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WHAT FACTORS INFLUENCE INDIVIDUALS' LEVEL OF ENGAGEMENT IN A BANKING RELATIONSHIP IN JORDAN?

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WHAT FACTORS INFLUENCE INDIVIDUALS' LEVEL OF ENGAGEMENT IN A BANKING RELATIONSHIP IN JORDAN?

by

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WHAT FACTORS INFLUENCE INDIVIDUALS' LEVEL OF ENGAGEMENT IN A BANKING RELATIONSHIP IN JORDAN?

NAWAL WAFA TARAZI

ABSTRACT

In a study (NFIS 2018-2019), conducted by the Central Bank of Jordan (CBJ) in cooperation with Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, it was reported that 67% of people in Jordan above the age of 15 years do not have access to the formal financial system in terms of bank account ownership; 38.0% of adults are excluded from any formal financial services and 24.8% of adults are completely excluded from any formal and informal financial services. Only 33% of adults in Jordan, 27% of women, are financially included in terms of bank account ownership, which is a low percentage when compared to other countries with the same income level.

The low level of access to the formal financial system is presented in the low percentages of bank account ownership and is reflected in the low engagement in the financial system by the adult population in Jordan. This low level of engagement has severe consequences on the economy in general and on the banking sector in particular. The primary aim of this research is to determine the main antecedents (individual and social factors) that influence individuals' level of engagement in a banking relationship in Jordan. The factors explored are age, income, education, economy, economic knowledge, financial literacy, financial technology, and trust, in addition to gender. Identifying and understanding the role of these factors would assist in explaining the reasons behind the low level of individuals' engagement with the banking system in Jordan and suggest means and tools of intervention to support greater financial engagement. Further, exploring the influence of 'Gender' on the above factors and examining the influence of financial literacy in enhancing the level of individuals' behavioural engagement towards the banking relationship are of particular focus in this research.

The research study investigated a non-probability sample of 542 individuals to obtain a broad view on the individual and social factors that influence individuals' level of engagement in a banking relationship. The target population included Jordanians living in the largest eight cities of Jordan. The data collection strategy involved a survey using a questionnaire as the instrument for data collection. The questionnaire was prepared in both English and Arabic and distributed via social media networks and in person.

The research is theory driven thus, a deductive approach to theory development was followed subject to rigorous testing. The Theory of Planned Behaviour (TPB) is the base theory underpinning this research that assumes a social reality and provides a basis of explanation indicating causal relationships. Several hypotheses were developed and then data collected were analysed using a quantitative approach.

The research employs Partial Least Squares Structural Equation Modelling method (referred to as PLS path modeling) which is a popular method for estimating complex path models with latent variables and their relationships. This method is used for investigating cause effects interactions between constructs and variables and is suitable for both theory building and testing.

The findings confirmed that the main independent factors that affect individuals' financial behaviour reflected in the level of engagement in a banking relationship in Jordan are economic knowledge, age, income, financial literacy, economy, financial technology, and trust. The findings also identified the important influence of financial literacy on financial behaviour and pointed out the different effects of the independent factors on males versus females. Supported by the Multi Group Analysis results, the findings indicated that economic knowledge is the strongest independent factor for females that affects all their three core factors attitude, perceived behavioural control and social norms. Thus, any intervention to improve females' economic knowledge would positively, significantly, and strongly affect their financial behaviour and improve the level of engagement in a banking relationship in Jordan. As for economy and income, the findings reflected a significant effect for males only on the social norms but had no effect on females.

The findings have both theoretical and practical implications whereby the results provide empirical evidence on the indirect impact of individual and social factors on the financial behavioural decision. The results can serve as an indication in practice for bank managers, regulators, and policy makers in developing key products and services to attract individuals and thus achieve the goal of financial inclusion of more engagement levels of the Jordanian population with personal banking relationships and services.

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List of Abbreviations

Abbreviations	Full term
ABJ	Association of Banks on Jordan
AGE	Age
ATTD	Attitude
AVE	Average Variance Extracted
BBA	Basic Bank Account
CBJ	Central Bank of Jordan
ECO	Economy
EDU	Education
EK	Economic Knowledge
FB	Financial Behaviour
FinTech	Financial Technology Services
FL	Financial Literacy
GNDR	Gender
GST	Goal Systems Theory
H	Hypothesis
HR	Human Resources
HTMT	Heterotrait-Monotrait Ratio
INC	Income
LM	Linear Regression Model
MAE	Mean Absolute Error
MENA	Middle East North Africa Region
MGA	Multi Group Analysis
MICOM	Measurement Invariance Assessment of Composite Model
NFIS	National Financial Inclusion Strategy
PBC	Perceived Behavioural Control
PLS SEM	Partial Least Squares Structural Equation Modelling
R^2	Coefficient of Determination
RGP	Theory of Reasoned Goal Pursuit
RMSE	Root Mean Squatted Error
SN	Social Norms
TAM	Technology Acceptance Model
TPB	Theory of Planned Behaviour
TRA	Theory of Reasoned Action
TRUST	Trust
UAB	Union of Arab Banks
VIF	Variance Inflation Factor

CHAPTER ONE: INTRODUCTION

The first chapter of this research will provide a background about the importance of the banking sector from a micro and macroeconomic perspective. The Chapter will present a brief about the issues and motives behind this research. Following this, the research aim and objectives will be stated, pointing out the significance of the study to the economy and its wider societal significance, in terms of financial inclusion and the potential for increasing individuals' engagement and participation in the banking sector and thus the wider economy. Finally, the structure of the research will be presented followed by a section that will briefly present the Jordanian banking sector.

1.1 Research Background

Economic growth is one of the ultimate goals of any economic system. The growth in the economy depends on several micro and macroeconomic factors. Within the scope of this research, the impact of the banking sector will be demonstrated to reflect its importance to the economy. The research will present the framework of the banking sector and main stakeholders involved in its development and will try to shed the light on some aspects that are necessary for such development.

This research will explore ways to improve the engagement in the banking sector in the Jordanian economy by determining which factors influence the individuals' level of engagement in a banking relationship in Jordan. Determining the influential factors that lead individuals to be part of the financial inclusion process will assist in achieving the banking efficiency objectives, since bank customers are one of the main stakeholders at the banking sector (Ji and Wang, 2014; McDonald& Rundle, 2008; Freeman & McVea, 2017).

Levine and Zervos (1998) explained that banking sector development and stock market liquidity are both good predictors of economic growth, capital accumulation, and productivity growth for 45 developed and developing countries over the period 1976–1993. King and Levine (1993) concluded in empirical research exploring the relationship between banks, stock markets, and economic growth, that bank development helps explain economic growth in a sample of 80 countries.

The same study reported strong and robust association between banking development and per capita GDP growth and concluded that the financial intermediary like the banking system ‘‘exerts a first-order influence on economic growth” (King and Levine 1993, p. 735).

The above study and several other studies such as Bhaumik, et al. (2017), indicated a strong positive correlation between a developed banking sector and a developed economy. As for the importance of banking to individuals, studies such as Fitzpatrick, (2015) identified that the ownership of a bank account facilitates access to, and use of credit and is an important aspect from both an economic and policy perspective in addition to the importance to individuals benefiting from these credits. Higher rates of bank account ownership could facilitate and improve access to and use of "affordable credit" since the financial institutions can better assess the credit worthiness of banked consumers, offering credit at lower prices relative to an unbanked consumer who seeks credit from nonbank institutions at much higher rates. Further, evidence suggests that an important effect of owning a bank account is improved access to credit cards which enables durable good consumption, thus higher growth in the economy resulting from more engagement in a banking relationship.

According to Chakravarty et al. (2009), bank account owners face reduced information and transaction costs in accessing credit products offered by banks and are more likely to choose these products when seeking credit, confirming the idea of “affordable credit”. The effect of the relationship length and engagement was highlighted in their study as a significant factor in securing better loan rates among other competitive banking benefits and services.

Further studies continued to support the benefits of bank account ownership and engagement; according to Barr (2004), households that are low-income that do not have a bank account are increasingly the focus of campaigns to encourage them to open savings (only) or savings and checking accounts at insured depository institutions, such as banks or credit unions since the unavailability of a bank account leads to utilizing high-cost alternative financial services at high interest rates for loans. The same study pointed out that families who are low-income are less likely to hold bank accounts, and more likely to use high-cost alternative financial services providers than higher-income families.

Many studies have suggested that customers engagement in a banking relationship is a vital mechanism in building stronger and improved financial performance for both customers and banks. According to Price Waterhouse Coopers (2019) banks should study and capitalize on customer's engagement behaviour and continuously develop their customer engagement strategies since higher level of engagement drives growth. Harris (2000) argued that developments in electronic online banking have the potential to empower customers and make them more engaged in their banking relationship. Mbama and Ezepue (2018) identified customer engagement as one of the main factors which determine customers' experience in digital banking highlighting significant relationship to banks' financial performance. Direct empirical evidence was provided by Henisz, et al. (2013) arguing that increasing stakeholder support enhances the financial valuation of a firm. In another context, Galdeano et al.'s (2019) research study reported a significant relationship between organizational engagement and financial performance in addition to the significant moderation of organizational engagement on the Corporate Social Responsibility (CSR) and the financial performance relationship.

The above studies and several others concluded that financial capability consists of both the internal capabilities, such as knowledge, skills and attitudes, and external conditions, such as inclusive financial institutions and beneficial financial products and services. Together, internal capabilities and external conditions allow individuals to make informed financial decisions and perform desirable financial behaviours that contribute to their financial wellbeing according to Sherraden, (2013). This research aims to understand the drivers of individuals' involvement and levels of engagement in a banking relationship, despite other research studies such as those by Foxhall and Pallister (1998) and Aldlaigan and Buttle (2001), suggesting that the conventional measures of customer involvement and engagement might not apply to financial services. This research will seek to best define and measure the constructs of customer involvement, as discussed by Zaichkowsky (1985) who pointed out that banking customers' involvement and interactions can be associated with advertisements, promotional material, service provision and purchase decisions and do not necessarily involve physical involvement. The current practical experience within the financial sector demonstrated that banks perform numerous services and automated transactions without any ongoing physical interaction with customers. These transactions and services vary according to frequency and duration. This research will investigate the level of engagement in banking relationship even without ongoing physical interaction with customers.

1.2 Research Problem

In a recent study (NFIS 2018-2019), conducted by the Central Bank of Jordan (CBJ) in cooperation with Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, it was reported that 67% of people in Jordan above the age of 15 years do not have access to the formal financial system in terms of bank account ownership; 38.0% of adults are excluded from any formal financial services and 24.8% of adults are completely excluded from any formal and informal financial services.

Only 33% of adults in Jordan and 27% of women, are financially included in terms of bank account ownership, which is a low percentage when compared to other countries with the same income level. These low percentages of access to the formal financial system in terms of bank account ownership by the adult population in Jordan has severe consequences for the economy in general and the banking sector in particular.

There is lack of research in the domain of engagement in a banking relationship. The available literature about banking relationship behaviours, mostly consists of research studies focusing on aspects related to relationship behaviour (Daqar and Smoudy 2019; Agarwal et al. 2018) and customer satisfactions (Yilmaz, et al. 2018; Darvish, et al. 2013; Khatoon et al. 2020; Mathew et al. 2020), after establishing the banking relationship and throughout the course of the business dealings with banks thereafter.

The lack of engagement in banking relationships in Jordan being the main research problem is illustrated by the National Financial Inclusion Strategy for Jordan (NFIS 2018-2020) and other policies and procedures that are being implemented and closely monitored by Jordanian authorities to deal with this issue, some of which will be discussed in the upcoming sections.

Further, fewer studies on financial behaviour and banking relationship have considered studying the factors affecting the individuals' financial behaviour before establishing a banking relationship and engaging more into the banking relationship in Jordan. This represents a gap in the current knowledge which this research aims to highlight and address using praxis to bridge the gap between theory and practice while examining the low level of engagement phenomena within banking relationships in Jordan.

1.3 Research Aim and Objectives

The above-mentioned alarming results regarding low percentage of access to the financial system had led to this research which aims to find the factors behind these low percentages and the low level of engagement in a banking relationship in Jordan. Identifying the factors will lead to the main objectives of this research and will assist in answering the main research question, which is: **What factors influence individuals' level of engagement in a Banking relationship in Jordan?**

The primary aim of this research is to determine the main antecedents (individual and social factors) that influence the individuals' level of engagement in a banking relationship in Jordan. This will assist in explaining the reasons behind the low percentages of individuals' accessing the financial system in Jordan and may suggest means and tools of intervention to increase levels of engagement.

The objectives of the research are:

1. **To determine *the individual and social factors that enhance individuals' level of engagement in a banking relationship*.**
   Determining the independent factors both the individual and the social factors is the most important step that will allow the research study to establish the link with the individuals' core behaviours that lead to the final financial behaviour. Evaluating the effects of these independent factors will allow the study to detect and propose a set of interventions at an early stage which would support the required change.

2. **To examine the influence of financial literacy in enhancing the level of individuals' behavioural engagement towards the banking relationship.**
   Examining the influence of financial literacy on financial behaviour will simultaneously allow the study to detect the set of resources and interventions to be proposed at early stages of the individuals' financial behavioural process. This will prepare these individuals to be well-informed influencers within the financial inclusion process, paving the road for more engagement and involvement in their banking relationships.

3. **To investigate the influence of 'Gender' and if the above dynamics vary by gender.** To address this objective, the study tests the different effects of the individual and social factors on males and compare to females' financial behaviours. This will illustrate the appropriate ways to affect the core factors leading to the required financial behaviour that will encourage more female engagement in banking relationships.

1.4 Research Significance & Gaps

The financial sector is the second largest in the Jordanian economy (Oxford Business Report, 2018). The banking sector is considered the engine of the economy; it is the link between all economic sectors within the country and the world, and the drive that reflects the strength of the economy.

This research aims to identify and understand the factors that determine individuals' financial behaviour in the form of level of engagement in banking relationships. The research will study both the individual and the social factors that affect the individuals' financial behaviours using the lenses of the Theory of Planned Behaviour (TPB). The results of this research would directly benefit the banking sector in Jordan and would serve to improve its competitiveness by considering the customers' favourable behaviours towards accessing and engaging more in the financial system through their banking relationships. The results of the research can be applied to other countries especially neighbouring countries with many similarities related to experiences and cultures. Furthermore, other indirect factors may be of benefit to other sectors such as the education sector.

According to the TPB, individuals' behavioural intention is expected to lead to the final behaviour. Intention, is how ready an individual is to perform a certain behaviour, based on; attitude, subjective norms, and perceived behavioural control (Ajzen, 2002). Some studies such as Sahoo and Pillai (2017) and Kosiba et al. (2018) presented evidence on limited drivers and outcomes of customer engagement in some banking services. This research will contribute to the understanding of the individual and the social factors and will determine their effectiveness on individuals' financial behaviour regarding the level of engagement in a banking relationship.

Once the research determines these factors and provides an evaluation of the benefits and expected outcomes, then the results of the research will be available to influence individuals' financial behaviour. This can be done by providing the appropriate tools to achieve positive outcomes and results of individuals' financial behaviour thus encouraging them to engage more in a banking relationship, first by owning a bank account then actively using it and be an active part of the country's financial inclusion plan.

Another important objective of the research is to study the importance of financial literacy and its influence on customers' financial behaviour. Several studies argued the important role played by financial literacy and its influence on financial behaviour. Andarsari and Ningtyas (2019) reported a positive and significant influence of financial literacy on financial behaviour. The study concluded that the higher the individuals' knowledge and understanding of financial concepts, the more likely they are to be financially competent in their daily life, and the more likely to get access to external funding and to develop their business. Another study by Allgood and Walstad (2016) reported that both actual and perceived financial literacy appear to influence financial behaviours and that perceived financial literacy may be as important as actual financial literacy. However, there is little evidence to validate these relationships (Nicolini et al., 2022), which calls for more comprehensive study to differentiate between financial knowledge and economic knowledge and the role of each independent factor on financial behaviour, which is investigated within this research context.

Further, the issue of the gender gap which is a common issue in several economies will further influence the determinants of this study. According to a study conducted by Andarsari & Ningtyas (2019), women are expected to lead the future of the world's economy by 2028 and are expected to take 75% of the world's discretionary expenditure. The proportion of working women had increased from 23% in 1996 to 33% in 2013, however, there is still the issue of salary gap which reaches 18% less than men and leads to further gap in women's savings and investments. The findings of the study stated that having good financial knowledge helps women to make wise decisions, save and manage investment carefully. According to Andarsari & Ningtyas (2019), women are able to better manage household finance. Less literate persons rarely make efficient choices and are more likely to cause more debts, save less and are more prone to fraud.

Several studies (Al Kharouf and Weir, 2008; Al-Mahadin, 2004; Maffey and Smith, 2018; Al Fadli et al., 2019) investigated the role of women in Jordan pointing out the gender gap and differences, however very limited research was done to identify financial behaviour gaps in terms of gender, which this research will address.

Given the above, this research aims at discussing factors and proposes means of intervention to achieve the purpose of individuals' higher engagement in a banking relationship.

1.5 Thesis Structure

The following section of this research chapter will present a brief overview of the banking sector in Jordan. Chapter Two will present a theoretical background discussing the theories and studies which dealt with financial behaviour, financial literacy, gender gaps and other factors under study. Chapter Three will present the research methodology; an explanatory research method based on a deductive approach presenting proposed hypotheses based upon previous theories. The research uses a quantitative method to analyse the data collected to draw new conclusions in order to support the initial predictions.

Chapter Four will demonstrate the findings of the research highlighting the descriptive and inferential analysis after using the Structural Equation Modelling (PLS SEM) technique for analysing the results of the data collected via survey. Then Chapter Five will discuss and present the findings and results of the research demonstrating and suggesting interventions.

By the end of this research, a set of proposed interventions will be presented to both the banking and the academic (education) sector. These proposed interventions aim to allow the new generations to move, adapt and scale quickly, and be able to handle their financial matters in a way that is more effective and responsible. This will reflect better on both the individuals and the economy in the long run. Chapter Six contains the conclusions and recommendations arising from the study and highlights the limitations of this research along with areas for further study.

1.6 The Business Practice Context of the Research: The Jordanian Banking Sector

This section will present an overview of the banking sector in Jordan highlighting the 'National Financial Inclusion Strategy' and main issues. The latest changes and developments in the Jordanian banking and educational sector will be highlighted at the research conclusion and linked to the findings and conclusions of this research.

1.6.1 Structure

According to the 2021 Annual Report prepared and issued by the Association of Banks in Jordan, there are twenty-three banks operating in Jordan as of year-end 2021. Thirteen are commercial Jordanian banks, six foreign banks and four Islamic banks. As of year-end 2021, total assets of banks operating in Jordan reached JD 61.06 billion (USD 86.12 billion), direct credit facilities granted by banks reached JD 30.03 billion (USD 42.36 billion).

Total deposits reached JD 39.52 billion (55.74 billion), total pre-tax profits of banks reached JD 805 million (USD 1,135.40 million) and total after-tax profits of banks reached JD 550 million (USD 776 million). The number of branches reached 877 and the number of ATMs were 2113. The number of employees in all banks operating in Jordan reached 21,893 in 2021. The Jordanian financial services sector is considered the second largest sector in the economy.

1.6.2 Financial Inclusion

According to the Central Bank of Jordan (2022), 'Financial Inclusion' is the state wherein individuals and businesses have convenient access to and use affordable and suitable financial products and services, payments, savings, credit, transactions, and insurance that meet their needs, help to improve their lives, and delivered in a responsible and sustainable way. Jordan's policy makers are aware of the importance of the inclusion strategy and are committed to follow and realize the economy's objective of sustainability and growth.

The policy of financial inclusion is identified by key pillars, some of which will be identified within this research such as the financial education, which is believed to be one of the key factors in affecting the intentional behaviour towards establishing higher levels of engagement in a banking relationship.

The Financial Inclusion Diagnostic Study in Jordan for the year 2017 (Central Bank of Jordan, 2018) stated that the level of formal financial inclusion in Jordan is quite low for some types of financial products and among certain segments of the population. The World Bank Global Findex's Database reported that only 25% of Jordanians above 15 years old had a bank account in 2014, with a much lower rate for women (15.5%) than for men (33.3%). This percentage improved to reach 42.5% account owners in 2017 (26.6% female vs. 56.3% male) and 47% account owners in 2021 (34% female compared to 58.6% male), (The World Bank 2021) and (Development Research Group, 2022).

The results of the study which was conducted by the Central Bank of Jordan (CBJ) in cooperation with Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH (NFIS 2018-2019), prompted the Jordanian government and other organizations to take action to better understand the causes of low financial inclusion in Jordan and to find ways to boost the availability and quality of financial services. The intention of behavioural change was asserted by actions taken by the highest authorities and most national-level policymakers including the Central Bank that strongly believed in the seriousness of the issue.

According to the National Financial Inclusion Strategy for Jordan (NFIS 2018-2020), there were several goals and sub-goals but the two highest level goals were, to increase the level of financial inclusion from 33.1% in terms of account ownership by the adult population in 2017 to 41.5% by 2020 and at the same time to reduce the gender gap in bank account ownership from 53% to 35% between males and females.

The framework of NFIS (2018-2020) presented four main target groups, which the study reported need special considerations and more efforts to get more involved within the financial sector. These target groups include the bottom 40% income generating population, women, refugees, and youth. Higher contribution of the above four target groups within the financial sector will be translated into a major improvement, development, and sustainability in the Jordanian financial sector specifically, and the Jordanian economy in general.

This research will be studying the effect of income as one of the independent factors affecting the behavioural intention of establishing and engaging more in a banking relationship. However, whilst both women and youth are considered within this research, refugees are not within the domain of the study because they fall out of the scope of this research.

The purpose of this research is in line with the objectives of the “National Financial Inclusion Strategy” for Jordan 2018-2020, and captures considerations highlighted in the above studies. The research will investigate and determine the roots of intentions that precede the behaviour and will take the constructs that collectively represent a person's actual control over the behaviour to highlight which factors are stronger in affecting individuals’ intentions that lead to the financial behaviour. This will assist in directing the decision makers in Jordan to channel their efforts and campaigns towards such factors leading to change in behavioural beliefs represented by higher level of engagement in banking relationships in Jordan, thus attracting more adults to be part of the financial inclusion plan.

CHAPTER TWO: LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK DEVELOPMENT

Introduction

The financial sector is considered the backbone of any economy. The development, growth and achievements of the financial sector is reflected in other sectors of the economy. Several studies including Levine (2005), Bencivenga and Smith (1991), King and Levine (1993), Odedokun (1998), Xu (2000) and Shamim (2007) empirically found a correlation between financial development and economic growth.

George (2003) reinforced that the chain of success in managing stakeholders vs. responding to shareholders will be completed if the demands of all stakeholders are met concurrently. Keeping this in mind, the achievements and the progress of the financial sector depend on several internal and external stakeholders and the more engaged stakeholders are in the success and development of the financial sector, the more difficult the process of analysing and determining the required results becomes. Mittal, et al (2005) affirmed that in some business domains, customers can be considered as one of the most important stakeholders for managing a long-term value of the organizations. Bergeron (2001) asserted that the key to business survival and success, is building and maintaining strong customer relationships and continuously assessing their needs and expectations in addition to the factors that influence their behaviour.

The engagement concept is adopted in this research as an important component of the customer's relationship management and is directly related to consumer's behaviour in terms of active and engaged purchase of a service or product. Given the important role of the customer as a main stakeholder in the financial system in general and the banking sector in particular, the primary aim of this research is to determine the main antecedents (individual and social factors) that influence the individuals' level of engagement in a banking relationship in Jordan. Based on the discussions and conclusions of previous theories, this chapter will introduce the independent core and dependent factors that are going to be tested and will present the conceptual framework that will link these factors together in relationships to acknowledge the main objectives of this research.

2.1 Definitions

2.1.1 Banking Relationship

According to Scholtens and van't Klooster (2019), banks play an important role in the financial stability of the global economy and are crucial for the economic development. Banks aim to accomplish an engaging relationship with their customers to be able to sell them other products, i.e., "cross-selling" of financial products and services to strengthen their relationships and increase customers' engagement and loyalty. Such a relationship involves offering customers a broad array of financial products and services that go beyond simple checking and savings accounts. The length of the relationship, which involved more engagement, benefits bank customers through increased credit availability, (Boot and Thakor 1994). In a study of small-business borrowers, Mester et al. (2007), highlighted the importance of the relationship by providing some personal information about customers which might not be available to banks outside of a relationship and is considered very useful.

However, from a customer's perspective, banking relationship was introduced as a sound relationship with banks in general, which can assist in easing financial pressure and may further support and advance business operations (Chia-Chung et al., 2013). This definition reflects customer's expectations from the bank, mainly financial support and practicality in financial activities and services. These expectations are in line with Coye (2004) who identified the process of customer's behavioural engagement within the service delivery expectations and interventions system.

2.1.2 Engagement

Engagement has been previously examined across a range of academic disciplines, including education and learning (Shneiderman et al., 1998), sociology (Jennings and Stoker, 2004), psychology and management (Csikszentmihalyi, 1997), marketing (Algesheimer et al., 2005), and organisational performance (Al-dalahmeh et al., 2018). In the management literature, engagement has been investigated in several studies on individuals' engagement behaviours (Billett, 2001; Schaufeli and Bakker, 2004).

Other studies presented engagement as a customer's level of physical, cognitive, and emotional presence in their relationship with service organisations (Patterson and Yu 2006). "The term 'engagement' has generated a tremendous amount of debate and disagreement on the definition, dimensionality, and operationalisation. The interpretation of customer engagement is still full of vagueness and controversy", (Fang et al. 2017, p. 271).

A definition of engagement was proposed by Parasuraman et al., (1988) as consumer's appraisal of a product or a service's overall excellence or superiority, thus relating relationship engagement to the perceived quality. The customer engagement concept was operationalized by Patterson et al. (2006) as the extent to which customers are behaviourally, perceptually, and emotionally present in an interactive relationship with organizations. Behavioural engagement is generally understood to be an endeavour and energy given for an interaction. Therefore, the engagement concept is adopted as an important component of customer relationship management and is directly related to consumer behaviour in terms of the active engaged purchase of a service or product.

Several definitions are provided on the concept of customer or individual's engagement. Van Doorn et al. (2010, pp. 253-266), adopted a behavioural perspective and defined customer engagement as "a customer's behavioural manifestation toward a brand or firm, beyond purchase, resulting from motivational drivers". Whereas Vivek et al., (2012) considered it as a multi-dimensional concept relating customer engagement with the intensity of participation in organisational activities, which either the customer or the organisation initiates, thus reflecting the level of engagement in terms of intensity of activities from both sides. Pansari and Kumar (2017) stated that a customer engagement in a firm's relationship is mainly based on the trust and commitment that leads to satisfying and has emotional bonding, thus leading to higher level of engagement.

Customer engagement was defined as "active interactions of a customer with a firm, with prospects, and with other customers, whether they are transactional or non-transactional in nature", (Kumar et al., 2010, p. 297). Whereas Gupta et al. (2018) discussed how cultural and economic factors play a key role in creating global customer engagement for multinational corporations and developed a framework for engaging customers globally.

Jha and Agrawal (2021) highlighted relationship engagement as an important variable in determining the length of relationships between consumers and businesses. The dedication and loyalty to such partnerships reflects the general attitude of customers to ensure a long-term relationship that leads to stability and more engaging behaviours like re-purchases. The target of customer relationship engagement management is stability and growth.

2.1.3 Account Ownership

The 2017 Global Findex database defines account ownership as "having an individual or jointly owned account either at a financial institution or through a mobile money provider" (Demirguc-Kunt, Klapper et al, 2018, p. 18). According to this definition, the first and main step to a banking relationship is maintaining a bank account; the account may be maintained at a bank or any other regulated financial institution, such as credit union, a cooperative, or a microfinance institution in addition to mobile money accounts which allow people to store money and to send and receive electronic payments. It was highlighted that not all people who have an account are actively engaged in using the banking services. According to this report, about fifth of account owners globally were reported as making no deposit and no withdrawal for a period that could reach twelve months; a point which such accounts may be considered inactive.

A bank account holder is the person whose name is on a bank account. The World Bank and other definitions presented the bank account as a basic financial tool which provides financial transaction services, secures storage of financial assets in addition to its role in allowing access to lower-cost credit, and most importantly helping to establish a credit history. The bank was viewed as a place to acquire assistance for complex financial transactions, and public policies encourage bank account ownership to protect consumers from the expense of utilizing nonbank financial providers (Mielitz, K. 2019). Demirguc-Kunt et al. (2017) added that financial inclusion starts with having a deposit or transaction account at a bank or other financial institution, which supports the Global Findex (2017) report which stated that although not all accounts are active and some of which do not have any activity for over twelve months, are still considered as accounts owned. Thus, a banking relationship is presented in the form of an account relationship.

2.2 Conceptualisation of 'Individuals' Engagement in Banking Relationship'

2.2.1 Banking Relationship: Role and Engagement

Petersen, & Rajan, (1994) described the role of the banking relationship as a close and continued interaction over time, over multiple products. Such a relationship reduces costs, increases ties between a firm and a bank and are considered to be more indicative of a close relationship than created ties between a firm and a nonbank. Previous research by Howorth and Moro (2006) highlighted the importance of banking relationships and their evolvement and development as an element that can reduce agency problems, improve the flow of bank funding, and once examined from an economic perspective, it is considered as a means of reducing information asymmetries.

In several studies banking relationship was presented in the form of account relationship Demirgüç-Kunt (2018) stated that maintaining an 'account' is the main step to starting and maintaining a banking relationship; it includes active and inactive accounts, as it is not possible to ascertain whether accounts with no deposit and no withdrawal in the past twelve months are "dormant," as they may be used for long-term saving. Thus, they acknowledge the fact that a banking relationship starts with maintaining an account at a bank, but the benefits come from levels of engagement in this relationship through actively using that account and benefiting from the opportunities of maintaining it over a period of time, in line with Kumar et al.'s (2010) definition.

Franke's (1988) study presented the bank account relationship as 'emotional bank account', stressing the fact that it is important for the bank to learn how to sell bank relationships, not bank products. The study focused on the attitudes and perceptions that the bank's sales personnel should feel once providing more help to their customers. The banking relationship that should be established should be based on selling benefits to the customers to meet their needs providing a high level of customer interaction and engagement to keep that emotional bank account alive i.e., the bank account relationship has to be active and continuous.

This definition is in line with Sashi's (2012) definition of customer engagement which focusses on satisfying customers by providing greater value when compared to competitors, this satisfaction builds trust and commitment in long-term relationships, thus leading to higher level of engagement on the long term. This point of benefit will be discussed in this research as an important perceived benefit for individuals affecting their financial behaviour towards the level of engagement in a banking relationship.

2.2.2 Banking Relationship: Services, Activities and Duration

Ongena & Smith (2000) conducted a study in twenty European countries to find factors behind establishing several banking relationships. It was noted that more bank relationships are available in countries with decentralized and healthy banking systems, than in countries with inefficient judicial systems, and in countries where the enforcement of creditors' rights is weak. Moreover, the average number of bank relationships is positively related to the relative importance of a country's public debt markets but negatively related to the importance of its equity markets. Unlike other studies, this study did not only focus on lending relationships, but it also included engagement in cash management services. The cash management services include liquidity management, account and balance management, payments, reconciliation of bank statements, short-term investment (up to one year), managing debtors, receivables and collections, short-term funding (up to one year), trade finance, managing creditors, payables, and payments, foreign exchange transactions, and hedging. The study concluded that a strong and valuable banking relationship can exist without lending, however, the strength and the duration of the banking relationship depends on the scope of services presented by the bank to its clients, i.e., the level of engagement in a banking relationship is vital to the customer who is perceiving several services.

The above is in line with the definition of engagement as a "multidimensional concept comprising cognitive, emotional and/or behavioural dimensions, which plays a central role in the process of relational exchange where other relational concepts are engagement antecedents and/or consequences in iterative engagement processes within the brand community", (Brodie et al. 2013, p. 107).

“Marriage of convenience; Bank-Customer relationship in the age of the internet”, is a study by Mthembu (2014) which stated that an individual becomes a customer when he/she opens an account with the bank, i.e., the banking relationship starts when the bank agrees to open an account in the customer's name which signifies the bank's consent to enter into a business relationship and acts as the customer’s agent in banking transactions. Such a relationship is defined according to the Uniform Commercial Code (UCC), which defines the relationship and provides regulations that discourage adhesive contracts, it also signifies a relationship in which a duration is not of essence, thus signifying a business relationship irrespective of whether such connection is of short-term or long-term nature. Here engagement was not assumed in terms of duration, but rather the usage of banking services and level of interaction.

Another definition by Geva (2001), stated that banking relationship involves collections and payments, it is highlighted by the availability of an account agreement or customer contract, which states the relationship and duties of both parties such as the deposit transaction in addition to the mandate authorizing bank collections and payments, and the debt resulting from entries to the current account. This definition suggests customers’ engagement is related to expectation of the scope of services presented and the financial support and practicality in the financial activities.

2.2.3 Banking Relationship: Documentation

A banking relationship necessitates the ownership of an account regardless of the type i.e., (saving, checking or current account). What to Bring to a Bank to Open a Checking Account (2020) and Banking 101(2020) listed required forms that should be completed and signed to open an account at a bank. These forms require personal and financial details in addition to supporting documents. These details include but are not limited to physical legal identification, date of birth (for individuals), physical address and full contact details. Accordingly, the adoption of a banking relationship by any party within a country’s financial system should start with account ownership, which should meet the requirements of opening and maintaining an account as per the best practice followed by most of the banks worldwide.

As per the above definitions, the ownership of a bank account is considered a basic step towards promoting financial capability and is likely to have important implications in relation to liquidity constraints and saving behaviour (Thaler, 1999), transaction costs (Carbo et al., 2005), financial readiness for retirement (Clark and d'Ambrosio, 2003), and personal security Blank and Barr, 2012).

2.2.4 Banking Relationship: Financial Behaviour

Tezel (2015) defined financial behaviour as the capability to understand the overall impacts of financial decisions and to be able to make the right decisions in relation to the cash management, investment opportunities and budget planning. Özmete (2015) defined it as any human behaviour that is relevant to money management which may include cash, credit and saving behaviour. The decision for such a financial behaviour is considered to be a behavioural economic decision and the research will try to explain both the strong versus the weak variables affecting the financial behaviour.

Psychology and behavioral economics are related fields (Kahneman, 2003). Behavioural economics describes an approach to understand decision making and behaviour that integrates behavioural science with economic principles (Camerer et al., 2004). Behavioural economics represents the relationship between economic principles and behaviour change considerations. Behavioural economics assumes irrationality in decision making; individuals are vulnerable to temptations and tend to make poor and rash decisions, even though it is clear there are better options that will improve long-term outcomes. Although behavioural economics accounts for irrational behaviours, there is still room within this field with respect to the principles that may explain such irrationality (Becker 1976; Samson 2014).

This research is concerned with the level of engagement in banking relationship as 'Financial Behaviour' (FB) thus, FB is the dependent variable. Studying individuals' behaviour means learning about their preferences in making decisions given the available resources (YudhistiraP, 2014). This research presents the level of engagement in a banking relationship as a planned behaviour, since this behaviour, as many other human behaviours, is linked to background factors that affect individuals' beliefs, thus their rational intentional behaviour and the actual decision to whether a banking relationship is trustworthy, important, needed, and beneficial will determine the level of engagement.

2.2.5 Customer as Key Stakeholder

Studying the banking sector is related to several long-established theories starting with Adam Smith (1776), Kant (1785) and Durkheim (1933). The concept of division of labour was explained from a sociological point of view. The society is more in need of specialized individuals who can present perfect outputs rather than having shallow expertise that will not add value to the society and will end up being a waste of time and money. The division should be imposed as a duty to fosters a sense of community by nature defined as "Social Solidarity" which is the need or the bond that unites one with another in a society. As a rule of behaviour, it is perfectly rational to follow set of rules in a categorical imperative ethical system.

When exploring the banking sector, the stakeholder interests should be considered as an important factor. The ideal path to improve the sector is to find the effective ways to try to satisfy all stakeholders. Thus, it is important to go back to Freeman and the definition of a stakeholder in the narrow sense as "any identifiable group or individual on which an organization is dependent for its continued survival" in addition to the definition on a wider sense as "any identifiable group or individual who can affect the achievement of an organization's objectives or who is affected by the achievement of the organization's objectives", (Freeman & Reed, 1983, p.91). According to Donaldson and Preston (1995) the aim of the stakeholders' theory is to present a model of how business should be managed effectively.

Several studies shared the same belief of Mittal et al (2005) that customers are one of the most important stakeholders for managing the long-term value of the organizations. This was evidenced by other studies in banking whereby the customer was considered a vital stakeholder. A study in relation to Corporate Social Responsibility and bank customer satisfaction by McDonald & Rundle (2008) supported Freeman's (1984) argument. It asserted that customers are considered to be one of many stakeholder groups that are affected by the achievement of an organisations' objectives and further added that the role of the customer in market share, shareholder value, and stock price growth is likely to far outweigh that of other stakeholders such as government and the media. Bergendahl and Lindblom's (2008) study aiming to evaluate the performance of Swedish savings banks found that savings banks are more concerned about the creation of customer value than shareholder value.

A study on the efficiency of commercial banks presented by Ji and Wang (2014) found that the efficiency of commercial banks is a function of stakeholders' relationship, and that stakeholder relationship is the key variable that influences comprehensive efficiency of commercial banks. However, results showed that except for business customer relation, other stakeholders' relationships have significant influence on the efficiency of commercial banks. Among them, shareholder relation, employee relation, and regulator relation all have a negative correlation with bank efficiency, while the creditor relation is positively correlated with bank efficiency. The study demonstrated the importance of the customer as a main stakeholder.

This research will explore the ways to improve the efficiency of the banking sector by determining which factors influence the individuals' level of engagement in a banking relationship in Jordan. Determining the influential factors that lead people to be part of the financial inclusion process will indeed assist in achieving the banking efficiency objectives, since bank customers are one of the main stakeholders at the banking sector.

Based on the findings from the preceding literature review and within the parameters of this research; the engagement in a banking relationship is determined by the ownership of an account at a bank and level of engagement is defined as the intensity of an individuals' usage of banking services. Thus, supporting the concept of banking relationship that starts with an account opened at the customer's name regardless of its type. The engagement is the customer's financial behaviour which is driven by the expectation of financial support and practicality in financial services that is perceived to assist and ease the financial pressure, support, and facilitate financial operations.

Identifying the individual and social factors that contribute to enhancing individuals' level of engagement in a banking relationship is considered the key elements towards understanding individuals' backgrounds and expectations to be able to affect their financial behaviour and improve their level of engagement in banking relationships. This would lead to improved benefits from the additional engagement in banking services which will lead to more effective financial inclusion.

2.3 Theories of Behaviour

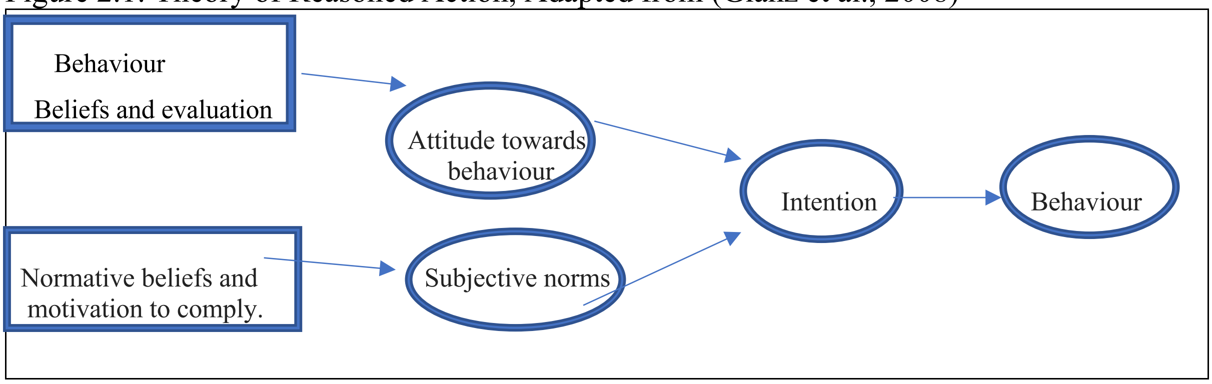
"Theories and models help explain behaviour, as well as suggest how to develop more effective ways to influence and change behaviour" (Office of Behavioral and Social Sciences Research, 2022, p 5). During the recent years, several studies suggested that attitude-based behavioural decision theories provide a solid theoretical foundation for research into understanding factors behind behaviours. Wu et al., (2014), Gerrard and Cunningham (1999) and Loukil and Jarboui (2016) investigated factors from several theories such as the Theory Reasoned Action (TRA), the Theory of Planned Behaviour (TPB) and the Technology Acceptance Model (TAM) to explain internet banking user behaviour, multiple banking relationship and relationship lending respectively.

This research is concerned with 'behaviour', specifically financial behaviour at the level of engagement in a banking relationship in Jordan. This section will explore three theories of behaviour and provide the rationale behind using the TPB for this research. The theories will assist in understanding and determining the factors that influence the financial behaviour.

2.3.1 Theory of Reasoned Action (TRA)

Initially, Ajzen & Fishbein, (1972) were behind the concept of behavioural intention, then it was developed and presented within the Theory of Reasoned Action (TRA). According to the TRA, a person's behaviour is determined by their intention to perform the behaviour and that this intention is, in turn, a function of their attitude toward the behaviour and subjective norms.

Figure 2.1: Theory of Reasoned Action, Adapted from (Glanz et al., 2008)



Behavioural intention is defined as an assumption to explain the motivational factors that affect a behaviour. This assumption can be measured as how much effort or sacrifice someone is willing to make when doing a particular thing. In addition, behavioural intention is also regarded as an individual's feeling whether positive or negative about the intention to do something. In their research Ajzen & Fishbein (1972) stated that behavioural intention is influenced by the attitude towards the usefulness of the behaviour and the normative beliefs and motivations to comply within the social surroundings. Later development of the TRA theory Davis (1989) interprets normative belief as perceived, which in their research is represented by the variables ‘perceived usefulness and perceived ease of use’.

The Theory of Reasoned Action (TRA) was the essential theory that the Theory of Planned Behaviour (TPB) was based upon. Ajzen (1991) extended the TRA and presented the TPB with further measures of control belief and perceived behavioural control. The perceived behavioural control (PBC) was considered to be an important measure to influence both intention and behaviour and allow prediction of behaviours that were not under complete volitional control. As such, within volitional control and where there were no limitations on actions, the TRA could predict behaviours that were relatively straightforward, however, whenever there were limitations or constraints the TRA was not sufficient in predicting behaviour (Armitage & Conner, 2001).

2.3.2 Theory of Planned Behaviour (TPB)

The Theory of Reasoned Action (TRA) was the essential theory that the Theory of Planned Behaviour (TPB) was based upon. As presented by LaMorte (2022), the TPB went further ahead and included six constructs that collectively represented an individual’s actual control over the behaviour: attitude, behavioural intention, subjective norms, social norms, perceived power and perceived behavioural control.

The TPB added the third belief to the TRA which is the control belief. This belief is about the presence or absences of factors, resources, opportunities that may facilitate or impede the performance of the behaviour. These control beliefs may be based on past experiences with the behaviour and may be influenced by information from another party (close surroundings), who experienced that behaviour and provided their feedback that increased or reduced the perceived difficulty of performing that behaviour.

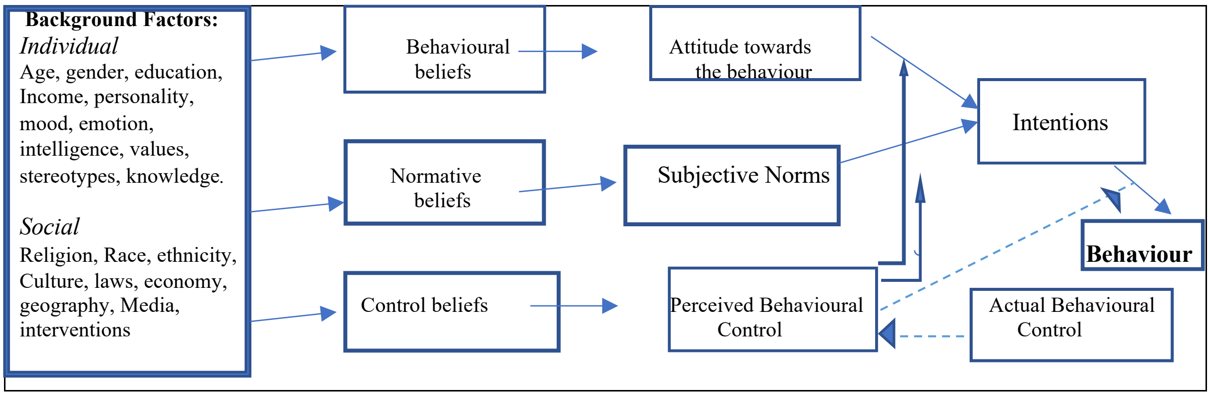
Thus, the ending behaviour would be the result of the feedback received about the more resources and opportunities others possess to perform the behaviour or the obstacles they anticipate that directly affected their perceived control over the behaviour (Ajzen, 1991).

