. Individuals with high financial

autonomy can make poor financial decisions as a result of overconfidence, loss aversion, or other biases despite having high financial autonomy(Frydman & Camerer, 2016). Furthermore, the survey results of Fachrudin et al. (2022)show that financial autonomy has no significant effect on the relationship between students' financial decision-making behaviors. Lastly, research from Kumar et al. (2023) also has evidence to show that financial autonomy has many external factors that affect financial decision-making processes, such as economic conditions, market volatility, and social influences. These factors can overshadow the effects of financial autonomy in a given process.

Table 5: Summary of Major Findings

	Research Question	Research Objective	Hypothesis	Findings
1	What is the relationship between digital financial literacy in the financial decision-making in today's digital age?	To study the relationship between digital financial literacy towards financial decision-making in today's digital age.	H_1: There is a relationship between digital financial literacy and financial decision-making in today's digital age.	(*Pearson Correlation Coefficient and Interpretation in SPSS - Quick SPSS Tutorial*, 2019).
2	What is the relationship between financial capability in the financial decision-making in today's digital age?	To analyze the relationship between financial capability towards financial decision-making in today's digital age.	H_2: There is a relationship between financial capability and financial decision-making in	Russell et al. (2022)

			today's digital age.	
3	What is the relationship between financial autonomy in financial decision-making in today's digital age?	To identify the relationship between financial autonomy towards financial decision-making in today's digital age.	H_3: There is a significant relationship between financial autonomy and financial decision-making in today's digital age.	Kumar et al. (2023)

5.2 Conclusion

Research on financial decision-making in a digital age aims to examine how factors interact. Three factors have been chosen which are digital financial literacy, financial autonomy, and financial capability to investigate the relationships between financial decision-making. It was found that two independent variables indicated a positive and significant relationship between financial decision-making, while one independent variable indicated a negative and significant relationship.

In terms of correlation coefficient, financial capability had a value of 0.227, indicating the strongest relationship between these independent variables and financial decision-making. In terms of the correlation coefficient, digital financial literacy stands at 0.121, which indicates a moderate relationship between digital financial literacy and financial decision-making. A correlation coefficient of only 0.095 is found for financial autonomy among the three variables, showing negative significance. In conclusion, two independent variables (digital financial literacy and financial capability) have a significant relationship with financial decision-making.

One independent variable (financial autonomy) has a negative significant relationship with financial decision-making.

Furthermore, multiple linear regressions were used in this study. Based on the R-squared of 0.062, it appears that the independent variables are only sufficient to explain 6.2% of the dependent variables. The p-values of all independent variables are less than 0.05, indicating significant relationships between the independent variables and the dependent variables.

Besides that, a discussion has also been conducted about the implications of the study. Financial decision-making in today's digital age is essential for people if they are to avoid financial difficulties in their daily lives. This research discusses several elements that policymakers need to consider.

In a nutshell, the study's limitations and recommendations for future research have been discussed. A higher R-squared value will be generated by adding more independent variables or increasing the sample size. In addition to studying Malaysians, researchers should consider expanding their research beyond Malaysia to learn how people make financial decisions in different countries in the digital age. Lastly, future researchers had a greater chance of having more accurate and powerful results due to the larger sample size.

5.3 Implications of the Study

Digital financial literacy, financial capability, and financial autonomy are all considered to be factors that can affect financial decision-making according to this research.

The cost of goods and services has increased to the point where many individuals can't afford to make any savings or investments (Morrow, 2022). The youth in Malaysia may face financial difficulties if they do not practice savings and

investment behavior, causing them not to be able to pay back their vehicle purchase loan, personal loan, education loan, or housing loan because they did not have adequate financial planning. A significant component of this study will be the involvement of youth in saving and investing decisions, as well as governments, policymakers, and researchers.

Malaysian youth are between the ages of 15 and 30 *Survey: Majority of Malaysian Youth Have Got the Blues* (n.d.), and they are still inexperienced and lack expertise in saving and investing. A person is considered young when he or she is at least 15 years old. As a result, Malaysia's government should urge secondary schools to talk more to youth aged 15-17 about savings and investment decisions. It can educate them about the importance of saving and investing decisions, as well as the problems they might face without any future savings and investing. Having a thorough understanding of the potential factors that affect saving and investment decisions could help youth aged 15-17 contribute to better financial planning and debt management through a talk organized by the secondary school, which is encouraged by the government. It may be useful for younger people from now on to be able to plan their savings and investments.

Lastly, the policy marker should highlight the elements discussed in this study which are likely to have an impact on digital financial literacy education in regards to saving and investing decisions, in order to accelerate savings and investing activities and maintain effective decision-making. As a result, digital financial literacy has become important as youth can better manage their money when they have stronger digital financial literacy (Kah Choon Low, 2023).

5.4 Limitations of Study

Firstly, this study is limited by a relatively low R-squared value (Frost, 2019). A linear regression model's R-squared statistic indicates the percent of variation explained by the independent variables for the dependent variable. A regression model's R-squared value can help determine how well data fits into it (Taylor, n.d).

In terms of the strength of the relationship between independent and dependent variables, there is a constant range between 0% and 100%. A model that has a large R-squared value will generally fit the observation better (Frost, 2022). It is also found that higher values of R-squared indicate that the observed data and fitted values are not the same (A. Bhandari, 2020). Before establishing a linear regression model, researchers must always make sure the R-squared value is considered along with other variables (Turney, 2022). When Digital Financial Literacy, Financial Autonomy, and Financial Capability are used as independent variables, the dependent variable (financial decision-making) can only be explained by 6.2%. Due to this, the independent variables are unable to explain much of the dependent variable. Consequently, other factors will impact the process of making financial decisions.

In addition, this study has been limited by time constraints (Viera, 2023). The deadline for completing a study must be met by every researcher. The time constraints of researchers can negatively impact their studies at times. Whenever the negative impact of time constraints is acknowledged, the researcher should suggest future research to erase the negative effects (Sirisilla, 2023). There wasn't enough time to investigate more than the number of digitally connected people who responded to the study (Teig et al., 2019). Thus, this study can only investigate how people of today's digital age make financial decisions (Koskelainen et al., 2022). The result is that readers were unable to learn about how other countries make financial decisions in today's digital age.

A cross-sectional design represents the last limitation (Wang & Cheng, 2020). The target population is only represented by a small fraction in cross-sectional studies (Thomas, 2020). The study uses a cross-sectional design, that merely records the behavioral information of people of today's digital age, without observing the financial decisions of these people at certain times or places (Cherry, 2022). Cross-sectional data cannot be used to determine the time series of the relationship between variables. Using cross-sectional data, it cannot be determined whether the factors that influence people to make financial decisions have any causal effects (Mahmutovic, 2021). Despite the fact that longitudinal studies are more convincing, cross-sectional studies are cheaper, only test one group and do not show causality

between variables (Toh & Hernán, 2008). Research methods that use cross-sectional data are less time consuming.

5.5 Recommendations for Future Research

Researchers must increase the variables in their research first to attain a higher R-squared value. A larger number of variables typically increases in R squared value or a constant value. The amount of variables can never decrease as more are added. It is better to have a model with a high R-squared value (Frost, 2017). If other independent variables were considered to explain financial decision-making, future researchers could generate more accurate results. Furthermore, the researcher will be able to increase the number of participants in the study(Martínez-Mesa et al., 2014). The study will produce more accurate results if the sample size is larger as it provides a better representation of the population. It is likely that the R-squared value will increase as the sample size increases. However, an excessive sample size is unethical and may not be relevant for the study (Serdar et al., 2021). Therefore, future researchers may be confused by the sample size. A significant outcome could be identified with an 80% sample size in hypothesis testing studies, according to Bujang (2021). Increasing variables and sample sizes can result in higher R-squared values, so researchers might consider increasing variables and sample sizes.

Research has been done over the past decades to find out if people in different countries make different decisions and how they perceive the world. In accordance with the results, people from different cultures have their own distinct thoughts and behaviors (Güss, 2015). Considering the time constraints of this research, readers could not find out how people make financial decisions in other countries today. Readers can gain a better understanding of financial decision-making in today's digital age by reading this study, but they cannot apply these findings to other countries in the digital age when trying to understand how people make financial decisions. Different cultures have very different ways in which people think and behave, so it would be difficult to compare how people in other countries make financial decisions in today's digital age(Waude, 2016). This problem can be

overcome by increasing the number of respondents studied in the future. To understand how people make financial decisions today in other cities, future readers can examine respondents from outside Malaysia (Andrade, 2020b).

The larger the sample size, the broader the range of topics that can be studied. An adequate sample size will help identify clinically relevant differences, and it will ensure that the means of the samples are equal to those of the population (Faber & Fonseca, 2014). In addition to providing more accurate and powerful results, larger sample sizes provide more reliable results. In addition, Kaplan et al. (2014) concluded that it was not necessary to sample more than was necessary due to the sample size being large.

References

25 Likert Scale Examples to Add to Your Survey. (2021, July 21). EmbedSocial.

    https://embedsocial.com/blog/likert-scale-examples/

5 Ways Managers can use finance to make Better decisions | HBS Online. (2020,

    June 2). Business Insights Blog. https://online.hbs.edu/blog/post/financial-

    decision-making

admin. (2021, November 12). *Top 8 Different Types Of Charts In Statistics And*

    Their Uses. https://statanalytica.com/blog/types-of-charts-in-statistics/

Andrade, C. (2020). Sample Size and Its Importance in Research. *Indian Journal*

    of Psychological Medicine, *42*(1), 102–103. NCBI.

    https://doi.org/10.4103/IJPSYM.IJPSYM_504_19

Andrade, C. (2020b). The Limitations of Online Surveys. *Indian Journal of*

    Psychological Medicine, *42*(6), 575–576. Sagepub.

    https://doi.org/10.1177/0253717620957496

Arnold, J. C., Mühling, A., & Kremer, K. (2021). Exploring core ideas of

    procedural understanding in scientific inquiry using educational data

    mining. *Research in Science & Technological Education*, 1–21.

    https://doi.org/10.1080/02635143.2021.1909552

Barchard, K. A., & Pace, L. A. (2011). Preventing human error: The impact of

    data entry methods on data accuracy and statistical results. *Computers in*

    Human Behavior, *27*(5), 1834–1839. Sciencedirect.

    https://doi.org/10.1016/j.chb.2011.04.004

Berndt, A. E. (2020). Sampling Methods. *Journal of Human Lactation*, *36*(2),

    224–226.

Berry, T. (2011). Pre-Test Assessment. *American Journal of Business Education (AJBE)*, *1*(1), 19. https://doi.org/10.19030/ajbe.v1i1.4633

Bevans, R. (2020, January 28). *Choosing the right statistical test*. Scribbr. https://www.scribbr.com/statistics/statistical-tests/

Bevans, R. (2020a). *Multiple Linear Regression | A Quick and Simple Guide*. Scribbr.   https://www.scribbr.com/statistics/multiple-linear-regression/

Bevans, R. (2020c, January 28). *Choosing the right statistical test*. Scribbr. https://www.scribbr.com/statistics/statistical-tests/

Bhandari, A. (2020, July 7). *Difference Between R-Squared and Adjusted R-Squared*. Analytics Vidhya. https://www.analyticsvidhya.com/blog/2020/07/difference-between-r-squared-and-adjusted-r-squared/

Bhandari, P. (2020, June 12). *What Is Quantitative research? | definition, Uses and Methods*. Scribbr. https://www.scribbr.com/methodology/quantitative-research/

Bhandari, P. (2020b, July 16). *Levels of Measurement | Nominal, Ordinal, Interval and Ratio*. Scribbr. https://www.scribbr.com/statistics/levels-of-measurement/

Bhandari, P. (2020b, July 9). *Descriptive statistics | definitions, types, examples*. Scribbr. https://www.scribbr.com/statistics/descriptive-statistics/

Bhandari, P. (2020d, September 4). *Inferential Statistics | An Easy Introduction & Examples*. Scribbr. https://www.scribbr.com/statistics/inferential-statistics/

Bhandari, P. (2021, July 7). *Correlational Research | Definition, Methods and Examples*. Scribbr. https://www.scribbr.com/methodology/correlational-research/

Bhandari, P. (2021b, July 15). *Designing a Questionnaire*. Scribbr.

    https://www.scribbr.com/methodology/questionnaire/

Bhandari, P. (2022, May 4). *Data Collection Methods | Step-by-Step Guide &*

    Examples. Scribbr. https://www.scribbr.co.uk/research-methods/data-

    collection-guide/

Bhandari, P., & Nikolopoulou, K. (2023, June 22). *Designing and Analyzing a*

    Likert Scale | What, Why and How. Scribbr.

    https://www.scribbr.com/methodology/likert-scale/

Bhat, A. (2019). *Data Analysis in research: Types & Methods*. QuestionPro.

    https://www.questionpro.com/blog/data-analysis-in-research/

Blog, F. (n.d.). *Self Administered Survey: Types, Uses + [Questionnaire*

    Examples]. Https. https://www.formpl.us/blog/self-administered-survey

Boynton, P. M. (2004). Administering, analysing, and reporting your

    questionnaire. *BMJ : British Medical Journal*, *328*(7452), 1372–1375.

    https://www.ncbi.nlm.nih.gov/pmc/articles/PMC420299/

Bujang, M. A. (2021). A Step-by-Step Process on Sample Size Determination for

    Medical Research. *Malaysian Journal of Medical Sciences*, *28*(2), 15–27.

    https://doi.org/10.21315/mjms2021.28.2.2

Bujang, M. A., Omar, E. D., & Baharum, N. A. (2018). A Review on Sample Size

    Determination for Cronbach's Alpha Test: A Simple Guide for

    Researchers. *Malaysian Journal of Medical Sciences*, *25*(6), 85–99.

    https://doi.org/10.21315/mjms2018.25.6.9

Burns, K. E. A., Duffett, M., Kho, M. E., Meade, M. O., Adhikari, N. K. J.,

    Sinuff, T., & Cook, D. J. (2008). A Guide for the Design and Conduct of

self-administered Surveys of Clinicians. *Canadian Medical Association Journal*, *179*(3), 245–252. https://doi.org/10.1503/cmaj.080372