The TPB and the important role of beliefs in human behaviour was presented in Ajzen & Fishbein's (1972) expectancy value model of attitude, and in Ajzen (1991). Three types of beliefs were discussed formerly, behavioural beliefs which influence attitude towards the behaviour, normative beliefs which is assumed to affect and determine subjective norms as it is the beliefs about normative expectations of others i.e., social pressure. The third beliefs are the control beliefs which are the beliefs about the presence of factor that may facilitate, or hinder performance of the behaviour and these beliefs provide the basis for perceptions of behavioural control or what the TPB presents as perceived behavioural control.

The concept of linking behavioural beliefs and attitude towards behaviour stated that attitude towards a belief is developed from people's perception to its outcome or the cost incurred by performing that behaviour. If people's expected outcomes towards that behaviour is valued positively or negatively, it automatically stimulates their attitude towards its desirable or undesirable consequence.

The strength of that belief is defined as the subjective probability of the outcome resulting from that behaviour. The strength or weakness of person's normative beliefs is directly reflected into the subjective norms. A person's normative belief is concerned with the expectations of others, i.e., the likelihood that important people surrounding that person would approve or disapprove that behaviour. If the person feels that performing a certain behaviour will be approved by the social surrounding this would result onto a strong motivation to perform that behaviour and the subjective norms is directly affected by this motivation. Accordingly, the TPB concluded that attitudes, subjective norms, and perceived behavioural control represent the three conceptual independent determinants of intention, whereas the actual behavioural control is directly related to the perceived behavioural control, (Figure 2.2).

Figure 2.2 Model of TPB (Ajzen, 2019)



Within the overall framework of the TPB, the perceived behavioural control (PBC) was presented at the level as beliefs, although the TPB pointed out that "the perceived behavioural control together with the behavioural intention, can be used directly to predict behavioural achievements", (Ajzen, 1991, P.184). For predicting behaviour, the TPB findings stated that the performance of behaviour is a function of both intentions and perceived behavioural control, which should be assessed fairly towards a specific behaviour in order to realistically reflect the actual control over that behaviour.

Despite the support of direct relationship between the perceived behavioural control and behaviour, it was argued that in certain conditions such as problems of volitional control, the behavioural intention alone would account for limited effect on behaviour thus the PBC can independently predict behaviour (Armitage and Conner, 2001).

2.3.3 Why TPB for this Research?

Within the context of the Theory of Planned Behaviour (TPB), 'Behavioural Intention' refers to the motivational factors that influence individual's behaviour. According to this factor, the stronger the intention to perform a behaviour, the more likely the behaviour will be performed. Attitude refers to a person's evaluation of the behaviour of interest (favourable or unfavourable) taking into consideration the outcomes of performing such behaviour i.e., usefulness of that behaviour (LaMorte, 2022). Subjective norms refer to people's and peers' approval or disapproval of the behaviour, social norms refer to the acceptance of the behaviour in a cultural context, whereas the perceived behavioural control refers to the perception of ease or difficulty of performing the behaviour of interest.

The Theory of Planned behaviour (TPB) Ajzen (1991) states that intention is determined by three factors: attitude, subjective norms, and perceived behavioural control. These three constructs interact with each other to influence an individual's intentions and the actual end behaviour thereafter. The importance of actual behaviour control is essential in providing the resources and opportunities affecting the end behaviour. However, the actual control of behaviour cannot be separated from the perceived behavioural control i.e., people's perception of ease or difficulty of performing the behaviour of interest. This is referred to as self-efficacy. It is even considered that the perceived behavioural control may be used as a substitute for a measure of actual control. The TPB tried to understand the changes in human social behaviour in order to be able to predict it. It presented three kinds of considerations that guide human behaviour: behavioural beliefs, normative beliefs, and control beliefs. The result and consequences of these beliefs results in a favourable or unfavourable attitude toward the behaviour.

The TPB also stated the role and effects of attitude toward the behaviour and subjective norms on intention, which the theory considered being moderated by perception of behavioural control. The TPB made the final link stating that the more favourable the attitude and subjective norms the greater the perceived control, the stronger should be the person's intention to perform the behaviour in question, thus degree for an actual control over behaviour is affected by their intention accordingly, "intention is assumed to be the immediate antecedent of behaviour" (Ajzen, 2002, p. 665).

According to Ajzen (1991), individual's intention is a central factor to perform a given behaviour. Intentions capture motivational factors that influence a behaviour and "the stronger the intention to engage in a behaviour, the more likely should be its performance." (Ajzen, 1991, p.181). The performance of most behaviours depends on the availability of non-motivational factors (resources and opportunities) such as time, money, skills, cooperation of others (Ajzen, 1985). According to Bandura (1982, 1995), investigations have shown that confidence in the ability to perform a behaviour is a strong influence on people's behaviour (perceived behavioural control), furthermore, self-efficacy beliefs can influence choice, preparation and effort expanded towards an activity. In line with this statement by Ajzen & Fishbein (2005) this research will substitute the 'Actual Behavioural Control' with the PBC and will deal directly with its effects on final behaviour.

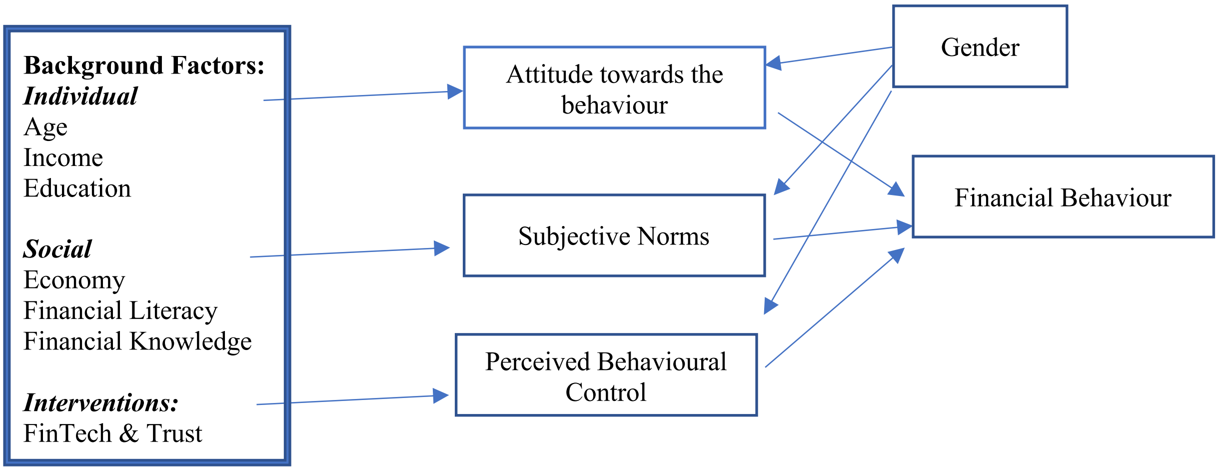
Ajzen's (1991) article addressing the 'Organizational Behaviour and Human Decision Processes', tried to present the TPB as a useful framework that deals with human behavioural complexities. Together, attitudes, subject norms and perceived control succeeded in predicting behavioural intentions in many situations, however, both intentions and perceived behavioural control play a considerable role in predicting behaviour. Each of these factors reveal a different aspect of the behaviour thus enabling a different way to affect the behaviour and change it. The TPB paved the way for several other factors to be presented for study that may prompt a behaviour of interest to some people leading them to take different action and change the actual behaviour. Thus, the TPB is open to the inclusion of additional predictors or antecedents that may assist in capturing significant proportion of the variance in intention or behaviour.

Several studies (Vitória et al., 2009; Tucker et al., 2019; Emekci, 2019; Souiden, et al., 2020) that used the TPB added additional exploratory, antecedents i.e., independent factors that were necessary to strengthen relationships. Accordingly, additional independent factors that were not included within the TPB have been added to this research such as Trust and FinTech. This research will test the background and core factors to understand what factors determine customers' level of financial behaviour regarding the level of engagement in a banking relationship.

Based on the above observations, this research will use the lens of the TPB to determine the factors that affect individual's financial behaviour. Selective individual and the social factors will be investigated to shed the light on the factors that determine individuals' level of engagement in a banking relationship. This research will study the three core factors, attitude, subjective norms, and perceived behavioural control then link directly to the financial behaviour.

The actual behavioural control will be part of the PBC, and the intention will be linked to the behaviour; thus, the research will consider the dependent variable to be the intentional behaviour and will be referred to as financial behaviour, as shown in Figure 2.3 below:

Figure 2.3: Applying TPB in this research



2.3.3 Theory of Reasoned Goal Pursuit (RGP)

In a recent study by Ajzen & Kruglanski (2019) the theoretical perspectives in the theory of planned behaviour (TPB: Ajzen 1991, 2012) and the goal system theory (GST) (Kruglanski et al., 2002) were integrated in a proposed theory of reasoned goal pursuit (RGP). According to this theory behavioural intention is determined by motivation to perform a behaviour given the availability of a goal to be achieved. The link between the two theories presented another idea, which is taking a goal into account which should significantly improve the TPB's explanatory power and predictive validity.

The Goal Systems Theory (GST), is based on rational ideas and concepts that consist of "goals" and "means." According to the GST, there are two main classes of properties, cognitive and motivational; it considers goals to be mental representations that are interconnected with means of goal attainment as well as with alternative goals. Each goal may be associatively linked to several means of attaining the goal. Each means, in turn, can also be associated with several other goals that can possibly serve. Within this theory it is important to link the activity experience and intrinsic motivation in terms of the transfer of psychological properties from goals to means as function of their degree of association, it is also important to stress the idea of effective self-regulation in an overall scheme of things than progress toward one's focal objective; (Fishbach *et al.*, 2003; Kruglanski *et al.*, 2002, Kruglanski, 2006).

The theory of achievement motivation Atkinson (1964) is another theory that defines the factor of expectancy of success as being the perceived probability of succeeding at a given task. However, the opportunities that are available for each individual dictate the chance of behavioural achievement. These opportunities are the available resources that can encourage such behaviour, the resources would be related to income, knowledge, and education.

The RGP theory will not be applied for this research as the research is more concerned in investigating the independent factors. However, the new factor "goal" that resulted from the linkage of the two theories TPB & GST would serve as a support to this research and would assist in explaining the findings. As per this new concept, the goal can be considered as individuals' higher level of engagement in their banking relationship. The improved level of engagement aims to ease the financial pressure, support, and advance business operations. Taking this goal into account will change the formation of the people's behavioural intention to improve the level of engagement in banking relationship. This requires the availability of exclusive services to meet their goals and needs, such as special accounts for females or entrepreneurs as well as the other current existing services.

The significance of behaviour continuity in achieving goals has been recognized for a long time in different contexts, including quality improvement (Shortell et al., 1995) and organizational success (March, 1996). Thus, it becomes necessary to study factors influencing engagement in the banking relationship, in order to enhance the financial system (Otte and Rousseau, 2002).

2.4 Drivers of Behaviour: Theoretical Framework and Empirical Review

A theory involves a way of viewing or reflecting on the world; theory provides the means to organise factual evidence that determines knowledge (Howell 2013). Theory is a set of interrelated variables, definitions and propositions that specifies relationships among variables (Collins, 2010). Theories are explanations of how things function or why events occur (Black, 1996). In brief, theory can be defined as a reflection on the society which enables understanding the world better.

Theory is composed of four elements (Whetten, 1989) related to: What, how and why and the fourth element covers who where and when. First it is an examination of what variables and concepts should be examined, then how are they going to be examined and thirdly to check how are these variables related, i.e., there is a need to examine the relationship between the variables. This research with apply these means in studying the inter-relationship between the factors in addition to the relationship with the final financial behaviour that leads to higher engagement in banking relationship.

This section will discuss studies that used the TPB to understand the impact of different factors on individuals' behaviour. This research will use the lens of the Theory of Planned Behaviour (TPB), a theory from 'Psychology'; which states that intentional behaviour is how ready an individual is to perform a certain behaviour highlighting some studies that explored the financial and banking behaviour.

2.4.1 TBP and Drivers of Behaviour

Tucker et al., (2019) applied the TPB to explain and predict student banking intentions and therefore actual financial behaviour in Australia. The research aimed at studying the banking behaviour of students and investigated the factors that influence student intentions and behaviour towards banking activities. It was clarified that understanding human behaviour is a complex phenomenon that is influenced by several factors, which help shape behaviour. These factors include individuals' attitudes and beliefs, general economic conditions, bank and government regulations, and the bank's marketing of products and services.

The results and findings concluded that the TPB appeared to play a mixed role in explaining and predicting student bank behaviour in Australia, however, it provided a deeper insight about the financial behaviour and highlighted that banking is planned behaviour. The TPB of Ajzen (1985, 1991) offered a solid foundation to help explain and understand the role of some of these factors on students' banking intentions with deeper insight into the behaviour that motivates student intentions to undertake banking activities.

The antecedents' effect supported the use of the TPB to explain the final behaviour. Several other studies used the TPB to study banking behaviour such as Aziz and Afaq (2018), where the TPB succeeded in explaining the customers' planned behaviour towards the adoption of Islamic banking in Pakistan. Yadav et al., (2015) research on the intention to adopt internet banking in an emerging economy also applied TPB to explain banking behaviour and succeeded in significantly predicting the consumer's intentional behaviour. Chai and Dibb (2014) investigated the role of acculturation i.e., the process of impacting both social and psychological well-being in the development of interpersonal trust in banking relationships, based on the knowledge of relational behaviour. Whereas Çoşkun and Dalzie (2020) studied the mediating effect of financial attitude on financial knowledge and financial behaviour, with their findings stating that financial attitude acts as a mediator in the financial knowledge and financial behaviour relationship and financial attitude's intervention reinforces this relationship.

Deenanath et al., (2019) studied the purposive and unintentional family financial socialization, subjective financial knowledge, and financial behaviour of high school students and their results indicated that student-earned income, a purposive indicator of socialization, was positively associated with behaviour through knowledge. Exclusively obtaining money through parents was negatively associated with behaviour through knowledge, whereas knowledge was positively associated with behaviour.

Bapat's (2019) research explored the antecedents of financial management behaviour for young adults and provided results that supported the hypothesized positive influence of help-seeking behaviour, financial knowledge, and electronic banking on financial management behaviour. Tucker et al., (2019) in an Australian study investigated the extent to which the three constructs associated with the theory of planned behaviour (TPB) can explain student banking intentions and assist in understanding their bank satisfaction which leads accordingly to the student banking behaviour.

2.4.2 TPB: Empirical Studies

Several empirical reviews have demonstrated that TPB predicts engagement in various behaviours (Ajzen, 1991; Armitage and Conner, 2001; McEachan et al., 2011; Sheeran, 2002). This research will try to ascertain whether the individuals' background factors that shape the individuals' attitude and subjective norms will further strengthen the individuals' perceived behavioural control towards the ability to assume a financial behaviour.

Balushi et al. (2018) investigated Islamic financial decision making among SMEs in the Sultanate of Oman using the TPB to explain and predict SME owner-managers' intentions to adopt Islamic financial instruments. The empirical analysis and study results supported the TPB confirming that attitudes, subjective norms, and perceived behaviour control are significant predictors of SMEs' intention to adopt Islamic financial instruments.

In a study conducted by McKinsey & Company (Eckermann et al., 2021) concerning the corporate bank of the future; it was found that innovation is key to strengthening clients' relationships. Corporate banks should focus on new innovations in different areas with differentiated multichannel coverage in order to fight disintermediation. The better the relationships, the more engagement in the intentional behavioural which strengthens the banking relationship. Another interesting study by McKinsey related to 'ING's digital transformation', it was reported that, "ING, the Dutch financial services giant, embarked on an extensive transformation after its leaders recognized the need to focus on customer journeys rather than products", (Gonçalves, 2015, p. 2). The recommendations of this study further strengthened the need to affect the behavioural intention that leads to strengthened customers' relationships with their financial institutions. Thus, leading to higher level of engagement in the relationship and the use of the services provided.

Choi and Song (2020) provided empirical evidence that the TPB factors are relatively more significant than TAM factors in explaining citizens' engagement in Government e-participation. Two TPB core constructs (subjective norms and perceived behavioural control), were proved to be significant and positively related to citizens' engagement in e-participation.

Kim and Lee (2019) investigated the repurchase intention of passengers who have experienced premium economy class using the (TPB) to examine the relationship among psychological factors, perceived price, perceived service quality, perceived value and repurchase intention and the results of the study showed that the repurchase intention of passengers is influenced by the attitude, perceived behavioural control, and perceived value derived from price and service quality. The study discovered that the financial behavioural intention represented by the repurchase intention of passengers is not influenced by the subjective norms. TPB was able determine other strong factors affecting that financial behaviour.

Crowdfunding is a popular channel for entrepreneurial fundraising, a financial behaviour affected by several antecedents according to Shneor and Munim (2019). The findings of this study demonstrated the applicability of the TPB to understand the crowdfunding contribution behaviour. Findings also provided support for both the conceptual application of the TPB in the reward crowdfunding context and the recognition of the importance of the two intentional components, financial contribution, and information-sharing intentions in predicting crowdfunding behaviour.

In a recent study, Kulkarni and Bharati (2020) stated that uncertainty affecting individuals' health, economy, and business, had resulted in changes in different behaviours, including individuals' financial behaviour. The result of the study suggested that the change in attitude within the prevailing financial conditions resulted in changing financial priorities i.e., affecting individuals' ending behaviour. This confirms the platform for the risk perception, attitude, prospect and changing financial priorities, which has been observed during the study of the change in financial behaviour as a result of changes in surrounding experiences and conditions. The study further observed changes in individuals' risk-taking behaviours resulting from varying beliefs and expectations that may only be temporary but worth being followed up.

The above research and practical studies are in line to a great extent with the aim and objectives of this research since the key change is the individuals' financial behaviour and the factors affecting the intention of engagement are the drivers that would lead to the change in the financial behaviour.

This research seeks to find strategies to enhance the financial behaviour by analysing the strong factors affecting the individuals' behaviour. In addition to the core and background factors, this research will shed light on the influence of 'gender' on the decision making and effect of financial literacy given that education is considered a major building block in individuals' attitude and behaviour.

2.4.3 Behavioural Change

According to Ajzen (2020) the ideal way to produce a change in behaviour is to introduce new information that would lead to the change in the formation of the individual's beliefs, this is considered a better way than working directly on changing existing beliefs. It is important to keep in mind that intentions and behaviour often revert to what they were prior to the intervention as such once a new intervention is introduced, it must ensure that individuals' new beliefs accurately reflect reality and only then it is fair to expect that the effect of the intervention will persist over time.

Usually intervention may be ineffective, unless the individuals have the potential to carry out their newly formed intentions for a long period which will ensure the translation of intentions into behaviour. This will ensure a strong link between intentions and behaviour. It is important to note that interventions directed at behavioural, normative, or control beliefs may succeed in producing corresponding changes in attitudes, subjective norms, and perceptions of behavioural control that will influence intentions in the desired direction.

Several studies have dealt with and presented models in relation to the behavioural change such as, the World Bank World Development Report (WDR): Mind, Society and Behavior (Klein, 2017) and the Health Belief Model (Ritchie, et al., 2018). The Social Cognitive Theory, (Bandura, 1986), the Transtheoretical Model Stages of Change (Di Noia et al., 2008) and the Social Norms Theory (Perkins and Berkowitz, 1986). In addition, several researchers have investigated the link between the behavioural intention and the resultant actual behaviour, (Giampietri et al., 2018; McDermott, 2015; Jafarkarimi et al., 2016).

In the health sector, Boston University School of Public Health, published the results of their research on Behavioral Change Models (LaMorte, 2022) using the TPB to predict and explain certain health behaviours and behavioural intentions such as smoking, drinking, breastfeeding, and other behaviours. Researchers successfully found that behavioural achievements depend on both motivation (behavioural intention) and ability. McDermott et al. (2015), used the TPB to study the dietary patterns, the results of twenty two reports confirmed that attitude was the strongest connection with behavioural intention followed by perceived behavioural control and subjective norms. Further, in health psychology, a meta-analysis of over 200 studies found that TPB was most successful at predicting physical activity and dietary behaviours (McEachan et al., 2011).

This research will demonstrate the changes that started taking place within the Jordanian economy in order to study the feedback and outcomes. Then new recommendations and interventions will be introduced that will target effective change in individuals' intentions leading to change in their financial behaviour around more engagement in a banking relationship. "You Cannot Understand a System Until You Try to Change It" (Schein, 1999, p64). Given the new changes in the Jordanian financial and educational sectors and in line with the objectives of the research, the relationship between financial literacy and the decision to engage in a banking relationship in Jordan will also be explored.

2.5 Core Factors of Individuals' Financial Behaviour

Based on the Theory of Planned Behaviour (TPB), human behaviour is influenced by three types of beliefs: behavioural, normative and control beliefs. A 'Belief' according to Schwitzgebel, (2019) is a "state of mind" wherein one person places trust or confidence in others. These beliefs produce the core factors.

This section will explore the three core factors, attitude, subjective norms, and perceived behavioural control that drive individuals' financial behaviour in the form of level of engagement in banking relationship. Once all three core factors or influencers of intention are available the behavioural intention is established which will lead to the final and actual behaviour (Ajzen, 1991).

2.5.1 Attitude

According to Schwitzgebel, (2019) attitude towards the behaviour is the degree to which an individual has a favourable or unfavourable evaluation towards the behaviour in question. Ambad and Damit's (2016) study aimed at exploring what variables determine entrepreneurial intentions among undergraduate students in Malaysia. The study presented personal attitude referring to the perception of the students on the advantages, satisfaction and attractiveness of entrepreneurship. Results confirmed that personal attitude has a significant effect on students' intention to become entrepreneurs. The greater the students' attitude towards the entrepreneurship, the greater the entrepreneurial behavioural intention is. The results have shown that 'personal attitude' is the greatest influence on the students' intention to become an entrepreneur. As such the study recommended a strategy based on how to convince the students about the advantages of being an entrepreneur.

Hansen's (2008) study about consumer values used the lens of the TPB to investigate online grocery shopping and stated that consumers' attitude towards online grocery shopping was the most important predictor of online grocery buying intentions. Findings from previous research into behavioural intentions (Jafarkarimi et al., 2016) found that attitude is the most influential factor, followed by subjective norms, perceived behavioural control, personal normative beliefs, and moral intensity. Level of education, age, and the scenario examined also showed a significant effect on the relation between predictors and behavioural intention. Borgers and Pownall's (2014) study reviewed the attitudes towards socially and environmentally responsible investment, the results of the study provided consistent evidence that beneficiaries have strong positive attitudes towards social responsibility in their pension investments.

Bentler & Speckart (1979) presented their models of attitude–behaviour relations which showed that intentions may be directly influenced by factors other than attitudes and subjective norms, contradicting Fishbein and Ajzen (1972). However, these models found significant effects of attitudes and previous behaviour on subsequent behaviour, superseding the Fishbein-Ajzen theory and reflecting the dynamics of attitude-behaviour relations in various behavioural domains.

Other studies such as Collins and Hoyt (1972) pointed to attitude change as a consequence of the individual's own counter attitudinal behaviour when such behaviour is perceived as having importance, and when the individual feels personally responsible for the outcomes of the behaviour. This represented another way of assessing the relationship between attitude and behaviour.

Newman & Harrison (2008) showed that the attitude correlated with the broad behavioural engagement criterion and noted in the attitude–engagement model that the term 'engagement' describes a behavioural construct, not an attitude. Further, on the association of debt attitudes with socioeconomic characteristics and financial behaviours Loibl et al. (2021) presented research with findings highlighting that debt attitudes change over time, and are relevant to spending, saving, and borrowing behaviours with recommendations to design interventions that affect attitude strength as tools for affecting financial behaviour such as debt and credit use.

This research search for an association between attitude towards behavioural beliefs and individuals' financial behaviour towards the level of engaging in banking relationship. Given the above studies, this research will study the relationship between individuals' behaviour and readiness to perform the needed financial behaviour. The factors that influence the behaviour and the degree of willingness to perform such a financial behaviour will be analysed, pointing out what factors can improve individuals' positive beliefs towards such financial behaviour. The attitude towards the behavioural beliefs will be determined by individuals' and social factors which will be studied separately in the following sections. Based on the above, the research proposes the below hypothesis for testing:

H1: *There is a positive relationship between the attitude and the level of engagement in a banking relationship.*

2.5.2 Subjective Norms

"Subjective norms", refers to the perceived social pressure to perform or not to perform a behaviour. It is assumed that subjective norms are determined by set of normative beliefs concerning the expectations of important referents or close individuals such as family, friends, co-workers, supervisors, or doctors. Normative beliefs in combination with individuals' motivations determine the subjective norms, (Ajzen 1988 & 1991).

According to Boston University School of Public Health MPH Online Learning Modules, social norms refer to the customary codes of behaviour in a group or people or larger cultural context and are considered normative, or standard, in a group of people (LaMorte, 2022).

Berkman, et al., (2000) defined a social network as the web of social relationships that surround individuals and provide the social support to enrich these relationships. The social supportive behaviours are acts that can be provided in different forms such as the emotional support (empathy, love, trust, caring), the instrumental support (tangible aid and assistance), the informational support (advice, suggestions) and the appraisal support (constructive feedback and affirmation).

Manning (2011), Ibrahim and Arshad (2017), and Ambad and Damit (2016) all presented evidence of the direct effect of subjective norms on behaviour when the behaviour is more socially motivated. According to Manning (2011) there was a direct positive effect from descriptive norms, stemmed from the relevant engagement of others in certain behaviour that would directly affect individuals' behavioural engagement, especially when the behaviour would fulfil the need to belong.

Ibrahim and Arshad (2017) aimed at finding the relationship between subjective norms on 'Investment Intentions' and concluded that the subjective norms act as a more significant factor to impact the investment intention and is a more significant influence compared to product knowledge. This study clearly stated that the investment intention of an individual can be shaped given the increased involvement and influence of friends, family and important people around that individual.

Exploring what variable determines entrepreneurial intentions among undergraduate students in Malaysia, Ambad and Damit (2016) found that perceived relational support has a significant impact on entrepreneurial intention. In other words, the greater the supports from parents, family, friends, and people surrounding them, the greater their entrepreneurial intention is.

According to the Bank of America Survey, (Don Vecchiarello, 2016), Sharon Miller Head of Small Business, stated that small business owners are inherent self-starters and make significant personal sacrifices for their businesses, backed up by their feelings of support from the local network of families or friends that they see as core to their success. The financial support that the bank provides to the business owners is seen as support to the families and local communities, thus linking subjective norms to the final financial decision taken by both the customer and the financial institution. Sikarwar (2019) research results showed presence of an association between "social influence" and individual "financial behaviour" for digital banking, whereas "values" and belief were playing a mediating role.

Nevertheless, other studies did not find strong connections between the subjective norms and behavioural intentions or found that the effect was not as strong compared to the other two core factors. The results of a study by Sheeran et al. (1999) proposed evidence that intentions based on attitudes better predict behaviour than intentions based on subjective norms and confirmed the predictions for both attitudinally controlled people and behaviours. The impact and the influence of subjective norms has been indeed controversial; it was weaker in some studies than the influence of attitude. A study presented by Krueger et al. (2000) showed that subjective norms are not correlated with the intention of individuals to establish their own businesses, whereas Rivis and Sheeran (2003) have shown a medium to strong correlations between descriptive norms and intentions, and Stanton et al. (1996) found the relationship to be weak or even insignificant.

In his study about purchase intention to environmentally sustainable products that lead to purchase behaviour, Kumar (2012) found that subjective norms were not significantly related to purchase intention. Vermeir and Verbeke (2006) and Chen (2007) found a significant positive relationship between subjective norms and a consumer's intention to buy sustainable and organic food.

Despite the controversial results of the above studies, this research suggests that social behaviours construct the subjective norms beliefs of individuals which affect their behaviours; accordingly the research proposes the below hypothesis for testing:

H2: *There is a positive relationship between the subjective norms and the level of engagement in a banking relationship.*

2.5.3 Perceived Behavioural Control (PBC)

According to Ajzen (1988 & 1991), the construct of "perceived behavioural control" refers to people's perception of the ease or difficulty of performing the behaviour of interest; the perception of behavioural control is an impact of intentions and actions. Generally, the more favourable the attitude and subjective norms, the greater is the perceived behavioural control and the stronger is the individual's intention to perform a certain behaviour. According to the TPB, perceived behavioural control and behavioural intention together lead directly to predicting the behavioural achievement.

The results of two studies conducted by van Hooft and Crossley (2008) examining the relationship between the intensity of job search and perceived financial need, suggested that jobseekers with high perceived financial need were more engaged in intense search behaviour to find employment. The perceived risk in taking a financial decision was viewed in Flores and Vieira (2014) study analysing financial behavioural factors to study the effect of propensity toward indebtedness. Their findings highlighted the fact that individuals with higher risk perception tended toward lower levels of indebtedness because their aversion prevents unplanned expenses. As such, people who have a propensity for risk are more willing to borrow and be in debt.

A study presented by Tang et al. (2011) to determine the antecedents of intention to purchase mass customized products, provided results that confirmed that attitude toward purchasing, followed by self-confidence, and subjective norms influence behavioural intention were the most significant. The findings indicated that perceived knowledge had a very strong and positive effect on self-confidence and attitude. Furthermore, subjective norms and perceived usefulness influenced attitude positively.

Bashir and Madhavaiah's (2014) study about customers' ability to use internet banking, indicated that customers holding positive belief of their ability to use the internet banking would be more likely to adopt internet banking. The study concluded that bank's management need to create favourable beliefs of usefulness and ease of use for customers regarding their internet banking usage which will enable them to get more customers using this service.

It was stated within the same study that individuals with higher computer self- efficacy are more readily prepared to use the online banking services, because they have more favourable perceptions of the system's use. The recommendations stated that banks should launch campaigns to eliminate risk and uncertainty beliefs among consumers.

The findings of some other studies did not reflect a strong effect of the PBC. A comparison between managers with experience and no experience in benchmarking was conducted by Hill, Mann and Wearing (1996) using the TPB to study the effects of attitude, subjective norms, and self-efficacy on intention to benchmark, the results were consistent with the theory. Attitude and subjective norms were significant predictors of intention to benchmark, whereas self-efficacy was not a significant predictor. Another study by Ibrahim and Arshad (2017) examined the impact of product involvement, subjective norms, and perceived behavioural control on the investment intentions of individual investors in Pakistan. The findings showed that perceived behavioural control appeared insignificant in influencing the investment intentions of individual investors.

Strömbäck et al. (2017) dealt with perceived behavioural control from a different perspective through a study that aimed at improving the understanding of how people make financial decisions. The study investigated what psychological characteristics influence individuals' positive financial behaviour and financial well-being by posing the following research question: "Does self-control predict financial behaviour and financial well-being?". The findings pointed out that individuals with good self-control exhibit better financial behaviour, they feel less anxious about financial matters, and feel more secure in their current and future financial situation.

Caplan and Schooler (2007) examined the relationships between socioeconomic status, control beliefs, and financial stress (which is one of the financial behaviours that is affected by several factors and beliefs). Their findings indicated that the effects of the socioeconomic status on the use of problem-focused financial coping appear to be entirely mediated by measures of perceived control. Furthermore, the results suggested that socioeconomic status may affect individual's control beliefs, leading to changes in the end behaviour with regard to the financial coping processes.

The same study demonstrated that not only do individuals who have fewer material resources, but lesser belief in life's controllability leads to choose coping strategies that may exacerbate their problems even more. The study demonstrated strong relationship between perceived control and financial behaviour. This research supports it, thus proposes the below hypothesis for testing:

H3: *There is a positive relationship between the Perceived Behavioural Control beliefs and the level of engagement in a banking relationship.*

2.6 Independent Factors of Individuals' Financial Behaviour

According to TPB, core beliefs lead to behavioural intentions which generally result in actual behaviour thus behavioural intentions could be considered as the dependent variable measuring behaviour (Ajzen, 2001; Fishbein and Ajzen, 1977; Gollwitzer and Schaal, 1998).

The TPB does not specify where these beliefs originated from but present several possible background factors that include individual and social factors that have proven to have an effect on the individual's beliefs and attitudes (Ajzen 1985). The background factors may influence the beliefs people hold, some of these factors are of a personal nature such as personality and broad life values; demographic variables such as education, age, gender, and income; and exposure to media and other sources of information.

Ajzen & Fishbein (2005) pointed out that rather than relating general attitudes to broad patterns, some researchers tried single behaviours or judgments in a particular context choosing to 'invoke' moderating variables directly instead of engaging more background variables. It was stated that attitudes are expected to predict behaviour only when behaviour is not deliberately monitored. However, for a wide range of behaviours "broad implicit attitudes will lack predictive validity". It was recommended that for attitude–behaviour relation, researchers should focus on "proximal determinants" i.e., background factors of specific actions toward the behaviour rather than dealing directly with core factors such as general attitudes toward an object.

Based on previous related studies, and in line with the above recommendations to consider background factors, and using the lenses of the TPB, this research included eight background factors to cover both individual and social beliefs. The justifications for choosing the factors will follow. The research will test and investigate the different relationship among the variables throughout a deductive explanatory methodology that will try to point out the strong indicators that affect the core factors which lead to actual financial behaviour. These indicators/factors will be studied, and theories will be tested and investigated from both male and female perspective to test the difference in behaviour (if any) and determine the financial behaviour performed by the level of engagement in a banking relationship and usage of banking services.

This research will follow a path to test some background factors, taking into consideration that some factors such as age, income, gender, culture, economy cannot be changed or influenced but will assist in confirming the strength or weakness of a relationship. Whereas other factors such as knowledge, education, financial literacy and FinTech can be transformed, thus determining the relationship between factors then designing effective intervention methods would lead to the needed behavioural change. The research will pave the way to clarify which kind of intervention needs to be developed in order to be more effective.

In addition to the above independent individual and social factors, the research will add other related factors that are believed to have an impact on the financial behaviour which are 'Trust' and 'Economic Knowledge' which will be justified in the upcoming analysis.

During the early presentation of the TPB, the background factors were introduced under three categories; individual, social and information since these factors were assumed to have their effect on the formation of individuals' core beliefs that will eventually determine the intention and final behaviour (Ajzen 1991; 2005). However, later (Ajzen, 2019) the background factors were combined under two categories: the individual and social factors. As such this research is an application of the TPB process studying the independent background effects, i.e., the individual and social factors and their effect on the three core factors being the individual's behavioural beliefs, the subjective normative beliefs and the perceived behaviour or control beliefs. The research will determine which of the core factors strongly influence the final financial behaviour of the individuals towards the intended financial behaviour performed by the level of engagement in a banking relationship.

2.6.1 Individual Factors

The individual factors were defined in several ways and different perceptions; Stangor's (2020) study 'Individual Differences in Person Perception', defined individual factors as the lasting characteristics of the personality that change over time and are highly determined by social factors which influence on individual's perception. Ajzen (2019) presented several individual factors which included, age, gender, education, income, personality, mood, emotion, intelligence, values, stereotypes, and knowledge.

2.6.1.1 Age

The TPB introduced age as one of the independent factors that affect the individual's intention towards behaviour (Ajzen 1991; 2005). This research will determine the relationship between age and the financial behaviour towards establishing a banking relationship through studying the effect of age on behavioural beliefs, subjective and normative beliefs, in addition to the perceived behavioural control.

Earlier studies presented different types of relationship between age as an individual background factor and attitude towards different behaviours; Schade et al., (2016), Haustein and Møller (2016), Holbrook and Schindler (1996), Kobus et al. (2016) and Gozali, (1971). Some other studies presented evidence of a relationship between age and attitude towards financial behaviour. Lai (2010) studied how financial attitudes and practices influence the impulsive buying behaviour of college and university students and provided results that reflected a direct relationship between age and financial behaviour, stating clearly that impulsive buying gradually increases with age.

Lin and Chuang's (2005) results also supported the above findings indicating that the impulsive buy was significantly associated with gender, age, and amount of pocket money available. Another study, Hayhoe, et al., (1999) in relation to discriminating the number of credit cards held by college students using credit and money attitudes, found that affective attitude increased as students become used to having credit and age appeared to be more important than student status. The findings reflect a strong relationship between the age and the attitude towards the financial decision of using credit cards.

A study by Jafarkarimi, et al. (2016) highlighted that the role of attitude as significantly higher for younger students with lower levels of education compared with older students and students with higher levels of education. The study findings showed that older students and students with higher levels of education are more likely to follow their own attitude and moral obligation instead of thinking about others' ideas, this is contrary to younger people. As per the above the following hypothesis is subject to testing:

H8.a: *There is a positive relationship between age and individuals' attitude towards the level of engagement in a banking relationship.*

As for the relationship between age and subjective norms, Matthews, et al., (2010) studied the moderating effect of age on work social supports, role stressors, and work–family conflict. The study examined the relationships between several constructs, and the results suggested that work–family research should move away from treating age as a 'covariate' and should examine age as a true construct of interest. However, the study presented recommendations for future research stating that models of the work–family interface may need to be interpreted differently when relevant individual differences variables, such as age, are considered as important moderators. They suggested that further studies should seek to consider not only the role age may play in moderating important relationships in the work–family interface, but other relevant individual variables.

Further studies Goerres (2007), O'Neal et al. (2012), Venkatesh et al. (2003) provided evidence of the relationship between age and subjective norms. Whereas age did not predict subjective norms in Graham and Rosén's study (2019). As per the above, the following hypothesis is subject to testing:

H8.b: *There is a positive relationship between age and the subjective norm beliefs towards the level of engagement in a banking relationship.*

Age and its relationship to behavioural beliefs has been the subject of previous studies that have shown that consumers in different age groups display different financial behaviours, and each age group has its own perspectives, influences, and pressures (Robb, et al., 2012; Zick, et al., 2012).

In part of their study in relation to age as moderator of relationship and training behavioural intentions, Bertolino, et al., (2011) concluded that age has a positive relationship on the perceived career development and training behavioural intentions. Their findings found that older workers have a negative relationship between proactivity and training behavioural intentions.

Age differences in financial behaviour and risk tolerance have been documented by a number of research studies, which have reported that financial knowledge improves with age (Xiao, 2010; Xiao, et al. 2011; Alhenawi and Elkhal, 2013). In a study examining the Financial Behaviour in Different Age Groups, Henager and Cude's (2016) results showed that subjective financial knowledge or confidence was more strongly related to financial behaviour than either objective financial knowledge or subjective financial management ability in the younger age groups. In the older age groups, objective financial knowledge was more strongly related to long-term financial behaviour than either of the other two measures of financial literacy. This was consistent with previous research in which subjective financial literacy and capability were associated with age with Xiao, et al. (2015) suggesting that adults accumulate financial capability as they age.

The relationship between age and beliefs was reflected in Kautonen, et al.'s (2015) study about the emergence of entrepreneurial behaviour and the role of age-based self-image. The study proposed that age-based self-image moderates the process of transforming an intention to start a business into actual entrepreneurial behaviour. The age factor was studied in relation to the perception of the entrepreneurial potential. The study findings confirmed that individuals are more likely to turn their initial entrepreneurial intention into subsequent behaviour based on age-based self-image, i.e. if an individual perceives the entrepreneurial potential positively in terms of age, there are more likely to turn the start-up intention into subsequent behaviour. By introducing the age concept beyond chronological age, the study extended the entrepreneurial intention to the development of entrepreneurial behaviour, in line with the theory of planned behaviour using age as a perspective and effective factor to understanding of the intention behaviour relationship. Here the age of the project rather than the individual was weighted more strongly. As per the above the following hypothesis is subject to testing:

H8.c: *There is a positive relationship between age and the perceived behavioural control beliefs towards the level of engagement in a banking relationship.*

2.6.1.2 Education

Smith, (2015) Smith and Peller (2020) defined education as the wise, hopeful, and respectful cultivation of learning undertaken in the belief that all should have the chance to share in life, it is a process of inviting truth and possibility, of encouraging and giving time to discovery. John Dewey (1916) defined it as a social process, a process of living and not a preparation for future living.

Several studies have related education with awareness and behaviour, the outcomes supported the development of educational plans to increase the level of awareness among people to control the rate of unethical behaviour (Jafarkarimi, et al., 2016). Preston and Feinstein's (2004) findings identified significant and substantial effects of adult education on attitudes and behaviours.

Feinstein and Hammond (2004) and Feinstein (2003) examined the effects of adult education on attitudes towards race, authoritarianism, political cynicism, voting and civic participation. Their results stated that adult education has particular effects on attitudes; despite the reservations concerning whether adult learning should be used as an instrument of attitude change, it is believed that it is already changing attitudes.

A study conducted by Baan et al. (2019), provided evidence that academic students appeared to have a more inquiring critical attitude than professional students towards classroom situations and a higher motivation to use and perform research. Another research study (Balder et *al.* 2020) found that there is a positive and significant relationship between entrepreneurship education and attitude, subjective- norms self-efficacy. Whereas Schüller's (2016) study provided further evidence for the role of educational attainment in moderating individuals′ attitude responses to major events. As per the above, the following hypothesis is subject to testing:

H9.a: *There is a positive relationship between education and the attitude towards the level of engagement in a banking relationship.*

‘Evaluating the Effectiveness of the Interactive and Engaging Nutrition Education Curriculum for Children’ is a study that presented a relationship between education and engaging behaviour. The study provided evidence that nutrition education for young children is more effective when interactive, and experiential activities should be included in the curriculum. The educational process is further engaging once it includes illustrated stories which were found to increase engagement and improve information retention, (Savoie-Roskos et al., 2019).

Benne (1976) clearly stated that the re-education process is equivalent to change in culture, whereby the change in social action is as important as a change in physical action that is stemmed from perception of a world that we want to see and act within. The change in knowledge leads to change in beliefs and values that will result in the required change in actions. All these changes are the result of self-perceptions change along with situation change.

The financial literacy program in Jordanian schools (Injaz, 2022) is an evolution in education and can be considered as a re-educative process that will lead to a change in the financial culture of the new generations; by building enough confidence and knowledge in their financial abilities should eventually build a more influential social action steered by their strong perceptions of financial knowledge and the final results of this change in knowledge and beliefs should result in achieving the required goals in their intentional behaviour towards the financial world in general. As per the above, the following hypothesis is subject to testing:

H9.b: *There is a positive relationship between education and the perceived behavioural control beliefs towards the level of engagement in a banking relationship.*

Widyastuti et al. (2020) presented a study that aimed at determining the effect of financial education, financial literacy, and financial behaviour from a teacher’s perspective. Their findings reflected a positive relationship between financial literacy and financial behaviour, but financial education had an insignificant effect on financial behaviour and financial literacy. Here, financial education was defined as a process to improve people’s understanding about financial concepts and products improving their awareness to take a wise financial decision to the benefit of their financial welfare. The study points out the importance of literacy from an early age that would build their confidence and be part of their attitude and readiness to perceive the required behaviour.

Kim, Kim and Moon’s (2016) studied whether having a bank account as a child is associated with the ownership of a bank account at young adulthood. Their results confirmed that the financial independence, employment status, and educational attainment of young adults showed greater associations with bank account ownership than family background, thus providing a relationship between education and subjective norms.

Based on the above research studies, this research proposes that education in general and specifically financial education are the main building blocks for the financial behaviour. Education may be considered as a major requirement that would affect individuals’ behavioural beliefs, normative beliefs and perceived behavioural which should affect their financial behaviour. As per the above, the following hypothesis is subject to testing:

H9.c: *There is a positive relationship between education and the subjective norm beliefs towards the level of engagement in a banking relationship.*

2.6.1.3 Income

The relationship between income and core beliefs has been presented in several studies; Kelley and Evans (2017) explored the potential links between income inequality and subjective (well-being examined key cultural and social-psychological influences on well-being). It was observed that individuals' accomplishments together with separate influences of income and social characteristics shape subjective inequality, which can be translated into a relationship between income and subjective beliefs, i.e., the relationship between income and social rank directly affecting an individuals’ subjective norms and beliefs. However, the study presented some agreements which differed across countries, clarifying that income inequality did not show significant impact on subjective well-being in wealthy nations during normal conditions, whereas income inequality slightly increased subjective well-being in developing nations. The study also reflected a relationship between income and perceived advantage that would affect individuals’ judgments. It was stated that individuals would feel better if they think they are fairly paid. The study presented direct and indirect connections between income and the individuals’ core beliefs by asserting that individuals’ satisfaction is not based on family background but is indirectly influenced by it where it shapes perceptions of where one ranks in the society's hierarchy of income and standard of living.