Çera, G., Khan, K. A., Mlouk, A., & Brabenec, T. (2020). Improving financial capability: the mediating role of financial behaviour. *Economic Research-Ekonomska Istraživanja*, *34*(1), 1–18. https://doi.org/10.1080/1331677x.2020.1820362

Cherry, K. (2022, September 4). *What Is a Cross-Sectional Study?* Verywell Mind. https://www.verywellmind.com/what-is-a-cross-sectional-study-2794978

Choi, B. C. K., & Pak, A. W. P. (2005). A catalog of biases in questionnaires. *Preventing Chronic Disease*, *2*(1), A13. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1323316/

Choung, Y., Chatterjee, S., & Pak, T. (2023). Digital financial literacy andfinancial well-being. *Finance Research Letters*, *58*, 104438. https://doi.org/10.1016/j.frl.2023.104438

Cleophas, T. J., & Zwinderman, A. H. (2018). Bayesian Pearson Correlation Analysis. *Modern Bayesian Statistics in Clinical Research*, 111–118. https://doi.org/10.1007/978-3-319-92747-3_11

Consumer Financial Protection Bureau. (2021). *Financial knowledge and decision-making skills*. Consumer Financial Protection Bureau. https://www.consumerfinance.gov/consumer-tools/educator-tools/youth-financial-education/learn/financial-knowledge-decision-making-skills/

Cooksey, R. W. (2020). Descriptive Statistics for Summarising Data. *Illustrating Statistical Procedures: Finding Meaning in Quantitative Data*, 61–139. https://doi.org/10.1007/978-981-15-2537-7_5

Critical Correlation Calculator. (2017, August 23). MathCracker.com.

https://mathcracker.com/critical-correlation-calculator

Crosley, J., & Jansen, D. (2020, December 24). *Qualitative data coding:*

Explained simply. Grad Coach. https://gradcoach.com/qualitative-data-

coding-101/

Cross-Sectional Data vs. Time Series - What's the Difference? (n.d.). This vs.

That.   https://thisvsthat.io/cross-sectional-data-vs-time-series

Dalati, S. (2018). Measurement and Measurement Scales. *Progress in IS*, 79–96.

https://doi.org/10.1007/978-3-319-74173-4_5

Dalia Suša Vugec, & Ana-Marija Stjepić. (2022). Digital Literacy of Digital

Natives. *Management and Industrial Engineering*, 61–91.

https://doi.org/10.1007/978-3-030-98040-5_3

De, D., Kishore, K., Jaswal, V., & Kulkarni, V. (2021). Practical guidelines to

develop and evaluate a questionnaire. *Indian Dermatology Online Journal*,

12(2), 266. https://doi.org/10.4103/idoj.idoj_674_20

Determining Sample Size; How to Calculate Survey Sample Size. (n.d.).

https://hal.science/hal-02557333/document

Dewi, V. I. (2022). How do demographic and socioeconomic factors affect

financial literacy and its variables? *Cogent Business & Management*, *9*(1).

https://doi.org/10.1080/23311975.2022.2077640

Digital Finance. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3127979

Easily, L. S. (2023, June 13). *Levels of Measurement: Nominal, Ordinal, Interval*

& Ratio Scales. LEARN STATISTICS EASILY.

https://statisticseasily.com/levels-of-measurement/

Education Endowment Foundation. (2021). *Individualised Instruction*. EEF.

      https://educationendowmentfoundation.org.uk/education-

      evidence/teaching-learning-toolkit/individualised-instruction

Einola, K., & Alvesson, M. (2020). Behind the Numbers: Questioning

      Questionnaires. *Journal of Management Inquiry*, *30*(1),

      105649262093813. Sage Journals.

      https://doi.org/10.1177/1056492620938139

Faber, J., & Fonseca, L. M. (2014). How Sample Size Influences Research

      Outcomes. *Dental Press Journal of Orthodontics*, *19*(4), 27–29. NCBI.

      https://doi.org/10.1590/2176-9451.19.4.027-029.ebo

Fachrudin, K. A., Pirzada, K., & Iman, M. F. (2022). The role of financial

      behavior in mediating the influence of socioeconomic characteristics and

      neurotic personality traits on financial satisfaction. *Cogent Business &*

      Management, *9*(1). https://doi.org/10.1080/23311975.2022.2080152

Factors that Influence Financial Capability and Effectiveness: Exploring Financial

      Counsellors' Perspectives. (n.d.-b).

      https://www.researchgate.net/publication/268218287_Factors_that_Influen

      ce_Financial_Capability_and_Effectiveness_Exploring_Financial_Counsel

      lors%27_Perspectives

Falloon, G. (2020). From digital literacy to digital competence: the teacher digital

      competency (TDC) framework. *Educational Technology Research and*

      Development, *68*(5), 2449–2472. https://doi.org/10.1007/s11423-020-

Fernando, J. (2023, March 30). *Financial Literacy: What It Is, and Why It Is So Important*. Investopedia. https://www.investopedia.com/terms/f/financial-literacy.asp

Figure 1. Sherraden's (2013) conceptual framework for financial capability. (n.d.). ResearchGate. https://www.researchgate.net/figure/Sherradens- 2013-conceptual-framework-for-financial-capability_fig1_334246622

Fleetwood, D. (2022, June 13). *Data processing in research: What is it, steps & examples*. QuestionPro. https://www.questionpro.com/blog/data-processing-in-research/

Fritscher, L. (n.d.). *How Cognitive Theory Is Used in Phobia Treatment*. Verywell Mind. https://www.verywellmind.com/cognitive-theory-2671570

Frost, J. (2017, May 10). *How high does R-squared need to be?* Statistics by Jim. https://statisticsbyjim.com/regression/how-high-r-squared/

Frost, J. (2018, April 3). *Interpreting Correlation Coefficients*. Statistics by Jim. https://statisticsbyjim.com/basics/correlations/

Frost, J. (2019, June 13). *How to Interpret Regression Models that have Significant Variables but a Low R-squared - Statistics By Jim*. Statistics by Jim. https://statisticsbyjim.com/regression/low-r-squared-regression/

Frost, J. (2022, January 14). *Nominal, Ordinal, Interval, and Ratio Scales*. Statistics by Jim. https://statisticsbyjim.com/basics/nominal-ordinal-interval-ratio-scales/

Frost, J. (2022a). *Cronbach's Alpha: Definition, Calculations & Example*. Statistics by Jim. https://statisticsbyjim.com/basics/cronbachs-alpha/

Frydman, C., & Camerer, C. F. (2016). The Psychology and Neuroscience of

Financial Decision Making. *Trends in Cognitive Sciences*, *20*(9), 661–675.

https://doi.org/10.1016/j.tics.2016.07.003

Goal-framing theory and norm-guided environmental behavior. (n.d.). *(Collins Et

Al., 1997; Lindenberg & Steg, 2007)*.

https://www.researchgate.net/publication/279707726_Goal-

framing_theory_and_norm-guided_environmental_behavior

Goforth, C. (2015, November 16). *Using and Interpreting Cronbach's Alpha |

UVA Library*. Library.virginia.edu.

https://library.virginia.edu/data/articles/using-and-interpreting-cronbachs-

alpha

Gravesande, J., Richardson, J., Griffith, L., & Scott, F. (2019). Test-retest

reliability, internal consistency, construct validity and factor structure of a

falls risk perception questionnaire in older adults with type 2 diabetes

mellitus: a prospective cohort study. *Archives of Physiotherapy*, *9*(1).

https://doi.org/10.1186/s40945-019-0065-4

Güss, C. D. (2015). The Brain and Thinking Across Cultures. *Frontiers for Young

Minds*, *3*. https://doi.org/10.3389/frym.2015.00012

Hassan, M. (2022, September 1). *Primary Data - Types and Methods*. Research

Method. https://researchmethod.net/primary-data/

Hassan, M. (2023, June 8). *Descriptive Analytics - Methods, Tools and Examples*.