The results demonstrate that attitude would be affected if there is a perceived advantage of being able to improve income, thus improve social rank. Other studies (Hyll and Schneider, 2018; Im, 2014) also established the relationship between income and attitude. As per the above, the following hypothesis is subject to testing:

H10.a: *There is a positive relationship between income and the attitude towards the level of engagement in a banking relationship.*

Perry and Morris (2005) presented their study "Who Is in Control? The Role of Self-Perception, Knowledge, and Income in Explaining Consumer Financial Behavior". The study presented a relationship between income and core beliefs and examined, among other factors, the relationship between consumer financial knowledge and income on financial behaviour.

Their findings demonstrated that individuals' change in some financial behaviours such as saving, budgeting, and control spending depending on the level of perceived control over outcomes as well as knowledge and financial resources, i.e., individuals' income. This suggests a relationship between individuals' income and perceived behavioural control which leads to the change in financial behaviour. Zhang et al. (2019) and Johnson and Krueger (2006) also identified a relationship between income and perceived behavioural control. As per the above, the following hypothesis is subject to testing:

H10.b *There is a positive relationship between income and the perceived behavioural control beliefs towards the level of engagement in a banking relationship.*

"It pays to be well-connected" by Venz and Gardiner (2017) is a study that aimed at examining the effect of networking ability and core self-evaluations (CSE) on income. Their results revealed that core self-evaluations were positively associated with income and that income is highest for individuals high in both CSE and networking ability. The study clarified that individuals' income is enhanced if they maintain higher ability to network and build beneficial alliances. The effect on enhancing their income is driven by individuals' motivation, confidence and self-assurance, which affect their actual financial behaviour. The study further explains that individuals with high CSE and networking ability are more likely to benefit from higher incomes because of their motivation to set challenging and complex work goals, as well as their willingness to draw on social connections in the workplace to achieve their goals.

This study presents income as a two-way factor; first as an independent factor affecting individuals' core beliefs; attitude, subjective norms and perceived behavioural control and leading to confident financial behaviour, and second a direct reverse effect driven by successful financial behaviour that would strengthen the individuals' core values and give the individual the incentive of seeing income as a successful behavioural goal. Other studies (Diener and Biswas-Diener, 2002) and (Rözer and Kraaykamp, 2013) also proved the relationship between income and subjective norms. As per the above the following hypothesis is subject to testing:

H10.c: *There is a positive relationship between Income and the subjective norm beliefs towards the level of engagement in a banking relationship.*

The relationship between income and core beliefs has been presented in several studies including some stated above and will be tested within this research. However, there were additional studies that linked income directly with financial behaviour, although this relationship will not be tested in this research, it is worth sharing this to further strengthen the research objectives. There is a positive relationship between income and responsible financial management behaviour according to Perry and Morris (2005). Their findings reported a positive relationship between income and responsible financial management behaviour, i.e., people with higher incomes should more likely engage in responsible financial management behaviours.

Caspi et al. (2013) presented findings which demonstrate that low-income housing residents, neighbourhood, social environmental variables are unlikely to be the most important factors in determining behaviours. Darko et al., (2013) presented a study that reflected that economics played a key role in participants' food shopping behaviours confirmed by the study participants who agreed that economics (income) played a substantial role in their shopping behaviours. A study into consumer behaviour provided results that demonstrated that information about the nutritional content may influence purchasing behaviour by allowing consumers to judge the overall healthiness of the food and consequently enabling them to make informed food choices. The results of the study showed that a lower level of income limits the amount of choice consumers have regarding products; and second, consumers actively look for price information, which affects their use of nutritional information (Cannoosamy, et al., 2014). Hence, these studies clarified a relationship between income and behaviour beliefs which consequently affects final financial behaviour.

2.6.2 Social Factors

The social factors outlined below will be considered for the research, some of which were introduced by TPB, in addition to an additional factor, ‘Trust’ that is expected to have an important role in this research.

Ajzen (2019) presented several social factors which included, religion, race, ethnicity, culture laws, economy, geography, media and intervention. This research will study the relationship between the social factors and the core beliefs that leads to the behaviour. The strength of these relationships enhances the relationship between each of the social factors that were determined and the core beliefs.

Within the above framework, Ajzen (1991) predicted that behavioural achievement is influenced by perceived behavioural control together with the behavioural intention. The TPB presentation of beliefs was stemmed from the study of several factors, some are individual factors, others are social factors. This research considers these factors as independent factors. Individual factors that produce the person’s beliefs include age, gender, education, income, personality, mood, emotion, intelligence, values, stereotypes and knowledge. Social factors include religion, race, ethnicity, culture, laws, economy, geography, media and other proposed intervention.

It was later asserted by Ajzen, (2006) that in order to change behaviour, one or more designed interventions carried out under appropriate circumstances need to be directed towards an individual’s attitude, subjective norms, or perceptions of behavioural control. The result of these interventions would lead to changes in behavioural intentions and consequently affecting the exact behaviour. Thus, this research will follow this guide and find the appropriate interventions that would result in a change in individuals’ financial behaviour.

According to the TPB, when a target is selected for behavioural intervention, the researcher should take special consideration as to whether there is much room to change (Ajzen, 2006). This is an important consideration since some interventions have already started such as financial education at schools and products targeting women’s banking, i.e., there is a need to measure the impact of these changes to be able to access the possibilities of enhancing it further, otherwise there is a need to find other tools.

The TPB suggests that relative weights should be considered for the factors leading to change, i.e. the greater the weight of a factor, the more likely that changing that factor will influence intentions and behaviours (Ajzen, 1971). The TPB argues that the stronger the belief, the greater the perceived probability that the behaviour will produce a given outcome. In order to change attitude, subjective norms, or perceived behavioural control, there is a need to manage a change on either the strength of the relevant beliefs, or the scale values. Sometimes there is a need to change more than one variable to reach the needed change in attitude (Ajzen, 2006).

2.6.2.1 The Influence of Financial Literacy

2.6.2.1.1 Financial Literacy: Knowledge & Culture

According to Luksander et al., (2014) financial culture represents the ability to process the financial information and make the appropriate financial decisions. Suganya et al., (2013) defined it as the sum of knowledge through which the individuals are able to maximize their lifelong financial prosperity.

For the purposes of this research, financial knowledge is concerned with the process and skills that are possessed over time and experience, and not necessarily from education only. As such the two background factors presented by the TBP 'culture and knowledge' together present the 'Financial Culture' which is the term known to many as 'Financial Literacy'. This is in line with Csiszáarik Kocsir et al.'s (2017) study that stated that there is no precise definition of the term 'financial culture', but it is an integration of the cultural values of the community's characteristics and the quality of the financial decisions. The term was used to express financial literacy skills and capability, which requires special professional knowledge and can be connected to financial knowledge used to inform capable and responsible financial decisions.

The above studies confirm that financial culture is a combination of abilities and skills, which can be achieved with the personal and social well-being and necessitates specific professional knowledge of financial education which is known as "Financial Literacy". Thus, financial culture is a combined relationship between culture and core beliefs, and knowledge and core beliefs. In this research it will be referred to as 'Financial Literacy' being the most used and known term.

2.6.2.1.2 Financial Literacy: (*Knowledge and Culture)* and the Core beliefs

Some studies presented the relationship between culture and core factors that affect the subsequent behavioural intention and actual behaviour, which can be applied to the financial behaviour, given that it was applied for working behaviours and values after examining the attitudes and working values.

Atkinson and Messy (2012) defined financial culture as the sum of such skills, abilities, attitudes, and patterns of behaviour that are essential for making the right financial decisions both on a personal and social scale. According to Xu & Zia (2012), financial skills are not inborn skills, they are gained skills which explain the idea of financial literacy. Thus, the most important component of financial skills is financial literacy (Csiszárik Kocsir et al., 2017).

Zou et al.'s (2009) study presented the idea that culture affects people through their perceptions of what is consensually believed. It examined whether cultural differences are mediated by differences in individuals' perceptions of the views of people around them. It was explained that individuals who perceive approval of their traditional views will themselves behave and think in culturally typical ways. As such if they believe that their culture is perceived well from their surroundings, their core beliefs will be strengthened affecting their behavioural intention and eventually their actual behaviour. The study demonstrated further evidence of a relationship between culture and core beliefs, mainly in relation to subjective norms, thus relationship between financial literacy and social norms in this research.

Li et al.'s (2012) presented evidence of the importance of cultural influences in corporate risk-taking "risk appetite" within the globalized business world, after asking "How does culture influence corporate risk-taking?" The findings showed that cultural values have a considerable effect on the way decisions are made on a global level. These findings can assist in improving the international management practice by increasing the awareness that culture matters a lot in corporate decisions. This study demonstrated an indirect relationship between culture and financial behaviour through a strong relationship between culture and individuals' core beliefs in relation to the individuals' perceived behavioural control, thus a relationship between financial literacy and perceived behavioural control in this research.

Lim et al. (2018) presented a serial mediation model of financial knowledge on the intention to invest and studied operationalized financial knowledge as actual financial knowledge (objective knowledge) and self-rated financial knowledge (subjective knowledge). The study demonstrated the significance of risk perception and attitude towards financial investments as essential rational aspects in the financial behavioural assumptions. It reflected clear relationships among financial knowledge, risk perception, attitude, and behavioural intention in a sequential process with both risk perception and attitude towards financial investments. The findings indicated that individuals who possessed higher levels of actual financial knowledge had the propensity to develop more favourable risk perception and attitude towards financial investments, which subsequently translated into higher financial behavioural intention to invest.

The same study pointed out that the role of risk perception in the relationship between actual financial knowledge and financial behavioural intention to invest was found to contribute larger effects, compared to the attitude towards financial investments. It concluded that actual financial knowledge has a significant effect on the financial decision-making process. This provided the contents of the financial knowledge to trigger positive change in the perception and attitude of the decision makers. The conclusions clearly stated the following sequence: confirmation of objective knowledge → risk perception → attitude → behavioural intention.

Studies developed by Bandura (1982, 1995) claimed that self-efficacy facilitates the relationship between knowledge and action. This concept of self-efficacy presented the idea that individuals seek to gain a sense of control over the events shaping their lives and according to these studies people's construct financial self-efficacy is a subjective indicator of financial capability and is rooted in the original theoretical developments of self-efficacy. Another study by Kempson et al., (2006) clearly stated that financial self-efficacy highlights the individuals' attitudes, beliefs, and confidence in making financial decisions. Further, Mindra et al. (2017) suggested strong positive and significant relationship between financial self-efficacy and financial inclusion. It also suggested that other variables such as age and gender, had significant influence on an individual's usage of formal financial services.

Ramalho and Forte (2019) connected knowledge with self-confidence and concluded that a financial behaviour is the basic need for all people, stressing the fact that adults learn how to manage their financial matters through a trial-and-error process which led to poor financial behaviour. According to the study the greater people's knowledge and self-confidence, the better their behaviour. The study went a step further stating that the financial education programs may not be that effective if they only address the technical aspect of financial knowledge. Further work needs to be done with regard to people's behavioural aspects that lead to strengthening the self-confidence and accordingly lead to better financial management.

Xiao & Porto (2017) found a strong relationship between financial literacy, financial behaviour and financial capability which were considered as strong mediators between financial education and financial satisfaction. Whereas, Henager and Cude's (2016) research studied decision making in general as well as financial decision making, and reported that knowledge increases over time thus both age and knowledge contribute to final decisions.

Other studies found a relationship between knowledge and age, pointing out that experience and acquired knowledge increase with age (Alhenawi and Elkhal 2013, Agarwal et al., 2009). Whereas Henager and Cude's (2016) study analysed relationships within age groups, reporting that subjective ability was positively associated in every age group and had a stronger relationship than financial knowledge.

A recent study by Subagio et al. (2020) on the effect of investment education and investment experience on investment decision with financial knowledge, concluded that both investment education and investment experience have positive effects on investment decisions and both influence investment decisions through financial knowledge; thus, indicating that extensive financial knowledge is indispensable in supporting education and investment experience to make better investment decisions.

There are several means of gathering knowledge about the financial sector; in addition to the private channels represented by family and peers. The public sector may also play an important role. The concept of 'financial inclusion' means that adults have access to and can effectively use a range of appropriate financial services. Financial inclusion starts with having a deposit or transaction account at a bank or other financial institution (Demirguc-Kunt et al., 2017).

Financial inclusion increases total factor productivity (efficiency) as pointed out by Dabla Norris et al. (2015) who stated that talented entrepreneurs benefit greatly from their desire to operate firms on a larger scale.

The above studies demonstrated theoretical and empirical evidence of the relationship between financial literacy represented by individual culture and knowledge and its effect on individuals' core factors and beliefs.

2.6.2.1.3 Financial Literacy and Financial Behaviour

The Organisation for Economic Co-operation and Development's (OECD) definition of financial literacy is a combination of the consciousness, knowledge, ability, attitude and behaviour which are essential tools to make financial decisions that will add up to financial wealth (Atkinson and Messy, 2012). One of the objectives of this research is to study the relationship between financial literacy and individuals' financial behaviour.

Several studies (Lusardi and Mitchell, 2007; Alessie *et al.*, 2011) have provided evidence of a link between financial literacy and financial behaviours. Bhushan & Medury's (2013) study results found a positive correlation between financial literacy and financial behaviour, representing more commitment of individuals to pay on time, save and use their credit cards wisely. The study stated that regardless of the strategy applied to provide financial education, positive outcomes were noticed.

The above was also confirmed by Cordero et al. (2020), who stated that beliefs that improved financial literacy have indeed empowered people to make better financial decisions, which explains the increased interest in this field worldwide during the past few years. Iwaniec and Curdt-Christiansen's (2020) study aimed at measuring how parents engage their children in environmental literacy. The participants were found to play an active role in their engagement with children on pro-environmentalism in terms of shaping their behaviours and attitudes and developing their knowledge and skills. The results revealed that, the lower the parents' socio-economic status and age, the higher the engagement of their children with environmental literacy in China.

Hussain et al., (2018), conducted research and issued its results in June 2018, titled: “Is knowledge that powerful? Financial literacy and access to finance: An analysis of enterprises in the UK”. Findings of this research concluded that financial literacy is not a luxury but rather a necessity and it should be part of the school curriculum. The analysis suggests enhanced financial literacy, reduces monitoring costs and serves to optimize firms’ capital structure that positively impacts on SMEs growth.

Financial management knowledge, financial skills and literacy enable managers to make strategic investments and timely interventions to deal with complex financial decisions and respond to global challenges (Stadler et al., 2013). There has been extensive research carried out, in the UK and internationally, that has examined how the lack of access to finance limits the growth, performance and the competitiveness of the UK economy (Johnson et al., 2007). The research recommendations clearly state that the financial education at schools is considered to be a necessity not a luxury, it is a future determinant of a strong sophisticated economic system, with life examples such as the German educational system which includes compulsory “economics” subject study within its curriculum resulting into dynamic financial system backed up by robust and confident capabilities. "More economics in class-room" was important topic in German public educational system. After long debates ‘Economics’ is taught in state schools because educators believe that “individuals need to understand the ‘grammar of society’, which is impossible without understanding the economy. It enables individuals to sharpen their competence for criticism, and become independent and self-determined consumers, employees and citizens”, (Weber, 2002, p.1).

Studying economics is believed to have resulted in a more realistic and authentic generation who can act responsibly within the economy and continuously be able to develop and encourage understanding of the market order (Weber, 2002). It is believed that it is everyone’s responsibility to solve the problems of society such as unemployment rate and the best way to start with that is through the economic education which seems to be a kind of economic policy that encourages a culture of entrepreneurship.

A recent study on the role of financial literacy on financial behaviour by Andarsari & Ningtyas (2019) concluded that financial literacy has indeed a positive influence on financial behaviour. The study also confirmed that the higher the individual's financial knowledge, the better the financial behaviour is expected to be. The study concluded that financial knowledge or literacy is needed as the basis for making decisions for daily life regardless of whether the individual is running a business or not.

The findings of study conducted by Cordero et al. (2020) found that there was a positive and significant relationship between financial education and financial literacy test achievements. It was pointed out that there are still national and cultural differences that policymakers should consider when developing financial literacy assessment tools for their respective countries; however, the study presented a potential explanation for financial education taught as part of the school curriculum not having a bigger impact in most countries until students get to apply the concepts in practice.

Fernando (2022) presented and defined financial literacy as the education that enables the understanding and managing of various financial areas such personal finance, money and investing. The findings of the study showed that financial literacy helped individuals become self-sufficient so that they can achieve financial stability, i.e., financial education provided individuals with the tools to understand how money works, how to create and achieve financial goals and how to manage their internal and external financial challenges. This was further confirmed by Hira (2012) who clarified that the goal of financial education, policies and business practices is to help people increase their financial capabilities, so they are willing and able to achieve desirable financial behaviours for improving their own long-term, financial well-being and the overall well-being of their communities. This will only happen through value based educational systems that lead to financially educated communities in which students can develop their personal qualities of self-knowledge, self-acceptance and mature desire for the human dignity and justice.

Financial literacy has been found to be positively associated with the long-term and the short-term financial planning and managing behaviour indices. The finding of a study by Henager and Cude (2016) acknowledged the importance of subjective financial knowledge to improve the level of confidence and suggested that the younger cohorts may engage in positive financial behaviours if they think they can, where the older cohorts may rely on their actual knowledge.

This was in line with another study by Zhu et al. (2018) which tried to relate academic performance with financial forecasting performance. Their results showed that this can be applied to the positive relationship between financial intelligence and financial forecasting and trading performance in financial markets.

Morgan and Long (2020) presented a recent study linking financial literacy, financial inclusion, and savings behaviour with findings showing positive effects of financial literacy on both financial inclusion and savings. The study pointed out that individuals with higher financial literacy were more likely to hold savings regardless of their income and level of education.

In a study conducted by McKinsey & Company (Sengupta et al. 2019), it was stated that traditional banking officials successfully coordinated an ecosystem strategy, by building partnerships and monetizing data that could improve profitability. The study was conducted in August 2016, whereby DBS Bank Singapore, launched a pilot of its 'POSB' Smart Buddy Program', which aimed to set up a simple payments system for Singapore's primary schools via smart watches. Under the program, students were provided with a free smart watch that they could simply wave to pay for food, drinks, books and other daily necessities. The watch also prompted students with tips on financial management and monitored their exercise by calculating number of steps. Parents were able to download an app through which they can top-up their child's pocket money and monitor expenditure and exercise. The benefits were shared by all parties involved; schools benefited from an easy method of payment and the government were able to gather adequate data on student consumption and exercise levels. This study served as an excellent educational way for banks to deepen their relationship with parents and to establish relationships with students in a way that may increase likelihood of these students becoming customers in the future.

As per the above studies, it is strongly believed that building financial knowledge from an early age will be the most important prerequisite to improve financial behaviour intentions resulting in higher level of engagement in banking relationship, based on strong knowledge, commitment, and confidence in the ability to manage own financials.

This research seeks to provide information and suggest ways to boost the individuals' financial confidence by improving their financial literacy starting from schools for the young generations to post school training and coaching to adults. To back up the education, the social support and the social marketing are important social factors according to the TPB. Thus, there is a need for tools that will affect individuals' behavioural, normative and control beliefs that translate into the main three attributes: attitude towards behaviour, subjective norms, and the perceived behavioural control. The TPB confirms that these attributes directly affect individuals' people's intentions that are translated into behaviour.

This research exposed relationships between financial literacy, and the three core beliefs, and suggest the following hypotheses to test:

H11.a: *There is a positive relationship between financial literacy and the attitude towards the level of engagement in a banking relationship.*

H11.b: *There is a positive relationship between financial literacy and the subjective norm beliefs towards the level of engagement in a banking relationship.*

H11.c: *There is a positive relationship between financial literacy and the perceived behavioural control beliefs towards the level of engagement in a banking relationship.*

2.6.2.2 Economy and Economic Knowledge (Perceived Economic Conditions)

The relationship between economic conditions and individuals' financial behaviour have been demonstrated in several aspects. Chang et al.'s (2016) study aimed at reviewing people actions and behaviours during the economic bubbles. The study reflected that despite the fact that risk management, guidelines and analysis are essential to any form of business or government, the findings demonstrated changes in individuals' attitudes and behaviours during economic bubbles, whereby investors were willing to reduce due diligence and take unmeasured risks with which they lack experience.

‘Economic Forces and the Sukuk Market’, is a study conducted by Ahmad et al., (2012) that aimed at investigating the macroeconomic influencing sukuk market behaviour. Sukuk, or Islamic bond is considered one of the most active Islamic debt market financial instruments. It has similar characteristics to a bond since it has a maturity date and a regular payment over the life of the sukuk along with a final payment at maturity. It can also be traded in secondary market.

The issuance of Sukuk is a financial decision that affects shareholders wealth and the factors that affect shareholders wealth are central issues in finance that determine how much and what type of debt and equity should be issued, i.e., the economic forces are the main factors that affect the individuals’ financial behaviours. The results of the study indicated that selected macroeconomic factors do influence Sukuk issuance as a result of individuals’ financial behaviours being an important functional aspects of Islamic capital markets.

The relationship between economic conditions and investor expectations of risk and return, was investigated by Amromin and Sharpe (2014) where they analysed the stock market beliefs and portfolio choices of household investors. The results of the study found a high correlation between stock returns in the asset-pricing literature and the investor's subjective expected returns. Moreover, the study findings stated that subjective expectations of both risk and returns on stocks are strongly influenced by perceptions of economic conditions. The study indicated that when investors believe macroeconomic conditions are more expansionary and the economic conditions are getting better, they tend to expect both higher returns and lower volatility, thus strengthening their subjective expectations which is supported by the finding of a significant link between their expectations and portfolio choices. The study concluded that portfolio equity positions are related to investors’ anticipation of higher expected returns or lower uncertainty. This study demonstrated a relationship between the economic conditions and the individuals’ perceived behavioural control leading to the financial behaviour. As per the above, the following hypotheses are subject to testing:

H12.a: *There is a positive relationship between economy and attitude towards the level of engagement in a banking relationship.*

H12.b: *There is a positive relationship between economy and the subjective norms towards the level of engagement in a banking relationship.*

H12.c: *There is a positive relationship between economy and the perceived behavioural control beliefs towards the level of engagement in a banking relationship.*

The final financial behaviour determined by individuals and decision makers is derived directly or indirectly by the prevailing economic conditions, that is derived from shareholders' wealth and knowledge which is directly affected by the economic conditions. The above studies demonstrated a relationship between the effect of changes in economic conditions on the individuals' attitude leading to changes in the level of engagement in the financial behaviour. Thus, it is important to study the effect of economic knowledge on individuals' core factors and final financial behaviour, since changes in the economic factors should be accompanied by a good level of economic knowledge to enable individuals behave accordingly.

A study by Walstad and Rebeck, (2002) assessed the level of economic knowledge and economic opinions of adults and reported that basic economic knowledge is affected by several individual factors such as age, gender, race, income, and level of education. It also reported that on average, males showed consistently more economic knowledge than females. It also confirmed a relationship with education where the higher the level of education the higher the economic knowledge. A finding that should be encouraging to academic economists for adults who had taken a college economics course indicating lasting value to college instruction in economics. The most important finding from the study is that it provides robust evidence that economic knowledge has a positive and statistically significant effect on opinions about economic issues. The study concluded that adults with more economic knowledge were significantly more likely to be optimistic about the future of the economy.

In Gunay et al.'s (2015) study on the 'Determinants of Financial Management Behaviors of Families', it was noted that the environmental, social, cultural, and economic conditions are continuously changing due to globalization. These changes directly affect families' well-being and families' functions, mainly the economic functions. Within these continuous economic changes, the family's behaviour in relation to the usage of their income changes as well, which affect both their social and economic welfare. According to Gunnarsson and Wahlund (1997) some sort of financial strategy results from families' actions and behaviours that have been the consequence of the economic changes among other changes.

The findings of a ‘Survey Data and Subjective Beliefs in Business Cycle Models’ presented by Bhandari et al., (2019**)** concluded that subjective beliefs have an economically significant role in driving macroeconomic outcomes, especially labour market quantities. They argued that the economic policy changes that affect consumption has its effects on the subjective beliefs and individual decisions. The study concluded that within markets in general and incomplete markets in particular, various external economic changes lead to changes in internal social beliefs, which lead to changes in social financial behaviours that have clear implications on savings, portfolio choices, and labour market behaviour.

Fabrigar et al., (2006) presented an experimental study trying to understand the role of relevance, complexity, and amount of knowledge in determining their effects on attitude-behaviour consistency. The results supported an attitude inference perspective i.e., attitude based on evidence and reasoning, which holds that under high deliberation conditions, people consider the behavioural relevance and dimensional complexity of knowledge underlying their attitudes before deciding to act on them. The findings of the study helped to clarify that it is not just the amount of knowledge that was responsible for enhancing the attitude behaviour consistency. It is rather the complexity of the knowledge that may normally be confounded with the amount that is more critical. These experimental studies suggested that the content of knowledge matters and the relevance of the content often play a role in the impact of attitudes on attitudinal processes.

As per the above the following hypotheses are subject to testing:

H7.a: *There is a positive relationship between economic knowledge and attitude that affect individuals’ level of engagement in a banking relationship.*

H7.b: *There is a positive relationship between economic knowledge and the subjective norm beliefs that affect individuals’ level of engagement in a banking relationship.*

H7.c: *There is a positive relationship between economic knowledge and the perceived behavioural control beliefs that affect individuals’ level of engagement in a banking relationship.*

2.6.2.3 The Use of Financial Technology Services (FinTech)

Financial Technology (FinTech) is the business of using technology to offer financial services in new and better ways, it describes new technologies adopted by the financial institutions which varies from data security to financial service deliveries (Gai et al., 2018). It is reported that FinTech is considered one of the major investments for most competitive financial firms (Wigglesworth, 2016) and the use of FinTech services represent the financial digitalization which is believed to an important factor in the development of banking services. According to Rezayat (2017) digital communication channels are extremely important means of communication between financial institutions and customers. The researchers opted to add FinTech as an additional independent factor to investigate its effect on individuals' engagement in banking relationship.

Early studies such as (Meyrowitz, 1995) and (Hofferth, 2010) found relationships and influencing factors between media and individuals' future achievements, social behaviour and identity. Technological developments and the availability of social media networks have further affected the behaviours, knowledge, and relationships among people. Srivastav and Nath (2015) presented social media as knowledge management systems that lead to evolving knowledge management processes through knowledge sharing and perceived learning i.e., affecting both social knowledge and social learning thus social norms. Whereas social media research presented by Zafarani *et al.* (2014), Cao et al., (2014) found the effects of media on generating social interactions and further scientific outcomes confirming behavioural patterns that were verified and captured to predict individuals' intentions.

Ehrentraud et al. (2020) report stated that FinTech's recent development has increased the challenge for policymakers who aim at maximising the benefits while minimising potential risks for the financial system. The reports stated that such challenges are sometimes beyond the traditional scope of the financial authorities, and the speed of innovation makes it difficult for regulators to respond in a timely manner. Further, BigTech firms aggressively entered the banking market to become 'the elephant in the banking room' leveraging their dominant services such as social media, cloud computing, data sharing and data superiority to compete.

According to the same report, the recent financial and health crisis exhibited that digitalization brought up new competition from FinTech start-ups pushing the banks to find new ways of coping with the increased demand by directly acquiring start-ups. This experience showed that financial inclusion that included bank and nonbank providers provided several financial alternatives that are accessible to broad segments of the world's population. This is not a risk-free route and includes several financial implications, however, it is more effective in the presence of more labour, education and knowledge to manage financial resources wisely.

Stead et al., (2004) research study on the development and evaluation of mass media using the TPB intervention was shaped by the TPBs three core factors: attitude, subjective norms and perceived behavioural control. The study results reflected the impact of the media campaign on communication outcomes and on TPB core factors. Social media proved to be an effective trigger on communication outcomes, and significant changes in attitudes stemmed from the changes in individuals' beliefs. The improvement in social and digital media has positively affected the engagement and use of the FinTech services. As per the above the following hypothesis is subject to testing:

H13.a: *There is a positive relationship between the use of FinTech services and individuals' attitude that affect the engagement in a banking relationship.*

Social and digital media as a marketing, communication, and service tool to influence individuals' behaviours as presented in several research studies (Oberoi et al., 2017; Phan and Park, 2014; Husain et al., 2016; Doyle, 2007). According to e-Source 'Behavioral & Social Sciences Research', social marketing is defined as an instrument that influence individuals' behaviour via marketing technologies. As such, social and digital media is an important factor that affects individuals' behaviours through changing individuals' intentions.

Dehghani and Tumer (2015) issued the results of a study that aimed at examining the effectiveness of advertisements on enhancing consumers' purchasing intention. Their findings confirmed the significant contribution of advertising on the change in individuals' purchasing behavioural intentions.

In a recently published 'Handbook of Research on Innovations in Technology and Marketing for Connected Consumer', Butt & Butt (2020) discussed the 'Digitalisation of the Global FinTech Industry', which is short for financial technology and is related to the new technology and innovation methods that are used by many individuals to process their financial services via their devices. According to this book, digitalization is considered the base of success for many banking organizations who became aware that digital banking or online banking is competing with traditional financial methods in the delivery of financial services. The beauty of these methods among many other benefits is the ability to reach unbanked segments of society, particularly in developing countries.

"Responsible digital payments during COVID-19: Insights from Jordan, Peru and Ghana" a recent webinar (2020) conducted by Better Than Cash Alliance (2020) on May 13, 2020, demonstrated facts and examples that reflected changes in financial behaviours in the three countries during exceptional health and economic conditions. It was stated that the crucial role of digital channels enabled rapid onboarding of customers. Responsible digital payments guidelines were followed to ensure, fair, safe, transparent mean to provide needed funds. The availability of mobile access for Jordanians (age 15+) reached 89% which allowed a digital financial transformation and supported clients' access and use through interoperability.

These facts reflected the changes in individuals' beliefs and engagements towards financial channels. Social media special tools were designed to meet clients' needs and capabilities and to build customer trust that improved their attitudes and perceived behavioural control towards the adoption of new financial channels. In line with Srivastav and Nath (2015), social media role evolved from a communication system to evolving knowledge management process through knowledge sharing and perceived learning.

As such, understanding drivers and trends in the FinTech industry is critical to the financial sector in order to be able to use these technological capabilities and stimulate their benefits. Banks already use digital marketing tools to analyse customers' needs, however, banks should find more developed ways to analyse historical data in order to be able to predict changes in behaviour amongst individuals mainly millennial who are the main users of the FinTech services.

This research assesses the effect of social and digital media and financial digitalization in the form of FinTech services on changing individuals' core beliefs that leads to the change in the engagement level of the financial behaviour. Accordingly, the following hypotheses will be presented for testing:

H13.b: *There is a positive relationship between the use of FinTech services and the subjective norm beliefs that affect the level of engagement in a banking relationship.*
H13.c: *There is a positive relationship between the use of FinTech services and the perceived behavioural control beliefs that affect the level of engagement in a banking relationship.*

2.6.2.4 Trust

According to Parasuraman et al. (1988), in a traditional business environment, customers evaluate their trust from different service quality dimensions, trust is typically generated by a customer observing employees' knowledge and responsiveness. Urban et al., (2000) added that trust is important in online environments because the consumer has few tangible and verifiable cues regarding the service provider's capabilities and intentions.

The banking industry is strongly associated with high levels of trust, safety and reliability. That is why this research will include trust as one of the factors that affects people's intentional behaviour towards their relationship with the banking industry. According to Corbitt et al., (2003), the negative attitudes towards perceived risk may lead to a negative effect on customer's trust intention, and trust intention may positively influence participation behaviour. They confirmed that "trust is a critical factor for consumers' patronage behaviour", (Corbitt et al., 2003, p. 205).

This research considers "Trust" an important additional factor to add, since it is related to the people's confidence in the banking system in general and given the latest development and innovation that took place within the banking industry that have played an important role in individuals' level of engagement in a banking relationship. As per the above, the following hypothesis is subject to testing:

H14.a: *There is a positive relationship between trust and individuals' attitude that affect the level of engagement in a banking relationship.*

Research on trust presented by Gulati (1995) & Doz (1996) have shown that higher levels of trust improve relationships and cooperation, it also improves information flows and could be associated with reductions in information asymmetries in the relationship between banks and small firms. According to Tang et al. (2010), trust has significant influence not only on the customer's intention but also on performance expectancy. In his study to examine the factors predicting customers' initial trust in Mobile banking, Zhou (2011) confirmed that trust is a key factor determining the likelihood of customers using mobile banking. Gefen et al. (2003) proposed that trust has a direct influence and effect on the customers' intention, usage and adoption of mobile banking services.

Stix (2013) clearly stated that trust is a key element in explaining interpersonal differences in cash preferences and the findings of this study supported the hypothesis regarding trust in banks stating clearly that that institution-specific trust matters more than social capital. Guiso et al. (2004) presented a model proposing a link between trust and financial decisions. The study stressed the importance of trust stating that individual's extent of involvement in the financial transactions requires trust and also depend on their level of education. These studies stressed the idea of trust in dealing with financial institutions and proposed ways of interventions. According to Stix (2013) trust plays a very important role in people's interactions with banks, as such further policy measures are needed to strengthen trust in banks otherwise negative effects on the economy will prevail. As per the above the following hypothesis is subject to testing:

H14.b: *There is a positive relationship between trust and individuals' subjective norm beliefs that affect the level of engagement in a banking relationship.*

Risk, trust, and the interaction of perceived ease of use and behavioural control in predicting consumers' use of social media for transactions' is a study presented by Hansen et al., (2018), where several models were tested with respect to predicting use of social networking services. Results indicated that perceived risk and trust play significant roles as antecedents in consumer decision making and that risk-taking propensity has a direct effect on behavioural intention.

Another study presented by Namasivayam and Guchait (2013) investigating the role of contingent self-esteem and trust in consumer satisfaction provided results indicating that consumers' contingent self-esteem and trust evaluations depend on their perceptions of fairness and control. Further, contingent self-esteem and trust influence customers' satisfaction evaluations and behavioural intentions. Using the theory of planned behaviour, Ashraf et al.'s (2020) study examined the relationships among beliefs about internet privacy, trust and online banking behaviour. Study results indicated that beliefs about trust and privacy positively affect attitudes toward internet banking, beliefs about self-efficacy regarding internet banking positively affect perceived behavioural control, which in turn affects actual online banking behaviour. In line with the above, the following hypothesis is subject to testing:

H14.c: *There is a positive relationship between trust and the perceived behavioural control beliefs that affect the level of engagement in a banking relationship.*

The research will determine the importance of each the above background factors (individual and social) in addition to "Trust" as an additional factor, in order to assess the weights affecting the core beliefs, then determine the scope and needed tools of intervention that may result in affecting the behaviour. In order to be able to apply these measures, it is important to use a questionnaire that will determine which factor has the greater weight in order to concentrate the efforts and develop the tools to initiate the appropriate changes to influence the behaviour of higher level of engagement in a banking relationship.

2.7 Moderating Influence of Gender

The third objective of this research is to study the influence of gender on the independent, core and dependent variables that affect the individuals' financial behaviour towards higher engagement in a banking relationship.

Gender is considered a moderating variable within this research; according to the definition presented by Allen, M. (2017) who refers to moderating variables as variables that can strengthen, diminish, deny, or transform the relationship between independent and dependent variables, sometimes can change the direction of the relationship or help explain the links between the independent and dependent variables.

As such ‘Gender’ as moderating variable may provide additional information regarding the association and relationship between two variables in this quantitative research and may assist in explaining what features can make that relationship stronger, weaker, or even disappear. Studies that used ‘gender’ as moderating factors were able to demonstrate the important role of gender as a moderating factor that assisted in explaining differences of background and core factors’ effect on behavioural intentions. Machogu and Okiko (2015) presented a study that aimed at evaluating the perceptual view of males and females on the e-banking complexities and customer’s satisfaction. Results reflected a strong relationship between electronic banking complexities and customer satisfaction. As for customer satisfactions results, female respondents reported higher satisfaction levels than males, whereas male respondent’s showed experienced e-banking complexities in the usage of e-banking more than female.

A study presented by Beauregard, (2012) aimed at examining personality and investigated the moderating role of gender in the link between personality and organizational citizenship behaviour. Their results showed that females appear to exhibit citizenship behaviours regardless of how confident they feel in being able to successfully perform. These results were attributed to the social and organizational norms that place females in the role of ‘helper’ and expect more communal behaviours from her than that from males.

The joint moderating role of trust propensity and gender on consumers’ online shopping behaviour was another study presented by Chen et al. (2015) with findings stating that ‘gender’ had a moderating effect on the relationship between perceived benefit and re-purchase intention. Trust propensity moderates the relationship between perceived risk and overall satisfaction, gender and trust propensity were found not to be correlated. Thus, trust propensity should be considered to be similar between genders. However, the interaction of trust propensity and gender played a significant joint moderating role in affecting the impact of perceived benefit on the intention to purchase. Test results showed that re-purchase intention was significantly different between male and female groups. Perceived benefit to re-purchase intention was found to be higher for male customers than female ones. The study concluded that men with high trust propensity belief are the most benefit oriented consumer group. This joint moderating effect is more powerful in distinguishing different levels of re-purchase intention. Female customers with high trust propensity presented as having the highest re-purchase intention, whilst male consumers with high trust propensity reported the lowest re-purchase intention.

Social networks of female tech-entrepreneurs and new venture performance was a study presented by Xie & Lv (2016) on the moderating effects of entrepreneurial alertness and gender discrimination. The survey data from 316 new ventures in China explored the relationship between the social networks of female tech-entrepreneurs and new venture performance. Among many other findings, the study revealed that the social networks of female tech-entrepreneurs have a positive effect on new venture performance, and gender discrimination against women has a negative effect on new venture performance which negatively moderates the relationship between the social networks of female tech-entrepreneurs and new venture performance. The study findings also revealed that female entrepreneurial quality of awareness not only has a direct effect on new venture performance, but also positively moderates the relationship between the social networks of female tech-entrepreneurs and new venture performance.

Bellet (2018) stated that empowering females will have a positive impact on the economy and improve standards of living. As such, several projects aim at supporting females in dealing with the challenges. This should eventually lead to better salaries, savings and investments in the future. Some studies found that financial literacy in females tends to be lower than in males (Falahi and Paim, 2011). Other studies, Chen and Volpe (2002) found supporting evidence that gender is associated with financial literacy and that the gender is a significant factor that clearly indicates that females are less knowledgeable when it comes to the finance. According to this study financial literacy is related to educational and experience factors which males acquire more than females. The results of a study conducted on role of gender in the SME banking context concluded that female-owned businesses face relatively greater challenges with respect to accessing debt financing, pointing out possible gender-related differences in the lender-borrower relationship (Madill, 2006).

Xiao *et al.*'s (2010) study showed that specific life events, such as marriage, divorce, childbirth and the death of a spouse or parent have been shown to be strongly correlated with increased motivation to learn about specific aspects of financial management. Some of these events, such as marriage and childbirth increase the desire to plan to assure positive outcomes for the new situation. Other events, such as divorce or the death of a parent or spouse, result in fear, anxiety, instability and a great desire to gain control of the financial situation. Females in these circumstances have particularly been shown to be greatly motivated to learn about various aspects of financial management.

Different researchers have discovered that gender matters (Adam, 2001, 2002, 2005; Adam and Ofori-Amanfo, 2000; Herring, 1996; Mohamed et al., 2012). Other studies reported that, in the younger age group, the females demonstrated a higher level of ethical beliefs, while in the older age group, men were slightly more ethical (Peterson et al., 2001).

A study in the Middle East and North Africa conducted by World Bank (Felsenthal & Hahn, 2018), showed that 52% of males but only 35% of females have an account at a financial institution. That result, according to the study represented the largest gender gap of any region but provides strong opportunities to increase financial inclusion among women. One way to solve this issue is through the mobile phone ownership which was considered a good venue to expanding the financial inclusion for women. The study stated that among the unbanked, 86% of men and 75% of women have a mobile phone. Up to 20 million unbanked adults in the region send or receive domestic remittances using cash or an over-the-counter service, including seven million in the Arab Republic of Egypt. These results represented good ways to encourage more women under the umbrella of financial inclusion which will assist them in improving their financial well-being in the future.

A mediated model of the effects of human resource management policies and practices on the intention to promote women using the TPB, was presented by Biswas, Boyle, Mitchell and Casimir (2016), and the results showed a positive relationship between supportive human resource policies and practices and intention to promote women to senior roles. The TPB assisted in understanding how human resources policies and practices generate their effect leading to the intention to promote women to senior management, by creating positive behavioural beliefs which guide the future intentions related to promotions. The findings of the study clearly stated that "the core roles of attitudes and subjective norms imply that fair and equitable HR policies and practices shape managers' cognition and normative beliefs regarding the enactment of the impartial promotional behaviour", (Biswas et al., 2016, pp.1323). A study by Kessels et al., (2014) investigated gender differences in academic engagement and gender identity. The findings reported gender differences around representation in subjects such as maths and science and engagement at school in general. It was highlighted that male stereotyping of mathematics and science implies a greater misfit between girls' gender identity and engagement in these domains. The perception that displaying effort and engagement at school is feminine leads to a misfit between boys' gender identity and academic engagement in general.

The current trend within the Jordanian banking sector is to offer new females targeted banking products, another process of re-education, to build the feeling of social action fulfilment, which is essentially equivalent to a change in culture. When females are given the tools to change their beliefs and perceptions of self-ability to handle their own financial decisions, this change in beliefs should lead to a strong change in their intentional behaviour towards financial decisions, thus, establishing a banking relationship and become an account owner. As per the TPB, these beliefs are determined by both individual and social factors. Based on the above studies, this research will propose the following hypothesis for testing:

H4: *Females' attitude towards behavioural beliefs is positively related to their level of engagement in a banking relationship.*
H5: *Females' subjective norm beliefs are positively related to their level of engagement in a banking relationship.*
H6: *Females' perceived behavioural control beliefs are positively related to their level of engagement in a banking relationship.*

2.8 Deficiencies in the Literature: Gaps

Howell (2013) along with other authors argue that not enough theories exist, so there is a need to learn from experience and develop further theories. When a theory is set to reflect or explain a reality, more knowledge is produced of the phenomena under analysis. Accurate theories will lead to sound understanding resulting in practical solutions, which can be generalized to spread better practical understanding. In return better practice would enhance the theory and increase awareness to present it in a better integrated framework and ethical reflection.

Theory provides better means of understanding reality, knowledge and truth once reflected in practice. Accurate theory will lead to more specific data collection and analysis leading to sound understanding of reality and resulting in improved practical solutions and better practice. Enhanced theory will increase awareness presented in a better framework for practice.

In any economy, financial market trends are usually a reflection of people's financial behaviour. Mitigating financial market imperfections, is a crucial issue that has been receiving increasing attention among scholars, policymakers, and practitioners, which tried to identify factors from the institutions and not from the customers' perspective.

Aristei & Gallo (2016) studied the relationships of banks with non-financial institutions and highlighted that the interactions among bank ownership type, diversification and multiple banking relationships play a key role in determining financial market imperfections. Such studies represent a gap in the research by concentrating more on the role of the institutions' dealings with each other and their effect on the market instead of studying the important role of the individuals' and customers' behaviours as a starting point that would lead to the effect in the financial markets.

Nanoeconomics is a relatively new section of economic theory that analyse individuals' behavioural aspects that affect their economic activity. "Models of Financial Behavior of the Population in the Conditions of Nanoeconomics" is the title of a new study presented by Gorshkova and Ksenda (2020) that dealt with the individual's financial behaviour as a component of nanoeconomics, reflecting findings that indicated that financial behaviour directly affects the development of the financial system and increase the competitiveness of the country. The research suggested that the behaviour of the individual is the basis of his/her economic activity; individual's behaviours form a sense of the environment reality, determines tasks, incentives, motivation and information sources. Additionally, they found that individuals' financial behaviour is determined by sources (financial resources), factors (endogenous and exogenous, objective and subjective), market conditions (current economic situation, existing financial institutions) and institutional restrictions (mandatory norms). The research concluded that the performance of the financial institutions, as well as other financial aspects such as tax payments and deductions affect how individuals think about their financial well-being and depending on various factors (psychological, economic, political) their financial behaviour changes.

This research is in line with the findings of the above research presented by Gorshkova and Ksenda (2020), however, more endogenous, and exogenous, objective, and subjective factors are going to be tested. The objective of this research is to identify the main factors that affect the level of engagement in a banking relationship and be part of the financial system, throughout studying their behavioural beliefs. According to Central Bank of Jordan (2018)- the Financial Inclusion National Strategy (NFIS) project would assist in realizing the economy's objective of sustainability and growth. As such, once factors are identified, appropriate interventions will be directed to the intended individuals to clarify the positive outcomes that are expected to their benefit and to the economy in general.