Research Method. https://researchmethod.net/descriptive-analytics/

Hayes, A. (2022, September 6). *How Sampling Errors Work*. Investopedia.

https://www.investopedia.com/terms/s/samplingerror.asp

How do I decide which level of measurement to use? (n.d.). Scribbr. Retrieved

February 29, 2024, from https://www.scribbr.com/frequently-asked-

questions/how-do-i-decide-the-level-of-measurement/.

How to Enter Data in SPSS: 8 Steps (with Pictures). (n.d.). WikiHow. Retrieved

February 29, 2024, from https://www.wikihow.com/Enter-Data-in-SPSS.

IELTS Academic Task 1: Describing percentages (full tutorial). (n.d.). IELTS

Podcast. https://www.ieltspodcast.com/academic-task-1/using-percentages/

Isomorphisms: preserve structure, operation, or order? (n.d.). Mathematics Stack

Exchange. Retrieved February 29, 2024, from

https://math.stackexchange.com/questions/147632/isomorphisms-preserve-

structure-operation-or-order.

Jansen, D. (2023b, January 10). *Sampling Methods & Strategies 101 (With

Examples)*. Grad Coach. https://gradcoach.com/sampling-methods/

Jariwala, H. V., & Dziegielewski, S. F. (n.d.). *Pathway to Financial Success:

Autonomy Through Financial Education in India*. Journal of Social Service

Research. https://doi.org/10.1080/01488376.2016.1217581

Joshi, A., Kale, S., Chandel, S., & Pal, D. K. (2015, January). *Likert Scale:

Explored and Explained*. ResearchGate.

https://www.researchgate.net/publication/276394797_Likert_Scale_Explor

ed_and_Explained

Jotform. (2023, May 17). *A guide on primary and secondary data-collection

methods*. The Jotform Blog. https://www.jotform.com/blog/primary-and-

secondary-data-collection-methods/

Journal of Bank Marketing, *40*(7), 1680–1717. https://doi.org/10.1108/ijbm-05-

2022-0185

Kah Choon Low. (2023). Digital Financial Literacy Among Young Adults in

    Malaysia. *The European Proceedings of Social and Behavioural Sciences*.

    https://doi.org/10.15405/epsbs.2023.11.02.29

Kaplan, R. M., Chambers, D. A., & Glasgow, R. E. (2014). Big Data and Large

    Sample Size: a Cautionary Note on the Potential for Bias. *Clinical and*

    Translational Science, *7*(4), 342–346. https://doi.org/10.1111/cts.12178

Khan Academy. (2018). *Sampling methods review*. Khan Academy.

    https://www.khanacademy.org/math/statistics-probability/designing-

    studies/sampling-methods-stats/a/sampling-methods-review

Khan, F., & Surisetti, S. (2020). Financial Well-Being of Working Women:

    Mediating effect of cashless Financial experience and Digital Financial

    Self-Socialization. *Social Science Research Network*.

    https://doi.org/10.2139/ssrn.3882140

Khan, F., Siddiqui, M. A., & Imtiaz, S. (2022). Role of financial literacy in

    achieving financial inclusion: A review, synthesis and research agenda.

    Cogent Business & Management, *9*(1).

    https://doi.org/10.1080/23311975.2022.2034236

Koskelainen, T., Kalmi, P., Scornavacca, E., & Vartiainen, T. (2023). Financial

    literacy in the digital age—A research agenda. *Journal of Consumer*

    Affairs. https://doi.org/10.1111/joca.12510

Kumar, P., Islam, M. A., Pillai, R., & Sharif, T. (2023). Analysing the

    behavioural, psychological, and demographic determinants of financial

    decision making of household investors. *Heliyon*, *9*(2), e13085.

    https://doi.org/10.1016/j.heliyon.2023.e13085

Kumar, P., Pillai, R., Kumar, N., & Tabash, M. I. (2022). The interplay of skills,

   digital financial literacy, capability, and autonomy in financial decision

   making and well-being. *Borsa Istanbul Review*, *23*(1).

   https://doi.org/10.1016/j.bir.2022.09.012

Kumar, P., Pillai, R., Kumar, N., & Tabash, M. I. (2023b). The interplay of skills,

   digital financial literacy, capability, and autonomy in financial decision

   making and well-being. *Borsa Istanbul Review*, *23*(1), 169–183.

   https://doi.org/10.1016/j.bir.2022.09.012

Leung, E. (2020, July 8). *What is a Correlation Coefficient? The r Value in*

   Statistics Explained. FreeCodeCamp.org.

   https://www.freecodecamp.org/news/what-is-a-correlation-coefficient-r-

   value-in-statistics-explains/

Likert scales and data analyses. (n.d.). ResearchGate.

   https://www.researchgate.net/publication/279898134_Likert_scales_and_d

   ata_analyses

Lusardi, A. (2019). Financial literacy and the need for Financial Education:

   Evidence and implications. *Swiss Journal of Economics and Statistics*,

   155(1), 1–8. https://doi.org/10.1186/s41937-019-0027-5

Lusardi, A., & Messy, F.-A. (2023). The importance of financial literacy and its

   impact on financial wellbeing. *Journal of Financial Literacy and*

   Wellbeing, *1*(1), 1–11. https://doi.org/10.1017/flw.2023.8

Lyons, A. C. (2020). *Impacts of financial and digital inclusion on poverty in South*

   Asia and Sub-Saharan Africa.

   https://www.semanticscholar.org/paper/Impacts- of-Financial-and-Digital-

   Inclusion-on-in-Lyons

Mahmutovic, J. (2021, November 16). *What is a Cross-Sectional Survey and Why Should I Use One?* SurveyLegend. https://www.surveylegend.com/survey-examples/cross-sectional-surveys/

Majid, U. (2018). *(PDF) Research Fundamentals: Study Design, Population, and Sample Size*. ResearchGate. https://www.researchgate.net/publication/322375665_Research_Fundamentals_Study_Design_Population_and_Sample_Size

Marcano Belisario, J. S., Jamsek, J., Huckvale, K., O'Donoghue, J., Morrison, C. P., & Car, J. (2015). Comparison of self-administered survey questionnaire responses collected using mobile apps versus other methods. *Cochrane Database of Systematic Reviews*, *7*. https://doi.org/10.1002/14651858.mr000042.pub2