Another gap that was noticed in previous studies is related to the way these studies dealt with customers' level of engagement in a behaviour. The way and approach that these studies aimed at affecting and predicting customer's level of engagement was related to the results or expected goals that the customers want to reach. Such studies especially in marketing (Sajjad and Zaman, 2020; Liu et al., 2021; Rather, 2018; Christofi et al., 2018) were trying to improve the level of customers' engagement by increasing marketing campaigns or rewards and increase the influence by focusing on the entertainment, interaction, trendiness, and customization dimensions of a luxury brand's social media activities and others. Very limited studies were concerned with the antecedents' factors that affect the individuals' behaviours before even engaging in such activities.

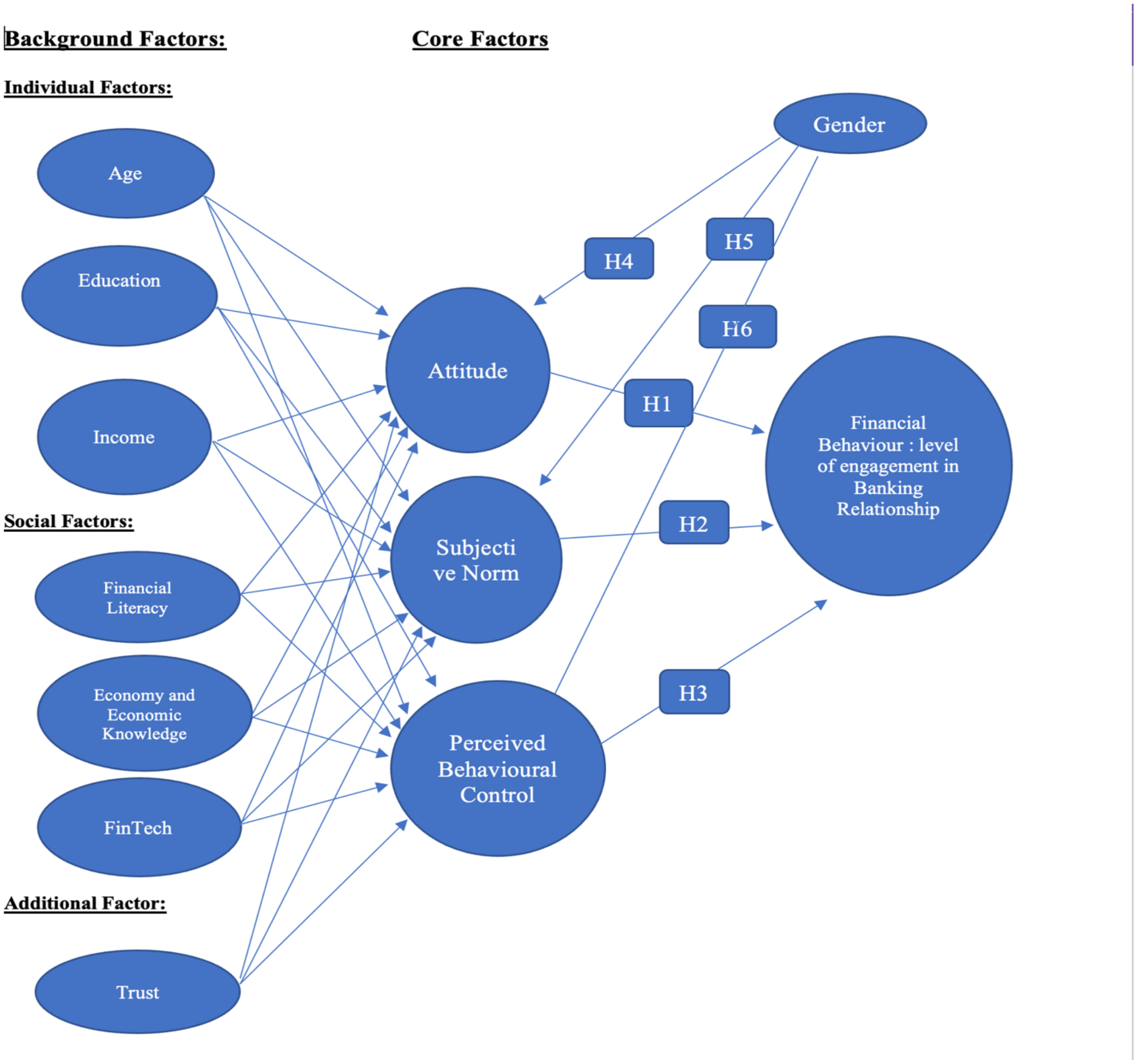
In earlier sections most studies such as Hayhoe et al., (1999), Bhushan & Medury, (2013), Bellet (2018), Borgers and Pownall's (2014), Ibrahim and Arshad (2017) and others, were mainly focusing on aspects related to the final financial action such as credit card payment and investments within the banking relationship domain. However, a comprehensive literature review on the topic of individuals' behaviour towards more engagement in a banking relationship is still lacking depth, thus representing a gap in current knowledge.

Examining interventions to attitude towards the financial behaviour, subjective norms and perceived behavioural control that leads to changes in the financial behaviour is fairly new perspective that has not been widely identified in the earlier literature reviews. This research attempts to address this gap by analysing research literature on behavioural changes that lead individuals to take the decision to engage more a banking relationship.

There is lack of research in the domain of engagement in a banking relationship. The available literature about banking relationship behaviour, mostly focuses on aspects related to relationship behaviour and customer satisfactions after establishing the banking relationship and throughout the course of the business dealings with banks thereafter. Fewer studies on financial behaviour and banking relationship have considered studying the factors affecting the financial behaviour before establishing a banking relationship and engaging more into the use of banking services. This represents a gap in current knowledge.

Examining the financial behaviour towards higher level of engagement in a banking relationship calls for a cross-disciplinary approach that draws on insights from the fields of finance, consumer behaviour, education, gender analysis and management. Such a perspective has not been fully adopted in earlier studies. This research attempts to address these gaps by analysing research literature on the behavioural factors affecting individuals' financial behaviour to engage more in a banking relationship. The study will take into consideration various knowledge segments presenting praxis to bridge the gap between theory and practice in relation to the engagement banking relationship phenomena in Jordan.

2.9 Conceptual Framework: Research Conceptual Model



3. CHAPTER THREE: RESEARCH METHODOLOGY AND METHODS

3.1 Chapter Overview

Area of Study

This primary aim of this research is to determine the main antecedents (individual and social factors) that influence the individual's level of engagement in a banking relationship in Jordan. Based on this rationale, the first objective of the research is to determine the individual and social factors that contribute to enhancing individual's level of engagement in a banking relationship. The second objective is to examine the influence of financial literacy in enhancing the level of individual's behavioural engagement towards the banking relationship. The third and final objective is to investigate if the above dynamics vary by gender. The research adopted a questionnaire technique, and this chapter will focus on the population, sample size, methods of study and procedure of data collection and analysis.

Sample Design & Techniques

The research study investigated a non-probability sample of 542 individuals to obtain a broad view on the individual and social factors that influence individual's level of engagement in a banking relationship in Jordan. The target population included Jordanians living in the largest eight cities of Jordan. The sample size has been determined using a formula to ensure the full representation of the population.

Instruments of Data Collection

The strategy for data collection comprised of a survey administered as a questionnaire as the instrument. The questionnaire was prepared in both English and Arabic and distributed via social media networks and in person. The questionnaire was structured to allow respondents select the most appropriate option to reflect factors under study.

Methods of Data Collection

Data was collected mostly electronically and for certain cases manually depending on the location and electronic reach of some members within the target population. Such methods were adopted independently to reduce bias or subjective views.

3.2 Research Philosophy

The basic structure of the research depends on a philosophy that presents the relationship between truth, knowledge, and reality. Depending on the researcher’s own beliefs, interpretations, and perspective; the research framework is presented. The researcher starts by identifying the perspectives of reality, knowledge and truth that are identified through concepts and theories, followed by methodologies and methods which are based on the paradigms of inquiry that shape the overall research.

According to the researcher’s own perspective and beliefs (objective or subjective) the theory is presented using the different paradigms, which varies from positivism, post-positivism, critical, constructivism or participatory theory. The methodology is considered the research strategy which clarifies the rationale behind the data collected, and it involves how to think about and how to study and interpret social reality (Corbin and Strauss, 1990).

“Theory” is defined in several ways; some define theory as a reflection of reality, others define theory as an identification of knowledge and truth and a reflection of reality whereby we seek more knowledge through research to challenge reality. Others suggest that “Theory” explains experiences and practices and provides means of generalization and practical understanding, it also provides means of organizing evidence and determining knowledge. Social science theories try to provide the understanding of situations at certain points in time (Howell, 2013). Through the research more knowledge, information and data are collected in order to reach an objectivity in the relationship to be accepted by the general, then presented by procedures that will be eventually practiced.

This research study seeks to investigate the factors that influence individual’s level of engagement in a banking relationship in Jordan, it presented more knowledge about the factors that lead to individual’s financial behaviour. The researcher followed an objectivist approach to study the factors that affect individual’s financial behaviour, based on a theory that will try to explain individual’s financial experiences and current banking practices. The act of applying and realizing the theory to the practice in financial behaviour is the praxis process that the researcher has followed to bridge the gap between the theory and practice.

The philosophy starts with choosing the social sciences that relate to the thesis under research. In line with the proposed thesis subject in this research; theories will be stemmed from three main areas of social sciences; Economics, Business Management in addition to Psychology. Serval theories within these social sciences have been exposed aiming at choosing the most relevant to provide the understanding of individual's financial behaviours.

3.2.1 Paradigm of Inquiry

Research paradigm is considered a guidance of how the research is going to be conducted setting a clear philosophical framework (Collis and Hussey, 2009). The paradigms reflect the researcher's beliefs of the nature of reality, how it was discovered and presented. It is reflected by asking certain philosophical questions (Ontology and Epistemology) then try to identify ways of collecting and presenting data (Methodology and Axiology).

According to Howell (2013), truth is not fixed or discovered, it is either historically or relatively constructed through the reflexivity of communities whereby the researched and researcher become interchangeable within the research process and theory generation. As a result, notions of reality, knowledge and truth are directly connected and in positive correlation with the theories in relation. It is a circle and a process that complements each other and provides a better means of understanding of all the reality, knowledge and truth once reflected in practice. This improved process results in the transformation of our societies and provide better means of understanding our life. To study the correlation between theory and the paradigms of inquiry, one should start by identifying the types and levels of theory; once identified, observations start leading to ideas.

Based on the proposed hypotheses, theory attempts to reflect reality until falsification occurs. According to Popper (1959), good theories are falsifiable even if the variables are adequately measured when the relationship between these variables was incorrectly predicted by the researcher. As such, the findings revealed that a few variables in this research were not able to accurately predict the individuals' financial behaviour.

3.2.2 Philosophical Assumptions

The positivism and post-positivism philosophical approach is followed throughout this research to enable the researcher to answer the research question by identifying, collecting, and measuring direct and indirect variables that affect the individual's decision leading to the engagement in a financial behaviour. Findings can be generalized to enable banks to predict and prepare new products to attract more individuals to engage more in a banking relationship.

Adopting positivism and post-positivism philosophical assumptions on social sciences usually leads to the development of models that can predict human behaviour (Rosenberg, 2005). Following these philosophical assumptions, this research presents measured concepts and variables registered independently by the researcher to state facts and find truth to establish reality (Johnson and Duberley, 2000).

Positivism and post-positivism philosophical assumption will determine this research framework as it implies that the researcher and the subject are independent and objective. According to these philosophical assumptions, knowledge can only be achieved and justified through experience, observation, and experiment (Gray, 2009). The researcher and the researched are separate and the epistemology (relationship) attempts to reflect reality in pure objectivity, adopting assumptions of social sciences and considering facts from acceptable knowledge to constitute good quality data in the form of numbers.

Given the positivism philosophical approach for this research that aims at studying factors that affect individual's level of engagement in a banking relationship; the paradigm position regarding ontology suggests that reality exists and can be discovered but humanity is unable to totally understand it, in this research it represents individuals' engagement in a financial behaviour. The epistemology within the research reflects findings that has been developed and progressed between the researcher and the researched to result into new findings that constitutes acceptable knowledge that are created as the investigation proceeds (knowing through making). The role of values represented by the axiology reflects the independence of the researcher from what is researched to maintain objectivity, which the positivism approach suggests.

3.3 Research Approach

There are two research approaches to theory development: deductive and inductive. According to Saunders et al. (2019), the inductive approach investigates why a phenomenon is happening. It is applicable when building a theory. Whereas the deductive approach tends to explain what is happening by using hypotheses to explain relationships among variables. According to King et al. (1995) and Grimmer et al. (2021) and as evident in several published research studies, a deductive approach is considered to be the most common process in the social sciences; a process of finding a clear theory from which a set of propositions are derived before even viewing or collecting any data. According to this view researchers must deduce the concepts that structure the variables under study then follow the strategy to measure the concepts, this will lead to the development of hypotheses then a research design that can test the implications of the theory under consideration.

In social sciences, it is agreed that the deductive approach is the most popular way to develop the theoretical knowledge base (Eriksson and Kovalainen, 2008). For this research, the deductive approach was followed, since the deductive approach tends to explain the financial behaviour of the individuals based on highly structured large samples and measurable variables that were measured and analysed through quantitative methods of analysis.

This research is theory driven thus, a deductive approach to theory development is followed subject to rigorous testing. The Theory of Planned Behaviour (TPB) is the base theory that assumes a social reality and provides the basis of explanation indicating causal relationships. The deductive approach starting from the TPB presents a set of related variables that presents a systematic view of a phenomenon specifying relationships among variables for the purpose of explaining such phenomenon. The deductive approach involves the use of hypotheses to explain the causal relationships among variables, mostly using quantitative methods (Saunders et al., 2019). Several hypotheses are developed and presented from the collected data, then values are analysed depending on a scientific quantitative approach. Social Science Theory is defined in terms of its ability to provide validity and understanding rather than its ability to enable measurement proof or prediction (Howell, 2013).

The purpose of this research is to understand and observe the effect of the independent variables (age, education, income, financial literacy, economy, economic knowledge, FinTech and trust) on the mediating variables (attitude, subjective norms, and perceived behavioural control), then relate and present new ideas and interventions to explain the dependent variable which is the financial behaviour towards level of engagement.

According to Popper (1959), an important part of the accumulation of scientific knowledge is to keep in mind that no single theory was able to account for all behaviours, limitations exist for each theory thus no single theory can be accurately generalized for everybody, necessitating the need to continue to modify existing theories on the basis of new collected data and present new predictions until better theories are found to replace the old ones.

Schutt, (2017) defines social science, as one of the main building blocks of the theory dealing with concepts and variables set of observed behaviours. Every observation made in everyday life, and every statement about it, is already permeated by theory, thus researchers' interpretations are reflected through social science research. This may link to the consensus theory where the researcher considers truth constructed through cultural and social actors. The consensus theory would reflect the researcher's interpretations concerned with the continuation of the social order in society. So, truth is constructed through cultural and social actors (Joas et al., 2009).

In this research the deductive approach will explain what is happening to individual's behaviour by using hypotheses to explain relationships of individual and social variables and observe their effect on the final financial behaviour. Truth is pursued and constructed through the individuals' cultural and social variables that explains the level of engagement in a banking relationship.

The rigour in the researcher study has to reflect the 'axiological' assumptions which represent the researcher's values. The reflection of own values, objectivity through the process of research will lead to consistency of thoughts and opinions and will further improve dependability and reliability of the outcomes. The other stage of the paradigm will include the 'rhetoric' assumption which is related to the researcher language of study. According to Howell's (2013) reality is identified when individuals understand of the world through their personal histories, culture, language and environment.

Both the axiological and rhetoric assumptions or mechanisms of paradigm may be considered the main reflexive means which clearly reflect the researcher personality, opinions and thoughts. The researcher's deductive approach is going to determine the criteria of evaluation and authenticity.

3.4 Research Methodological Choice

Howell (2013) stated that research involves understanding the relationship between theory, philosophy (ontology and epistemology), methodology and methods. Saunders (2019) clarified that methods of data collection are the techniques and procedures that are followed to collect and analyse data. Based on the above paradigm assumptions the researcher's relevant methodological assumption will reflect the process of research and follow a methodology that clearly explains how the researcher as investigator goes about finding out what he/she believes in and presents that to the reader.

Methodology can be defined as the strategy and procedure supporting the selection of the relevant methods of research (Crotty M., 1998). The methodology associated with the main paradigm of this post- positivist research is a survey methodology that is designed to collect primary data along with the existing secondary data from a sample of the population aiming at generalizing the results to the full population. Using a survey as a positivistic methodology will enable the researcher to investigate the dependent and independent variables collected from the sample population, investigate the effects then draw implications and conclusions that can be generalised (Gray, 2009).

3.5 Research Design

According to (Creswell, 2009) there are three research designs: qualitative, quantitative, and mixed methods. To answer the research question set in this study, an explanatory study is implemented to enable the researcher establish relationships between the different factors and participants. Within the domain of banking services, theories will be tested and validated through different target groups.

Given the availability of rich literature and studies in the domain of financial behaviour, the research will follow the deductive approach for theory testing using a quantitative methodological design, in line with Clark (1998); Giddings and Grant, (2007) that post-positivist paradigm favours the quantitative approach whereby the researcher and the researched are separate and the epistemology (relationship) attempts to reflect reality in pure objectivity.

Guba (1981) presented a model where the four aspects of trustworthiness in quantitative studies were identified as: truth value, applicability, consistency and neutrality. These aspects and strategies are important to researchers in designing ways of increasing the rigor of their studies, (Krefting 1990). Guba's model described four general criteria for the evaluation of research: Credibility, Transferability, Dependability and Confirmability. The four criteria are used to assess the aspects of trustworthiness and authenticity. However, due to different research approaches, the criteria of evaluation may slightly defer as follows:

Table 2.1 Criteria for Research Evaluation adapted from (Krefting 1991)

Criterion	**Qualitative Approach**	**Quantitative Approach**
True value	Credibility	Internal validity
Applicability	Transferability	External validity
Consistency	Dependability	Reliability
Neutrality	Confirmability	Objectivity

The adoption of a quantitative method research design in this research enables the internal and external validity testing to reflect true value of results. Reliability and objectivity are reflected by the consistency of the methodology and the neutrality of data collection methods and analysis, whereby the researcher and the researched are separate and relationship between them attempts to reflect reality in pure objectivity. In quantitative research, generalizability is considered a major standard for evaluating the quality of a study (Kerlinger and Lee, 2000; Polit and Beck, 2008). Using a quantitative research design is one of the most suitable approaches that would provide generalizable findings (Eriksson and Kovalainen, 2008). This research follows a rigorous testing through series of hypothesis, deducing testable hypothesis to form related theories. The tested variables are clearly defined and tested to ensure the ability to quantify. The research mainly uses primary sources of data to address its objectives, set new theories, and try to explain the reality to provide the knowledge required for the analysis.

3.6 Quantitative Research Method

According to Saunders et al. (2019), quantitative data is usually collected through questionnaires, surveys or structured interviews that are statistically analysed to explain relationships between variables. These methods are used to answer questions such as who, what, how much and how many. Gray (2009) considers this as a strategy to be applied in descriptive and explanatory research that is linked to the deductive approach. According to Boyer and Swink (2008) and Craighead et al. (2011), survey research contributes significantly to the progress in several business and management studies by validating and redefining the constructs derived from the theories, examining relationships, in addition to providing evidence from practical life. Surveys' efficiently collect large samples of data and have proven their ability to generalize the findings to populations.

Easterby-Smith et al (2013) stated that most business research following the quantitative method use what is called the inferential survey or questionnaire. Using the data collected by the questionnaire in explanatory studies enables the researcher to test and explain the relationship between variables (Saunders et al, 2019). For this research, the data is collected through a questionnaire distributed anonymously to Jordanian individuals aiming to examine the factors that affect their financial behaviour. Both individuals who maintain a banking relationship and others who choose not to have a banking relationship but able to use other means to process their financial services were included in this research.

The design process considered the requirement for internal validity and reliability of data collected; the rate of response; structure; and the robustness of the pilot study (Saunders et al., 2019). The questionnaire was administered both in English and in Arabic, checked for accuracy of translation and pilot tested with a sample group of participants. Web-based questionnaires were employed for this research, thus data was collected through social media platforms in addition to limited number of questionnaires collected manually. Data was then analysed using the Partial Least Squares Structural Equation Modelling (PLS-SEM) technique to support or reject the relationships hypothesised. This will further be explained at the upcoming sections.

The questionnaire survey explored several direct and indirect factors that influence individual's level of engagement in a banking relationship. The questionnaire pointed out independent factors which are the individual factors (age, education, income) and social factors (financial literacy, economy, economic knowledge, FinTech and trust) to address the first objective of the research. To address the second objective of this research, the questionnaire investigated the effect of the independent factors on the core or mediating factors (attitude, subjective norms and the perceived behavioural control towards the financial behaviours). An additional independent variable was added to the study (Trust) as an important influence affecting the core factors which added more strength to the findings. The influence of gender on the determinants of access to the financial system is the third objective of the research, this control variable was also explored to justify the low percentage of female access to the banking sector in Jordan.

The data was collected using questionnaire as a tool of the survey strategy that was well structured, standardized, tested, and administered by the researcher as the useful tool in explaining and relating variables by obtaining comparable and standardised data which once applied through the PLS-SEM technique provided more accurate explanations of the relationships between the investigated variables. The questionnaire method was in line with the positivism philosophy and enabled the researcher to address the research objectives reaching the aim of this research.

3.7 Questionnaire Design, Layout and Translation

3.7.1 Design

The questionnaire first draft was structured in English using JISC software. All questions were chosen and amended adequately from previous relevant studies, all referenced and accurately chosen and reviewed. The questionnaire included twenty-eight questions, to study factors which were chosen by the researcher from the Theory of Planned Behaviour (TPB) as the most relevant to the study, (details available in the following Section 3.8). The questions were comprehensive multiple choice with several detailed grid questions that included several questions in one question. The questions aimed at collecting information about the individual factors such as age, gender, location, education, profession, income. Other questions aimed at collecting data about social factors by testing their subjective norms.

In addition, some questions were testing individual's financial knowledge and literacy, financial attitude, economic outlook, individual knowledge in financial technology (FinTech), and some questions explored individual's perceived financial behaviour in addition to trust in banking.

The questionnaire started with a cover letter that briefly explained the purpose of the study; a statement assuring the full anonymity and confidentiality of respondents and the aim and objectives of the research were clearly stated (Bryman, 2012; Saunders et al., 2019). As recommended by Collis and Hussey, (2009) for a full positivism approach, all questions of the questionnaire were closed ended with multiple choices for the answers.

Using the multiple-choice option enables easy data collection, simple to construct and easy to answer questions, offering better comparable and measurable results using the Likert scale system in most questions, which is considered more reliable for comparison reasons (Ghuman, 2010). Despite the fact that many types of measures exist, most survey questionnaires used Likert-scales (Schmitt et al., 2004), which was originally used to test attitude and opinions whereby each item measures through a five -point -scale (Howell, 2003)

3.7.2. Translation & Layout

The questionnaire was then sent to a professional translating company in Jordan to translate the English questionnaire into Arabic, then a back translation was conducted to ensure accuracy. According to Zikmund (2010), back translation is the process of translating one questionnaire from one language to another then translates it back to the initial language by two different translators. Both English and Arabic translations were reviewed again by two translator experts in the field of banking and finance and a few amendments were made to familiarize participants with the required data; for example, the names of some electronic payment products that are offered by banks and financial institutions in Jordan were mentioned in order to clarify the meaning of FinTech products such as "Fawteercom".

Once the translation was completed, the layout of the questionnaire in both languages was not possible on the JISC platform due to language limitations options; thus, the best practical solution was to structure and prepare the questionnaire in both languages using “google forms” which produces hyperlinks that can be distributed via social media networks requesting participants to take part. The questionnaire was prepared in English and Arabic and layout testing was conducted to ensure clear presentation on all media screens especially the mobile phones.

To ensure obtaining unbiased responses; designing a questionnaire requires the use of clear academic wording, simple instructions on how to select answers, it is also essential to avoid jargon or abbreviations; offensive or embarrassing words that may result in biased responses, loaded questions nor using words that have different meanings or can be misunderstood, (Saunders et al., 2019).

Within the positivism approach of this research, simple, direct closed ended questions were used with participants provided with a set of possible multiple-choice answers (Collis and Hussey, 2009). Being an accepted measuring tool used by researchers (McNabb 2017; Monette et al., 2013) and relatively easy for the participants to answer and simple for the researcher to construct (Ghuman, 2010), the responses were measured on Likert scale which enable the participants to share their views and opinions on a scale ranging from low or negative to high or positive feedbacks (Madu, 2003).

The questionnaire was divided into sections to cover the following aspects of the research study:

1. Descriptive statistics (Age, Gender, Education level, Relationship Status and Profession)
2. Financial literacy capabilities.
3. Economic outlook and economic knowledge.
4. FinTech capabilities
5. Trust considerations
6. Attitude towards banking relationship
7. Subjective norms and social pressure
8. Perceived behavioural control towards banking services
9. Financial behaviour

3.8 Piloting the Survey

A pilot survey is considered to be a trial of the main questionnaire (Kothari, 2004) to ensure clarity of questions. After the questionnaires were prepared in both languages, structure, layout, and content were checked; additional validity was required from 50 pilot participants. The pilot study is defined as small-scale research that gathers data from a smaller number of respondents with the same characteristics of those that will be investigated in the full study (Zikmund, 2010).

3.8.1 Content validity

Validity refers to the extent to which the measurement instrument accurately measures what it is supposed to measure (Bryman and Bell, 2007). Creswell, (2009) stated that testing the questionnaire is useful to establish the validity of the instruments used to measure the variables; the instruments beings the questions used within the questionnaire. Testing the variables' validity in order provide assurance that the questionnaire can be administered without variability to the experimental group.

As a first step to test validity, the content of the questionnaire has to be evaluated by external parties. Initially, the first draft of the questionnaire was checked and reviewed by the three DBA supervisors at University of Plymouth; then first draft was distributed to twelve experts who are working in the field of banking and finance for validity checking. Validity is defined as "the extent to which data collection method accurately measure what they are intended to measure and research findings are in line with what they profess to be about", (Saunders et al. 2019, p. 820). The twelve experts responded with minor comments, mainly related to the length of some questions and the difficulty of some especially for individuals with limited banking background to understand. Also, some repetitions were noticed in a few of the questions. The feedback was taken into consideration and a few questions were amended to minimize overlaps and repetitions leading to second draft questionnaire that included better structured and twenty-nine more adjusted questions. The questionnaire was later sent as a hyperlink to the fifty pilot participants requesting their participation and feedback, before it was circulated to the main sample of respondents. The fifty pilot participants were mostly friends, relatives, and ex-colleagues. The feedback was mostly positive, and fifty responses were received then tested for construct validity and reliability.

3.8.2 Construct Validity and reliability

Construct validity refers to how the constructs are measured by the instrument. Construct is another term for concept (Vogt, 2007), and validity refers to whether the measure accurately reflects the concept that is supposed to be measured (Cooper and Schindler, 2003; Collis and Hussey, 2009). Construct validity is based on the background used to conceptualise the causal relationships among the constructs and how they correlate with each other, whereas reliability involved stability of the measure over time (external) and consistency with other measures at the same questions once assessing (internal) reliability (Bryman 2012; Brayman and Bell, 2011).

The first step in evaluating results using the PLS- SEM (see Section 3.13) involve examining the measurement models, if that meet all required criteria then the researcher needs to assess the structural model (Hair et al., 2014a). Guidelines to interpret results vary depending on the context, for example reliability for exploratory research should be minimum of 0.60 whereas for research depending on established measures the reliability should be 0.70 or higher.

The mostly used measure to assess reliability is the Cronbach's Alpha coefficient with values varying between 0 and 1 as confirmed by Field (2009). According to Pallant (2013) a value of 0.7 and above represents satisfactory reliability. A high value reflects good internal consistency of the items in the scale (George and Mallery, 2003). Using the Cronbach Alpha for construct validity of the first 70 participants including the pilot survey, the questionnaire provided the following results:

Table 3.1: Cronbach Alpha Coefficient- Pilot Survey

Constructs	**Cronbach alpha**
Attitude (ATTD)	0.900
Financial Literacy (FL)	0.691
Trust (TRUST)	0.816
Social Norms (SN)	0.883
Financial Technology (FinTech)	0.844
Perceived Behavioural Control (PBC)	0.893
Financial Behaviour (FB)	0.588
Economic Knowledge (EK)	0.898

The Cronbach Alpha value of 0.7 and above defines the reliability. The above results of the construct reliability test demonstrate that the variables that were chosen for the study with the exception of FL 0.691 and FB 0.558, have sufficient correlation among items measuring each construct. This can be explained as the other variables being ATTD 0.900, TRUST 0.816, SN 0.883, PBC 0.893 and EK 0.898, are strongly reliable as measurable variables for testing. These values highlight the reliability of the constructs in the questionnaire. Given the small size of the pilot survey participants, all constructs remain to be used for testing, given its relevance and that the Cronbach Alpha values are not far away from 0.70 and other reliability tests reflected better results for this pilot test as will be detailed at the following chapter.

According to (Hair et al. 2017b) evaluating the PLS SEM results involve two stages, stage one addresses the examination of the reflective or formative models or both followed by stage two to evaluate the structural model that involves testing proposed hypothesis and relationships among latent variables. For the reflective model tests include indicator reliability, internal consistency reliability, convergent validity, and discriminant validity evaluation tests. It is worth mentioning that the PLS SEM is the preferred approach when formative constructs are included in the structural model (Hair et al., 2019). There are several tests to examine and evaluate the formative measurement models such as convergent validity, indicator collinearity, statistical significance, and relevance of indicator weights (Hair t al., 2017a), which is applied to the full data collected and will be fully presented at the following chapter.

3.9 Sampling Design and Techniques

The purpose of sampling is to select particular participants from the target population to be surveyed. Since it is impossible to collect data from the entire population, sampling is used to allow researchers to collect data from a representative subset of the population, it provides a valid alternative to census (Saunders et al., 2019). It is argued that using sampling is more accurate than a census as it allows the researcher to gather more detailed data from fewer cases, (Barnett, 2002). According to Saunders et al. (2019) there are two types of sampling techniques: probability and non-probability sampling. These will be defined later.

3.9.1 Target Population and Sample Size

The target population is defined as a group of individuals with some common defining characteristic that a researcher can study (Creswell, 2013). For this research, the target population included Jordanians living in the largest eight cities of Jordan. Determining the appropriate sample size is very important, the larger the sample size, the less likely it is to produce errors in generalizing the findings from the sample to the total population and a larger size is more likely to be normally distributed when analysing the resultant data (Saunders et al., 2019).

For this research, a widely used table presented by Saunders et al. (2019, p- 302) was applied to determine the appropriate sample size using 95% confidence level, 5% margin of error which explains the accuracy of the estimated population. Since the target Jordanian population is around 10 million, which is within plus or minus 3 to 5 per cent of its true value, and the margin of error is 5%, the required sample size is 392 and the required response rate needed is 50% or more. The questionnaire was received and fully completed by 542 participants living at the largest eight cities in Jordan namely, Amman, Zarqa, Irbid, Ajloun, Aqaba, Al Mafraq, Madaba, and Balqa in addition to Jordanians living abroad who maintain accounts at Jordanian banks and familiar with the financial system in addition to those who do not maintain any banking relationships. The data collection process started in July 2021 and ended in November 2021, which was considered to be a difficult period given COVID constraints with extraordinary difficult conditions on a personal and economic level for most individuals.

3.9.2 Sample Method

In order to obtain the required information from the target population, a sampling method has to be identified and followed. According to Saunders et al (2019), the sampling method may be probability or non-probability sampling. Probability sampling suggests that each individual in the population has the same equal chance of being selected to participate in the sample; it includes four methods: simple random, systematic, stratified and cluster sampling method. Non-probability sampling does not include in its sample any probability or random selection, it is implemented using one of the four non probability techniques to select the sample: convenience, snowball, judgment and quota sampling.

Selecting the sampling method depends on the nature of the study, the availability of samples, time and financial resources (Hair et al., 2014). For business and management, probability sampling is deemed to be impossible or inappropriate in most research. Non-probability samples became very common along with the rapid growth of online questionnaire. It has enabled researchers to perform in depth studies and gather more information from a small number of cases, which made it more relevant to answer the research question and meet their study's objectives (Saunders et al., 2019) & (Schillewaert, et 1998).

This research study applied two non-probability sampling techniques to obtain a broad view on the individual and social factors that influence individuals' level of engagement in a banking relationship in Jordan. The first technique was "Quota Sampling". This technique is an alternative to probability for internet questionnaires with more advantages in terms of cost and speed of data collection from large target populations (Saunders et al., 2019). This technique was used to try reach the ideal number of individuals from the largest eight cities in Jordan. However, most participants who answered the questionnaire electronically were from the capital Amman. The limited number of responses received from locations outside the capital was due to several factors such as internet limitations, lack of interest and COVID restrictions.

In order to increase the participation ratio and reach other areas in Jordan, another non-probability technique was used "Convenience Sampling", also known as "availability sampling", which involves haphazardly selecting participants because they are available in that location (Saunders et al., 2019). This has been done by travelling to some areas outside the capital, at the main cities under study and request random individuals to complete the questionnaire. The convenience sampling method has been used in many social science and business research studies and has been found to be appropriate to address the research objectives more accurately (Meyer and Hamilton, 2020), (Vehovar, and Manfreda, K.L. 2008). Several research studies using non-probability surveys were also published in in high-quality, peer-reviewed journals including, Griswold & Wright (2004); Martin (2009); O'Brien (2017); Sagar et al. (2016).

3.10 Data Preparation and Collection Process

After successful piloting and encouraging Cronbach Alpha results, the researcher opted to use an internet-based tools as an optimal way to distribute the questionnaire in both Arabic and English. Google forms provides a link that was distributed via social media networks; WhatsApp, Facebook groups, LinkedIn, personal emails and for some participants it was handed manually to be completed then collected in pools after few days. The questionnaire included twenty-nine questions and was available for access in English and Arabic (Appendix B and C). The first page of the questionnaire was structured as an introductory letter whereby the researcher presented the research question and explained the purpose, motivations, and implications of the survey. Furthermore, the first page indicated clearly that participation was voluntary; participants were given the freedom to continue and undertake the survey or leave the survey, this is in line with an ethical principle called "informer consent" according to Kalof et al. (2008) and Myers et al., (2020).

The data collection started online and in person in July 2021, however, the constrains and impact of Covid have affected the options for collecting data especially when it was manually distributed and reaching some parts of the country was difficult. The responses of the online questionnaires were automatically received in two separate detailed excel sheets, one from the Arabic questionnaire participants and the other from the English questionnaire participants. Following the convenience sampling technique, additional questionnaires were manually distributed in areas outside the capital Amman, the questionnaires were left in public and private places then collected after few days ensuring all needed hygienic and distancing requirements. Manually completed questionnaires were collected then added at the end of the period manually to the excel sheets. The data collection process was concluded at the end of November 2021, then the data was consolidated in one excel sheet and coded then the analysis of the findings started.

By end of November 2021, a total of 550 participants started the questionnaire of which 542 usable responses were received. However, the largest percentage of responses remained from the capital Amman, as stated in the table below:

Table 3.2: Population Distribution and Sample Size

City	Population Distribution	Ideal Sample	Actual Sample	Actual Percentage
Amman	39%	195	416	76.75%
Irbid	20%	100	45	8.30%
Balqa	14%	70	33	6.09%
Zarqa	6%	30	12	2.21%
Others	21%	105	36	6.65%
Total	100	500	542	100%

The participation ratio from the different locations and by gender is presented at the graphs below:

Figure 3.1: Geographical Coverage

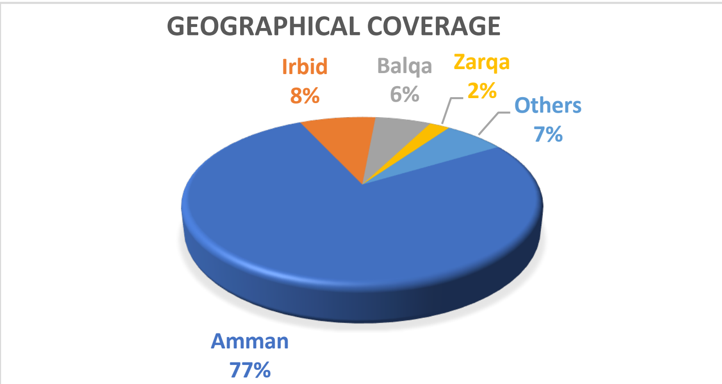
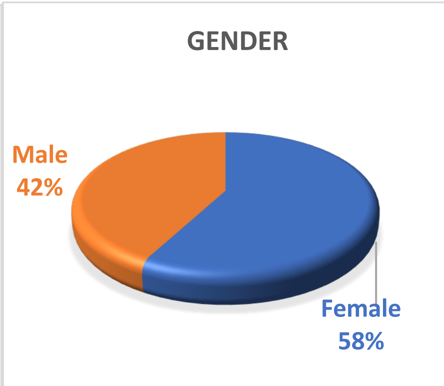


Figure 3.2: Gender



3.11 Ethical Considerations

Conducting research requires several ethical considerations in every stage of the study to ensure objectivity, truthfulness, thoroughness, and relevance (McNabb, 2017). According to Saunders et al, (2019), these issues need to be considered to protect the researcher and the participants' rights throughout the research process by adopting appropriate behaviour in dealing with them and gathering their information in a way that is trustworthy to be able to generalize the research findings, thus enhancing the reliability as well as the credibility of the study. The four issues that were identified by McNabb (2017) imply that the researcher should be trustworthy in stating all findings thoroughly without any change or fraud or bias to ensure objectivity and relevance. This includes protecting the participants' privacy and ensure anonymity in collecting and publishing findings to ensure confidentiality, which will increase the level of trust between the researcher and participant (Jankowicz, 1995).

The ethical issues of this study have been evaluated and approved by the Faculty Research Ethics and Integrity Committee (FREIC) at the University of Plymouth based on its ethical codes of practice guide. Receiving the ethical approval by this committee is a requirement before the start of collecting any data for either the pilot or the main study. In order to achieve the FRIC approval, a detailed "Data Management Plan" was provided stating details related to the research aim and objectives, research methodology and data collection process, documentation and metadata in addition to the researcher ethical and legal compliance commitment of data access, storage, backup in addition to the data selection and preservation.

Responsibilities of data sharing and resource security was also mentioned in the data management plan. In addition to the data management plan, the business ethical application form was completed and sent along with a copy of the questionnaire to the committee. The FREIC1920.45 approval was received on October 28, 2020.

Furthermore, research should start with "informed consent", to ensure that each participant has the right to accept or refuse to take part at the research, i.e., the participation is completely voluntary according to Kalof et al. (2008) and Myers (2020). This "informed consent" is usually presented in the first part of the research questionnaire along with an explanation of the research aim and researcher profile which serves as a highlight to clarify why the participant is requested to complete the questionnaire.

A further requirement by the University of Plymouth supervisors was to attend the General Data Protection Regulation known as "GDPR and Information Security" course and pass the online exam to achieve the Certificate of E-Learning. This is an EU regulation regarding online data protection and security handling. The certificate was awarded to the researcher on May 7th, 2021.

For this research, the ethical considerations regarding the participants involved informed consent that their confidentiality would be respected, and that their participation is voluntary. The published questionnaire started with the following informer consent explaining the aim of the study along with the choice to complete or withdraw (Appendix B and C).

3.12 Techniques and Procedures

3.12.1 Measurement Variables

The primary aim of this research is to determine the indirect (individual and social factors) that enhance individuals' level of engagement in a banking relationship in Jordan. After clarifying the research methods, this section will present an overview of the instruments that were used to measure these variables, mainly the selected individual and social factors that are expected to influence individuals' level of engagement in a banking relationship. This implies that indirect variables (individual and social factors) are expected to influence the core factors or mediating factors that would lead to the changes in the dependent variable which is the individuals' financial behaviour. Hence, the independent variables for this research are age, education, income, financial literacy, economy and economic knowledge, financial digitalization FinTech in addition to trust. With respect to the individual's attitude, social norms, and perceived behavioural control these are the variables through which the effect is explained and thus are the mediating variables (Saunders et al., 2019). The model below explains these relationships and summarizes the variables under study:

Figure 3.3: Independent, Mediating and Dependent Variables and Relationships

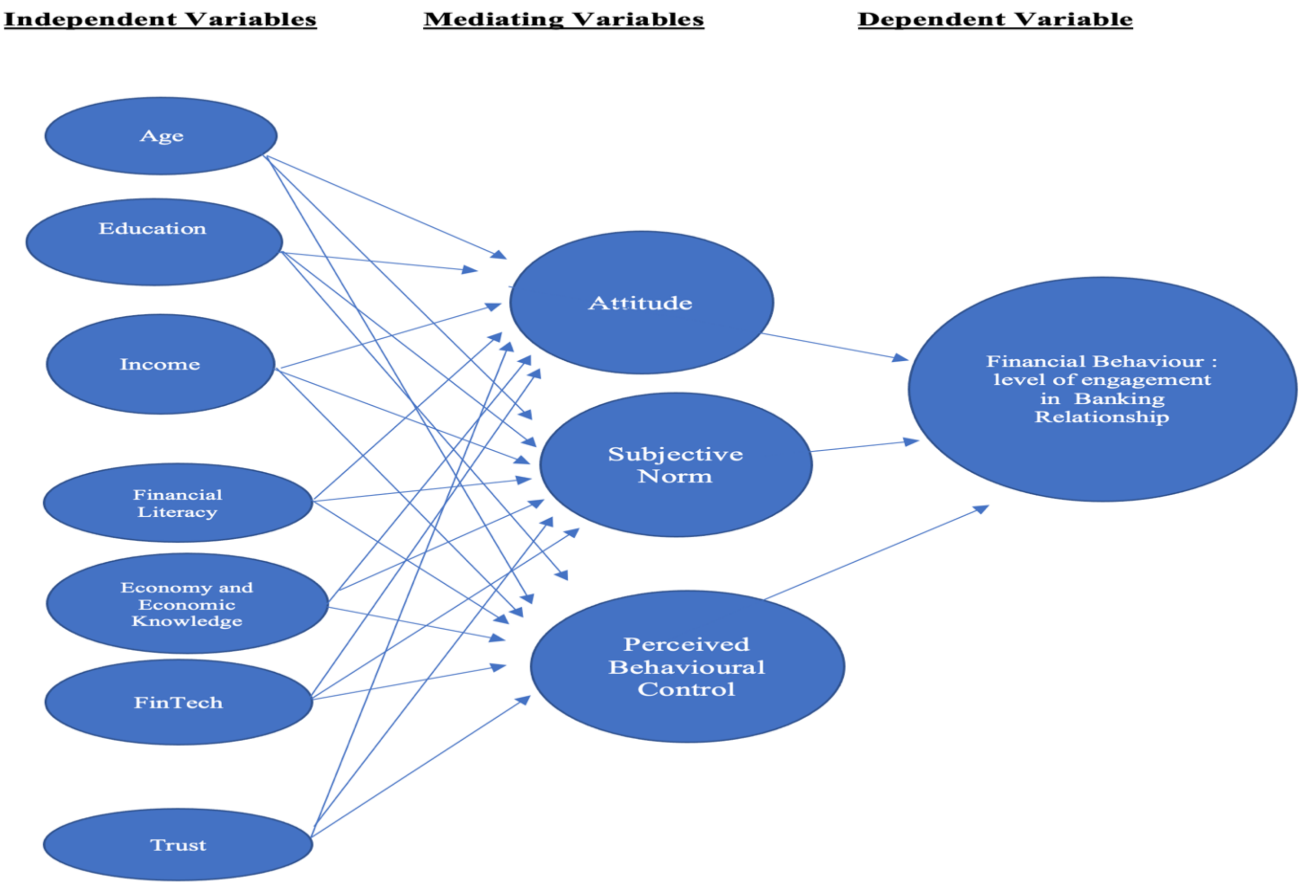


Figure 3.4 (Appendix F): PLS System Generated Independent, Mediating and Dependent Variables and Relationships

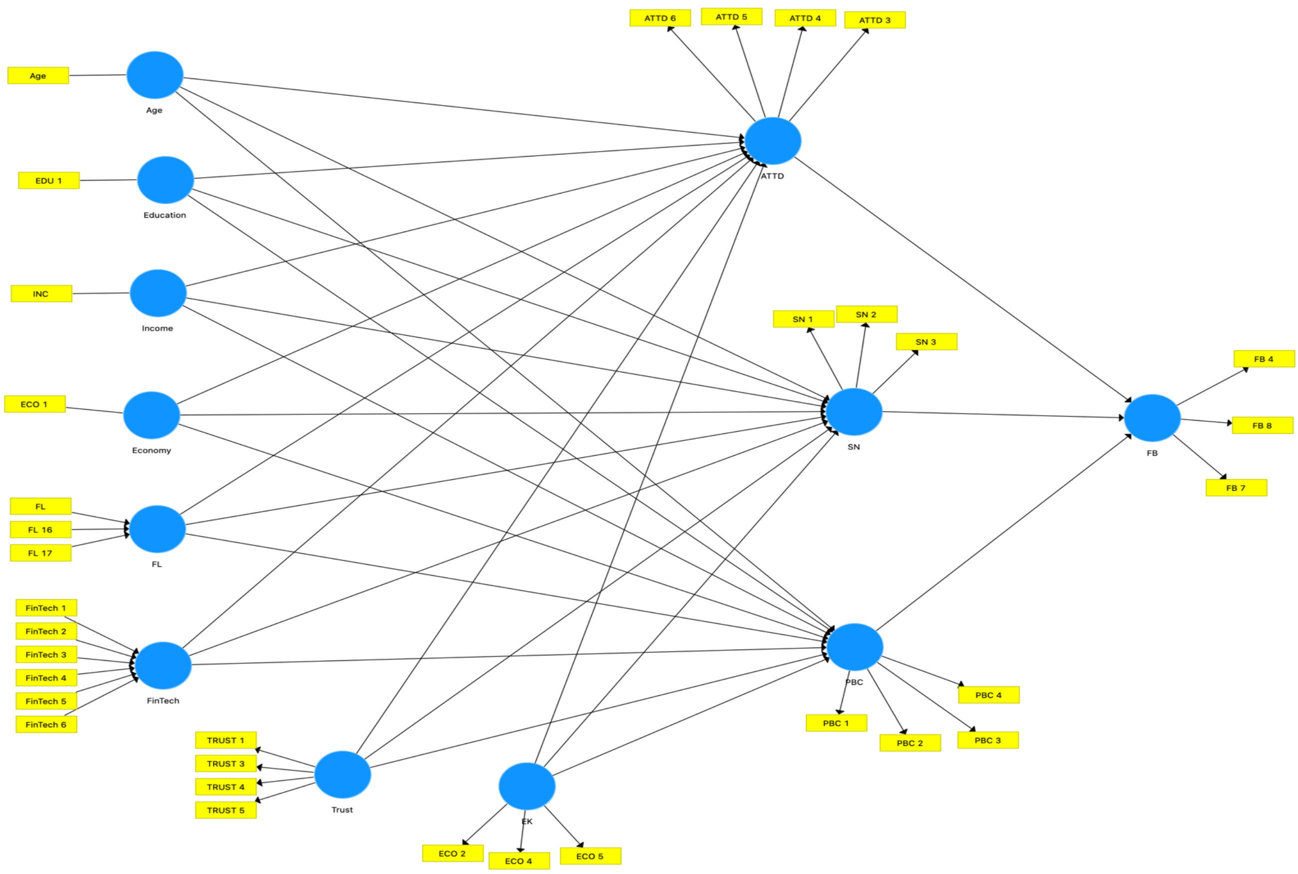


Figure 3.4 is the system generated model that reflects the independent, mediating, and dependent variables under study. These variables are represented in the blue circles and the arrows represent the relationships under testing. The yellow boxes are the questions that were used to evaluate these variables by participants who completed the questionnaires.