Martínez-Mesa, J. (2016). Sampling: How to Select Participants in My Research study? *Anais Brasileiros de Dermatologia*, *91*(3), 326–330. https://doi.org/10.1590/abd1806-4841.20165254

Martínez-Mesa, J., González-Chica, D. A., Bastos, J. L., Bonamigo, R. R., & Duquia, R. P. (2014). Sample size: how many participants do I need in my research? *Anais Brasileiros de Dermatologia*, *89*(4), 609–615. Pubmed. https://doi.org/10.1590/abd1806-4841.20143705

McCombes, S. (2019, August 20). *Doing Survey Research | A Step-by-Step Guide*. Scribbr. https://www.scribbr.com/methodology/survey-research/

McCombes, S. (2019b, August 20). *Doing Survey Research | A Step-by-Step Guide*. Scribbr. https://www.scribbr.com/methodology/survey-research/

McCombes, S. (2023, June 22). *Sampling Methods | Types and Techniques Explained*. Scribbr. https://www.scribbr.com/methodology/sampling-methods/

McCombes, S., & George, T. (2022, August 25). *How to Write Research Methodology in Four Steps | with Examples*. Scribbr. https://www.scribbr.com/dissertation/methodology/

Mcleod, S. (2023, July 31). *Likert scale definition, examples and analysis*. Simply Psychology. https://www.simplypsychology.org/likert-scale.html

Mcleod, S. (2023a, July 31). *Correlation | Simply Psychology*. Simplypsychology.org. https://www.simplypsychology.org/correlation.html

Mcleod, S. (2023c, December 13). *Questionnaire: Definition, examples, design and types*. Simply Psychology. https://www.simplypsychology.org/questionnaires.html

Measuring Quality of Life and Well-Being of Malaysian Youth. (n.d.). https://www.iyres.gov.my/images/penerbitan/Facts%20&%20Figures%C2%A0Malaysian%20Youth%20Index%202020.pdf

Meng, A., Karlsen, I. L., Borg, V., & Clausen, T. (2021). Development of a Questionnaire for Measuring Employees' Perception of Selection, Optimisation and Compensation at the Leadership, Group and Individual Levels. *International Journal of Environmental Research and Public Health*, *18*(12), 6475. https://doi.org/10.3390/ijerph18126475

Middleton, F. (2019, July 3). *Reliability vs validity in research*. Scribbr. https://www.scribbr.com/methodology/reliability-vs-validity/

Middleton, F. (2019b, August 8). *The 4 Types of Reliability | Definitions,*

    Examples, Methods. Scribbr. https://www.scribbr.com/methodology/types-

    of-reliability/

Middleton, F. (2022, May 3). *The 4 Types of Reliability in Research | Definitions*

    & Examples. Scribbr. https://www.scribbr.co.uk/research-

    methods/reliability-explained/

Morrow, A. (2022, January 9). *Inflation, explained: Why prices keep going up and*

    who's to blame | CNN Business. CNN.

    https://edition.cnn.com/2022/01/09/economy/what-is-inflation-and-whos-

    to-blame/index.html

Moreira Costa, V., De Sá Teixeira, N. A., Cordeiro Santos, A., & Santos, E.

    (2020). When more is less in financial decision-making: financial literacy

    magnifies framing effects. *Psychological Research*, *85*(5), 2036–2046.

    https://doi.org/10.1007/s00426-020-01372-7

Morris, T., Maillet, S., & Koffi, V. (2022). Financial knowledge, financial

    confidence and learning capacity on financial behavior: a Canadian study.

    Cogent Social Sciences, *8*(1).

    https://doi.org/10.1080/23311886.2021.1996919

Muhamad Saiful Bahri Yusoff. (2019, June 28). *ABC of Content Validation and*

    Content Validity Index Calculation. ResearchGate; Penerbit Universiti

    Sains Malaysia.

    https://www.researchgate.net/publication/334134963_ABC_of_Content_V

    alidation_and_Content_Validity_Index_Calculation

Multiple Choice Survey Questions: Everything You Need to Know. (n.d.).

SurveyMonkey. https://www.surveymonkey.com/mp/multiple-choice-

questions-everything-you-need-to-know/

Naeem, M., Ozuem, W., Howell, K. E., & Ranfagni, S. (2023). A Step-by-Step

Process of Thematic Analysis to Develop a Conceptual Model in

Qualitative Research. *International Journal of Qualitative Methods*, *22*(1).

https://doi.org/10.1177/16094069231205789

Nickolas, S. (2021, May 31). *What does it mean if the correlation coefficient is*

positive, negative, or zero? Investopedia.

https://www.investopedia.com/ask/answers/032515/what-does-it-mean-if-

correlation-coefficient-positive-negative-or-zero.asp

Nikolopoulou, K. (2022). *What Is Non-Probability Sampling? | Types &*

Examples. Scribbr. https://www.scribbr.com/methodology/non-

probability-sampling/

Nikolopoulou, K. (2022b, August 26). *What Is Content Validity? | Definition &*

Examples. Scribbr. https://www.scribbr.com/methodology/content-

validity/

Nikolopoulou, K. (2022b, October 8). *What Is Generalizability? | Definition &*

Examples. Scribbr. https://www.scribbr.com/research-bias/generalizability/

Nikolopoulou, K. (2023, June 22). *What is convenience sampling? | definition &*

examples. Scribbr. https://www.scribbr.com/methodology/convenience-

sampling/

Noor, N., Batool, I., & Arshad, H. M. (2020). Financial literacy, financial self-

efficacy and financial account ownership behavior in Pakistan. *Cogent*

Economics & Finance, *8*(1).

https://doi.org/10.1080/23322039.2020.1806479

Noris. (2022, October 7). *Malaysia's GDP Expected to grow 4-5 pct in 2023,*

2022's revised upwards -- MoF. Kementerian Kewangan Malaysia.

https://www.mof.gov.my/portal/en/news/press-citations/malaysia-s-gdp-

expected-to-grow-4-5-pct-in-2023-2022-s-revised-upwards-mof

Ozili, P. K. (n.d.). Impact of Digital Finance on Financial Inclusion and
Stability.

Pangestu, S., & Karnadi, E. B. (2020). The effects of financial literacy and

materialism on the savings decision of generation Z Indonesians. *Cogent*

Business & Management, *7*(1).

https://doi.org/10.1080/23311975.2020.1743618

Pearlman, S. (2018). *What is Data Processing? Definition and Stages - Talend*

Cloud Integration. Talend Real-Time Open Source Data Integration

Software. https://www.talend.com/resources/what-is-data-processing/

Pearson Correlation Coefficient and Interpretation in SPSS - Quick SPSS

Tutorial. (2019, April 30). EZ SPSS Tutorials. https://ezspss.com/pearson-

correlation-coefficient-and-interpretation-in-spss/

Picardo, E. (2022, September 19). *Negative Correlation Definition*. Investopedia.

https://www.investopedia.com/terms/n/negative-correlation.asp

Pilette, C. (2021, May 26). *Digital generations: The technology gap between*

seniors, parents, and kids. Us.norton.com. https://us.norton.com/blog/how-

to/digital-generations

Ponto, J. (2015). Understanding and Evaluating Survey Research. *Journal of the*

Advanced Practitioner in Oncology, *6*(2), 168–171. NCBI.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4601897/

Pugliese, R., Regondi, S., & Marini, R. (2021). Machine learning-based approach:

   Global trends, research directions, and regulatory standpoints. *Data*

   Science and Management, *4*. https://doi.org/10.1016/j.dsm.2021.12.002

Quality data: how to ensure effective market studies. (n.d.). Www.netquest.com.