3.12.2 Independent Variables

To measure the independent variables, a set of questions were chosen from previous relevant accredited studies to cover each variable. Age, marital status, profession, locations, and income were direct questions. Education was measured using the five-point Likert scale from “less than high school” to “higher studies”.

Economy (ECO) and Economic Knowledge (EK) were measured by the statements set out in Table 3.3. All the items were measured on a five-point Likert scale ranging from “strongly disagree” to “strongly agree”.

Table 3.3 ECO & EK Statements	Source
1) In the next three years there is a risk of depression in the economy (ECO1) 2) Economic growth is necessary to finance public health and pension systems. (EK/ECO 2) 3) Economic growth is necessary to improve all sectors. (EK/ECO 4) 4) Economic growth raises incomes which in return make people care more about financial decisions. (EK/ECO 5)	(Kulkarni & Bharati, 2020)

Financial Literacy was measured using the following questions outlined in Table 3.4. The first question was measured on a five-point Likert scale starting "I have a major in finance or economics" to "I have not taken any economics or finance course ever". The second question was measured on a five-point Likert scale ranging from "very good" to "very poor". The answers of the third question were combined in one answer stating the number of products they know. The last two were given multiple choice answers to choose from after making needed calculations, these questions were not used in the inferential analysis as the participants were tested on their knowledge whereas the other questions and statements were opinions and behaviourally based.

Table 3.4: Financial Literacy (FL) Questions	Source
1.Which of the following best describes your education in finance or economics? (FL17) 2. How would you rate your financial knowledge level? (FL 16)	(Widyastuti et al., 2020)
3.Indicate whether you have heard of any of these types of financial products: (if yes indicate if you personally or jointly hold and of these types) (FL)	(OECD, 2016) (Lusardi & Mitchell, 2011) (van Rooij et al., 2012) (Ramalho & Forte, 2019)
1) A loan secured by property	
2) An unsecured loan	
3) A current/ checking account	
4) A savings account	
5) A microfinance loan	
6) Stocks or shares	
7) Bonds	
8) A prepaid debit card/payment cards not related to a bank account.	
9) Crypto assets	
3. Suppose you have £100 in a savings account earning 2% compound interest a year. After 5 years, how much in total would you have in the account?	
4. Imagine now that the interest rate on your savings account is 1% a year and inflation is 2% a year. After one year, would the money in the account buy more than it does today, exactly the same, or less than today?	

FinTech was measured through the following questions stated in Table 3.5 below. The first two questions were measured using 5-point Likert scale ranging from "never" to "everyday", "never" to "5+ times", and the last question was measured on a five-point Likert scale ranging from "strongly disagree" to "strongly agree".

Table 3.5 FinTech Questions	Source
1.FinTech services are defined as innovative financial services using new technology tools, such mobile technology, online banking, mobile banking, online personal loan, online insurance….How often is your Fintech service usage? (FinTech 1) 2. How many times last week did you use e-banking facilities? (FinTech 2) 3. FinTech & Beliefs: 1) When performing a financial transaction on the internet I know exactly what will happen (FinTech 3) 2) I use my mobile phone to make or receive payments (FinTech 4) 3) Internet/online transactions always function as expected (FinTech 5) 4) I trust the internet/ FinTech services (FinTech 6)	(Grabner-Kräuter and Faullant, 2008) (Hu et al., 2019)

Trust was measured through the following questions stated in Table 3.6. Items were measured on a five-point Likert scale ranging from "strongly disagree" to "strongly agree".

Table 3.6: TRUST Questions	Source
How much do you agree/ disagree with the statements below? 1. With adequate safety measures I do not hesitate to enter my credit card information (TRUST 1) 2. I trust and willing to depend on a bank (TRUST 3) 3. When performing a transaction with my bank I know exactly what will happen (TRUST 4) 4. Banking transactions always function as expected (TRUST 5)	(Grabner-Kräuter and Faullant, 2008)

3.12.3 Mediating Variables

Attitude, subjective norms and perceived behavioural control are the mediating variables that are expected to be affected by the independent variable and directly affect the dependent variable which is the individual's financial behaviour. The review of literature has revealed relationship between individual's perceptions and attitudes toward financial behaviour. In this study, the respondents were asked about their level of perception regarding their banking experience. To measure individual's attitude and the effect of perceived behavioural control on behaviour the following questions were used. The three mediating variables were measured through the following questions via a five-point Likert scale ranging from "strongly disagree" to "strongly agree"

To measure the core factors' effect on financial behaviour, the following questions stated in Table 3.7 were used:

Table 3.7: Core Factors Questions:	**Source**
Subjective norms (SN) 1)My friends or relatives would support my decision to own an account at a bank (SN1) 2)People who are important to me would prefer that I have one or more banking relationships (SN2) 3)My family and friends think I should use various services by the bank (SN3)	(Kim and Lee, 2019)
Financial Attitude (ATTD) 1)Before buying something, I compare prices (ATTD 3) 2)Before signing a financial contract, I carefully read its contents (ATTD 4) 3)The first thought I have when I borrow money is that I want to return the money on time (ATTD 5) 4)Before making online payments, I am concerned about the security of my data (ATTD 6)	(Çoşkun & Dalziel, 2020)
Perceived Behavioural Control (PBC) 1)I feel in control when using various services offered by my bank (PBC1) 2)I think I have the resources, knowledge, and ability to use the various facilities and services provided by the banks (PBC2) 3)If I want to use the banking services, it would be easy (PBC3) 4)Using banking services would enable me to accomplish tasks more quickly (PBC4)	(Grabner-Kräuter & Faullant, 2008) (Hu et al., 2019) (Ajzen, I., 2002) (Çoşkun & Dalziel, 2020)

Following the discussions in Chapter Two of the Literature Review which presented studies confirming the importance of the above three dependent variables on the final behaviour, this study employed several approaches to measure each variable, thus clarifying the final effect on the financial behaviour. The upcoming chapter will provide details in relation to these relationship measurements using the PLS SEM.

3.12.4. Dependent Variables

The model presented in Section 3.12.1 above explains the relationships; and the dependent variable at the end represented the financial behaviour that is affected indirectly by the independent variables throughout the intermediate variables being individual's attitude, social norms, and perceived behavioural control. These are the core factors or variables through which the effect is explained and thus, these are the mediating variables.

Earlier studies (Jafarkarimi et al. 2016; Manning 2011; Ibrahim and Arshad 2017; Ambad and Damit 2016) have clearly stated that financial behaviour is the outcome of individual's attitude, social norms, and perceived behavioural control, and are the reflections of the individual's background factors. The financial behaviour as the dependent variable was measured using the following questions as outlines in Table 3.8.

Table 3.8: Financial Behaviour (FB) Questions	**Sources**
1) When you think about banking services, do you think of it as something you need or don't need? (FB7)	(OECD, 2016)
2) When I get money, I save some of it at the bank no matter what (FB4)	(Widyastuti et al., 2020)
3) Overall, I would find my banking relationship to be advantageous (FB8)	(Çoşkun & Dalziel, 2020)

3.12.5 Control Variables

As clarified earlier in the conceptual model Figure 2.9, the control variable in this research, is "gender", which is believed to have an effect on the financial behaviour given the fact that the percentage of female with banking relationship in Jordan is much lower than for males. This gender will be measured and tested as the control variable which will help infer the relationships between the main variables of interest.

3.13 Using PLS-SEM

The PLS-SEM technique is used widely in business research, as reported by the top 20 marketing journals stating the published studies that were conducted using the PLS-SEM technique offered the researcher a considerable flexibility in terms of model specifications and data and it is considered to be an adequate technique for both theory building and testing (Hult et al., 2009 and Hair, 2011).

This study employs a Partial Least Squares Structural Equation Modelling method, referred to as PLS path modelling which is a popular method for estimating complex path models with latent variables and their relationships. This method is used for investigating cause effects interactions between constructs and variables and is suitable for both theory building and testing (Hair et al., 2011).

PLS path modelling does not require a large sample size, does not require normality, is suitable for prediction-oriented research, and can deal with reflective, as well as formative, measurement models. Hence, why it is considered a flexible model and is preferred by many researchers (Gefen, et al., 2000; Henseler, et al., 2009).

PLS SEM estimates the parameters of a set of equations in a structural equation model by combining principal components analysis with regression-based path analysis (Mateos-Aparicio, 2011). It is very popular in the domain of business and management research and social science disciplines such as international management (Richter et al., 2016), operations management (Peng and Lai 2012) marketing and strategic management (Hair et al, 2012, 2014a, 2014, 2019), marketing management (Purwanto et al., 2021), human resource management (Ringle et al., 2019), education management (Asbari et al., 2020) and (Purwanto et al.2021), hospitality management (Ali et al., 2018) and supply chain management (Kaufmann and Gaeckler, 2015), and has featured in special editions of scientific journals (Rasoolimanesh and Ali, 2018; Shiau et al.,2019; Sarstedt et al., 2022).

The principal step of SEM is the establishment of a path model which is a diagram that displays hypotheses and variable relationships to be estimated (Bollen 2002). A path model displays “constructs” also referred to as “latent variables”, which represent conceptual variables that the researcher has defined in the theoretical model. These constructs appear in circles linked via single headed arrows that represent predictive relationships to the “indicators” that are also names or “manifest variables or items” that appears in rectangles and represent the raw data collected whether directly measured or observed.

The latent variables on the left side of the model see (Section 3.12.1) are the independent variables and the ones at the right side of the model are the dependent variables. Latent variables may serve as independent and dependent variable in a model (Haenlein and Kaplan 2004). In this research the constructs that appeared as latent variables and were considered independent variables were Age, Income, Education, Economy, Economic Knowledge, Financial literacy, FinTech and Trust. Each construct was linked to indicators that measured these constructs, represented by answers from the survey questions measuring that construct.

The remaining constructs appearing as latent variable at the middle of the model are the dependent variables and included Attitude, Social Norms, Perceived Behavioural Control and the Financial Behaviour in addition to the Gender which can be considered here both as an independent and dependent latent variable appears to the right of the model.

The path model consists of the "structural model" that represents paths among constructs and the "measurement model" that represent relationships between each construct and its related indicators. Technically, the PLS SEM algorithm computes the relationship between the measurement and the structural model, the algorithm computes a partial regression relationship between the two models by using separate ordinary least squares regressions. The strength of the relationships between the latent variables appears as numbers on the arrows representing path coefficients which are the results of regressions of the latent variables with the direct constructs (Sarstedt et al., 2017).

The first step to evaluate the PLS SEM results is the examination of the measurement models; once the required criteria is met and the validity of the measurement model is established then the structural model has to be assessed (Hair et al, 2017). According to Diamantopoulos and Winklhofer (2001), Coltman et al. (2008), there are two types of measurement models: reflective measurement models that have direct relationship from the construct to the indicators, and the formative measurement models which is a linear combination of a set of indicators forms the construct with two types of indicators, casual indicators and composite indicators (Bollen and Bauldry, 2011).

For this research the questionnaire data was analysed using the Smart PLS3 in two steps; first is the measurement model assessment which was conducted to evaluate and assess the reliability and validity of the construct measures (reflective and formative models), second conducting an evaluation of the structural model to assess the strength of the relationships among variables. Interpreting the adequacy of PLS SEM results, is based on several guidelines developed by researchers (Chin, 1998, 2010; Götz et al. 2010; Henseler et al. 2009; Tenenhaus et al. 2005; Roldán and Sánchez-Franco 2012; Hair et al. 2017b). A rule of thumb is broadly applicable and applied to these guidelines for decision making which should not strictly be applied to every situation.

3.14 Summary

This chapter presented the quantitative methods situated within the positivism philosophy, adopting an explanatory deductive approach to test the relationships amongst the quantitative variables. The research is applying the TPB to study the effect of individual and social factors on the financial behaviour in Jordan. A questionnaire was the tool used for data collection from participants in the major large cities in Jordan to study the individual and social factors that affect their attitude, social norms and perceived behavioural control leading to their financial behaviour around establishing a banking relation or deciding not to establish such a relationship.

The research strategy section detailed the content and construct validity measurement clarifying the process of preparing the questionnaire. This included the process of questionnaire being reviewed by supervisors, experts, pilot group before being tested and translated to Arabic to ensure that the questions would be fully understood by the respondents, whose mother tongue is Arabic. The back translation technique was used to validate the Arabic copy and the translation was further edited by expert translators in the banking field to ensure it matched the original as much as possible.

Pilot testing was conducted was then analysed using the PLS SEM to validate the main constructs of the study. The preliminary results showed encouraging reliability statistics confirming that the retained items in almost all constructs were adequate. The questionnaire was published via social media networks and 542 usable responses were received from participants.

The following chapter will present the findings, descriptive and inferential analysis of the of data collected using the PLS SEM system.

CHAPTER FOUR: RESEARCH FINDINGS

This chapter presents the data collected for this research study. Findings and results of the quantitative analysis are presented to determine the factors that affect individual's level of engagement towards a banking relationship in Jordan. The chapter will start with presenting the descriptive statistics of the data collected then will provide detailed inferential analysis using the PLS-SEM. The data presented in this chapter is based on sample of 542 individuals who participated and fully completed the questionnaire that was distributed in Jordan during the period July-November 2021.

4.1 Descriptive Statistics

4.1.1 Sample Characteristics

The following discusses the sample characteristics in terms of age, gender, marital status, education, and income. Table 4.1 and the Figure 4.1 below shows the proportional distribution of age among the participants. It was noticed that around fifty eight percent (58%) of the participants were between the age of 40-59 years, compared to around seventeen percent (17%) the same age group at the actual population in Jordan, (Department of Statistics, 2022). Nevertheless, the researcher values the contribution of this age group, as they witnessed the technological advances in the financial sector and experienced the banking developments and service evolutions over the past two decades.

Table 4.1: Demographic Profile of Survey Participants

AGE	**Count**	**Percentage**	**Actual Population**
< 19 years	13	2.40%	44.3%
20 - 24 years	22	4.06%	9.9%
25 - 29 years	46	8.49%	8.7%
30 - 39 years	90	16.61%	14.5%
40 - 49 years	131	24.17%	10.9%
50 - 59 years	183	33.76%	6.3%
60 +	57	10.52%	5.5%
Total	**542**	100%	100%

Figure 4.1: Age

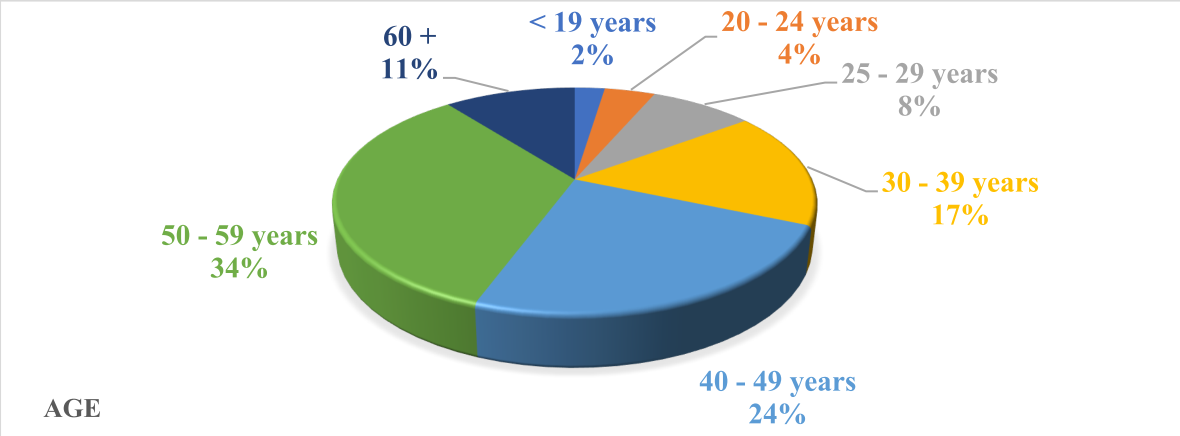
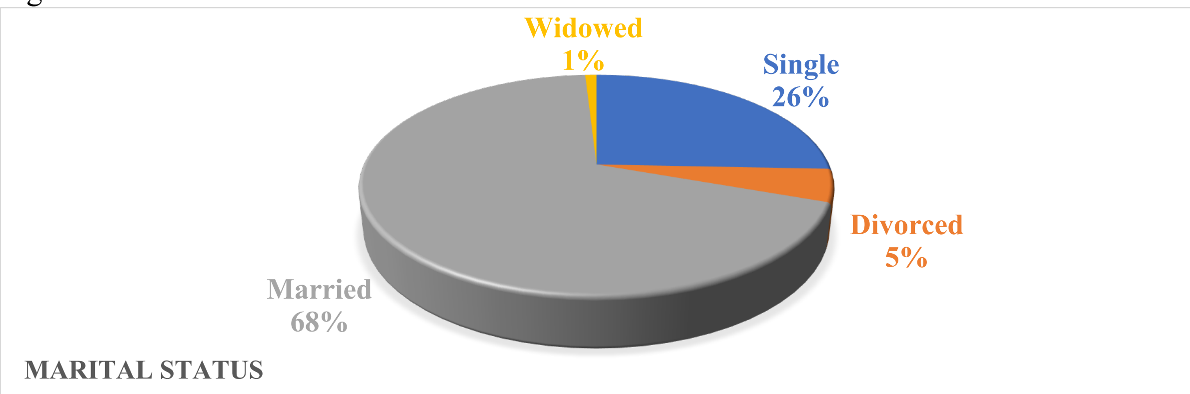


Figure 4.2 below clarifies that the majority of participants, around sixty eight percent (68%) were married, and around twenty five percent (25%) were single.

Figure 4.2: Marital Status



The data in Tables 4.2 & 4.3 and Figure 4.3 clarifies that around sixty five percent (65%) of the participants are private business employees, business owners or self-employed. Results showed that eighty five percent (85%) of the participants hold both a graduate and post graduate degrees. Furthermore, around fifty five percent (55%) have been exposed directly or indirectly to economics and finance studies or courses.

Even though this group of participants may not accurately reflect the Jordanian society; the results may justify the high percentage of bank account ownership among these participants reported at above ninety seven percent (97.6%) and the high level of engagement in banking relationships among this group. The majority of participants live in the capital Amman which is the main business and financial centre. Furthermore, as per Table 4.2 over sixty six percent (66.05%) of participants work in private business, business owners or self-employed, suggesting another justification of high level of engagement in banking relationships.

Table 4.2: Profession Distribution

Profession	Count	Percentage
Private business employee	238	43.91%
Business owner / Self-employed	120	22.14%
Housewife	56	10.33%
Student	34	6.27%
Government employee	29	5.35%
Retired	26	4.80%
Unemployed	22	4.06%
Other	17	3.14%
Total	**542**	**100%**

As per Figure 4.3 and Table 4.3, eighty five percent of participants hold higher educational degrees (graduate and postgraduate) and 55% of the participants have financial knowledge either from studying finance, economics or related subjects at universities or colleges or from participating in non-academic training; thus, the financial literacy level of this group of participants may certainly be considered high. The participants were given ten different types of financial products to indicate if they personally know or hold any of these products; and 55% of participants indicated that they know or hold at least 6 out of the 10 financial products or services, reflecting a well informed and involved group of participants in their banking relationships.

Table 4.3: Level of Education

Highest level of Education	Count	Percentage
Less than high school	3	0.55%
High school	16	2.95%
Diploma	48	8.86%
Graduate Studies (BA, BSc...)	300	55.35%
Postgraduate/ Higher Studies	175	32.29%
Total	**542**	**100%**

Figure 4.3: Level of Education

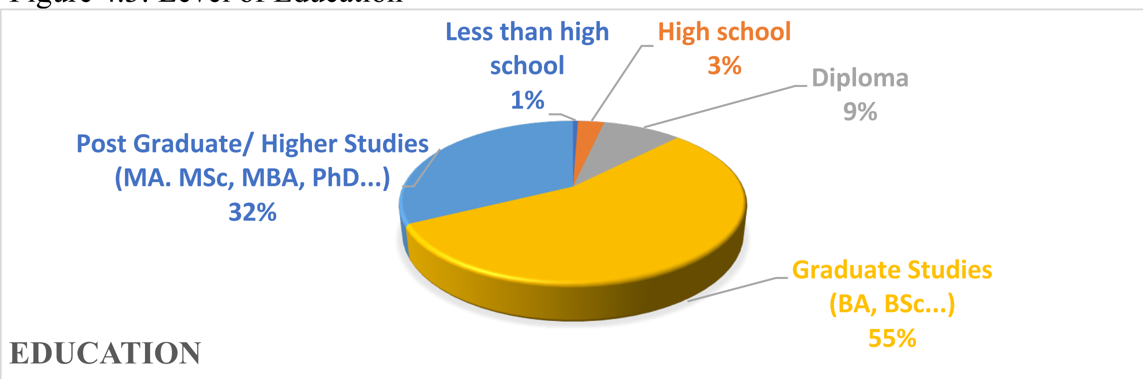


Figure 4.4: Financial Education

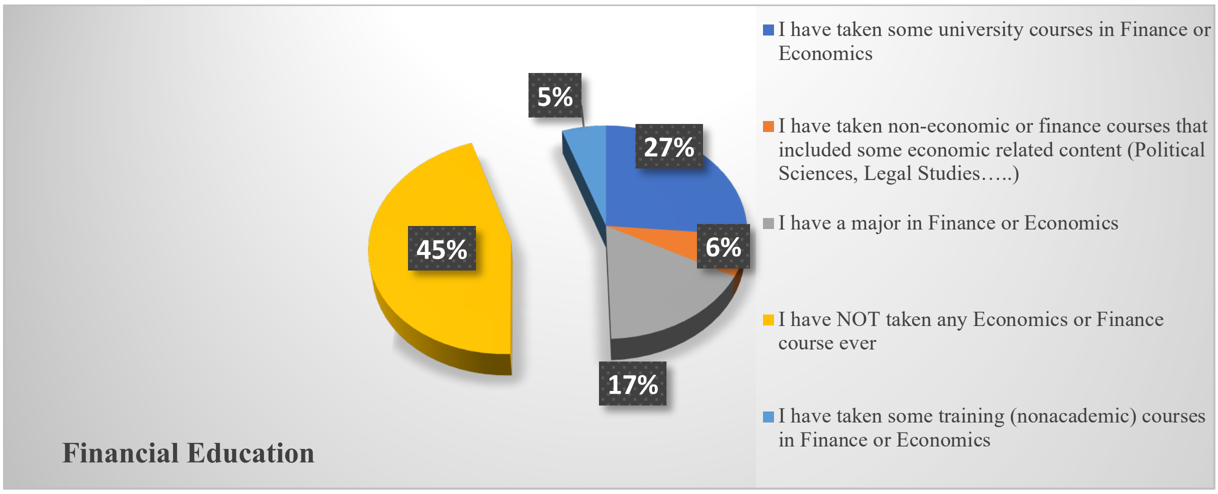


Table 4.4 and Figure 4.5 identify the income distribution among the five hundred forty-two 542 participants reflecting that the highest percentage of the participants above thirty one percent (31.37%) are earning monthly JD 1001-JD 2500 (USD 1400-3500). These results are considered high compared to the average annual Jordanian household income of JD 11,512.40 (USD 16,238) as per the latest survey issued by the Department of Statistics for the year 2017 (Tables of expenditure and household income | Department of Statistics, 2022). The findings are considered high even when compared to the per capita income in Jordan of JD 2,871.10 (USD 4,050) for the year 2020 (Department of Statistics, Jordan, 2022)- Appendix D.

Figure 4.5 Monthly Income

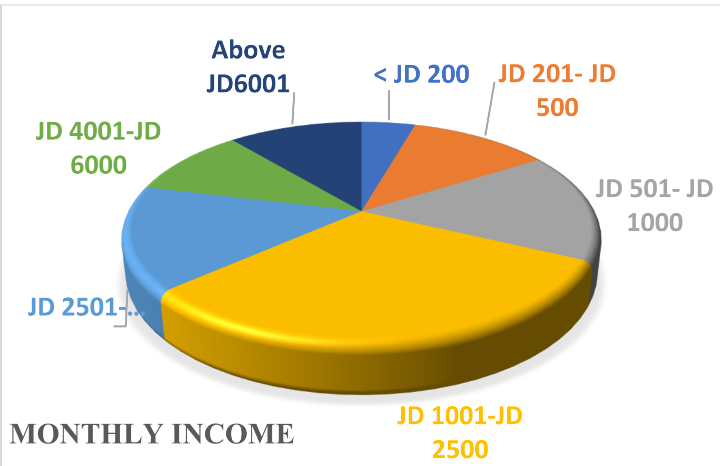


Table 4.4: Income Distribution

Monthly Income	Count	Percentage
< JD 200	24	4.43%
JD 201- JD 500	63	11.62%
JD 501- JD 1000	87	16.05%
JD 1001-JD 2500	170	31.37%
JD 2501-JD 4000	83	15.31%
JD 4001-JD 6000	55	10.15%
Above JD6001	60	11.07%
Total	542	100%

As per Figure 4.6, a question to the participants about how often they use the banking services, thirty eight and a half percent (38.5%) stated that they use the services extremely often (almost daily), in excess of thirty six percent (36.7%) use the banking services very often (weekly), in excess of eighteen percent (18.2%) are somewhat often and only the remaining six and half percent (6.5%) stated that they do not use the banking services so often or they never use.

Again, these results reflect that the participants maintain high level of engagement in their banking relationships. Figure 4.7 highlights the answer to a question related to the need for banking services which further strengthened the earlier discussions about the participants. A high percentage of the participants ninety eight percent (98%) maintain banking relationship in the form of account ownership with a large proportion maintaining high engagement levels since seventy five percent (75%) demonstrated high usage of their banking services at least once a week and eighty four percent (84%) of participants confirmed that they 'definitely need' to engage in their banking relationship by using more services. Another question reflected that eighty percent (80%) of them used the e-banking facilities 1-5 times during the last week of participation in the survey.

Figure 4.6: Usage of Banking Services

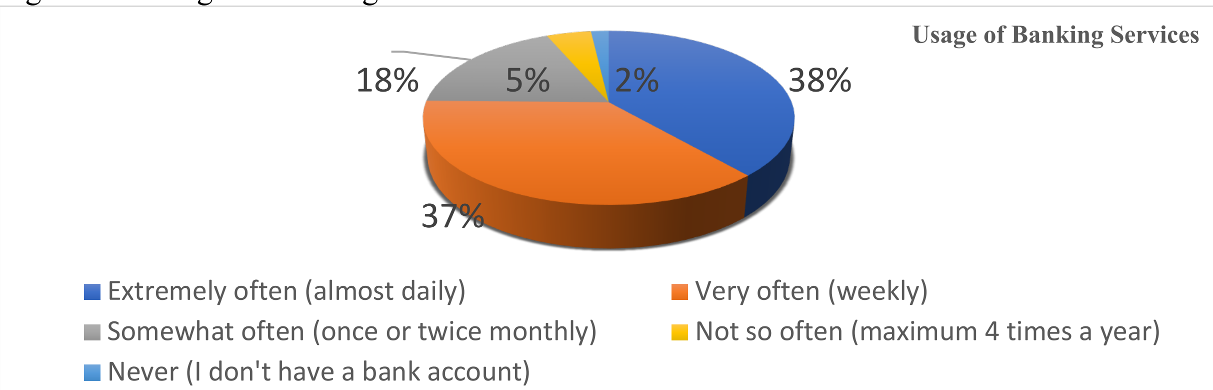
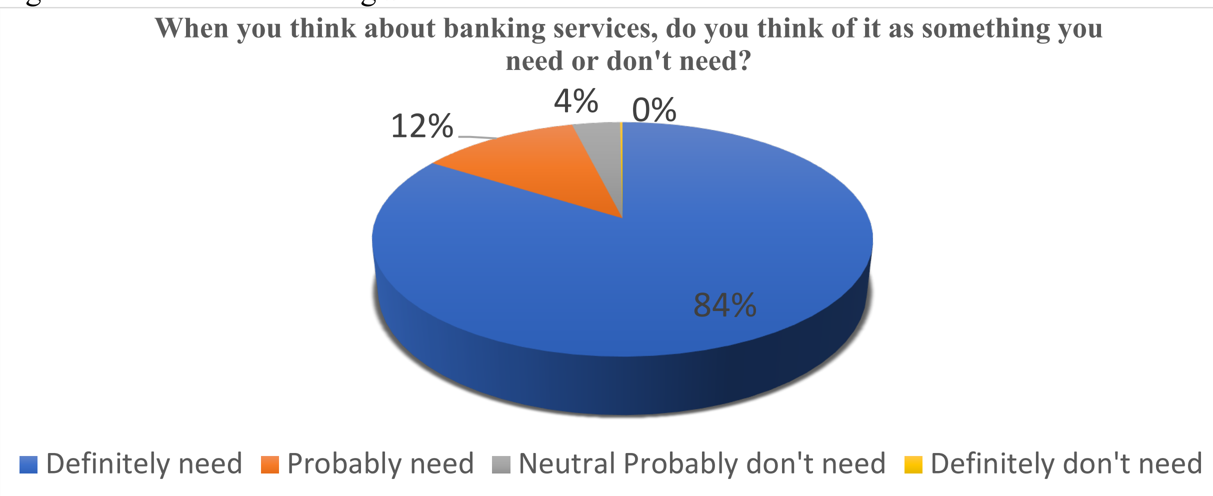


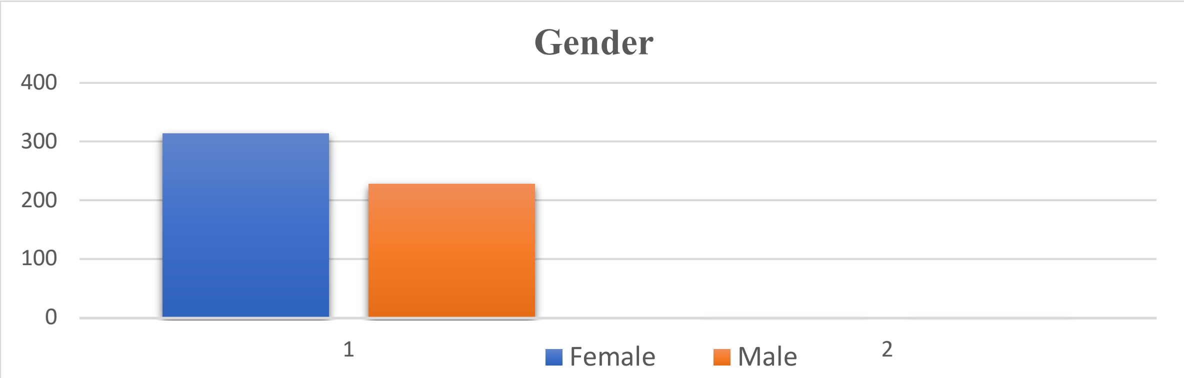
Figure 4.7: Need for Banking Services



The participants were given a list of different types of financial instruments and were asked to indicate if they had heard of any of them, then were asked in another question about their preferred instrument for their own investments. Participants indicated strong knowledge of the financial instruments and several highlighted that they already have used one or more of these types of investments.

It worth mentioning that gender participation in the survey as per the Figure 4.8, reflected fifty eight percent (58%) female versus forty two percent (42%) male. This is another important factor and a control variable to be discussed later, however, the sample distribution is encouraging to investigate the gender influence on the financial behaviour.

Figure 4.9: Gender



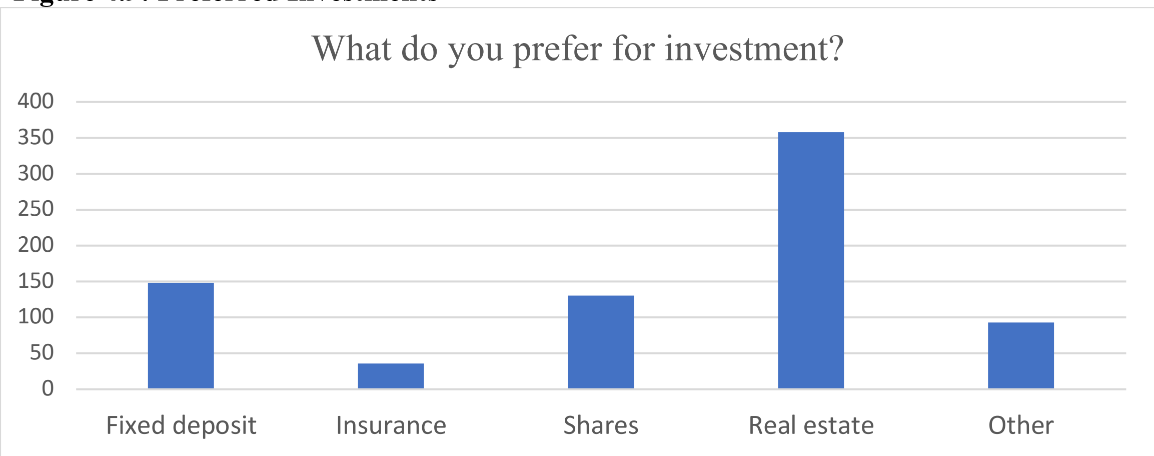
In a question to the participants to determine their preferred investment instrument; forty seven percent (47%) stated real estate as preferred investment tool followed by nineteen percent (19%) in fixed deposits and seventeen percent (17%) in shares. Below five percent (4.7%) only preferred insurance, then the remaining twelve percent (12%) mentioned other types of investments such as mutual funds, bonds, precious metals such as gold, sukuk, cryptocurrency and other instruments see (Figure 4.9). The most preferred investment instruments (real estate and fixed deposits) are considered two of the most conservative financial products to invest in. These findings would not have been expected from such a group of participants with high educational level, and strong financial knowledge and capabilities which reflects low motivation towards investments in riskier or non-traditional or more sophisticated products.

In a meeting Head of Research Department at the Association of Banks in Jordan in August 2022, three justifications of the above findings were proposed, and the discussions highlighted few reasons why Jordanians may still prefer real estate investments. The first reason that was highlighted was related to the bad experience that investors experienced during 2005 in relation to the fake or fraudulent investment companies and brokerage firms that claimed large returns on investments in international stock markets to Jordanians, when many individuals invested with these firms and incurred huge losses. The Second reason may be related to the collapse of Amman Stock Exchange (ASE) during and after the financial crisis 2008-2009 and the weak performance that continued thereafter even after other stock markets bounced back, representing another reason why Jordanians are still not encouraged to invest in the ASE.

These incidents made individuals lose trust in the financial markets in general and they started looking at more safe investments. The third reason that justify the responses of preferred investments was the continuous improvement in real estate prices during the past three decades due to the high demand on the real estate mainly from Jordanian living abroad and refugees. The high demand on the real estate pushed prices to more than double during the past two decades (Department of Statistics, 2022), (Research and Working Papers - CBJ, 2022), highlighting an excellent opportunity of investment in Jordan compared to other markets and sectors.

The responses may also be interpreted as lack of depth in financial knowledge about the details of the other financial products which are available and provided by the financial markets. This lack of depth and unawareness was also noticed in the participants' answers to the question about the financial education in Jordan and its availability to be taught at schools. Over 67% of participants responded as 'not available' or 'taught separately' and only 5% responded correctly indicating that it is taught at public schools. This again reflects the lack of knowledge about the financial literacy programs that are currently available and taught in public schools from an early age. The introduction of the business, financial and entrepreneurship subjects at schools at an early age suggest a generational influence which may have a cultural aspect and effect on the financial behaviour.

Figure 4.9: Preferred Investments



4.1.2 Data Distribution

Checking the normality of the data distributions is not necessary when using the PLS-SEM as scholars have noted that PLS-SEM shows higher robustness against violation of normality (Sarstedt et al., 2016b). The PLS-SEM does not make assumptions regarding the normality of the data distributions (Hair et al., 2014) which differentiate it from other structural equation modelling tools. This study applies the PLS-SEM which can provide clear and strong estimations with the data, even if it has an extremely non-normal distribution i.e., skewness (Hair, Risher, Sarstedt and Ringle, 2019). Thus, there is no assumption about the normality of the data distribution in this study and hence the normality does not need to be assessed.

4.1.3 Missing data and outliers

Missing data, if any, must be considered in order to decide how to deal with it. Saunders et al. (2012) defined three patterns of missing data: Missing Completely At Random (MCAR), Missing At Random (MAR) and Missing Not At Random (MNAR). Different approaches are followed to address the missing data according to Dong and Peng (2013), such as list-wise deletion, pairwise deletion, mean substitution, estimation of conditional means, imputation using the expectation maximization algorithm (EM), and multiple imputation and regression-based imputation.

This study identified three responses with missing data out of the 545 responses which represents 0.6% of all responses. These three questionnaires were excluded, although many studies agree that up to 10% is considered acceptable (Schlomer et al., 2010). All observations with missing values were removed from the data collected. Concerning the outliers, these will be dealt with by the PLS SEM software.

4.1.4 Common Method Bias

According to Podsakoff et al., (2012), common method bias occurs when a single factor can erroneously explain most of the variance. For example, when researchers rely on the same respondent who provides information about all the variables such a bias occurs and leads to measurement error which has a negative effect on the validity of the measure.

This research used questionnaire that included 29 questions, some of which included several sub-questions within. The questionnaire was used to measure all constructs, thus a common method bias needs to be investigated. For this purpose, the researcher used the method bias test (Lindell & Whitney, 2001) which is a frequently used test in covariance based PLS SEM to rule out the common method bias. According Kock, et al. (2012), it is recommended to run full collinearity tests, to be able to capture both vertical and lateral collinearity problems and to make sure it does not bias the regression. By calculating the Variance Inflation Factor (VIF) and ideally getting values not exceeding 3.0 confirms that there is no bias in regression (Hair et al. 2018). As per table 4.5 below, all constructs' VIF scores below three, suggesting no collinearity issues between the constructs and confirming the absence of common method bias thus, suggesting good validity.

Table 4.5: Collinearity Statistics	**VIF**	**Collinearity Statistics**	**VIF**
ATTD 3	1.647	FL	1.107
ATTD 4	1.728	FL 16	1.362
ATTD 5	1.896	FL 17	1.293
ATTD 6	1.915	FinTech 1	1.626
FB 4	1.102	FinTech 2	1.531
FB 7	1.104	FinTech 3	1.768
FB 8	1.195	FinTech 4	1.769
ECO 1	1.000	FinTech 5	1.672
ECO 2	2.035	FinTech 6	1.882
ECO 4	2.899	INC	1.000
ECO 5	1.905	PBC 1	2.078
EDU1	1.000	PBC 2	2.845
TRUST 1	1.318	PBC 3	2.514
TRUST 3	1.874	PBC 4	1.721
TRUST 4	2.215	SN 1	1.663
TRUST 5	1.863	SN 2	1.856
AGE	1.000	SN 3	1.698

4.2 The PLS- SEM Analysis

The Structural Equation Modelling known as (SEM) is a “statistical methodology that takes a confirmatory i.e., hypothesis-testing approach to the analysis of a structural theory bearing on some phenomenon” (Byrne, 2013, p. 3).

The main goal of SEM is to explain the relationships among multiple variables using a series of multiple regression equations, whereby causal relationships between constructs are represented by multiple regressions, allowing a simultaneous analysis of the entire system of variables which forms the hypothesised model and determines the hypothesised model’s consistency with the data (Byrne, 2013). When applying SEM, it is important to highlight the difference between the ***measurement model*** (outer model) and the ***structural model*** (inner model), which present the relationship between latent constructs known as factors and their indicators at the outer model, whereas relationships among latent constructs with each other is presented at the inner model (Henseler et al., 2009; Jarvis et al., 2003).

PLS-SEM is a causal-predictive approach to SEM that emphasizes prediction in estimating statistical models, whose structures are designed to provide causal explanations (Wold, 1982); (Sarstedt et al., 2017). The PLS model is interpreted in two assessment steps, the first is assessing the measurement model and the second step is assessing the structural model (Hulland,1999). The evaluation of the PLS-SEM results starts with examining the measurement model followed by assessing the structural model and ends by running one or more robustness checks to support the stability of results (Hair et al., 2019). Prior to proceeding to the assessment of the measurement model, the Table 4.6 below identifies the variables included in the financial behaviour model and their assigned codes.

Table 4.6: Codes

Variable	Code	Variable	Code
Independent Variable		**Dependent Variable**	
Age	AGE	Financial Behaviour indicated by the level of engagement in a banking relationship	FB
Income	INC	**Mediating Variable**	
Education	EDU	Attitude	ATTD
Financial Literacy	FL	Social Norms	SN
Economy	ECO	Perceived Behavioural Control	PCB
Financial Technology	FinTech	**Control Variable**	
Trust	TRUST	Gender	GNDR
Economic Knowledge	EK		

4.2.1 The Measurement Model

The first step in evaluating the PLS-SEM results involves the examination of the measurement model taking into consideration the different criteria to be applied for reflective or formative constructs. The measurement model is a specification of the measurement theory that shows how constructs are operationalised by sets of measured variables and assessed through the reliabilities of individual indicators and latent constructs as well as the measures of convergent and discriminant validities (Hair et al., 2014). PLS-SEM has rules of thumb that serve as guidelines to evaluate model results (Chin, 2010; Götz et al., 2010; Henseler et al., 2009; Chin, 1998; Tenenhaus et al., 2005; Roldán and Sánchez- Franco, 2012; Hair et al., 2017a). These evaluation measures have been used to evaluate this study model and results.

An important step before starting the estimations of the measurement model is to determine the nature of the latent variables or constructs used in this research i.e., reflective vs. formative. According to Coltman, et al. (2008), there are three theoretical considerations and three empirical considerations in deciding whether the measurement model is formative or reflective.

The first theoretical consideration is the nature of the construct, the second is the direction of causality between the indicators and the latent construct, and the third consideration is the characteristics of indicators used in measuring the construct. Whereas the three empirical considerations used to understand and explain the measurement model are, indicator intercorrelation, indicator relationships with construct antecedents and consequences, and measurement error and collinearity.

Starting with the first theoretical consideration regarding the nature of the construct; a latent construct exists independently of the measures in a reflective model, which include measures of attitudes and personality (Borsboom et al., 2004 and Rossiter, 2002). Durvasula et al.'s (2006) study revealed that nearly ninety five percent (95%) of constructs with multiple items assume reflectivity without apparent consideration of an alternative formulation and all scales in business and related methodological texts on scale development use a reflective approach of measurement (Bruner et al., 2001; Netemeyeret al., 2003; Spector, 1992).

The second theoretical consideration is the direction of causality. Reflective models assume that causality flows from the construct to the indicators. Formative models assume that causality flows from the indicators to the construct. Hence, in reflective models, a change in the construct causes a change in the indicators. In the case of formative models, it is the other way around; a change in the indicators results in a change in the construct under study. As for the characteristics of indicators which is the third theoretical consideration and given that indicators define the construct, it is very important to define the number and types of indicators selected in the study, since adding or removing an indicator can change the conceptual domain of the construct significantly (Bollen and Lennox (1991). According to Jarvis et al., (2003), formative indicators are assumed to be causing the latent variable and are usually uncorrelated with each other, hence they cannot be interchangeable and dropping one of the dimensions can have a substantive effect on the construct's measurement.

As for the empirical considerations, indicators in a formative model can theoretically possess no intercorrelation since the indicators do not necessarily share the same theme, whereas, in a reflective model, the underlying construct drives the indicators, i.e., high intercorrelations. Checking the indicator of intercorrelations includes checking for the presence of outliers using distances in factor spaces for reflective measurement models, or regression influence diagnostics for formative models, (Coltman, et al., 2008).

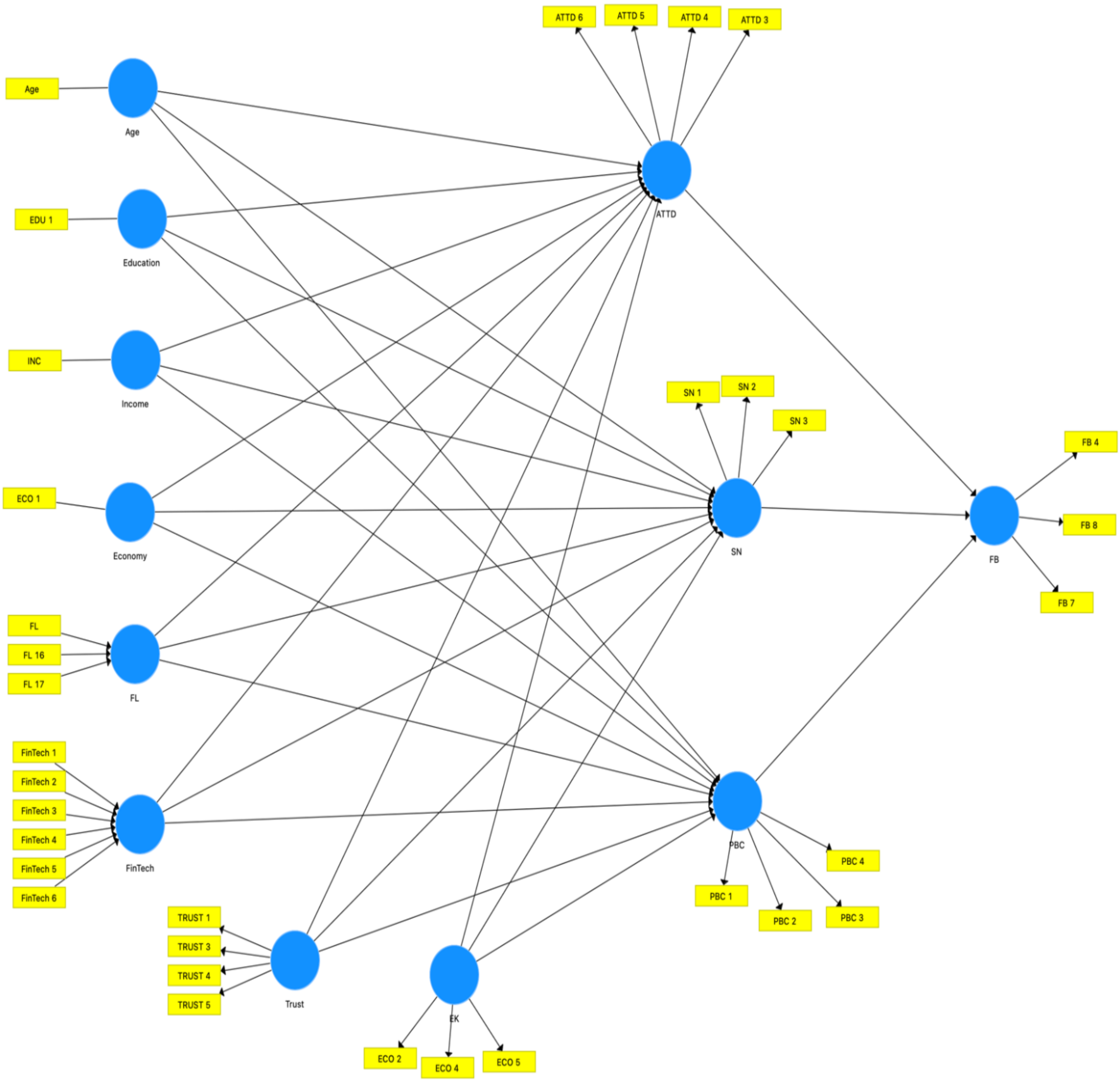
In line with the above theoretical considerations and definitions and applications in most business research, this research study will consider the following independent variables or constructs as formative constructs (economy, financial literacy and FinTech). These variables are considered uncorrelated, independent and cannot be interchangeable furthermore they flow from the indicator to the construct and a change in indicator will result in a change in the construct under study.

Whereas the three mediating variables, attitude, social norms, and perceived behavioural control are considered reflective measures in addition to trust and economic knowledge. The only dependent variable is the financial behaviour, and this is also considered a reflective measure as causality flows from the construct to the indicators, and any change in the construct causes a change in the indicators and the underlying construct drives the indicators, i.e., high intercorrelations. Table 4.7 and Figure 4.10 below contain the constructs and identify their relationships.

Table 4.7: Formative vs. Reflective Constructs

Formative Constructs	Reflective Constructs
Age (AGE)	Attitude (ATTD)
Education (EDU)	Social Norms (SN)
Income (INC)	Perceived Behavioural Control (PBC)
Economy (ECO)	Financial Behaviour (FB)
Financial Literacy (FL)	Trust (TRUST)
Financial Technology (FinTech)	Economic Knowledge (EK)

Figure 4.10: PLS System Generated Model (Appendix E)



4.2.2 Assessing Reflective Measurement Model

4.2.2.1 Reliability & Convergent Validity Assessments

Researchers can use statistics such as factor loading and communality, Cronbach Alpha, average variance extracted and internal consistency to empirically assess the reliabilities of the reflective indicators due to positive intercorrelations among each other, (Trochim, 2007). Examining the indicator loadings is usually the first step in examining the reflective measurement model with the rule of thumb recommending loadings above 0.708 suggest reliability which then indicates that the construct explains more than fifty percent (50%) of the indicator variance with its construct than error variance (Coltman, et al., 2008), thus providing acceptable reliability (Hair et al., 2019).

However, this rule of thumb is debatable with some authors arguing it should be at 0.50 cut-off. According to Hulland, (1999) explains that these low loadings could be the consequence of poorly worded indicator or inappropriate transfer of context; thus, it has become very common to accept loadings with less than 0.708 in the empirical literature. This was later confirmed by Kock (2011) who reported a threshold of 0.50 and Hair et al (2014a) who added P values for all items' loading less than 0.05.

Within this research, for the examination of the reflective measurement model using the indicator loadings, the results confirmed a satisfactory reliability with almost all results reflecting 0.708 and above. This indicates that the construct explains more than fifty percent (50%) of the indicator variance with its construct than error variance. As per Figure 4.11 below and Table 4.8, three indicator variables from FB and TRUST were slightly below the 0.708 cut-off but still within Hulland, (1999) accepted criteria (0.50). Accordingly, both FB and TRUST will continue to be considered as valid variables for testing and will not eliminated from the study.

Figure 4.11: Reliability of Reflective Measurement Model

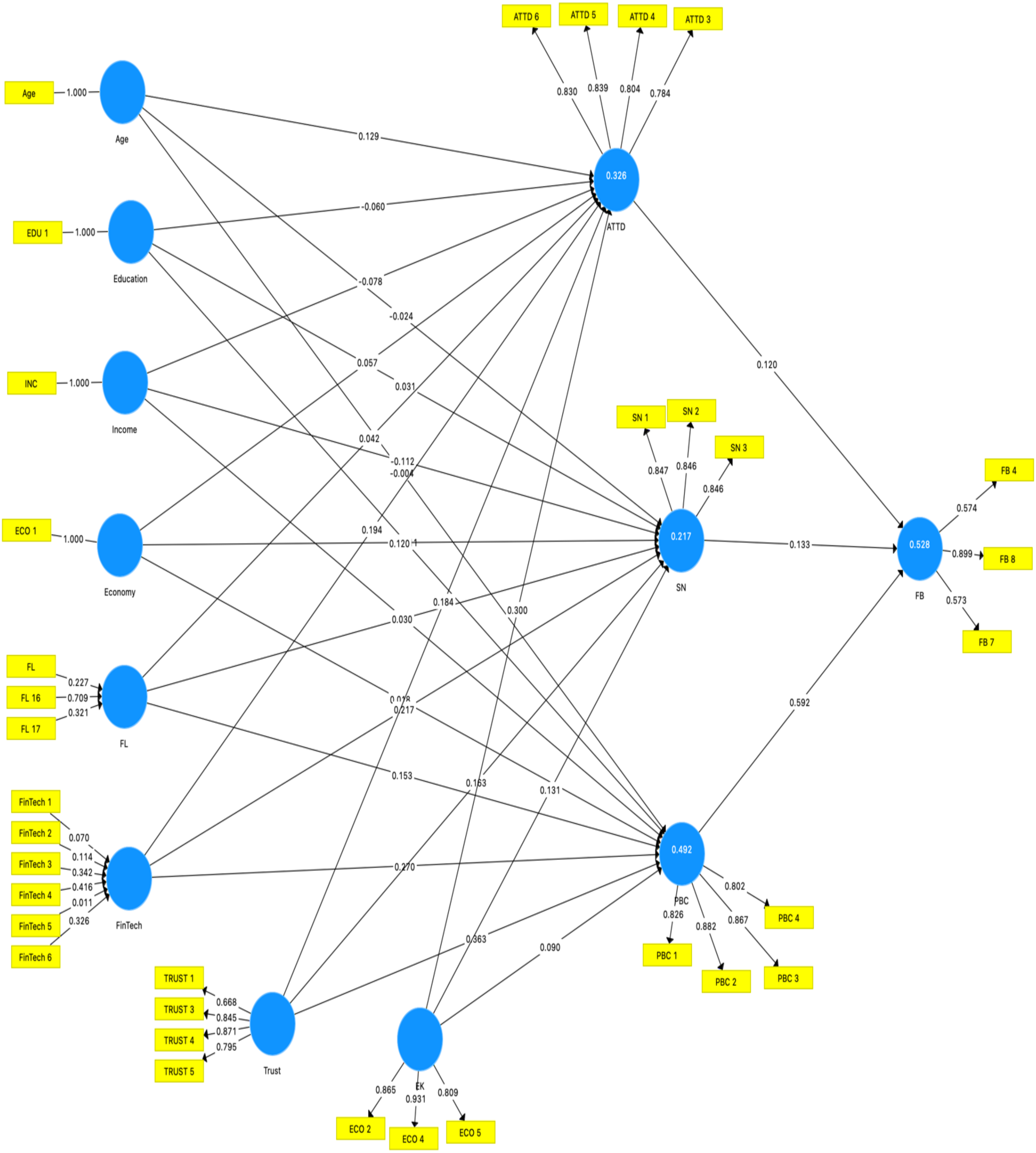


Table 4.8: Outer Loadings- Reliability

Reflective Constructs	ATTD	EK	FB	PBC	SN	TRUST
ATTD 3	0.784					
ATTD 4	0.804					
ATTD 5	0.839					
ATTD 6	0.830					
EK: ECO 2		0.865				
EK: ECO 4		0.931				
EK: ECO 5		0.809				
FB 4			0.574			
FB 7			0.573			
FB 8			0.899			
PBC 1				0.826		
PBC 2				0.882		
PBC 3				0.867		
PBC 4				0.802		
SN 1					0.847	
SN 2					0.846	
SN 3					0.846	
TRUST 1						0.668
TRUST 3						0.845
TRUST 4						0.871
TRUST 5						0.795

The second step is to assess reliability, which expresses the extent to which a measure produces the same results on different occasions. Assessing the internal consistency reliability enables the researcher to compare results across items within a single instrument (Colton and Covert, 2007). Studies usually use Jöreskog's (1971) composite reliability measure with values above 0.60 indicating reliability, in addition to the Cronbach Alpha with its rule of thumb of at least 0.70 to reach internal reliability (DeVaus, 2002). Alternatively, the reliability coefficient ρ_A proposed by Henseler et al., (2015), which reproduces the actual reliability of construct scores is used as a measure of reliability, with ρ_A considered as a compromise between the composite reliability and the Cronbach Alpha, as it evaluates a construct's weights, not its loadings. The higher the ρ_A value, the more reliable the item scale. A value of ρ_A above 0.8 indicates good internal consistency, while 0.7 represents the lower limit of adequacy (Cicchetti, 1994).

The third step of assessing the reflective measurement model is convergent validity, which addresses the extent to which the construct convergence is distinct from other constructs explaining the variance. Hair et al. (2010) stated that validity illustrates how well the latent variable is represented by its indicators and the extent to which two indicators under the same construct are correlated. The Average Variance Extracted (AVE) is the measure of convergent validity that is used to check the variance of each indicator in relation to the latent construct, whereby an AVE of greater than 0.50 suggests that the latent variable or construct explains at least 50 per cent of the variance of its items (Henseler et al., 2009; Hair et al., 2011). The convergent validity of this research's constructs was addressed using the average variance extracted (AVE).

Table 4.9 below reports the results of the reliability and convergence validity of the assessment for the four reflective constructs, with most constructs meeting the acceptable criteria. Three out of the four measures for FB were slightly below the required criteria with AVE scoring at 0.498, slightly below the >0.50 criteria, Cronbach's Alpha 0.593 below the >0.70 criteria and ρ_A 0.658 indicating lower limit of adequacy. Still FB meets the criteria of composite reliability being 0.732 > 0.60 (Hair et al., 2011).

Table 4.9: Construct Reliability and Validity

Reflective Constructs	Cronbach's Alpha	ρA	Composite Reliability	Average Variance Extracted (AVE)
ATTD	0.831	0.834	0.887	0.664
EK	0.839	0.862	0.903	0.757
FB	0.493	0.658	0.732	0.489
PBC	0.866	0.866	0.909	0.714
SN	0.802	0.806	0.883	0.716
Trust	0.807	0.826	0.875	0.638

4.2.2.2 Discriminant Validity Assessment

The last assessment of the reflective measurement model is the discriminant validity, which is the extent to which a construct is empirically distinct from other constructs. It is measured using the heterotrait-monotrait (HTMT) ratio of correlations defined as the mean value of the item correlations across constructs relative to the (geometric) mean of the average correlations for the items measuring the same construct.

As recommended by Henseler et al (2015) and Voorhees et al. (2015) a value of < 0.85 for conceptually different constructs and <0.90 for similar conceptually constructs are acceptable. Table 4.10 below evidences that there is only one result slightly above the 0.90, suggesting low discriminant validity between PBC and FB. Otherwise, there are no other discriminant validity problems in any of the other constructs within the research, given the HTMT values for all remaining constructs used in the model are lower than the threshold value of < 0.90 proposed by Franke and Srastedt (2009).

Table 4.10: Heterotrait-Monotrait Ratio (HTMT)

Reflective Constructs	ATTD	EK	FB	PBC	SN
ATTD					
EK	0.542				
FB	0.653	0.499			
PBC	0.546	0.405	0.968		
SN	0.473	0.371	0.626	0.497	
TRUST	0.526	0.432	0.778	0.760	0.446

The above-mentioned reliability, convergent and discriminant validity assessments were applied on the data collected for this research and the results confirmed reliability of the reflective variables, suggesting that the reflective measurement model instruments employed in this research study have satisfactory reliability and the latent variables have satisfactory discriminant validity.

4.2.3 Assessing the Formative Measurement Model

One of the key operational issues in the use of formative indicators is that no accepted criteria exist for assessing their reliability due to high intercorrelations among indicators, whereas researchers can empirically assess the reliabilities of the reflective indicators due to positive intercorrelations between each other (Trochim, 2007). Formative measurement models are evaluated based on the following: convergent validity, indicator collinearity, statistical significance, and relevance of the indicator weights (Hair et al., 2017). Before assessing the formative and structural relationships, collinearity must be examined to make sure it does not bias the regression by calculating the Variance Inflation Factor (VIF) and ideally getting values not exceeding three to confirm that there is no bias in regression (Hair et al. 2018).

As per Table 4.5 included in Section 4.1.4, the VIF for all constructs were close to three or below, suggesting no collinearity issues between the constructs and confirming the absence of common method bias thus, suggesting good validity.

4.2.3.1 Convergent Validity Assessment

The convergent validity allows the researcher to ensure that the set of indicators are accurately measuring the latent construct they intend to measure (Henseler et al., 2009). It is assessed by the correlation of the construct with an alternative measure of the same concept, a procedure proposed by Chin (1998) and referred to as redundancy analysis which determines the convergent validity. This validity has been achieved by designing the questionnaire to include alternative reflectivity measure indicators of the same concept. This has been clearly demonstrated within the questions presented in Chapter 3.

A key difference between formative and reflective measurement models is the treatment of measurement error. For the formative case the disturbance term does not represent measurement error. According to Diamantopoulos, (2006), the only way to overcome measurement error and exclude the error is to design the study before collecting the data in a way that enables the researcher to capture all possible causes of the construct and specify the focal construct in such a way as to capture the full set of indicators. In this research, the questionnaire succeeded in overcoming the measurement error by asking several questions addressing each construct.

4.2.3.2 Statistical Significance and Relevance

The third and final step in assessing the formative measurement model is to assess the statistical significance of indicators weights (significance and relevance, i.e., size and sign). The PLS SEM bootstrapping test is used to construct bootstrap confidence intervals which reflects the significance of the weights (Chin, 1998). Weights that are not significant and include zero should be eliminated from the measurement model especially if the loading is also not significant < 0.50 (Hair et al, 2017a).

However, according to Diamantopoulos and Winklhofer, (2001) removing any formative indicator can reduce the measurement model's content validity since the formative indicators are not interchangeable and their weights are functions of the number of indicators used to measure each construct, thus indicators should seldom be removed from formative measurement model. Nevertheless, the proposed bootstrap confidence intervals results were detected and as is clear from Table 4.11 below, only few relations (highlighted in red) are not significant since there is ZERO difference between the upper and lower range of 2.5%-97.5%, confirming that there is no need for any elimination.

Table 4.11: Confidence Intervals Bias Corrected and Weights

Constructs	Original Sample (O) (Weight)	Sample Mean (M)	Bias	2.5%	97.5%	P Values (Significance)
ATTD 3 <- ATTD	0.292	0.292	0.000	0.266	0.322	0.000
ATTD 4 <- ATTD	0.300	0.300	0.000	0.270	0.339	0.000
ATTD 5 <- ATTD	0.333	0.335	0.002	0.302	0.370	0.000
ATTD 6 <- ATTD	0.302	0.301	0.000	0.271	0.330	0.000
ECO 2 <- EK	0.403	0.402	-0.001	0.362	0.445	0.000
ECO 4 <- EK	0.430	0.430	0.001	0.394	0.467	0.000
ECO 5 <- EK	0.311	0.311	0.000	0.267	0.354	0.000
FB 4 <- FB	0.320	0.320	0.000	0.254	0.379	0.000
FB 7 <- FB	0.318	0.316	-0.002	0.241	0.379	0.000
FB 8<- FB	0.705	0.704	-0.002	0.634	0.777	0.000
FL -> FL	0.227	0.227	-0.001	-0.071	0.524	0.131
FL 16 -> FL	0.709	0.693	-0.016	0.453	0.906	0.000
FL 17 -> FL	0.321	0.316	-0.006	0.021	0.582	0.021
FinTech 1 -> FinTech	0.070	0.069	-0.001	-0.073	0.225	0.356
FinTech 2 -> FinTech	0.114	0.112	-0.002	-0.012	0.239	0.076
FinTech 3 -> FinTech	0.342	0.347	0.005	0.183	0.495	0.000
FinTech 4 -> FinTech	0.416	0.411	-0.005	0.285	0.554	0.000
FinTech 5 -> FinTech	0.011	0.009	-0.002	-0.098	0.126	0.863
FinTech 6 -> FinTech	0.326	0.319	-0.006	0.201	0.456	0.000
PBC 1 <- PBC	0.287	0.286	0.000	0.269	0.304	0.000
PBC 2 <- PBC	0.300	0.299	0.000	0.283	0.316	0.000
PBC 3 <- PBC	0.285	0.286	0.001	0.269	0.303	0.000
PBC 4 <- PBC	0.314	0.314	0.000	0.292	0.338	0.000
SN 1 <- SN	0.420	0.418	-0.002	0.381	0.476	0.000
SN 2 <- SN	0.352	0.354	0.002	0.303	0.390	0.000
SN 3 <- SN	0.410	0.408	-0.002	0.374	0.463	0.000
TRUST 1 <- TRUST	0.262	0.262	0.000	0.230	0.295	0.000
TRUST 3 <- TRUST	0.347	0.348	0.001	0.318	0.371	0.000
TRUST 4 <- TRUST	0.354	0.353	-0.001	0.330	0.383	0.000
TRUST 5 <- TRUST	0.281	0.281	-0.001	0.251	0.306	0.000

After assessing the statistical significance of the indicators' weights, each indicator's relevance needs to be examined in order to assess the strength of the relationships. Indicator weights are standardized to value between -1 and +1, within weights close to 0 indicating weak relationships, whereas those close to +1 or -1 indicating strong positive or negative relationships (Hair et al. 2018). The P-value should be assessed based on results of < 0.05 or 95% confidence interval. The skewed bootstrap distribution test at PLS SEM was applied and the results achieved are displayed in Table 4.12 below.

Table 4.12: Indicator's Relevance

Total Effects	Original Sample (O): (Weight)	Sample Mean (M)	P Values (Significance)
ATTD -> FB	0.120	0.126	0.024
Age -> ATTD	0.129	0.124	0.001
Age -> PBC	-0.004	-0.004	0.915
Age -> SN	-0.024	-0.023	0.583
EK -> ATTD	0.300	0.299	0.000
EK -> PBC	0.090	0.091	0.039
EK -> SN	0.131	0.129	0.014
ECO -> ATTD	0.057	0.057	0.143
ECO -> PBC	0.018	0.015	0.629
ECO -> SN	0.120	0.124	0.007
EDU -> ATTD	-0.060	-0.057	0.177
EDU -> PBC	-0.011	-0.012	0.740
EDU -> SN	0.031	0.036	0.543
FL -> ATTD	0.042	0.043	0.357
FL -> PBC	0.153	0.154	0.000
FL -> SN	0.030	0.030	0.531
FinTech -> ATTD	0.194	0.202	0.001
FinTech -> PBC	0.270	0.280	0.000
FinTech -> SN	0.217	0.222	0.000
INC -> ATTD	-0.078	-0.078	0.075
INC-> PBC	0.017	0.017	0.693
INC -> SN	-0.112	-0.112	0.033
PBC -> FB	0.592	0.591	0.000
SN -> FB	0.133	0.132	0.000
TRUST -> ATTD	0.184	0.177	0.003
TRUST -> PBC	0.363	0.358	0.000
TRUST-> SN	0.163	0.159	0.009

4.2.4 Assessing Structural Model

Once the measurement model assessment is satisfactory, the next step is assessing the structural model and estimate the relationships between the investigated variables. The PLS-SEM is considered the preferred approach when formative constructs are included in the structural model due to its ability to analyse the structural model and estimate the relationships between the investigated variables (Hair et al., 2019).

The main steps to assess the structural model are to evaluate the significance and relevance of the structural relationships, then assess the values of the coefficient of determination R^2 which explains variance and predictive explanatory power. The next step includes the review of the blindfolding-based cross-validated redundancy measure Q^2, which is the predictive relevance measure, in addition to the statistical significance and relevance of the path coefficients using P value (Hair et al., 2014b). Further, researchers should assess their model's out-of-sample predictive power by using the PLS predict procedure (Shmueli et al., 2016).

First the collinearity must be examined to ensure that there is no bias in the regression results. According to Hair et al. (2014a), collinearity emerges when two or multiple indicators (multicollinearity) are highly correlated (redundancy among constructs). Similar to the formative measurement model, the full variance inflation factor (VIF) for each predictor construct is checked to assess the full collinearity.

Hair et al. (2012) reported that the rule of thumb is a full VIF less than five. (Mason and Perreault, 1991; Becker et al., 2015) recommended VIF values ideally close to three and lower to determine that collinearity issues are minimized among predictor constructs. Once a collinearity problem occurs, a frequently used option is to create higher-order models that can be supported by theory (Hair et al., 2017a). Based on the collinearity tests results displayed in Table 4.5, Section 4.1.4, it can be argued that the results present satisfactory values of all latent variables with all individual VIFs (inner and outer) lower than three, thus, the researcher can safely proceed to the analysis of the remaining structural model.

4.2.4.1 Path Analysis: Assessment of R^2

The next step in examining the structural model is examining the coefficient of determination (R^2) which measures the variance referred to as the sample predictive power of the model (Rigdon, 2012). Therefore it is a measure of the model's explanatory power. The R^2 should ranges from zero to one with higher values indicating greater explanatory power (Shmueli and Koppius, 2011). Values of 0.75, 0.50 and 0.25 can be considered substantial, moderate, and weak (Henseler et al., 2009; Hair et al., 2011), but it differs from one discipline to the other.

According to Cohen (1998) in behavioural science R^2 values of 0.26, 0.13 and 0.02 can be considered substantial, moderate, and weak, also stated by Hair et al., (2014) and Kock and Hadaya, (2018) that R^2 value of 0.2 is generally acceptable in behavioural studies. Table 4.13 below reports the results that confirms the strength of indicator's explanatory power, with all constructs demonstrating moderate to substantial explanatory powers.

Table 4.13: Coefficient of Determination

	R Square	R Square Adjusted
ATTD	0.326	0.316
FB	0.528	0.525
PBC	0.492	0.484
SN	0.217	0.205

4.2.4.2 Path Analysis: Predictive Validity

Another means of assessment is using the PLS blindfolding-based cross-validated redundancy (predictive accuracy and relevance) measure of Q^2, which is a measure that combines aspects of out-of-sample prediction and in-sample explanatory power (Shmueli et al., 2016; Sarstedt et al., 2017a). As a rule of thumb, Q^2 values higher than 0, 0.25 and 0.50 depict small, medium, and large predictive relevance of the PLS-path model. If negative, this indicates that the model does not have predictive validity, higher than zero is acceptable, and the higher the better. The higher the Q^2 result, the higher is the predictive validity of the model.

Based on the results in Tables 4.14 and 4.15, the predictive validity of this research model can be confirmed with Q^2 for all constructs above zero, with medium predictive relevance observed for most of the constructs.

Table 4.14: Cross-Validated Redundancy

Construct	Q² (=1-SSE/SSO)
ATTD	0.205
FB	0.234
PBC	0.341
SN	0.144

Table 4.15: Cross-Validated Redundancy (Total)

Construct	Q² (=1-SSE/SSO)
ATTD 3	0.201
ATTD 4	0.192
ATTD 5	0.240
ATTD 6	0.185
FB 4	0.095
FB 7	0.097
FB 8	0.510
PBC 1	0.365
PBC 2	0.376
PBC 3	0.301
PBC 4	0.324
SN1	0.166
SN2	0.093
SN3	0.172

Another measure of predictive power presented by Hair et al, (2018) is the (MAE) mean absolute error which is the average absolute difference between the predictions and the actual observations, with all individual differences having equal weights. According to the guidelines proposed by Shmueli et al., (2019), when comparing the root mean squared error (RMSE) or the mean absolute error (MAE) values with the linear regression model (LM) values; if none of the indicators in the PLS-SEM analysis has higher RMSE or MAE values compared to the naïve LM benchmark, then the model has high predictive power.

Table 4.16 below provides a prediction summary driven by the PLS Predict and states the results of the above comparison. With few indicators in the PLS-SEM analysis that has slightly higher RMSE or MAE values compared to the naïve LM benchmark, it can thus be concluded that the model has medium to high predictive power.

Table 4.16: PLS Predict

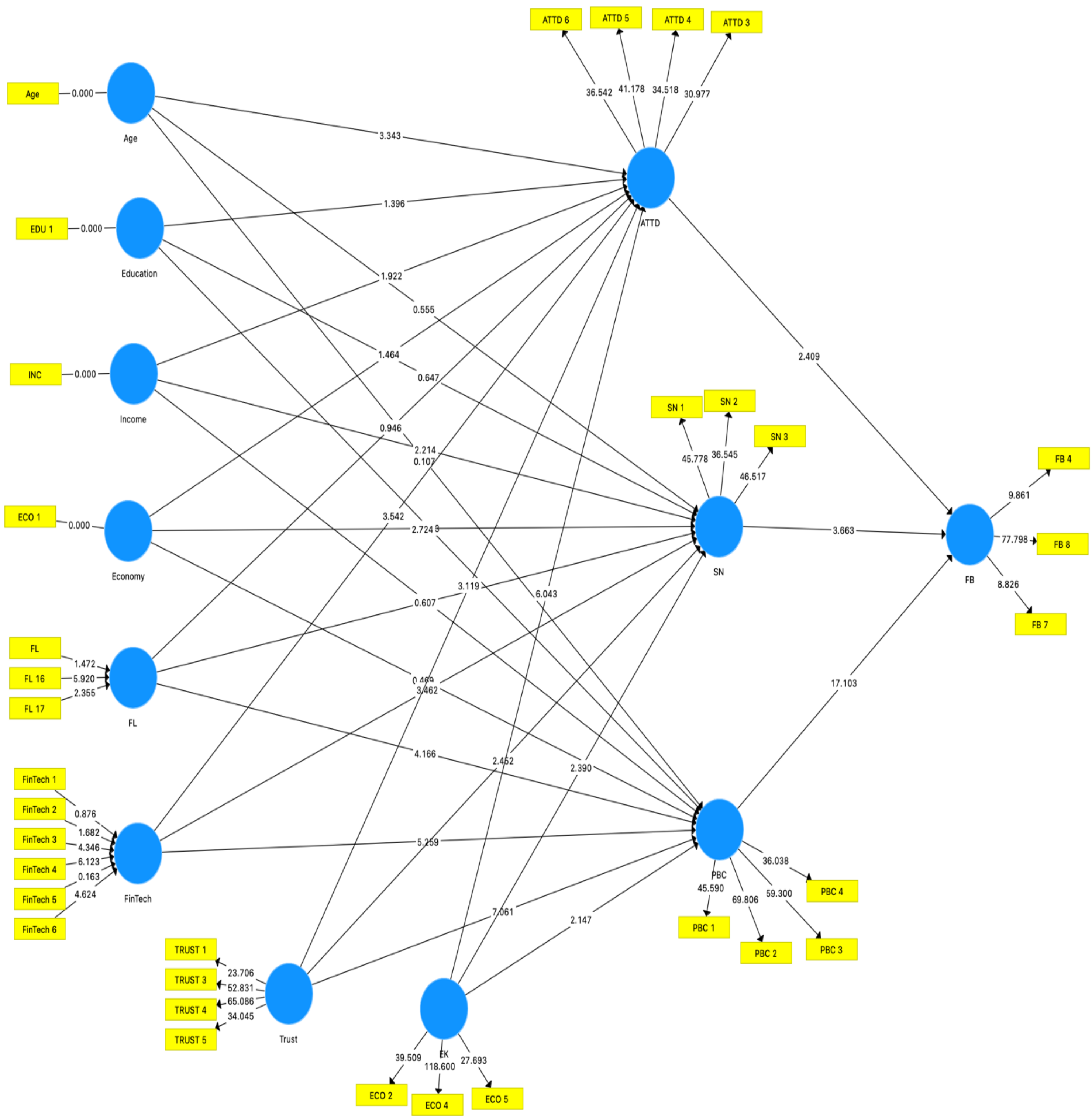
PLS	RMSE	MAE	LM	RMSE	MAE
ATTD 3	0.833	0.628	**ATTD 3**	0.834	0.639
ATTD 4	0.932	0.721	**ATTD 4**	0.933	0.725
ATTD 5	0.798	0.599	**ATTD 5**	0.798	0.597
ATTD 6	0.830	0.612	**ATTD 6**	0.818	0.610
FB 8	0.694	0.515	**FB 8**	0.696	0.519
FB 4	0.979	0.781	**FB 4**	1.005	0.800
FB 7	0.468	0.309	**FB 7**	0.458	0.311
PBC 1	0.715	0.553	**PBC 1**	0.724	0.555
PBC 2	0.763	0.574	**PBC 2**	0.771	0.582
PBC 3	0.733	0.551	**PBC 3**	0.736	0.552
PBC 4	0.641	0.487	**PBC 4**	0.638	0.492
SN 1	0.882	0.696	**SN 1**	0.887	0.699
SN 2	0.904	0.725	**SN 2**	0.919	0.742
SN 3	0.832	0.669	**SN 3**	0.844	0.668

4.2.4.3 Path Analysis: Statistical Significance and Relevance

After conducting the VIF, R^2, Q^2 tests and receiving satisfactory results (as stated in the tables above), it can be concluded that the model displays medium to high explanatory and predicative powers; so, the final step is to assess the statistical significance and relevance of path coefficients.

This final step to assess the structural model requires the application of a bootstrapping test in order to assess the path coefficients' significance and evaluate their values, i.e., statistical significance, relevance, and strength (size and sign). Figure 4.12 represents the results of the bootstrapping test.

Figure 4.12: Bootstrapping Test Results



The path coefficients Beta coefficient β, have standardised values ranging from -1 to +1, values close to +1 represent strong positive relationships, whereas values close to -1 represent the contrary (Hair et al., 2014). Table 4.17 presents the results of the structural model significance (P-value), relevance, and strength (Beta coefficient β).

Table 4.17: Structural Model Significance, Relevance, and Strength

Total Effects	Original Sample (O) : β	Sample Mean (M)	P Values (Significance)
ATTD -> FB	0.120	0.126	**0.024**
Age -> ATTD	0.129	0.124	**0.001**
Age -> PBC	-0.004	-0.004	**0.915**
Age -> SN	-0.024	-0.023	**0.583**
EK -> ATTD	0.300	0.299	**0.000**
EK -> PBC	0.090	0.091	**0.039**
EK -> SN	0.131	0.129	**0.014**
Economy -> ATTD	0.057	0.057	**0.143**
Economy -> PBC	0.018	0.015	**0.629**
Economy -> SN	0.120	0.124	**0.007**
Education -> ATTD	-0.060	-0.057	**0.177**
Education -> PBC	-0.011	-0.012	**0.740**
Education -> SN	0.031	0.036	**0.543**
FL -> ATTD	0.042	0.043	**0.357**
FL -> PBC	0.153	0.154	**0.000**
FL -> SN	0.030	0.030	**0.531**
FinTech -> ATTD	0.194	0.202	**0.001**
FinTech -> PBC	0.270	0.280	**0.000**
FinTech -> SN	0.217	0.222	**0.000**
Income -> ATTD	-0.078	-0.078	**0.075**
Income -> PBC	0.017	0.017	**0.693**
Income -> SN	-0.112	-0.112	**0.033**
PBC -> FB	0.592	0.591	**0.000**
SN -> FB	0.133	0.132	**0.000**
Trust -> ATTD	0.184	0.177	**0.003**
Trust -> PBC	0.363	0.358	**0.000**
Trust -> SN	0.163	0.159	**0.009**

Observing the three **mediating variables'** effect on the **dependent variable** financial behaviour (FB), the result in Table 4.17 illustrates that (PBC) has the strongest impact on FB (β=0.592, $p<0.05$), followed by SN (β=0.133, $p<0.05$) and the least effect on FB was ATTD with (β=0.12, $p<0.05$). As for the influence of the independent variables on the mediating variables, TRUST has the strongest positive impact on PBC (β=0.363, $p<0.05$), followed by EK on ATTD (β=0.30, $p<0.05$), FinTech on PBC (β=0.27, $p<0.05$), FinTech on SN (β=0.217, $p<0.05$), FinTech on ATTD (β=0.194, $p<0.05$) Trust on ATTD (β=0.184, $p<0.05$) TRUST on SN (β=0.163, $p<0.05$) and FL on PBC, (β=0.153, $p<0.05$).

The only independent variables with negative significance and a moderate effect on the mediating variables was INC on SN (β=-0.112, p<0.05). The remaining relationships from independent to mediating factors had statistically non-significant effects with all P values >0.05

The final results of assessing the structural model to investigate the proposed hypotheses are summarized in Table 4.18 below indicating relationship strength, direction and impact.

Table 4.18: Hypotheses/Relationships

Hypotheses/Relationships	**Original Sample (O): Path (sign ±) Coefficients**	**(Significance)* P Values < 0.05**	**$**R^2$**	**Supported (Yes/No) Description**
ATTD -> FB	0.120	0.024	0.326	Positive, significant & substantial.
AGE -> ATTD	0.129	0.001	0.326	Positive, significant & substantial.
AGE -> PBC	-0.004	0.915	0.492	Non significant
AGE -> SN	-0.024	0.583	0.528	Non significant.
EK -> ATTD	0.300	0.000	0.326	Positive, significant & substantial.
EK -> PBC	0.090	0.039	0.492	Positive, significant & substantial.
EK -> SN	0.131	0.014	0.217	Positive, significant & moderate.
ECO -> ATTD	0.057	0.143	0.326	Non significant
ECO -> PBC	0.018	0.629	0.492	Non significant
ECO -> SN	0.120	0.007	0.217	Positive, significant & moderate.
EDU -> ATTD	-0.060	0.177	0.326	Non significant
EDU -> PBC	-0.011	0.740	0.492	Non significant
EDU-> SN	0.031	0.543	0.217	Non significant
FL -> ATTD	0.042	0.357	0.326	Non significant
FL -> PBC	0.153	0.000	0.492	Positive, significant & substantial.
FL -> SN	0.030	0.531	0.217	Non significant
FinTech -> ATTD	0.194	0.001	0.326	Positive, significant & substantial.
FinTech -> PBC	0.270	0.000	0.492	Positive, significant & substantial.
FinTech -> SN	0.217	0.000	0.217	Positive, significant & moderate.
INC -> ATTD	-0.078	0.075	0.326	Non significant
INC -> PBC	0.017	0.693	0.492	Non significant
INC -> SN	-0.112	0.033	0.217	Negative, significant & moderate.
PBC -> FB	0.592	0.000	0.528	Positive, significant & substantial.
SN -> FB	0.133	0.000	0.528	Positive, significant & substantial.
TRUST-> ATTD	0.184	0.003	0.326	Positive, significant & substantial.
TRUST -> PBC	0.363	0.000	0.492	Positive, significant & substantial.
TRUST -> SN	0.163	0.009	0.217	Positive, significant & moderate

***P Values < 0.05 considered significant**
$**R^2$ values of 0.26, 0.13 and 0.02 can be considered substantial, moderate, and weak.

4.2.5 Assessment of Moderator (Gender)

Theories in management, psychology, and other disciplines rely on moderating variables to highlight the affect, strength, or nature of the relationship between two variables (Dawson, 2013). This research applied the moderator assessment variable to assess the effect or influence of Gender as a moderating variable on the financial behaviour. One way to assess an effect is through using the interaction effect analysis for continuous scale variables as well as categorical with two groups, the other way is the use of Multi Group Analysis (MGA) as a categorical moderator with two or more groups which is available at the PLS SEM.

.2.5.1 Permutation Test

Before running the MGA test, Hair et al. (2018) recommends running the Permutation test to check the correlation and mean differences between the two groups (Male vs. Female). Table 4.19 states the results of the Measurement Invariance Assessment of Composite Model (MICOM) analysis which presents correlation between the two groups with regard to the constructs under study. To be valid, the results should range between lower level of confidence interval of 5.0% and 1 as the highest. As per Table 4.19 below, all correlations are within this range which means that the correlations are not significantly different between the two groups which implies that the respondents in one group did not have much variability in their answers in comparison to the other group (satisfied, very satisfied….). Thus, the configural invariance has been established.

Table 4.19: Measurement Invariance Assessment of Composite Model (MICOM) analysis Step 2

Constructs	Original Correlation	Correlation Permutation Mean	Confidence Interval 5.0%	Permutation p-Values
ATTD	0.998	0.999	0.998	0.068
AGE	1.000	1.000	1.000	0.161
EK	0.999	0.999	0.996	0.295
ECO	1.000	1.000	1.000	0.157
EDU	1.000	1.000	1.000	0.335
FB	0.992	0.995	0.984	0.218
FL	0.969	0.924	0.787	0.687
FinTech	0.966	0.966	0.928	0.414
INC	1.000	1.000	1.000	0.348
PBC	1.000	1.000	0.999	0.223
SN	0.999	0.999	0.996	0.431
TRUST	0.999	0.999	0.997	0.186

After passing the configural invariance test, the second step is to test for the partial compositional invariance which the permutation test also provides by indicating the mean of perception differences between relationships with respect to different groups. Table 4.20 clarifies that there is significant difference (clear in red) between the two groups. Since there is one or more indicators that show perception differences between relationships between the two groups, it is not possible to pool the results of the data collected. Therefore a MGM test is needed.

Table 4.20: Measurement Invariance Assessment of Composite Model (MICOM) analysis Step 3

	Mean - Original Difference (Female-Male)	Mean - Permutation Mean Difference (Female - Male)	2.5%	97.5%	Permutation p-Values	Variance - Original Difference (Female - Male)	Variance - Permutation Mean Difference (Female - Male)	2.5%	97.5%	Permutation p-Values
ATTD	-0.291	0.001	-0.166	0.176	0.001	0.157	0.002	-0.381	0.387	0.428
AGE	0.020	0.000	-0.172	0.169	0.803	-0.384	0.002	-0.250	0.266	0.004
EK	-0.064	0.000	-0.172	0.173	0.462	-0.136	0.004	-0.360	0.394	0.474
ECO	0.259	0.000	-0.166	0.176	0.004	-0.370	0.002	-0.233	0.238	0.001
EDU	0.104	0.000	-0.161	0.165	0.212	-0.257	0.005	-0.339	0.350	0.148
FB	-0.178	-0.002	-0.170	0.168	0.037	-0.051	0.007	-0.331	0.362	0.777
FL	-0.318	0.000	-0.166	0.174	0.000	-0.096	0.000	-0.182	0.180	0.310
FinTech	-0.415	-0.002	-0.169	0.169		0.086	0.003	-0.230	0.225	0.468
INC	-0.270	-0.002	-0.170	0.166	0.002	-0.325	0.001	-0.205	0.206	0.002
PBC	-0.311	-0.001	-0.174	0.172	0.000	-0.152	0.002	-0.273	0.270	0.278
SN	0.047	0.000	-0.170	0.169	0.582	-0.145	0.002	-0.285	0.303	0.339
TRUST	-0.363	-0.002	-0.173	0.174		-0.086	0.002	-0.273	0.272	0.526

As per the results stated in Table 4.20, there are significant perception differences in the construct relationships between female and male. The table reflects female’s stronger perceptions than males, regrading some constructs such as economic education and social norms, whereas the male shows stronger perceptions than female in financial literacy, FinTech and trust. Further details and analysis will be clarified at the MGA test results and the following chapter.

4.2.5.2 Multi Group Analysis (MGA)

After the permutation test, the MGA test was conducted, the results confirmed that gender is a significant moderator for some relationships. According to results presented in Table 4.21, there are four main relationships that the MGA test pointed out and reflected significant perception differences between the two groups (Female vs. Male). The first difference was between (ATTD → FB), the second between (AGE → SN), and the third between (ECO → PBC), whereas the fourth and final significant perception difference was between (INC → SN). No other significant differences between female and male were reported in the remaining relationships.