   Retrieved February 29, 2024, from

   https://www.netquest.com/en/blog/high-quality-data-how-to-ensure-

   effective-market-research.

Qualtrics. (n.d.). *6 Errors to Avoid When Designing Surveys*. Qualtrics.

   https://www.qualtrics.com/experience-management/research/survey-

   errors/

quantilope. (2023, August 5). *How to Determine Sample Size for Quantitative*

   Research. Www.quantilope.com.

   https://www.quantilope.com/resources/glossary-how-to-determine-sample-

   size-for-quantitative-research

Rahman, A. (2021, October). *(PDF) SPSS: An Imperative Quantitative Data*

   Analysis Tool for Social Science Research. ResearchGate;

   www.researchgate.net.

   https://www.researchgate.net/publication/355986638_SPSS_An_Imperativ

   e_Quantitative_Data_Analysis_Tool_for_Social_Science_Research

Ranganathan, P., & Caduff, C. (2023). Designing and validating a research

   questionnaire - Part 1. *Perspectives in Clinical Research*, *14*(3), 152.

   https://doi.org/10.4103/picr.picr_140_23

Ravikumar, T., Suresha, B., Prakash, N., Vazirani, K., & Krishna, T. A. (2022).

   Digital financial literacy among adults in India: measurement and

validation. *Cogent Economics & Finance*, *10*(1).

https://doi.org/10.1080/23322039.2022.2132631

Roopa, S., & Rani, M. (2012). Questionnaire Designing for a Survey. *The Journal*

of Indian Orthodontic Society, *46*(4), 273–277. https://doi.org/10.5005/jp-

journals-10021-1104

Ruggeri, K., Ashcroft-Jones, S., Abate Romero Landini, G., Al-Zahli, N.,

Alexander, N., Andersen, M. H., Bibilouri, K., Busch, K., Cafarelli, V.,

Chen, J., Doubravová, B., Dugué, T., Durrani, A. A., Dutra, N., Garcia

Garzon, E., Gomes, C., Gracheva, A., Grilc, N., Gürol, D. M., & Heidenry, Z.

(2023). The persistence of cognitive biases in financial decisions across

economic groups. *Scientific Reports*, *13*(1), 10329.

https://doi.org/10.1038/s41598-023-36339-2

Runde, D. F., & Nealer, E. A. (2018, April 20). Financial Literacy: Challengesand

Opportunities. *https://www.csis.org/analysis/financial-literacy-*

challenges-

and-opportunities. https://www.csis.org/analysis/financial- literacy-

challenges-and-opportunities

Russell, M. B., Head, L. S.-W., Wolfe-Enslow, K., Holland, J., & Zimmerman, N.

(2022). The COVID-19 Effect: How Student Financial Well-Being, Needs

Satisfaction, and College Persistence has Changed. *Journal of College*

Student Retention: Research, Theory & Practice, 152102512211337.

https://doi.org/10.1177/15210251221133767

Saunders, C., & Kulchitsky, J. (2021). Enhancing Self-Administered

Questionnaire Response Quality Using Code of Conduct Reminders.

International Journal of Market Research, *63*(6), 715–737.

Schoonenboom, J., & Johnson, R. B. (2017). How to Construct A mixed Methods Research Design. *KZfSS Kölner Zeitschrift Für Soziologie Und Sozialpsychologie*, *69*(2), 107–131. NCBI. https://doi.org/10.1007/s11577-017-0454-1

Scutariu, A. (2015). *The Link between Financial Autonomy and Local Development. The Case of Romania*. https://www.semanticscholar.org/paper/The-Link-between-Financial-Autonomy-and-Local-The-Scutariu-Scutariu/65934590370f9c3429fa9ff040f3c22af77a5cdd

Seldal, M. M. N., & Nyhus, E. K. (2022). Financial Vulnerability, Financial Literacy, and the Use of Digital Payment Technologies. *Journal of Consumer Policy*, *45*. https://doi.org/10.1007/s10603-022-09512-9

Serdar, C. C., Cihan, M., Yücel, D., & Serdar, M. A. (2021). Sample size, power and effect size revisited: simplified and practical approaches in pre-clinical, clinical and laboratory studies. *Biochemia Medica*, *31*(1), 27–53. https://doi.org/10.11613/bm.2021.010502

Shih, H., Chen, B. H., Chen, M., Wang, C., & Wang, L. (2022). A study of the financial behavior based on the theory of planned behavior. *International Journal of Marketing Studies*, *14*(2), 1. https://doi.org/10.5539/ijms.v14n2p1

Simelane, L. (2022, October 4). *What is primary data? And how do you collect it?* SurveyCTO. https://www.surveycto.com/data-collection-quality/primary-data-collection/

Sin Yin, T., Othman, A. R., Sulaiman, S., Mohamed-Ibrahim, M. I., & Razha-Rashid, M. (2016). APPLICATION OF MEAN AND STANDARD

DEVIATION IN QUESTIONNAIRE SURVEYS: CONSTRUCT

VALIDATION. *Jurnal Teknologi*, *78*(6-4).

https://doi.org/10.11113/jt.v78.8983

Sirisilla, S. (2023, July 21). *How to write Limitations of Research - Explanation
with Examples*. Enago Academy.

https://www.enago.com/academy/limitations-of-research-study/

*SITUATION ANALYSIS OF ADOLESCENTS IN MALAYSIA: An infographic
booklet*. (n.d.).

https://www.unicef.org/malaysia/media/2631/file/Adolescent_SitAn_infog
raphic_booket.pdf

Social media influencers - Impact on youth ~ Group Discussion Ideas. (n.d.).

https://www.groupdiscussionideas.com/social-media-influencers-impact-
on-youth/

Stevens, E. (2023, April 28). *What Are the Four Levels of Measurement?
Nominal, Ordinal, Interval, and Ratio Data Explained*.

Careerfoundry.com. https://careerfoundry.com/en/blog/data-analytics/data-
levels-of-measurement/

Stewart, K. (2023, March 29). *Pearson's correlation coefficient | Definition,
Formula, & Facts | Britannica*. Www.britannica.com.

https://www.britannica.com/topic/Pearsons-correlation-coefficient

Survey: Majority of Malaysian youth have got the blues. (n.d.). The Star.

Retrieved April 30, 2024, from

https://www.thestar.com.my/news/nation/2024/04/23/survey-majority-of-
malaysian-youth-have-got-the-blues.

Surbhi, S. (2017b, August 19). *Difference Between Probability and Non-Probability Sampling (With Comparison Chart) - Key Differences*. Key Differences. https://keydifferences.com/difference-between-probability-and-non-probability-sampling.html

Taber, K. S. (2018). The use of cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education*, *48*(6), 1273–1296. https://doi.org/10.1007/s11165-016-9602-2

Taherdoost, H. (2016). *Sampling Methods in Research Methodology; How to Choose a Sampling Technique for Research*. ResearchGate. https://www.researchgate.net/publication/319998246_Sampling_Methods_in_Research_Methodology_How_to_Choose_a_Sampling_Technique_for_Research

Taherdoost, H. (2016a). *(PDF) Validity and Reliability of the Research Instrument; How to Test the Validation of a Questionnaire/Survey in a Research*. ResearchGate. https://www.researchgate.net/publication/319998004_Validity_and_Reliability_of_the_Research_Instrument_How_to_Test_the_Validation_of_a_QuestionnaireSurvey_in_a_Research

Talwar, M., Talwar, S., Kaur, P., Tripathy, N., & Dhir, A. (n.d.). Has financial attitude impacted the trading activity of retail investors during the COVID-19 pandemic? *Journal of Retailing and Consumer Services*, *58*, 102341. https://doi.org/10.1016/j.jretconser.2020.102341

Tamplin, T. (2023, May 23). *Financial Decision-Making Process | Steps, Key Factors & Tools*. Finance Strategists.

https://www.financestrategists.com/financial-advisor/financial-planning/financial-decision-making-process/

Tay, L., Tai, H., & Gek-Siang, T. (n.d.). *Digital financial inclusion: A gateway to sustainable development*. Heliyon. https://doi.org/10.1016/j.heliyon.2022.e09766

Taylor, S. (n.d.). *R-Squared*. Corporate Finance Institute. https://corporatefinanceinstitute.com/resources/data-science/r-squared/

Teig, N., Scherer, R., & Nilsen, T. (2019). I Know I Can, but Do I Have the Time? the Role of Teachers' Self-Efficacy and Perceived Time Constraints in Implementing Cognitive-Activation Strategies in Science. *Frontiers in Psychology*, *10*(1697). https://doi.org/10.3389/fpsyg.2019.01697

The Investopedia Team. (2019). *What Does a Negative Correlation Coefficient Mean?* Investopedia. https://www.investopedia.com/ask/answers/041015/what-does-negative-correlation-coefficient-mean.asp

The Need to Promote Digital Financial Literacy for the Digital Age. (n.d.). ResearchGate. https://www.researchgate.net/publication/343682203_The_Need_to_Promote_Digital_Financial_Literacy_for_the_Digital_Age

The power of Likert Scales in market research | aytm. (n.d.). Aytm.com. https://aytm.com/post/the-power-of-likert-scales

Thomas, L. (2020, May 8). *Cross-Sectional Study | Definitions, Uses & Examples*. Scribbr. https://www.scribbr.com/methodology/cross-sectional-study/

Tkaczyk, J. (2016). Digital Consumer: Trends and challenges. *ResearchGate*.

https://www.researchgate.net/publication/32707932 9_Digital_Consumer_

Trends_and_Challenges

Toh, S., & Hernán, M. A. (2008). Causal Inference from Longitudinal Studies

with Baseline Randomization. *The International Journal of Biostatistics*,

4(1). https://doi.org/10.2202/1557-4679.1117

Tomaszewski, L. E., Zarestky, J., & Gonzalez, E. (2020). Planning Qualitative

Research: Design and Decision Making for New Researchers.

International Journal of Qualitative Methods, *19*(1), 1–7. sagepub.

https://journals.sagepub.com/doi/full/10.1177/1609406920967174

Trajković, G. (2008). Measurement: Accuracy and Precision, Reliability and

Validity. *Encyclopedia of Public Health*, 888–892.

https://doi.org/10.1007/978-1-4020-5614-7_2081

Turney, S. (2022, June 22). *Pearson Correlation Coefficient (r)*. Scribbr.

https://www.scribbr.com/statistics/pearson-correlation-coefficient/

Turney, S. (2022a, April 22). *Coefficient of Determination (R^2) | Calculation &*

Interpretation. Scribbr. https://www.scribbr.com/statistics/coefficient-of-

determination/

Uffelmann, E., Huang, Q. Q., Munung, N. S., de Vries, J., Okada, Y., Martin, A.

R., Martin, H. C., Lappalainen, T., & Posthuma, D. (2021). Genome-wide

association studies. *Nature Reviews Methods Primers*, *1*(1).

https://doi.org/10.1038/s43586-021-00056-9

Viera, C. (2023, August 24). *How to Write Limitations of the Study (with*

examples) | AJE. Www.aje.com. https://www.aje.com/arc/how-to-write-

limitations-of-the-study/

Wagh, S. (2023, August 19). *Research Guides: Public Health Research Guide: Primary & Secondary Data Definitions*. Researchguides.ben.edu; Benedictine University. https://researchguides.ben.edu/c.php?g=282050&p=4036581

Wan Abdul Aziz, W. N. H., Abu Hasan, N. I., Mohammad Hamzah, M. H., & Wan Abdul Aziz, R. (2020). Pearson correlation coefficient of the student perception and challenges towards open and distance learning during COVID-19. *Mathematical Sciences and Informatics Journal*, *1*(1), 96–103. https://doi.org/10.24191/mij.v1i1.14177

Wang, X., & Cheng, Z. (2020). Cross-Sectional Studies: Strengths, Weaknesses, and Recommendations. *Chest*, *158*(1), 65–71. NCBI.

Waude, A. (2016, February 6). *How Cultural Differences Can Affect Our Perception And Behavior*. Psychologistworld.com; Psychologist World. https://www.psychologistworld.com/issues/cultural-differences-psychology

What are parameters, parameter estimates, and sampling distributions? (n.d.). Support.minitab.com. Retrieved February 29, 2024, from https://support.minitab.com/en-us/minitab/21/help-and-how-to/statistics/basic-statistics/supporting-topics/data-concepts/what-are-parameters-parameter-estimates-and-sampling-distributions/.

What Is Multiple Regression? | Built In. (n.d.). Builtin.com. https://builtin.com/data-science/multiple-regression

WorldBank. (2021, June 25). *Malaysia's Digital Economy – A New Driver of Development*. World Bank.

https://www.worldbank.org/en/results/2021/06/25/malaysia-s-digital-economy-a-new-driver-of-development

Wu, H., & Leung, S.-O. (2017). Can Likert Scales be Treated as Interval Scales?—A Simulation Study. *Journal of Social Service Research*, *43*(4), 527–532. https://doi.org/10.1080/01488376.2017.1329775

Yi, M. (n.d.). *How to Choose Between a Bar Chart and Pie Chart*. Chartio. https://chartio.com/learn/charts/how-to-choose-pie-chart-vs-bar-chart/

Zach. (2020, September 10). *What is a Sampling Frame?* Statology. https://www.statology.org/sampling-frame/

Zach. (2020a, January 3). *Levels of Measurement: Nominal, Ordinal, Interval and Ratio*. Statology. https://www.statology.org/levels-of-measurement-nominal-ordinal-interval-and-ratio/

Zach. (2021, May 12). *Real Life Examples: Using Mean, Median, & Mode*. Statology. https://www.statology.org/mean-median-mode-real-life-examples/

Zach. (2021b, May 18). *How to Report Cronbach's Alpha (With Examples)*. Statology. https://www.statology.org/how-to-report-cronbachs-alpha/