Table 4.21: Path Coefficients: PLS-MGA

Relationship	Path Coefficients-diff (Female - Male)	p-Value original 1-tailed (Female vs Male)	p-Value new (Female vs Male)
ATTD -> FB	**-0.229**	**0.992**	**0.016**
AGE -> ATTD	0.073	0.201	0.402
AGE -> PBC	0.001	0.490	0.980
AGE -> SN	**-0.206**	**0.991**	**0.017**
EK -> ATTD	0.105	0.145	0.289
EK -> PBC	0.087	0.147	0.294
EK -> SN	0.023	0.425	0.850
ECO -> ATTD	0.019	0.414	0.828
ECO -> PBC	**-0.144**	**0.982**	**0.037**
ECO -> SN	-0.074	0.808	0.383
EDU -> ATTD	0.040	0.319	0.639
EDU -> PBC	-0.025	0.638	0.723
EDU -> SN	0.017	0.442	0.885
FL -> ATTD	0.174	0.050	0.101
FL -> PBC	-0.003	0.514	0.971
FL -> SN	-0.073	0.772	0.456
FinTech -> ATTD	-0.006	0.522	0.956
FinTech -> PBC	0.044	0.343	0.687
FinTech -> SN	-0.026	0.577	0.845
INC -> ATTD	-0.064	0.742	0.516
INC -> PBC	0.035	0.347	0.694
INC -> SN	**0.240**	**0.015**	**0.029**
PBC -> FB	0.059	0.204	0.407
SN -> FB	0.030	0.336	0.672
TRUST -> ATTD	-0.202	0.956	0.088
TRUST-> PBC	-0.122	0.896	0.208
TRUST -> SN	-0.008	0.524	0.952

The MGM test provided bootstrapping results shown in Table 4.22 which clarified further depth and importance in interpreting the above significant differences reflected in Table 4.21. The first significant difference was between (ATTD → FB), according to table 4.22 this difference is considered important and meaningful for Male but not for female. The second and third significant differences according to Table 4.21 between (AGE → SN) and between (ECO → PBC) appeared to be not meaningful difference for both as the differences were mainly negative effect for female versus positive effect for male but not that important or meaningful difference to consider as confirmed in Table 4.22. The fourth and final significant perception differences between (INC → SN) as per Table 4.21 also appeared to be important and meaningful for Male but not for female in Table 4.22 below.

Table 4.22: Bootstrapping Results

Relationship	Path Coefficients Original (Female)	Path Coefficients Original (Male)	Path Coefficients Mean (Female)	Path Coefficients Mean (Male)	p-Value (Female)	p-Value (Male)
ATTD -> FB	0.043	0.271	0.046	0.272	0.529	0.000
AGE -> ATTD	0.155	0.082	0.154	0.081	0.005	0.216
AGE -> PBC	0.014	0.012	0.018	0.006	0.801	0.840
AGE -> SN	-0.098	0.108	-0.096	0.105	0.099	0.081
EK -> ATTD	0.345	0.241	0.342	0.241	0.000	0.001
EK -> PBC	0.122	0.035	0.120	0.030	0.040	0.558
EK -> SN	0.141	0.118	0.141	0.114	0.028	0.205
ECO -> ATTD	0.074	0.056	0.068	0.049	0.194	0.370
ECO -> PBC	-0.051	0.093	-0.051	0.088	0.293	0.062
ECO -> SN	0.072	0.146	0.069	0.144	0.168	0.027
EDU -> ATTD	-0.027	-0.067	-0.026	-0.075	0.611	0.312
EDU -> PBC	-0.022	0.002	-0.023	-0.002	0.596	0.964
EDU -> SN	0.028	0.011	0.032	0.015	0.639	0.896
FL -> ATTD	0.094	-0.080	0.096	-0.060	0.061	0.331
FL -> PBC	0.154	0.157	0.159	0.161	0.001	0.003
FL -> SN	0.019	0.092	0.021	0.104	0.744	0.241
FinTech -> ATTD	0.177	0.183	0.192	0.197	0.028	0.044
FinTech -> PBC	0.307	0.263	0.314	0.279	0.000	0.002
FinTech -> SN	0.210	0.236	0.227	0.243	0.011	0.021
INC -> ATTD	-0.091	-0.027	-0.089	-0.031	0.118	0.730
INC -> PBC	0.030	-0.006	0.030	0.003	0.523	0.943
INC -> SN	-0.018	-0.258	-0.021	-0.264	0.743	0.005
PBC -> FB	0.603	0.544	0.603	0.546	0.000	0.000
SN -> FB	0.138	0.108	0.139	0.110	0.008	0.021
TRUST -> ATTD	0.101	0.302	0.092	0.285	0.220	0.000
TRUST -> PBC	0.298	0.421	0.294	0.411	0.000	0.000
TRUST-> SN	0.168	0.175	0.155	0.170	0.074	0.065

Table 4.22 above further highlighted few other meaningful relationship differences for females only (AGE → ATTD), (EK → PBC) and (EK → SN). For male only, results highlighted meaningful relationship differences in (ATTD → FB), (ECO → SN), (INC → SN) and (TRUST → ATTD). The MGA Test provided further accurate results pointing out specific indirect effects in the relationships and highlighted further specific differences between female and male in relation to the main differences stated in Table 4.21. According to Table 4.23 below there are significant and effective relationship differences for male vs female leading to the final dependent variable which is the FB; (AGE → SN → FB) and (ECO → PBC → FB) in addition to (TRUST→ ATTD→ FB). These unique detailed significant differences are important to highlight and will be discussed at Chapter Five.

Table 4.23: PLS-MGA- Specific Indirect Effects

Relationship	Specific Indirect Effects-diff (Female - Male)	p-Value original 1-tailed (Female vs Male)	p-Value new (Female vs Male)
FL -> PBC -> FB	0.007	0.430	0.859
EDU -> SN -> FB	0.003	0.412	0.824
INC -> SN -> FB	0.025	0.069	0.138
FinTech -> SN -> FB	0.003	0.435	0.871
INC -> ATTD -> FB	0.003	0.429	0.858
AGE -> SN -> FB	-0.025	0.983	0.034
AGE -> ATTD -> FB	-0.016	0.768	0.464
EK -> PBC -> FB	0.055	0.125	0.251
EDU -> ATTD -> FB	0.017	0.169	0.338
EK -> ATTD -> FB	-0.051	0.936	0.129
AGE -> PBC -> FB	0.002	0.483	0.965
ECO -> ATTD -> FB	-0.012	0.751	0.498
FinTech -> ATTD -> FB	-0.042	0.912	0.177
FinTech -> PBC -> FB	0.042	0.256	0.513
INC -> PBC -> FB	0.021	0.336	0.672
ECO -> SN -> FB	-0.006	0.684	0.633
TRUST -> PBC -> FB	-0.049	0.786	0.428
EK -> SN -> FB	0.007	0.347	0.695
FL -> SN -> FB	-0.007	0.702	0.597
FL -> ATTD -> FB	0.026	0.140	0.280
TRUST -> ATTD -> FB	-0.078	0.997	0.006
EDU -> PBC -> FB	-0.015	0.646	0.708
ECO -> PBC -> FB	-0.081	0.980	0.041
TRUST -> SN -> FB	0.004	0.420	0.840

Figures 4.14 and 4.15 reflect the complete assessed models for male vs. female for all relationships:

Figure 4.14: Assessment Model Male

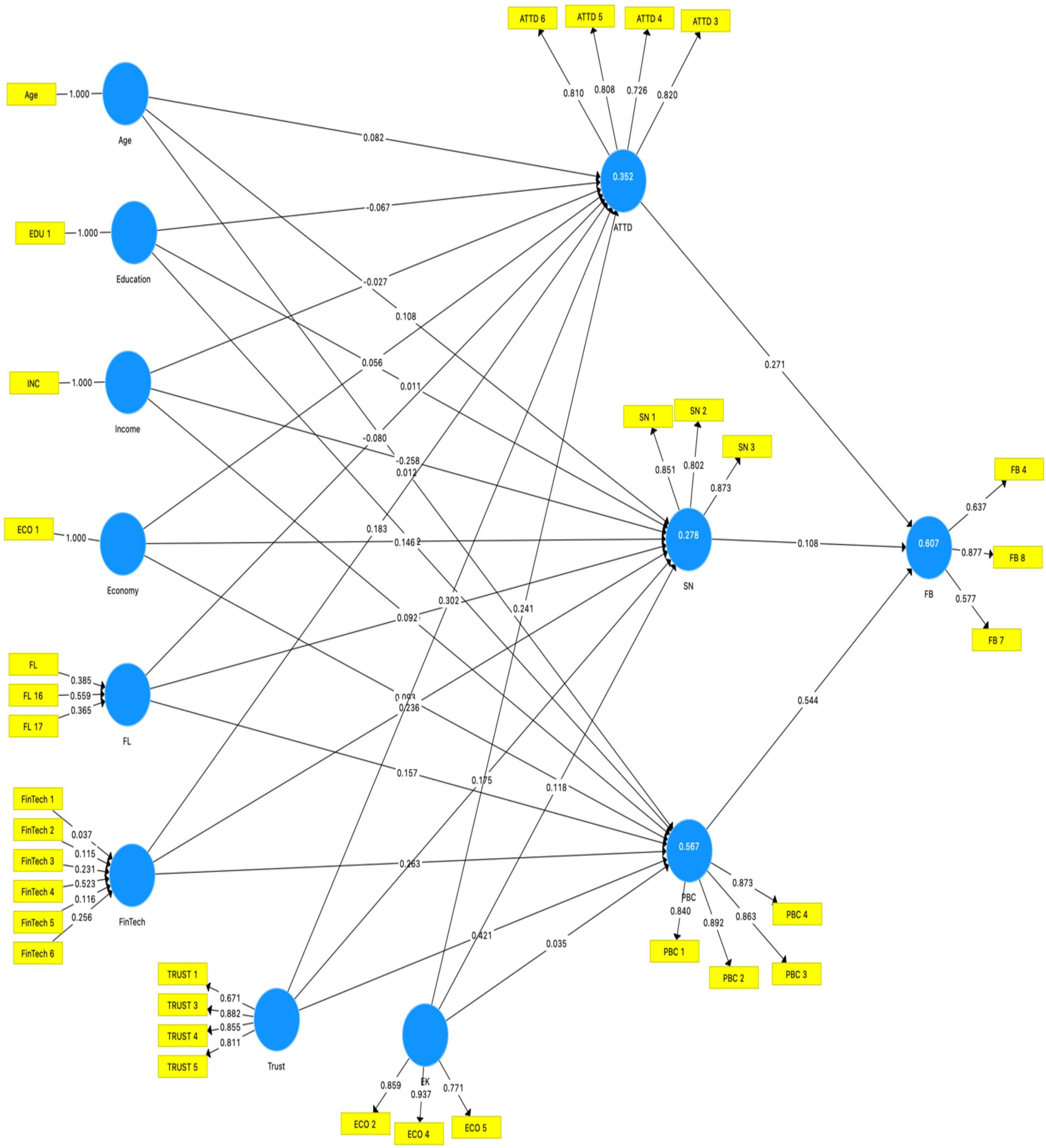
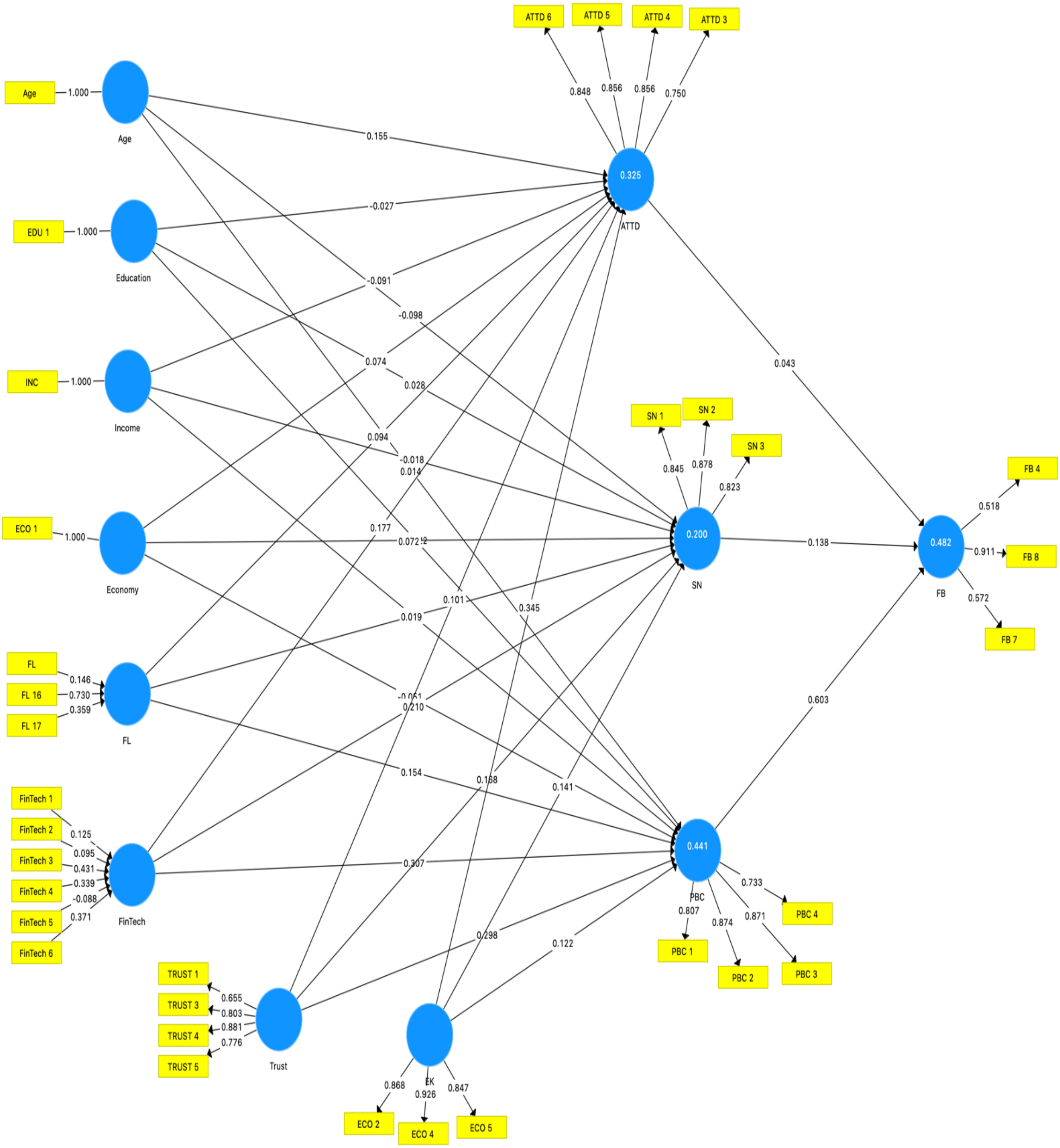


Figure 4.15: Assessment Model Female



4.3 Summary of the Results and Hypotheses Testing

Table 4.24 re-presents the hypotheses proposed in Chapter Two and shows the test results for each to reflect which hypotheses were supported or rejected.

Table 4.24: Hypotheses Testing

Hypotheses	**Supported: (YES/ No)**
H1: There is a positive relationship between the attitude and the level of engagement in a banking relationship (ATTD → FB)	**Yes**. Positive, significant & substantial.
H2: There is a positive relationship between the subjective norms and the level of engagement in a banking relationship (SN→ FB)	**Yes**. Positive, significant & substantial.
H3: There is a positive relationship between the perceived behavioural control beliefs and the level of engagement in a banking relationship. (PBC → FB)	**Yes**. Positive, significant & substantial.
H4: Female's attitude towards behavioural beliefs is positively related to their level of engagement in a banking relationship. (Female ATTD→ FB)	**NO**
H5: Female's subjective beliefs are positively related to their level of engagement in a banking relationship (Female SN→ FB)	**Yes**
H6: Female's perceived behavioural control beliefs are positively related to their level of engagement in a banking relationship. (Female PBC→ FB)	**Yes**
H7.a: There is a positive relationship between economic knowledge and attitude that affect individuals' level of engagement in a banking relationship (EK→ ATTD)	**Yes.** Positive, significant & substantial.
H7.b: There is a positive relationship between economic knowledge and SN that affect individuals' level of engagement in a banking relationship (EK→ SN)	**Yes.** Positive, significant & moderate.
H7.c: There is a positive relationship between economic knowledge and PBC that affect individuals' level of engagement in a banking relationship (EK→ PBC)	**Yes.** Positive, significant & substantial.
H8.a: There is a positive relationship between age and individuals' attitude toward the level of engagement in a banking relationship (AGE → ATTD)	**Yes.** Positive, significant & substantial.
H8.b: There is a positive relationship between age and the subjective norm beliefs towards the level of engagement in a banking relationship (AGE→ SN)	**NO**
H8.c: There is a positive relationship between age and the perceived behavioural control beliefs towards the level of engagement in a banking relationship (AGE→ PBC)	**NO**
H9.a: There is a positive relationship between education and the attitude towards the level of engagement in a banking relationship (EDU→ ATTD)	**NO**
H9.b: There is a positive relationship between education and the perceived behavioural control beliefs towards the level of engagement in a banking relationship (EDU→ PBC)	**NO**
H9.c: There is a positive relationship between education and the subjective norm beliefs towards the level of engagement in a banking relationship (EDU→ SN)	**NO**
H10.a: There is a positive relationship between income and the attitude towards the level of engagement in a banking relationship (INC→ ATTD)	**NO**
H10.b There is a positive relationship between income and the perceived behavioural control beliefs towards the level of engagement in a banking relationship (INC→ PBC)	**NO**

H10.c: There is a positive relationship between income and the subjective norm beliefs towards the level of engagement in a banking relationship (INC→ SN)	**Yes.** Negative, significant & moderate.
H11.a: There is a positive relationship between financial literacy and the attitude towards the level of engagement in a banking relationship (FL→ATTD)	**NO**
H11.b: There is a positive relationship between financial literacy and the subjective norm beliefs towards the level of engagement in a banking relationship (FL→ PBC)	**Yes.** Positive, significant & substantial
H11.c: There is a positive relationship between financial literacy and the perceived behavioural control beliefs towards the level of engagement in a banking relationship (FL→ SN)	**NO**
H12.a: There is a positive relationship between economy and attitude (ECO→ ATTD)	**NO**
H12.b: There is a positive relationship between economy and the subjective norms (ECO→ PBC)	**NO**
H12.c: There is a relationship positive between economy and the perceived behavioural control beliefs towards the level of engagement in a banking relationship (ECO→ SN)	**Yes.** Positive, significant & moderate.
H13.a: There is a positive relationship between the use of FinTech services and individuals' attitude that affect the level of engagement in a banking relationship (FinTech→ ATTD)	**Yes.** Positive, significant & substantial
H13.b: There is a positive relationship between the use of FinTech services and the subjective norm beliefs towards the level of engagement in a banking relationship (FinTech→ SN)	**Yes.** Positive, significant & moderate
H13.c: There is a positive relationship between the use of FinTech services and the perceived behavioural control beliefs towards the level of engagement in a banking relationship (FinTech→ PBC)	**Yes.** Positive, significant & substantial
H14.a: There is a positive relationship between trust and individuals' attitude that affect the level of engagement in a banking relationship (TRUST → ATTD)	**Yes.** Positive, significant & substantial
H14.b: There is a positive relationship between trust and individuals' subjective norm beliefs that affect the level of engagement in a banking relationship (TRUST → PBC)	**Yes.** Positive, significant & substantial
H14.c: There is a positive relationship between trust and the perceived behavioural control beliefs that affect the level of engagement in a banking relationship. (TRUST → SN)	**Yes.** Positive, significant & substantial

Analysing the findings and the results using PLS-SEM to determine the factors that affect individual's decision towards the financial behaviour indicated by the level of engagement in a banking relationship in Jordan highlighted the following results. First, as per the main theory applied in this research; for the Theory of Planned Behaviour (TPB), it was revealed and confirmed that ATTD, PBC and SN play positive, significant, and substantial roles in the individual's financial behaviour as indicated by the level of engagement in a banking relationship in Jordan. Hence H1, H2 and H3 are supported.

Second, the effect of the independent variables on the mediating variables were determined as follows. AGE was found to play positive, significant, and substantial role on the individual's ATTD, with no significant effect on individual's PBC or SN beliefs, thus supporting H8a and rejecting both H8b and H8c.

The analysis has indicated that individual's education EDU has no effect on the ATTD, PBC nor has any effect on individual's SN beliefs. Thus, the level of education is not a main determinant and the individual's financial behaviour is less affected by the educational achievements compared to other factors. Thus, the three hypotheses H9a, H9b and H9c were rejected.

As for the indirect effect being individual's income INC, the results showed no effect on the ATTD nor on PBC but showed a moderate negative effect on the individuals SN beliefs, i.e., the higher an individual's income the less he or she is affected by the social surrounding beliefs. Thus, H10c was supported, but both H10a and H10b were rejected.

The indirect effect of the economy ECO on individual's ATTD and SN was insignificant, however ECO showed a moderate positive effect on the individuals PBC beliefs. This may be interpreted as the more the individual perceives the economic situation to be good or improving, the more he or she is financially confident, and the stronger is the perceived behavioural control which will positively affect the financial behaviour. H12c was supported, but both H12a and H12b were rejected.

The study had also highlighted that the indirect effect of individual's financial knowledge or what is known as financial literacy FL has no effect on the individual's ATTD nor on SN beliefs but showed significant positive and substantial effect on individual's PBC beliefs. This interpretation can be explained as the higher an individual's financial literacy and knowledge in finance and economics, the stronger and more confident the individuals feel towards their financial behaviour. Thus, H11b was supported, but both H11a and H11c were rejected.

The three independent factors that were found to have significant effects on all three mediating factors were, EK, FinTech and TRUST. It was found that an individual's economic knowledge EK significantly, positively, and substantially affect an individual's ATTD and PBC and moderately affects the individuals SN. Thus H7a, H7b and H7c were supported.

As for the individual's capabilities and confidence in using the FinTech services, there was a significant, positive, and substantially effect on all moderating factors, i.e., an individuals' ATTD, PBC and SN. Thus H13a, H13b and H13c were supported.

Regarding the last independent factor that the researcher opted to add to the TPB; namely TRUST, the results identified a significant relationship with the three mediating variables. TRUST has positive substantial effect on individuals' ATTD and PBC, however, a positive moderate effect was demonstrated on an individuals' SN. These results can be interpreted to indicate that the more the individual has trust in the financial and banking system the more positive and stronger the attitude and PBC towards the financial behaviour as indicated by the level of engagement in a banking relationship, and this is also moderately affected by the social norms and the opinions of the close social surroundings. Thus H14a, H14b and H14c were supported.

As for the control factor being gender, the results showed some differences between the two groups (Female vs. Male). A significant difference in relationship was found between female SN and PBC towards the financial behaviour. No significant evidence was found between female attitude and financial behaviour whereas there was significant evidence in the male results. Thus, H5 and H6 were supported, whereas H4 was rejected.

4.4 Limitations of the Findings

At the end of this chapter, the researcher opted to highlight the following limitations of the research findings:

- Around fifty eight percent (58%) of the participants were between the age of 40-59 years, compared to the actual population in Jordan of around seventeen percent (17%) the same age group (Department of Statistics, 2022). However, Age as an independent factor reflected only a relationship towards ATTD being the least mediating variable towards financial behaviour, thus this limitation is believed not to affect the results of the research.
- Eighty five percent (85%) of the participants hold both a graduate and post graduate degrees. However, the analysis has indicated that individual's education EDU as an independent factor has no effect any of the three mediating variable towards financial behaviour, thus this limitation is believed not to affect the results of the research.
- Around sixty five percent (65%) of the participants are private business employees, business owners or self-employed and thirty one percent (31.37%) of participants are earning monthly JD 1001-JD 2500 (USD 1400-3500) which is considered high income in Jordan. However, the analysis has indicated that individual's income INC an independent

factor did not reflect any relationship towards the individuals' ATTD nor to the PBC. It only reflected a negative relationship with moderate effect on the SN mediating factor towards the financial behaviour, thus this limitation is not believed to highly affect the results of the research as well.

- Around fifty five percent (55%) of participants have been exposed directly or indirectly to economics and finance studies or courses, i.e. more than half the participants maintain high level of financial knowledge or FL. Nevertheless, the analysis has indicated that individual's financial literacy FL continues to reflect positive significant relationship and substantial effect on the strongest mediating variable PBC towards financial behaviour. Thus this limitation of having high level of FL among the participants did not affect the results of the research as FL continued to appear as a very important factor and necessity towards the financial behaviour.
- The majority of participants live in the capital Amman which is the main business and financial centre. This may justify the high percentage of above ninety seven percent (97.6%) of bank account ownership.
- The above-mentioned limitations in the research sample are not believed to highly affect the results of the analysis.

CHAPTER FIVE: DISCUSSION

Introduction

This chapter discusses the results reported in Chapter Four addressing the research question: **What factors influence individuals' level of engagement in a banking relationship?** The section will start with a brief recap of the research aim, objectives, and main findings along with the research model and the literature gaps.

To the researcher's knowledge, few studies have investigated the topic under investigation in the context of Jordan and those that have, did not consider certain key factors. Alalwan et al., (2016) investigated the key factors influencing Jordanian customers' intention to adopt mobile banking with results showing that behavioural intention is significantly influenced by perceived usefulness, perceived ease of use, and perceived risk. More studies (Rawashdeh, 2015; Anouze and Alamro, 2019) tried to predict other factors affecting adoption of internet banking in Jordan and the factors affecting intention to use e-banking in Jordan. Both studies' results stated that variables such as perceived usefulness, perceived web privacy and perceived ease of use are the predicting variables which affect perceived usefulness, as well as the attitude toward the behaviour.

Another study (Alomari et al., 2012) investigated predictors for e-government adoption in Jordan. Their findings demonstrated that trust in government, website design, beliefs, complexity, and perceived usefulness were significant factors in Jordanian citizens' intention to use e-government websites.

This research extends the work of existing studies, and the results suggest that there are other independent variables that affect the individuals' behaviour, that were not covered by earlier studies. Thus, possible interventions would influence the final financial behaviours, which emphasises the ability to orchestrate change and organise efficiently so as to be able to take advantage of new opportunities (Teece et al., 1997). The importance of this study is in highlighting the factors that can orchestrate change and organise efficiently in the level of engagement in banking relationship. This is more important than just the adoption since continuous engagement leads to more sustainability and development in the financial sector in general and the banking sector in particular.

This research addresses knowledge segments from previous studies that associated individuals' financial behaviour to the development in the financial and the banking sector. The findings of this research support some of the 'Nanoeconomics' studies, which analyse individuals' behavioural aspects that relate to their economic activity. Gorshkova and Ksenda's (2020) study dealt with the individuals' financial behaviour as a component of nanoeconomics. Findings ascertained the direct effects of the financial behaviour on the development of the financial system and the competitiveness of a country.

The subsequent sections will start with Section 5.1 discussing the research gaps in earlier studies, then Section 5.2 is a discussion on the relationships between the core factors and the dependent factor. Followed by Section 5.3 that addresses the relationships and effects of the independent variables on the core factors. Section 5.4 will discuss the last objective of the research which is the influence of gender on the financial behaviour and the determinants of access to the formal financial system in terms female's level of engagement in a banking relationship in Jordan. The final Section 5.5 is the summary of this discussion chapter.

5.1 Research Gap and Model

Earlier studies on the topic of individuals' behaviour towards the level of engagement in a banking relationship lacked depth leaving some gaps in the current knowledge. For example, examining interventions to attitude, subjective norms and perceived behavioural control that would lead to changes in the financial behaviour is a fairly new perspective that has been adopted in earlier studies on a very limited scale.

Examining the financial behaviour towards more engagement in a banking relationship calls for a cross-disciplinary approach that draws on insights from the fields of finance, consumer behaviour, education, gender analysis and management. Such a perspective has not been fully adopted in earlier studies which mainly concentrated on the role of the institutions and their effect on market changes (Haini, 2019; Wachtel et al., 2006; Hove et al., 2017). The important role of customer's behaviour as a major stakeholder and the starting point of any effect that may lead to such changes was not thoroughly addressed.

This research will address this gap by incorporating research literature on behavioural changes that lead individuals, as main stakeholders, to change their financial behavioural through more engagement in a banking relationship, thus affecting the sector and eventually the economy.

As for the studies that addressed customers; an approach to investigate engagement by affecting and predicting customer's level of engagement was followed by concentrating on the goals that the customer wants to achieve. For examples, some studies tried to improve or affect the level of customer's engagement by increasing marketing campaigns or rewards and increase the influence by focusing on the entertainment, interaction, trendiness, customization, and other innovations (Cuevas-Molano et al., 2021; Harmeling et al., 2016). Very limited studies were concerned with the antecedent factors that affect the customer's behaviour before even engaging in such activities, this research investigated and dealt with this gap.

The available literature about the level of engagement in a banking relationship, is mostly focused on aspects related to relationship behaviour and customer satisfactions after establishing the banking relationship and throughout the course of the business dealings with banks thereafter. Fewer studies on financial behaviour and banking relationships considered studying the factors affecting the financial behaviour before establishing a banking relationship, and engaging more, thus, representing a gap in current knowledge.

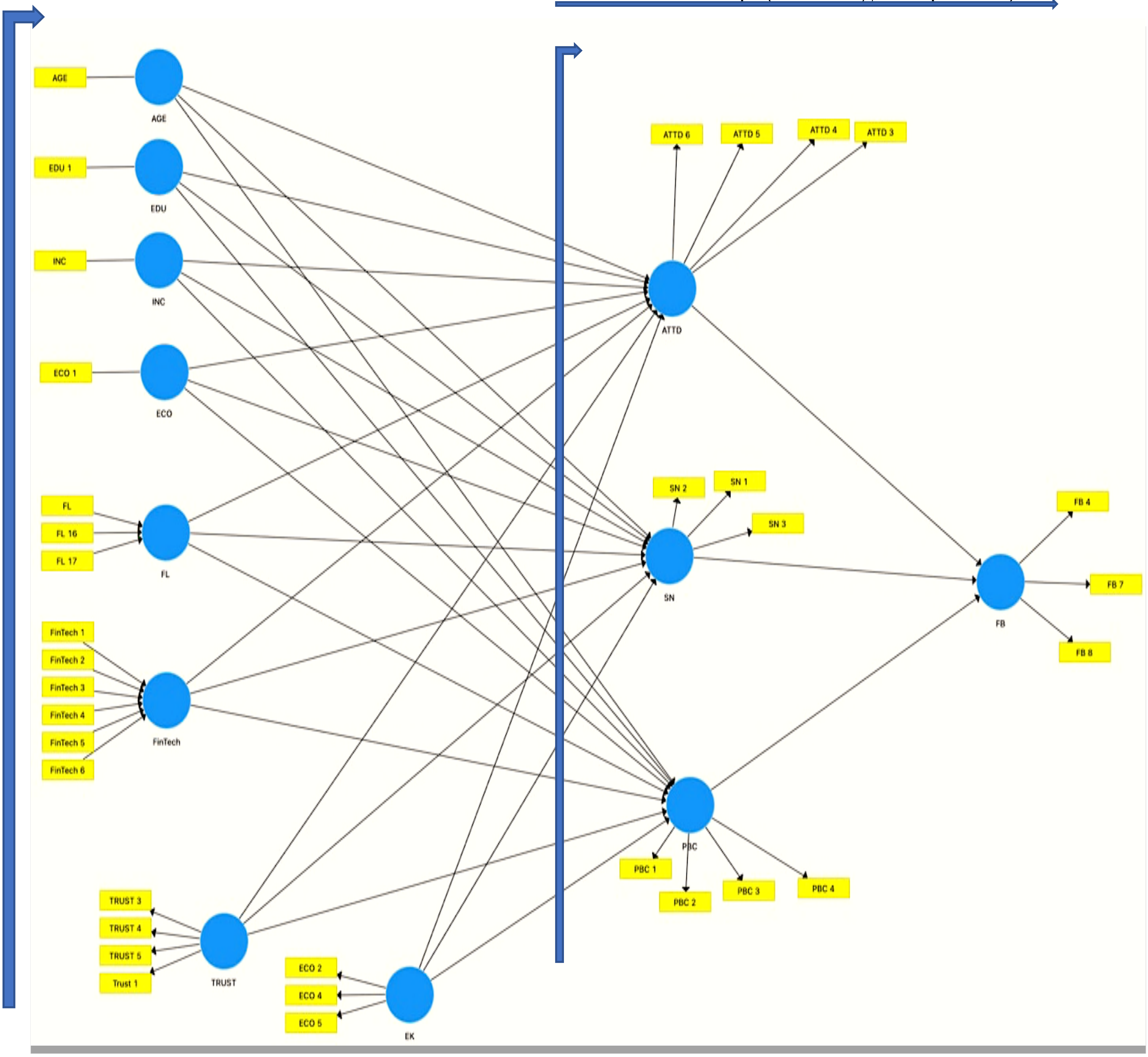
In an attempt to address the abovementioned gaps in the empirical literature, this research uses the lens of the Theory of Planned Behaviour (TPB) to determine the factors that affect individuals' financial behaviour. The research explores some individual factors (Age, Education, Income) and social factors (Economy, Economic Knowledge, Financial Literacy and FinTech) in addition to (Trust).

Based on prior literature, the research conceptual model that is adopted in this study proposes that these factors indirectly affect the individuals' attitude, social norms and perceived behavioural control and thus, determine the financial behaviour towards more engagement in a banking relationship which is the main dependent factor in this research.

The findings supported a number of hypotheses that suggested relationships between individual and social factors towards the mediating factors (ATTD, SN and PBC) and these in return proved significant and had substantial effects on the individuals' financial behaviour. Figure 5.1 below clarifies the research model and the proposed relationship.

Figure 5.1: Research Model and Proposed Direct and Indirect relationships

Direct Relationships (Mediating to Dependent)



Indirect relationships (Independent to Mediating Factors)

5.2 The Relationships Between the Core Factors and the Dependent Factor

In line with the main theory applied in this research; the Theory of Planned Behaviour (TPB), it was revealed and confirmed that the three core factors, attitude (ATTD), perceived behavioural control (PBC) and social norms (SN) play positive, significant, and substantial roles towards the individuals' financial behaviour (FB). Observing the three core factors' effect on the dependent variable (FB), the results illustrate that PBC has the strongest impact on FB followed by SN and the least effect on FB was ATTD.

5.2.1 Attitude and the Financial Behaviour

According to the research findings, ATTD was the weakest of the three mediating factors affecting the individuals' FB, but remains as a positive, significant, and substantial influence. There are few existing studies that investigated attitudes and behaviour in this context and confirmed the relationship. Two such studies namely by Fünfgeld and Wang, (2009) who studied attitudes and behaviour in everyday finance and (Talwar et al., 2021) who studied financial attitude impact on the trading activity as a financial behaviour. As well as the Organisation for Economic Co-operation and Development (OECD) who proposed an instrument to measure the financial attitude of investors based on the extent of their belief in planning and their propensity to save and spend which are financial behaviours as well (Paluri and Mehra, 2016). Attitude towards money is defined as the predisposition of an individual towards being financially prepared for future, reflecting tendency to save money and manage expenses (Utkarsh et al., 2020).

Studies from other contexts show similar results, for example, this result was in line with both Ambad and Damit's (2016) and with Borges and Pownall (2014) studies, which both concluded that a greater strong positive attitude towards behaviour existed. Furthermore, findings are in line with Loibl et al., (2021) research with findings highlighting that debt attitudes change over time, and are relevant to spending, saving, and borrowing behaviours with recommendations to design interventions that affect strength of attitude as tools for affecting financial behaviour such as debt and credit use.

However, this research findings were not in line with the findings of Jafarkarimi et al., (2016) in terms of level of importance as these research studies concluded that attitude is the most influential factor, whereas this research ranked attitude as the least influential among the three mediating factors. Bentler & Speckart (1979) presented their models of attitude–behaviour relations and found significant effects of attitudes and previous behaviour on subsequent behaviour, reflecting the dynamics of attitude-behaviour relations in various behavioural domains. The research findings were in line with several studies confirming and supporting the proposed hypothesis H1 of strong relationship between attitude and financial behaviour.

In the context of this research, attitude explains the relationship between individuals' readiness and degree of willingness to engage more in the financial behaviour. Newman & Harrison, (2008) showed that the attitude correlated with the broad behavioural engagement criterion and noted in the attitude–engagement model that the term 'engagement' describes a behavioural construct, not an attitude. The above argument can justify why, despite finding of a positive, significant, and substantial relationship between attitude and financial behaviour, ATTD was the least important.

The reason is that the context of this research is not predicting first time engagement in a banking relationship. It is rather predicting higher level of engagement. This could be a reason why ATTD could be important to first time engagement but not as important for sustained, continues and higher levels of engagement which develop a behavioural construct after a while and not only an attitude, accordingly both PBC and SN become more important. Nevertheless, designing interventions that affect attitude's strength as tools for affecting financial behaviour and engagement would further strengthens the attitude toward the financial behaviour.

5.2.2 Social Norms and Financial Behaviour

The research findings found a positive, significant, and substantial effect of an individuals' subjective norm beliefs on the financial behaviour. Responses to three questions demonstrated that participants highly value the support of their friends and families with regards to the level of engagement in a banking relationship.

The findings of this research were in line with Manning (2011), Ibrahim and Arshad (2017), Ambad and Damit (2016), Vermeir and Verbeke (2006), Sikarwar (2019) and Chen (2007), who all presented evidence of the direct effect of subjective norms on behaviour when the behaviour is more socially motivated. Ibrahim and Arshad's (2017) results concluded that the subjective norm acts as a significant factor to impact the investment intentional behaviour. However, contrary to the findings of Sheeran et al., (1999) that reported evidence that intentions based on attitudes better predict behaviour than intentions based on subjective norms, both studies confirmed the strong effect of social norms on individuals' behaviour.

This research findings were also relevant to the context proposed in Bank of America (2020) survey that stated that small business owners' inherent self-starters and make significant personal sacrifices for their businesses, backed up by their feelings of support from the local network whether they be families or friends that they see as core to their success. Thus, their financial behaviour is very much affected by the support and back up received from the local networks.

However, this research findings contradicted Stanton et al. (1996) and Kumar's (2012) study where they found that subjective norms were not significant predictors of intentional behaviours. However, this research is about the level of engagement in financial behaviour. In the context of engagement in a financial behaviour there are very limited studies to address the same context, however, other studies confirmed the relationship between social norms and engagement in a behaviour such as Purba et al. (2021) and Ciranka and Bos (2021) with findings ascertaining that perceived social norms were the most important factor predicting engagement in behaviours. Another reason why this research may be different from other studies is the strong role of social norms over attitude that may be contributed to cultural factors, whereby the role of family and friends is more significant in Jordanian culture (Brannan et al., 2013; Shryock, 2004).

Despite the contradictory results of the above studies, these research findings concluded a positive, significant, and strong effect of individuals' subjective norm beliefs on the financial behaviour, thus supporting the hypothesis below:

H2: *There is a positive relationship between the subjective norms and individuals' level of engagement in a banking relationship in Jordan.*

5.2.3 Perceived Behavioural Control (PBC) and Financial Behaviour (FB)

Perceived Behavioural Control (PBC) refers to people's perception of the ease or difficulty of performing the behaviour of interest; the perception of behavioural control is an impact of intentions and actions (Ajzen, 1988 & 1991). According to the TPB, both perceived behavioural control along with behavioural intention lead directly to predicting the behavioural achievement. Findings from this research illustrate that PBC has the strongest impact on the FB as represented by level of engagement in a banking relationship in Jordan.

Four questions investigated the ease, knowledge, and control in addition to the perception of accomplishment in using different banking services. Results confirmed that the more the individual feels in control of performing or using different banking services, the more accomplished and the stronger is the financial behaviour. Thus the more favourable individuals are towards higher engagement in a banking relationship via the usage of banking services.

These research results were in line with Flores and Vieira (2014) study that highlighted the fact that individuals with higher risk perception tend toward lower levels of indebtedness. It is also, in line with Strömbäck et al. (2017), and Caplan & Schooler's (2007) that demonstrated a strong relationship between perceived behavioural control and financial behaviour. Further, Bashir and Madhavaiah, (2014), who studied customers' ability to use internet banking with their findings stating that customers holding positive beliefs of their ability to use the internet banking would be more likely to adopt internet banking. In other contexts and in line with this research findings; a study by van Hooft and Crossley's (2008) where results indicated that jobseekers with high perceived financial need were more engaged in intense search behaviour to find employment.

However, this research findings contradicted Hill, Mann and Wearing's (1996) results which showed that self-efficacy was not a significant predictor. It also contradicts Ibrahim and Arshad (2017) with the results stating that the perceived behavioural control is insignificant in influencing the investment intentions of individual investors. This discrepancy can be interpreted given the context of this research which is related to engagement not only the intention to engage but rather continuous intention in certain behaviours as discussed in Zhang et al. (2019).

This provides evidence of the role of perceived control on the continuous use of mobile payments and Hoffmann and Plotkina (2021) providing evidence that consumers who develop greater financial self-efficacy display more self-control, leading to a higher engagement behaviour in financial planning propensity and actual planning.

The findings of this research supported the following proposed hypothesis:

H3: *There is a positive relationship between the Perceived Behavioural Control beliefs and individuals' level of engagement in a banking relationship in Jordan.*

5.3 The Relationships: Independent Factors

The three independent factors that were found to have significant positive effects on all three mediating factors were, Economic Knowledge (EK), Financial Technology (FinTech) and Trust (TRUST). The only two independent variables with negative significant effects on the core variables were Income (INC) on Social Norms (SN). The remaining relationships from independent to core factors had statistically limited or non-significant effects, as follows:

5.3.1 Age

AGE was found to play positive, significant, and substantial role on the individuals' ATTD, with no significant effect on individuals' PBC or SN beliefs. This research finding was in line with Hayhoe et al., (1999), Lai, (2010) and Lin and Lin (2005) findings that reflect a strong relationship between age and the attitude towards the financial decision of using credit cards and attitude towards dealing with money respectively. In other contexts, this research finding is in line with Jafarkarimi et al's (2016) findings that showed that older students and students with higher levels of education are more likely to follow their own attitude and moral obligation instead of thinking about others' ideas.

Thus, this research findings supported the following hypothesis:
H8.a: *There is a positive relationship between age and the attitude towards behavioural beliefs.*

Very limited studies have investigated the relationship between AGE and PBC, AGE and SN towards the financial behaviour, limited findings were published in others context. The research findings contradicted other studies that found a relationship between AGE and PBC such as Bertolino et al., (2011) who concluded that age has positive relationships on perceived career development and training behavioural intentions. It also contradicted earlier studies (Matthews et al., 2010; Goerres, 2007; O'Neal et al., 2012; Venkatesh et al. 2003) who had provided evidence of the relationship between age and subjective norms. As per the research findings, the following two hypotheses were rejected:

H8.b: *There is a positive relationship between age and the subjective norm beliefs.*
H8.c: *There is a positive relationship between age and the perceived behavioural control beliefs*

5.3.2 Education

The analysis has pointed out that individuals' education (EDU) has no effect on the ATTD, PBC nor on individuals' SN beliefs. Thus, the level of education is not a main determinant and the individuals' financial behaviour and is less affected by the educational background and achievements compared to other factors. The three hypotheses H9a, H9b and H9c were rejected.

These findings were in line with Widyastuti et al's (2020) study findings that reflected a positive relationship between financial literacy and financial behaviour, but financial education had an insignificant effect on financial behaviour. However, it contradicted other studies such as Feinstein et al. (2003) Preston and Feinstein (2004), Baan et al., (2019), whose findings identified a significant and substantial effects of adult education on attitudes and behaviours.

It is important to highlight again that eighty five percent (85%) of the participants in this research held educational degrees (graduate and postgraduate), thus the effect of education may not appear to be significant since most participants are highly educated. The researcher believes that information cannot be converted into knowledge without education which provides the capability to interpret. Thus, despite the technical findings of a non-significant effect of education, this aspect requires further research with a sample from a more diverse set of educational backgrounds.

5.3.3 Income

The third indirect effect that was investigated is individuals' income (INC). The results showed no effect on the ATTD nor on PBC but showed a moderate negative effect on the individuals' SN beliefs. This can be interpreted as the higher the individuals' income, the less he or she is affected by the social surrounding beliefs; thus, H10c was supported with a negative relationship, but both H10a and H10b were rejected.
H10.c: *There is a negative relationship between income and the subjective norm beliefs.*

These findings contradicted results of other studies such as Perry and Morris (2005), Darko, et al., (2013), Zhang et al (2019), Johnson and Krueger (2006), Diener and Biswas-Diener (2002) and Rözer and Kraaykamp (2013) who found relationships between income and core beliefs. However, these research findings were in line with Kelley and Evans' (2017) results which indicated that income inequality did not have a significant impact on subjective well-being in wealthy nations during normal conditions, while income inequality slightly increased subjective well-being in developing nations.

It is worth mentioning again that that around fifty five percent (55%) of the participants are considered high income earners with JD 1000 (USD 1,400) a minimum monthly income for this group. These results are considered high compared to the average annual Jordanian household income of JD 11,512.40 (USD 16,238) as per the latest survey issued by the Department of Statistics for the year 2017 (Tables of expenditure and household income | Department of Statistics, 2022). Results of data collected are considered high even when compared to per capita income in Jordan of JD 2,871.10 (USD 4,050) for the year 2020 (Department of Statistics, Jordan, 2022)- Appendix D.