Table 4.1.1.1: Respondents' Age

Age		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20 years old and below	21	6.6	6.6	6.6
	21 to 30 years old	100	31.4	31.4	38.1
	31 to 40 years old	110	34.6	34.6	72.6
	41 to 50 years old	87	27.4	27.4	100.0
	Total	318	100.0	100.0	

Table 4.1.1.2: Gender

Gender		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	115	36.2	36.2	36.2
	Female	203	63.8	63.8	100.0
	Total	318	100.0	100.0	

Table 4.1.1.3: Education Qualification

Education Qualification		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Secondary School	15	4.7	4.7	4.7
	Foundation/Diploma	57	17.9	17.9	22.6
	Bachelor of Degree	196	61.6	61.6	84.3
	Master	33	10.4	10.4	94.7
	PHD	17	5.3	5.3	100.0
	Total	318	100.0	100.0	

Table 4.1.1.4: Occupation

Occupation		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Student	99	31.1	31.1	31.1
	Employed	201	63.2	63.2	94.3
	Unemployed	18	5.7	5.7	100.0
	Total	318	100.0	100.0	

Table 4.1.1.5: Monthly Income

Monthly Income		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Applicable	102	32.1	32.1	32.1
	RM 1001 - RM 2000	9	2.8	2.8	34.9
	RM 2001 - RM 3000	33	10.4	10.4	45.3
	RM 3001 - RM 4000	67	21.1	21.1	66.4
	RM 4001 - RM 5000	61	19.2	19.2	85.5
	RM 5001 and above	46	14.5	14.5	100.0
	Total	318	100.0	100.0	

Table 4.1.1.6: Marital Status

Marital Status		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	175	55.0	55.0	55.0
	Married	127	39.9	39.9	95.0
	Prefer not to answer	16	5.0	5.0	100.0
	Total	318	100.0	100.0	

Table 4.3: Pearson Correlation Result

		DFL	FA	FC	FDM
DFL	Pearson Correlation	1	.168**	.095	.121*
	Sig.(2-tailed)		.003	.092	.030
	N		318	318	318
FA	Pearson Correlation		1	.255**	.095
	Sig.(2-tailed)			.000	.092
	N			318	318
FC	Pearson Correlation			1	.227**
	Sig.(2-tailed)				.000
	N				318
FDM	Pearson Correlation				1
	Sig.(2-tailed)				
	N				

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

*. Correlation is significant at the 0.05 level (2-tailed).

4.4.2 Multiple Linear Regression

Table 4.4.2: R Square

Model	R	R Square	Adjusted R Square	Standard Eror of the Estimate
1	0.249	0.062	0.053	1.97847

Table 4.4.3: ANOVA Model

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	81.258	3	27.086	6.920	.000
Residual	1229.107	314	3.914		
Total	1310.365	317			

.

Table 4.4.4: Multiple Linear Regression

Variables	Coefficient	Std.Error	T-test	P-value	Decision to hypothesis
(Constant)	11.840	1.558	7.600	.000	Reject H_0
DFL	.095	.054	1.753	.081	Not Reject H_0
FA	.020	.048	.427	.669	Not Reject H_0
FC	.162	.044	3.732	.000	Reject H_0

UNIVERSITI TUNKU ABDUL RAHMAN (UTAR) FACULTY OF ACCOUNTANCY AND MANAGEMENT (FAM)

Bachelor of International Business (HONS) (IN)

The interplay of digital financial literacy, capability, autonomy in the financial decision-making in today's digital age

Dear respondents,

I am Wong Zheng Wah, a final year undergraduate students of Bachelor of International Business (HONS) from University Tunku Abdul Rahman (UTAR) Sungai Long Campus. I would like to invite you to participate in the above-mentioned final year undergraduate project survey.

The purpose of this survey is to conduct a research in identifying the interplay of digital financial literacy, capability, autonomy in the financial decision-making in today's digital age. Your participation will greatly contribute to the success of the survey. I deeply appreciateyour help in participate in this survey, and your responses will remain private and will be used strictly for academic purpose only.

Your assistance in completing this questionnaire is highly appreciated. Thank you for taking the time to participate. You may reach me via email at zhengwah1027@1utar.my if you have any questions about this questionnaire.

Student Name	Student ID
Wong Zheng Wah	2102220

Section A: Demographic questions

Please write down or "Tick (√)" only ONE relevant answer for each question.

1. Age

- o 20 years old and below
- o 21 to 30 years old
- o 31 to 40 years old
- o 41 to 50 years old

2. Gender

- o Male
- o Female

3. Education Qualification

- o Secondary School
- o Foundation/Diploma
- o Bachelor of Degree
- o Master
- o PHD

4. Occupation

- o Student
- o Employed
- o Unemployed

5. Monthly Income

- o Not applicable
- o RM 1001 - RM 2000
- o RM 2001 - RM 3000
- o RM 3001 - RM 4000
- o RM 4001 - RM 5000
- o RM 5001 and above

6. Marital Status

- o Single
- o Married
- o Prefer not to answer

Section B: Dependent Variable

In this section, there will be FIVE compulsory questions. Please select (CIRCLE) the appropriate answer for each of the questions. Please read the following items carefully andchoose only ONE response which most you agree with.

Strongly Disagree (SD) = 1, Disagree (D) = 2, Neither Agree nor Disagree (N) = 3, Agree (A) = 4, Strongly Agree (SA) = 5.

Financial Decision-Making

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
My financial decisions can be quickly adjusted based on changes in circumstances.	1	2	3	4	5
My financial decisions are based on comparing historical results.	1	2	3	4	5
My financial decisions are based on long-term and short-term considerations.	1	2	3	4	5
During financial decision-making, I can search for economic options.	1	2	3	4	5

Section C: Independent Variables

In this section, there will be FIFTEEN questions. Please select the appropriate answer for each of the questions. Please rate the following items using a five-point Likert scale.

Strongly Disagree (SD) = 1, Disagree (D) = 2, Neither Agree nor Disagree (N) = 3, Agree
(A) = 4, Strongly Agree (SA) = 5

a. Digital Financial Literacy

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
An understanding of digital payment products including E-Debit, E-Credit, E-Money,mobile.	1	2	3	4	5
Understanding digital assetmanagement for product development.	1	2	3	4	5
Having a thorough understandingof digital alternatives.	1	2	3	4	5
Understanding insurance digitally.	1	2	3	4	5
Understanding customer rights,protection, and complaints procedures when dealing with digital financial services.	1	2	3	4	5

b. Financial Autonomy

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Planned domestic expenses arepart of my job.	1	2	3	4	5
When it comes to money, I'musually critical of my friends.	1	2	3	4	5

My goal is to save some money so that I can do activities I really enjoy.	1	2	3	4	5
When I buy, I always negotiate prices.	1	2	3	4	5
When I buy something, I like to research the price.	1	2	3	4	5

c. Financial Capability

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
My money management is veryorganized on a daily basis.	1	2	3	4	5
My personal finances are closely monitored.	1	2	3	4	5
My savings and spending are well balanced.	1	2	3	4	5
I handle financial matters on a daily basis.	1	2	3	4	5
I feel confident about my financial decisions.	1	2	3	4	5