5.3.4 Economy

The indirect effect of the economy (ECO) on individuals' ATTD and SN was found to be insignificant, while ECO showed a moderate positive effect on individuals' PBC beliefs. This may be interpreted as the more the individual perceives the economic situation to be good or improving, the more the individual is confident, and the stronger is the perceived behavioural control, positively affecting the financial behaviour. H12c was supported, but both H12a and H12b were rejected.

H12.c: *There is a positive relationship between economy and the perceived behavioural control beliefs towards the level of engagement in a banking relationship.*

These results contradicted the findings of some studies, Chang et al., (2016), Ahmad et al., (2012) and Gunnarsson and Wahlund (1997) while remained in line with Amromin and Sharpe (2014). They demonstrated a relationship between the economic conditions and the individuals' perceived behavioural control leading to the financial behaviour.

5.3.5 Economic Knowledge (EK)

Analysis provided support to the relationships between economic knowledge and the three core factors. According to the results, an individual's economic knowledge (EK) significantly, positively, and substantially affects individual's ATTD and PBC and moderately affects the individuals SN beliefs. Thus H7a, H7b and H7c were supported.

H7.a: *There is a positive relationship between economic knowledge and attitude that affect the financial behaviour.*
H7.b: *There is a positive relationship between economic knowledge and the subjective norm beliefs.*
H7.c: *There is a relationship positive between economic knowledge and the perceived behavioural control beliefs that affect individuals' level of engagement in a banking relationship.*

Three questions demonstrated participants' economic knowledge around economic growth, public health and pension, income distribution, and finance. Two numerical questions were added to check their technical financial abilities. Economic knowledge has a positive effect on an individual's attitude, subjective norms, and the perceived behavioural control, as these beliefs are strengthened with a strong base of knowledge. There are very limited studies to support the results in the same context as for the three core factors; however some studies (Steiner 2001; Miller and VanFossen 2008; Jappelli 2010; Levstik, 2008 and Callon, 1998) ascertained that the individuals need economic knowledge to make well-informed economic decisions and behaviours in their private and public lives which includes financial decisions and behaviours.

The same results were reflected in other contexts such as Walstad and Rebeck (2002) and Sternad Zabukovšek, et al. (2020) who demonstrated the importance of economic knowledge on individual's attitude and perceived behavioural control. In addition to Nosenzo and Görges's (2020) study which presented evidence of a relationship between EK and SN. Some studies such as Modig, (2020) went a further step to stress the importance of economic knowledge at an early age. The study highlighted important economic concepts to be considered and what economic content students should have access to in schools that would enable them to face economic issues in their private and public lives.

5.3.6 Financial Literacy (FL)

Several studies predicted a direct relationship between financial literacy (FL) and financial behaviour (FB), such as Bhushan & Medury, (2013), Cordero et al., (2020), Andarsari and Ningtyas, (2019), Kenton (2019) and Morgan and Long, (2020). However, this research sought to investigate the effect of FL as an independent variable on the core factors (ATTD, SN and PBC) instead of linking it directly to the dependent variable; the financial behaviour (FB).

The findings and analysis of this research showed that individual's financial knowledge or what is known as financial literacy (FL) has no effect on the individual's ATTD nor on individual's SN beliefs. However, findings showed a significant positive and substantial effect of FL on individuals' PBC beliefs. This relationship can be interpretated as the higher the individual's financial literacy and knowledge in finance and economics, the stronger and more confident the individual feels towards conducting the financial behaviour. Thus H11.c was supported, but both H11a and H11b were rejected.

H11.c: *There is a positive relationship between financial literacy and the perceived behavioural control beliefs.*

The test analysis results which supported the above relationship are in line with Henager and Cude (2016) who acknowledged the importance of subjective financial knowledge in improving the level of confidence; thus affecting the level of engagement in financial behaviour. Subjective financial knowledge was defined as the "confidence in one's own knowledge of financial issues" (Rosen and Sade, 2019, p.10) and is considered a measure for both perceived or subjective and actual knowledge according to Allgood and Walstad (2016).

The second objective of this research was to examine the influence of financial literacy in enhancing the level of individuals' behavioural engagement towards the banking relationship. It is important to mention that financial knowledge is part of economic knowledge. In fact, the financial system is a part of the financial economics which is a specialized branch of economics. Thus, the economic knowledge and the financial knowledge can be linked together to highlight positive, significant, and substantial effects on the PBC which is the strongest mediating factor that affects the individuals' financial behaviour.

The results of this research highlight the important role and influence of financial literacy on financial behaviour. Thus, achievement of financial literacy is an objective to be considered by educators at an earlier age, in line with the best practice followed in some countries where economics and finance are taught at schools at an early age. Such intervention in the learning process at an early age is likely to lead to permanent change in the financial behaviour.

5.3.7 The Use of Financial Technology Services (FinTech)

As per the findings and analysis, individual's capabilities, and confidence in using the FinTech services reflected significant, positive, and substantial effects on all core factors, ATTD, PBC and a moderate effect on the SN beliefs. Thus, H13a, H13b and H13c were supported.

The results of this research are in line with Ehrentraud et al. (2020), Meyrowitz (1995) and Hofferth (2010) studies. Further, they align to a study presented by the UN Capital Development Fund (UNCDF) under the name 'Better Than Cash Alliance' (2020), presenting facts and recommendations that digital financial transformation had improved individuals' attitudes and perceived behavioural control towards the adoption of new financial channels. They also correspond to the work of Butt and Butt (2020) who discussed digitalization as the base of success for many banking organizations.

Studies in different context also confirmed the results, such as Stead et al.'s (2004) and Nath's (2015) work which reported on the development and evaluation of mass media and its significant effects on attitudes. In addition to studies on the role of social media in evolving knowledge management process through knowledge sharing and perceived learning.

5.3.8 Trust

Regarding the last independent factor that the researcher opted to add to the TPB which is TRUST; the results identified this as having a significant relationship with the three core factors. TRUST has a positive substantial effect on individuals' ATTD and PBC, and moderate effect on individuals' SN. These results can be interpreted to indicate that the more the individual has trust in the financial and banking system and on individuals' ability towards banking services, the more positive and stronger attitude and PBC are towards the level of engagement in a banking relationship with moderate effect by the social norms and the opinions of the close social surroundings.

These results were in line with several studies that ascertained the effect of TRUST on the core factors. In the same financial and banking context it was in line with Zhou (2011), Gefen et al. (2003) and Stix (2013) and Yuan et al., (2018) who all confirmed that TRUST is a key factor in the continuous engagement in the banking and financial system. Guiso et al. (2004) presented a model proposing a link between trust and financial decisions, in addition to Kosiba et al., (2018) study that stated that trust in service providers and economy-based trust has a significant and positive effect on emotional engagement, cognitive engagement, and behavioural engagement. Further, the findings are in line with Corbitt (2003) who confirmed the critical role of trust on attitude. The research is also in line with Ashraf et al.'s (2020) study where they highlighted the relationships between trust and perceived behavioural control, affecting actual online banking behaviour. Thus, the three hypotheses H14a, H14b and H14c were supported.

5.4 The Influence of Gender

The third objective of the research was to investigate the influence of 'Gender' and if the above dynamics and factors vary by gender. The research results showed some differences between the two groups (Female vs. Male).

According to the findings, there was a significant positive relationship found between Female's SN and PBC towards the financial behaviour, whereas no significant evidence was demonstrated between Female ATTD and financial behaviour. However, such a relationship between ATTD and financial behaviour appeared to be significant within Male results.

This can be interpreted to indicate that Females are more affected by the surrounding social pressure to perform or not to perform a behaviour, along with the perception of ease or difficulty to perform a behaviour. These two core factors SN and PBC are more effective than Female ATTD (which is the degree of favourable or unfavourable evaluation of behaviour). The researcher believe that females need to feel the strength and ability to perform the behaviour along with social support. These two core factors together lead to female financial behaviour. These two core factors are stronger drivers of female financial behaviour than attitude. Thus, H5 and H6 were supported, whereas H4 was rejected.

The research results featured further differences in the independent factor between genders. For Females, the independent effect of Age on the ATTD was significant but was not for Males. Also, the effects of EK on PBC and SN were significant for Female but not for Males. This can be explained as among many different independent variables, Female’s age and economic knowledge have significant effect on her core factors that lead to the financial behaviour, i.e., the older and more knowledgeable the female, the more she is engaged in her the banking relationship which can be interpreted as age and knowledge give females more authority, status, and confidence within Jordanian culture to engage more in the banking relationships. Given the insignificant effect of ATTD on the FB, Female (EK) was found to play a major role in affecting her PBC and SN leading to her FB.

As for the effective independent factors for Males, ECO has a significant positive effect on the SN and INC has significant negative effect on SN for Males, however these two independent factors were insignificant for Females. The role of TRUST on ATTD was also significant and positive for Males but insignificant for Females and TRUST’s effect on PBC was significant to both genders.

These results can be interpreted as the Male social motivation being significantly and positively affected by his economic outlook and negatively with his income, i.e., the higher his income the lower he is affected by the social pressure; and the more his economic outlook is positive, the more is his social motivation towards FB. Further, the more the Male trusts the banking system, the more he has a favourable attitude and feels more strength and ability to exhibit his financial behaviour. So, for the Male, the three independent variables that mainly affect the three core variables to perform higher level of engagement in a banking relationship are the economy (ECO), Income (INC) and (TRUST).

It is important to mention that the detailed analysis of the PLS-MGA test, which demonstrate the specific indirect effects reflected further three clear significant relationships that vary between Females and Males. Gender differences were highlighted in three specific indirect effects which reflected more strength and significance for Males compared to Females. The first gender difference was highlighted by the indirect effect of Male age on the social norms leading to his financial behaviour (AGE → SN → FB).

This indirect effect can be interpreted as the older the Male, the more he is influenced by his social surrounding and beliefs, which would be affecting his financial behaviour. Thus, age is a stronger attribute towards social beliefs for Males than for Females.

The final relationship is related to the economic outlook and conditions which affect the perceived behavioural control towards the financial behaviour (ECO → PBC → FB). Again, Males showed stronger and higher effects than Females, which can be interpreted as the better the Male perceives the future economic outlook, the stronger is his perception of performing the behaviour of interest. Thus, the economy (ECO) is a stronger driver for males compared to females.

5.5 Summary of Discussion

In line with the main theory applied in this research, the Theory of Planned Behaviour (TPB), the research findings and results revealed and confirmed that attitude (ATTD), perceived behavioural control (PBC) and social norms (SN) play positive, significant, and substantial roles towards the individuals' financial behaviour (FB). The results of this research illustrate that PBC has the strongest impact on FB towards the individuals' level of engagement in a banking relationship and in Jordan, followed by SN and the least effect on FB was ATTD.

With the strongest core factor being PBC, the results confirmed that the more the individual feels in control of performing or using different banking services, the more accomplished and the stronger is the financial behaviour i.e., higher engagement in a banking relationship. The results and findings also highlighted four main independent variables that affect the individuals' PBC; namely economic knowledge (EK), Financial literacy (FL), financial technology (FinTech) and (TRUST).

The above findings answer the research question: “What factors influence individuals’ level of engagement in a banking relationship in Jordan?”. Thus, to improve the level of engagement we need to boost the individuals’ PBC and equip them with stronger means of control to perform and use the different banking services, thus improving the level of engagement in their banking relationship which is the intended financial behaviour. This can be done through strengthening individuals’ financial literacy at an early age which will improve their interest in understanding the financial system and seek more economic knowledge. Such antecedents would improve their trust in the financial system and improve their engagement levels and use further financial services.

According to Ajzen (2020) an effective way to produce a change in behaviour is to introduce new information that would lead to the change in the formation of the individuals’ beliefs. This is considered a better way than working directly on changing existing beliefs. According to Schein, (1999) "You Cannot Understand a System Until You Try to Change It”, now that factors that affect the system are indicated clearly, it is possible to propose the change.

This research provided findings that may be used to introduce new information that would lead to changes in individuals’ beliefs. These changes are expected to be more effective if related to the individuals’ economic knowledge (EK), financial literacy (FL), financial technology (FinTech) or (TRUST). The significant relationships between these independent variables and the strongest core variable PBC are expected to affect the individuals’ financial behaviour.

The business of banking was established and developed based on several theories within two main social sciences: Economics and Business Management. Theories of risk vs. return, regulations, business ethics, competition, stakeholders, governance, consumer behavioural and other related theories, were developed through practice.

Howell (2013) argues that not enough theories exist, so there is a need to learn from experience and develop further theories. Accurate theories will lead to sound understanding resulting in practical solutions, which can be generalized to spread better practical understanding. Enhanced theory will increase awareness presented in a better framework for practice.

Enhanced changes and interventions to develop individuals' EK, FL, FinTech capabilities and Trust within the banking system would increase awareness and sound understanding which will lead to the required change in the financial behaviour.

Since reality is considered the best application to confirm or refute theories which set many terms and procedures, then the change in the financial behaviour represented by higher levels of engagement in a banking relationship will push for more practical solutions thus, presenting better frameworks and business models for best practice.

This chapter has discussed the research results in the light of findings. The next chapter concludes this study by addressing the research aim and objectives, highlighting the implications drawn from these results. It will also acknowledge the study's limitations and identify potential areas of further research.

CHAPTER SIX: CONCLUSION

This chapter concludes the thesis. It draws conclusions from the overall findings obtained in this research and link them to the research objectives set out in Chapter One. The chapter is organised as follows: Section 6.1 presents the main research conclusions and addresses the objectives of the research; Section 6.2 outlines the main theoretical and practical implications; Section 6.3 presents the latest developments in the Jordanian financial sector; Section 6.4 includes the research limitations and suggested future interventions; and Section 6.5 addresses the research recommendations which are linked together and acknowledged in the last section of this chapter.

6.1 Main Conclusions

The primary aim of this research was to determine the main antecedents (individual and social factors) that influence an individual's level of engagement in a banking relationship in Jordan. A quantitative approach was applied in this research to achieve the best results in addressing the research question. In addressing the research question, this study has confirmed that there are independent individual and social factors that enhance individuals' level of engagement in a banking relationship in Jordan. These factors were identified in the literature review chapter. Interestingly, the same results were reported by several studies (as mentioned in the previous chapters).

This research has set three objectives to be addressed. The first objective was to determine the independent individual and social factors that enhance an individual's level of engagement in a banking relationship. Findings confirmed that the independent factors that mainly affect individuals' financial behaviour (FB) which are reflected in the level of engagement in a banking relationship in Jordan are economic knowledge (EK), age (AGE), income (INC), financial literacy (FL), the economy (ECO), financial technology (FinTech) and trust (TRUST).

It was found that individuals' EK, FinTech and TRUST have positive, significant, and substantial effect on the three core factors of ATTD, SN and PBC that determine an individual's financial behaviour FB. Any change in any of these three independent factors would directly affect the individuals' final FB due to their significant effects on the individuals' core factors.

Another very important relationship that appeared to have positive significant and substantial effect was the relationship between FL and PBC. Since PBC appeared to be the strongest core factor affecting the FB, it is important to consider FL as one of the main independent factors that may affect the individual's level of engagement in a banking relationship.

AGE had its positive significant and substantial effect on ATTD but not on SN, nor on PBC. Thus, no interventions may be proposed here since the older the individuals the stronger their ATTD and readiness to perform higher engagement in their banking relationship. This may be related to higher confidence with AGE. Thus, individuals' AGE would not be an ideal option to explore in order to affect the individuals' level of engagement in a banking relationship in Jordan, as AGE affects individuals' ATTD which is the weakest of the three core factors that affect the FB. Thus, the FB is spontaneously affected without any external interventions.

The independent relationship between INC and FB appeared only through the relationship between INC and SN. This relationship was found to be negative, significant, and moderate. It may be explained as the higher the individual's income, the less the individual is affected with the SN or social surrounding beliefs. Thus, the FB is moderately affected. Accordingly, individuals' income is another independent factor that would not be an ideal option to explore or propose intervention to affect the individuals' FB being the level of engagement in a banking relationship in Jordan.

The economic situation ECO and its independent relationship to FB reflected a positive, significant, and moderate relationship on individuals' SN, but with no significant relationship effect on individuals' ATTD, nor PBC. This relationship can be explained as the better the economic situation in Jordan, the better the outlook and social surrounding beliefs affecting positively but moderately the individuals' FB. Accordingly, the economy ECO is another independent factor that would not be a strong option to explore at this research to affect the individuals' level of engagement in a banking relationship in Jordan, due to its economic limitations.

In summary, the four main independent individual and social factors that enhance individuals' level of engagement in a banking relationship and would be explored and investigated for further interventions in the Jordan according to this research are: EK, FL, FinTech and TRUST.

The second objective of the research was to examine the influence of financial literacy (FL) in enhancing the level of individuals' behavioural engagement towards the banking relationship. As mentioned earlier, FL appeared to have positive significant and substantial effect on PBC and since PBC was the strongest core factor that affected FB in Jordan. Thus, the study identified the important influence of FL on FB and simultaneously would detect and recommend set of resources and interventions at early stages of the individuals' financial behavioural process. Preparing individuals to be well-informed influencers within the financial inclusion process, paves the road for more engagement and involvement in their banking relationships.

The third and last objective of the research was to investigate the influence of 'Gender' and if the above dynamics vary by gender. The study tested the different effects of the individual and social factors on Males compared to Females financial behaviours, such differences were supported by the MGA results. Findings pointed out the following differences in the effect of independent factors on Males versus Females:

EK is strongest independent factor for Females and affects their three core factors (ATTD, PBC and SN) whereby EK only affect Males' ATTD toward the FB. Thus, any intervention to improve Females EK will positively, significantly, and strongly affect their FB and improve the level of engagement in a banking relationship in Jordan. As for ECO and INC, findings reflected significant effect for Males only on their SN or social surrounding beliefs, whereas ECO and INC had no effect on Females core factors thus on their FB.

TRUST was more significant to Males as it affects both their ATTD and PBC, thus leading to a strong effect on their FB. Whereas Females' TRUST significance was related to their PBC only, i.e., TRUST drives Female perception of ease in performing the FB without affecting their ATTD, nor SN. FinTech and FL were equally important to both Males and Females. As a result, relevant products and services may be proposed and targeted towards Females' core factors leading to the required financial behaviour that will encourage more Female engagement in banking relationships.

6.2 Contribution and Research Implications

The findings of this research have significance for several sectors of society including the banking sector, the government and non-government organisations in charge of designing and delivering financial literacy promotion programmes as well as the academic sector. The following examines both theoretical and practical implications of this research.

6.2.1 Theoretical Implications

This research is a study that examines the individuals' financial behaviour and explores the impact of the independent individual and social factors on such behaviour. As a result, the findings have implications for both the individuals' financial performance and the financial behaviour literature in terms of level of engagement in banking relationships.

The following points outline how the findings of this research contribute to the literature on individuals' financial behaviour. First the comprehensive approach adopted in this research provides empirical support and an enhanced picture of the determinants or the antecedents and the driving forces of individuals' financial behaviour. There has been much debate in literature about how these driving forces act. In line with Whetten (1989) a theory is composed of several elements to be examined related to: What, How and Why? What variables should be examined? How are they going to be examined? Why and how are these variables related?

Using the TPB, this research presented a way to analyse the behaviour by going back to the drivers of individuals' behaviours which include independent and core variables. The next step was to analyse the interrelated variables and identify the type of relationship among them in line with Collins (2009). After identifying the relationships, the ability to understand how things function and why events occur became clearer (Back, 1993).

Second, this research demonstrated that TPB predicts engagement in financial behaviour, further strengthening the results of other studies (Ajzen, 1991; Armitage and Conner, 2001; McEachan et al., 2011; Sheeran, 2002).

Third, this research supports Ajzen's (2020) work in relation to behavioural change where he suggests that the ideal way to produce a change in behaviour is to introduce new information that would lead to the change in the formation of the individual's beliefs. Since behaviours often revert to what they were prior to the intervention, it must be ensured that individuals' new beliefs accurately reflect reality, only then is it fair to expect that the effect of the intervention will persist over time.

Usually intervention may be ineffective, unless the individuals have the potential to carry out their newly formed intentions for a long period which will ensure the translation of intentions into behaviour. This research recommends interventions at an early age through FL programs at schools in addition to continuous follow up to develop and improve knowledge through training and awareness campaigns.

6.2.2 Practical Implications

From a practical perspective, this research has several important implications for both banks and policy makers. Investigating the independent factors influencing the individuals' level of engagement in a banking relationship could indicate the relevant type of resources to invest in at each stage of the behavioural process. It was revealed that banks should be aware and continuously work on updating the individuals in terms of economic and financial knowledge (EK and FL), which is particularly important at the initiation stage. Then providing them with FinTech services that would boost their TRUST in themselves and in the banking system, leading to higher level of engagement in banking relationships.

These research findings are a reminder to banks that their marketing campaigns offering new services at the far end of the relationship are not enough to improve the level of engagement. It is also a reminder to policy makers to investigate and offer explorative activities to enlighten individuals with up-to-date financial and economic knowledge that would boost their confidence and lead to stronger drivers to engage more in their banking relationships. Such activities start at school and continue to include engaging trainings which can be online or in person. This research has verified the important role that these educational and trainings play in initiating the banking relationship and further improving the level of engagement.

Even though the research is exploratory, and the sample was not fully representative of the Jordanian population, the results have a number of important strategic implications. The findings confirmed that the dominant core factor to influence the level of engagement in a banking relationship is PBC, which was proved and influenced by individuals' independent factors EK, TRUST, FL and FinTech.

The findings indicated that the majority of respondents lacked confidence in their ability to choose financial investment products and mostly chose to invest in real estate; revealing a need to provide more information about products and emphasise the need for increased involvement by the financial services providers.

Furthermore, this research has verified the important role of financial education or financial literacy FL in increasing the level of engagements. A strong financial base would lead to higher level of engagement, thus better banking relationships and performance ensuring the survival, sustainability, and a better financial inclusion plan thereafter.

The validity of these findings and the need for greater deliberation is underlined by the fact that other publications (The Report: Jordan 2018: Country Profile, 2022), highlighted similar considerations. The report emphasised the need for further improvements with regard to access to credit and for the unbanked population in addition to keeping up with the global developing Fintech industry. Unless these issues are addressed, the engagement levels in banking relationships would not improve.

The research findings strongly suggest that the banking sector, guided by the CBJ will have to place more emphasis on educating and developing individuals to improve the level of engagement in their banking relationships which would lead to improved services and better implementation of the financial inclusion plan. As a result, banks' strategic plans to perform effectively and sustain such performance should encourage the use of the available educational and training platforms and programs. It is highly recommended that senior banks' management should be committed to engage with government and non-government bodies to work together on strengthening the important drivers for banking relationship initiation and higher engagement.

6.3 Developments in Financial Sector and Financial Inclusion Strategy in Jordan

The following section highlights the recent developments in Jordan. It is important to state these developments in order to continue to work on improving the positive trends that already started then further expand in line with the recommendations of the research.

In December 2017, CBJ launched the National Financial Inclusion Strategy (NFIS) for Jordan 2018-2020, with two objectives; the first was to increase financial inclusion from 33.1% in 2017 to 41.5% by 2020 and the second is to reduce the gender gap from 53% to 35% between males and females by 2020. By year-end 2020 the NFIS succeeded in enhancing the financial inclusion in Jordan to reach 50% and reducing the gender gap to 29% between males and females, empowering women to be able to access and use financial services.

Throughout its financial and banking literacy policies and programs to promote financial inclusion, the CBJ played a major role in promoting financial literacy in Jordan, targeting major sectors in the society through several programs. One of which is the financial education curriculum in schools that was prepared and launched in collaboration with the Ministry of Education and INJAZ; an independent non-profit Jordanian organization founded in 2001, as a leading solution provider linking the public, private, and civil society sectors to bridge the skills gap between the educational system and the changing needs of the labour market (The Central Bank of Jordan, 2022).

Furthermore, the CBJ issued the Basic Bank Account Instructions requiring all banks operating in Jordan to facilitate the opening a Basic Bank Account (BBA) for all legally qualified and financially excluded citizens, which has resulted in 29,188 bank new accounts by end of 2020, of which 12,548 were held by females, (Central Bank of Jordan, 2021). The developments in the field of finance lead by policymakers have shown an increased willingness to assign top priority to financial inclusion (Financial Inclusion Report 2018-2020, 2021).

The CBJ further launched a special website to improve individuals' financial literacy. The website encourages individuals to open accounts and increase their level of engagement, focusing on savings and interest rates.

Furthermore, several training workshops for females were conducted by the CBJ and its partners to improve females' financial capabilities, thus improving their financial decisions. In addition to the above, the CBJ launched official guidelines for FinTech to promote innovation and further improve the financial inclusion process. The CBJ continues to promote financial literacy through its website and Facebook page, (Instructions - The Central Bank of Jordan, 2022).

While financial inclusion targets all segments of the population and micro, small and medium sized enterprises, the NFIS for Jordan gives special attention to certain priority segments, the most vulnerable groups which traditionally have lower levels of financial inclusion, namely: the bottom 40% of households in terms of income (at the so-called bottom of the pyramid); women; the youth (15-24 years old in general; 15-18 years old in particular) and refugees (Central Bank of Jordan, 2021).

On July 22, 2019, during the 'Forum on Enhancing Financial Stability' organized by the Union of Arab Banks (UAB), in cooperation with the Central Bank of Jordan (CBJ) and the Association of Banks on Jordan (ABJ); the Deputy Governor of the (CBJ), advised that achieving financial stability requires enhancing the wise and well-considered financial inclusion along with setting the proper infrastructure. He clarified that the CBJ launched the National Financial Inclusion Strategy for 2018-2020 seeking to have a sustainable and comprehensive financial system that is in line with the components of the national agenda and the strategic directions of the Kingdom. The strategy will help to strike balance between four major goals: financial inclusion, financial stability, integrity of the financial sector, and protection of the financial consumer, the Deputy Governor of the (CBJ) added. Since then, a few changes have started taking place within the Jordanian financial sector led by the CBJ, and other related organizations. The educational sector represented by the Ministry of Education led an intervention at the public schools' syllabus in cooperation with INJAZ.

The practical experience that was applied within the Jordanian education sector by INJAZ aimed at strengthening the beliefs of the young generation of their financial and entrepreneur capabilities which is expected to produce favourable outcome and will impact their behavioural attitude towards dealing with the financial sector.

Whereas the new trend in the banking sector in Jordan led by several banks to offer new products only for women is another high scale value that is expected to be appreciated by women and as expected, lead to positive behavioural change in attitude resulting in an increase in women's bank account ownership by 35% during 2016-2018. Further developments were noticed in females share in banks' deposits which increased from 34.5% in 2018 to 40.3% of total deposits by year end 2020 compared to males' share in total bank deposits of 59.7% in 2020 down from 65.5% in 2018 as reported by the association of banks in Jordan (2018, 2019, 2020).

Despite the impressive developments more should be done. The banking sector in Jordan is aware of the need for more innovations in order to be more competitive. Early 2018, Ernst & Young made a study: "Innovation in banking: recent innovations across banking functions". The study highlighted recent innovations in the banking sector and by stemming all information from leading banks and FinTech firms, the study tried to understand how innovation can affect the different functions of the bank. Several functions were reviewed such as consumer banking, marketing, technology, human resources, and other functions in order to assess how much innovation would develop these functions and accordingly lead to more competitive banks.

6.4 Recommendations

The above initiatives and developments in the Jordanian banking sector are in line with the findings and conclusions of this research. Banks should study and capitalize on customer's engagement behavior and continuously develop their customer engagement strategies. The following recommendations are proposed, which would further enhance the current developments and may propose new initiative and interventions to be considered by banks, regulators, government, and non- government entities.

First: Financial Literacy (FL) should be a priority in the Jordanian educational system. Principles of business, economics, and finance to be introduced at an early stage at schools. Receiving the financial education at an early age would prepare a generation who is able to manage their small finances thus, enhancing their ATTD, PBC, and readiness to manage larger finances and more complex situations in their practical life after school.

The current initiative that has already been launched in collaboration with the Ministry of Education and INJAZ of preparing and providing financial education curriculum in schools is considered one of the most important initiatives and is expected to provide positive outcomes at the long term. The research recommends further support and emphasis on the materials along with continuous evaluation and upgrading of the curriculums to ensure that students are receiving up to date information.

Second: more financial training and awareness campaigns should be launched online and on ground at all levels. For example, banks are expected to spread financial awareness about their services through handy publications easy to read and understood, explaining how to use a service and what is the benefit to the customer and to the bank. This would ensure that customers are well informed about the services, trust their banks more and be ready to use such services with confidence, which will enhance their level of engagement in their banking relationship. Currently many services are offered and proposed to customers accompanied by terms and conditions which most customers do not read due to their complexity but agree to sign and approve then start to use the service without proper introduction or clarifications of its benefits or how to use it. This recommendation will serve as an indirect educational platform to improve their financial and economic knowledge and further affect their ATTD and PBC towards the engagement in their banking relationships.

Third: the same as the earlier point, financial training, and awareness campaigns need to be launched online and on ground with a special focus on females' bank account engagement. Banks should provide these campaigns along with handy publications to promote services catering female needs to encourage them to maintain their own banking relationships and accounts. Such campaigns would enhance their EK and TRUST, thus improving their engagement in their banking relationships.

Several Jordanian banks already started such campaigns and supported existing female projects, female entrepreneurs and further encouraged housewives to maintain accounts to improve their independency, practicality, and self-confidence. The awareness campaigns, whether publications or direct calls and face to face meetings by the banks, would be considered interventions that would improve females EK along with TRUST which would affect their PBC leading to higher levels of engagement in their banking relationships.

Banks' customer service roles need to expand further to include day to day awareness and educational promotions to customers on ground, on the phone and also online. Customer services need to act as the well of knowledge that keep customers aware and up to date with latest developments.

Fourth: banks should investment more in training and research departments to be able to provide new up to date services to existing customers, to be able to attract new young customers and enlarge the female customer base. The research findings asserted that FinTech can have a positive, significant, and substantial effect on the three core factors ATTD, SN and PBC that determine individuals' financial behaviour FB. Thus, banks should continuously provide and upgrade their FinTech services to improve the level of engagement in banking relationships at all levels. This can be done through more investment in their training and research departments or through supporting FinTech companies. This recommendation is in line with the current CBJ actions of launching official guidelines for FinTech to promote innovation and further improve the financial inclusion process.

Fifth: regulators should encourage the account opening and the issuance of debit or prepaid cards to the younger generations including school students with parents' supervision. Maintaining a bank account and managing ones own expenses at an early age would improve individuals' PBC, build trust and enhance money planning and investment awareness thus entrepreneurship spirit and sense of responsibility.

The CBJ's new instructions to all banks operating in Jordan is to facilitate the opening of the Basic Bank Account (BBA) which would be further expanded to add young individuals. According to the NFIS special attention would be afforded to certain priority segments, including the most vulnerable groups which include the youth 15–24 year-olds in general and 15-18 years old in particular (Central Bank of Jordan, 2021). This recommendation would play a crucial role in the implementation of the financial inclusion plan in the long run.

Sixth: regulators and banks should use media (social media, TV, and radio) to promote services including awareness campaigns to promote savings and investments. Social media is considered a strong tool to spread awareness and encourage peer actions. These campaigns may also be delivered through sponsoring of social cultural events to spread financial awareness.

Finally, to move forward, an introduction of the above findings by the researcher to the banking sector in Jordan and the policy makers will take place in the form of official meetings and seminars. Researcher to present the conclusions and encourage the implementation of the recommendations, especially those related to FL and financial awareness campaigns. Based on the meetings and discussions an agenda with proposed interventions will follow.

6.5 Limitations and Future Research Suggestions

Although this research has important implications, it is subject to limitations that should be acknowledged. First, although the sample size five hundred and forty two (542) participants proved to be sufficient to conduct a robust statistical analysis, the sample was not fully representative of the Jordanian population as most of the participants were from the capital (Amman) and surroundings.

The collection process took four months, from July to October 2021, an extraordinary period when the world was opening up after the COVID19 pandemic along with all limitations of reach and communication. For these reasons, the data collection process took four months and due to time and conditions constraints the researcher could not spend more time on reaching out to all areas in Jordan. Future studies could allocate more time and resources, and therefore include a more comprehensive sample that represent a wider population base from several areas in Jordan.

Second, the research was unable to quantify the effect of the latest developments in the education system on individuals, in order to assess the effect of FL programmes that already started on individuals' financial knowledge and behaviour. Given the long-term impact often associated with the implementation of such educational programs, a longitudinal study would bring enhanced insights into the indirect effects of the FL programs and hence, could be a more accurate way to evaluate the effectiveness of such programs. This would be interesting research to follow and address the results of action already taken within the Jordanian educational system.

Third, the relationships that have been tested in this study represent a snapshot in time. Although it is likely that the conditions under which the data were collected will remain essentially the same, there are no guarantees that this will be the case. Furthermore, engagement dimensions may have further implications on banks' performances in the long term, but as this is not a longitudinal study, the research cannot evaluate its effects. Future longitudinal studies might assess further engagement dimensions and outcomes in the long term.

Fourth, based on a thorough literature review and based on TBP, the comprehensive approach adopted in this study attempted to include the most important resource factors influencing individual financial behaviour. However, some other individual factors such personality, mood and values and other social factors such as religion, culture, law, and media could be important predictors of financial behaviour, yet may have been neglected by the literature, and were not included or investigated within in this research. In this sense, future research could comprise additional resource factors that could potentially have other effects on the individuals'' financial behaviour.

Fifth, the lack of engagement in banking relationships is a subject to be considered for future research studies in order to thoroughly investigate further reasons. The available research literature in this subject is very limited, however, engagement importance has been highlighted as an essential behaviour to retain and recapture the growth in the banking sector, calling for more research to capitalize on customer's engagement behavior for the benefit and growth of the banking sector.

Finally, this research presented praxis by analysing and studying the phenomena of engagement in banking relationship in Jordan through the lens of the Theory of Planned Behaviour (TPB) and succeeded in bridging the gap between this theory and the current practice within the banking sector in Jordan. This quantitative research has provided evidence and answered the "what" to individuals' financial behaviour in Jordan and the impact of individual and social factors. Further qualitative research is recommended to answer the "why" and cover what individuals have in mind and why they behave the way that they do. It is suggested to conduct more studies in other related economies within the MENA region. More studies and inclusion of more factors to investigate would provide further critical implications for both theory and practice in the educational and banking sectors.

References:

Abj.org.jo. 2019. *Forum on Enhancing Financial Stability* (2019) *Union of Arab Banks*. ABJ & CBJ. Available at: https://uabonline.org/event/forum-on-enhancing-financial-stability/.

Adam, A. (2001) "Computer Ethics in a different voice," *Information and Organization*, 11(4), pp. 235–261. Available at: https://doi.org/10.1016/s1471-7727(01)00006-9.

Adam, A. (2005) "Gender, ethics and information technology." Available at: https://doi.org/10.1057/9780230000520.

Adam, A. and Ofori-Amanfo, J. (2000) "Does gender matter in computer ethics?," *Ethics and Information Technology*, 2(1), pp. 37–47. Available at: https://doi.org/10.1023/a:1010012313068.

Adam, A., (2002). Cyberstalking and Internet pornography: Gender and the gaze. *Ethics and Information Technology*, *4*(2), pp.133-142.

Agarwal, S., Chomsisengphet, S., Liu, C., Song, C. and Souleles, N., (2018) "Benefits of relationship banking: Evidence from consumer credit markets," *Journal of Monetary Economics*, 96, pp. 16–32. Available at: https://doi.org/10.1016/j.jmoneco.2018.02.005.

Agarwal, S., Driscoll, J. C., Gabaix, X., & Laibson, D. (2009). The age of reason: Financial decisions over the life cycle and implications for regulation. *Brookings Papers on Economic Activity*, *2*, 51–117. Available at: https://doi.org/10.1353/eca.0.0067.

Ahmad, N., Daud, S.N. and Kefeli, Z. (2012) "Economic Forces and the sukuk market," *Procedia - Social and Behavioral Sciences*, 65, pp. 127–133. Available at: https://doi.org/10.1016/j.sbspro.2012.11.101.

Ajzen, I. (1971) "Attitudinal vs. normative messages: An investigation of the differential effects of persuasive communications on behavior," *Sociometry*, 34(2), p. 263. Available at: https://doi.org/10.2307/2786416.

Ajzen, I. (1985) "From intentions to actions: A theory of planned behavior," *Action Control*, pp. 11–39. Available at: https://doi.org/10.1007/978-3-642-69746-3_2.

Ajzen, I. (1988). Attitudes, personality, and behavior. Chicago: Dorsey Pres

Ajzen, I. (1991) "The theory of planned behavior," *Organizational Behavior and Human Decision Processes*, 50(2), pp. 179–211. Available at: https://doi.org/10.1016/0749-5978(91)90020-t.

Ajzen, I. (2001) "Nature and operation of attitudes," *Annual Review of Psychology*, 52(1), pp. 27–58. Available at: https://doi.org/10.1146/annurev.psych.52.1.27.

Ajzen, I. (2002) "Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior1," *Journal of Applied Social Psychology*, 32(4), pp. 665–683. Available at: https://doi.org/10.1111/j.1559-1816.2002.tb00236.x.

Ajzen, I. (2011) “The Theory of Planned Behavior: Reactions and reflections,” *Psychology & Health*, 26(9), pp. 1113–1127. Available at: https://doi.org/10.1080/08870446.2011.613995.

Ajzen, I. (2019) *Theory of Planned Behavior (TPB) with background factors*. Available at: https://people.umass.edu/aizen/tpb.background.html (Accessed: November 16, 2022).

Ajzen, I. and Fishbein, M. (1972) “Attitudes and normative beliefs as factors influencing behavioral intentions.,” *Journal of Personality and Social Psychology*, 21(1), pp. 1–9. Available at: https://doi.org/10.1037/h0031930.

Ajzen, I. and Fishbein, M. (1977) “Attitude-behavior relations: A theoretical analysis and review of empirical research.,” *Psychological Bulletin*, 84(5), pp. 888–918. Available at: https://doi.org/10.1037/0033-2909.84.5.888.

Ajzen, I. and Kruglanski, A.W. (2019) “Reasoned action in the service of goal pursuit.,” *Psychological Review*, 126(5), pp. 774–786. Available at: https://doi.org/10.1037/rev0000155.

Ajzen, I., & Fishbein, M. (2005). “The Influence of Attitudes on Behavior”. In D. Albarracín, B. T. Johnson, & M. P. Zanna (Eds.), *The handbook of attitudes* (pp. 173–221). Lawrence Erlbaum Associates Publishers.

Ajzen, Icek. (2006). Behavioral Interventions Based on the Theory of Planned Behavior.

Al Fadli A., Sands J., Jones G., Beattie C., and Pensiero D. (2019) “Board gender diversity and CSR reporting: Evidence from Jordan,” *Australasian Accounting, Business and Finance Journal*, 13(3), pp. 29–52. Available at: https://doi.org/10.14453/aabfj.v13i3.3.

Al Kharouf, A. and Weir, D. (2008) “Women and work in a Jordanian context: Beyond neo-patriarchy,” *Critical perspectives on international business*, 4(2/3), pp. 307–319. Available at: https://doi.org/10.1108/17422040810870060.

Al-dalahmeh, M., Masa’deh, R, Abu Khalag, R, Obeidate, B. (2018) “The effect of employee engagement on organizational performance via the mediating role of job satisfaction: The case of it employees in Jordanian banking sector,” *Modern Applied Science*, 12(6), p. 17. Available at: https://doi.org/10.5539/mas.v12n6p17.

Al-Mahadin, S. (2004) “Jordanian women in education: Politics, pedagogy and gender discourses,” *Feminist Review*, 78(1), pp. 22–37. Available at: https://doi.org/10.1057/palgrave.fr.9400188.

Alalwan, A.A., Dwivedi, Y., Rana, N. and Williams, M. (2016) “Consumer adoption of mobile banking in Jordan,” *Journal of Enterprise Information Management*, 29(1), pp. 118–139. Available at: https://doi.org/10.1108/jeim-04-2015-0035.

Aldlaigan, A.H. and Buttle, F.A. (2001), “Consumer involvement in financial services: an empirical test of two measures”, International Journal of Bank Marketing, Vol. 19 No. 6, pp. 232-45.

Aldwin, C.M. (1991) "Does age affect the stress and coping process? implications of age differences in perceived control," *Journal of Gerontology*, 46(4). Available at: https://doi.org/10.1093/geronj/46.4.p174.

Alessie Rob J.M., Annamaria Lusardi and Maarten C.J. van Rooij (2011), "Financial Literacy and Stock Market Participation", *Journal of Financial Economics,* No. 101, pp.449-472.

Algesheimer, R., Dholakia, U.M. and Herrmann, A. (2005), "*The social influence of brand community: evidence from European car clubs*", Journal of Marketing, Vol. 69 No. 3, pp. 19-34.

Alhenawi, Y., & Elkhal, K. (2013). Financial literacy of U.S. households: Knowledge vs. long-term financial planning. *Financial Services Review*, *22*, 211–244.

Ali, F., Rasoolimanesh, S.M., Sarstedt, M., Ringle, C.M. and Ryu, K. (2018) "An assessment of the use of partial least squares structural equation modeling (PLS-SEM) in hospitality research," *International Journal of Contemporary Hospitality Management*, 30(1), pp. 514–538. Available at: https://doi.org/10.1108/ijchm-10-2016-0568.

Allen, F., Demirguc-Kunt, A., Klapper, L., and Martinez Peria, M. (2016) "The foundations of Financial Inclusion: Understanding ownership and use of formal accounts," *Journal of Financial Intermediation*, 27, pp. 1–30. Avalable at: https://doi.org/10.1016/j.jfi.2015.12.003.

Allen, M. (2017) *The sage encyclopedia of communication research methods*, *Amazon*. SAGE Publications, Inc. Available at: https://www.amazon.com/SAGE-Encyclopedia-Communication-Research-Methods/dp/1483381439 (Accessed: October 23, 2022).

Allgood, S. and Walstad, W.B. (2016), "*The effects of perceived and actual financial literacy on financial behaviors*", Economic Inquiry, Vol. 54 No. 1, pp. 675-697.

Alomari, M., Woods, P. and Sandhu, K. (2012) "Predictors for e-government adoption in Jordan," *Information Technology & People*, 25(2), pp. 207–234. Available at: https://doi.org/10.1108/09593841211232712.

Ambad, S.N. and Damit, D.H. (2016) "Determinants of entrepreneurial intention among undergraduate students in Malaysia," *Procedia Economics and Finance*, 37, pp. 108–114. Available at: https://doi.org/10.1016/s2212-5671(16)30100-9.

Amromin, G. and Sharpe, S.A. (2014) "From the horse's mouth: Economic conditions and investor expectations of risk and return," *Management Science*, 60(4), pp. 845–866. Available at: https://doi.org/10.1287/mnsc.2013.1806.

Andarsari, P.R. and Ningtyas, M.N. (2019) "The role of Financial Literacy on financial behavior," *JABE (JOURNAL OF ACCOUNTING AND BUSINESS EDUCATION)*, 4(1), p. 24. Available at: https://doi.org/10.26675/jabe.v4i1.8524.

Anouze, A.L. and Alamro, A.S. (2019) "Factors affecting intention to use e-banking in Jordan," *International Journal of Bank Marketing*, 38(1), pp. 86–112. Available at: https://doi.org/10.1108/ijbm-10-2018-0271.

Aristei, D. and Gallo, M. (2016) “The determinants of firm–bank relationships in Italy: Bank ownership type, diversification and multiple banking relationships,” *The European Journal of Finance*, 23(15), pp. 1512–1543. Available at: https://doi.org/10.1080/1351847x.2016.1186712.

Armitage, C.J. and Conner, M. (2001) “Efficacy of the theory of planned behaviour: A Meta-Analytic Review,” *British Journal of Social Psychology*, 40(4), pp. 471–499. Available at: https://doi.org/10.1348/014466601164939.

Asbari, M., Novitasari, D., Pebrina, E. T., & Santoso, J. (2020). Work Family Conflict and Employee Performance during Covid 19 Pandemic: What is the Role of Mental Readiness to Change? JPBM (Jurnal Pendidikan Bisnis Dan Manajemen), 6(2).

Ashraf, M.A., Alam, M.M. and Noor, M.S. (2020) “The influence of privacy and trust on the adoption of internet banking in Bangladesh,” *Malaysian Management Journal* [Preprint]. Available at: https://doi.org/10.32890/mmj.14.2010.8965.

Association of Banks in Jordan - Who's Who in Jordan's Banking, Insurance & Financial Services 2022. Available at: https://jordanfinancialservices.com/about-sector/association-banks-jordan (Accessed: October 29, 2022).

Association of Banks in Jordan (no date) *Association of Banks in Jordan - Annual Report 2017*. Available at: https://2017.jordanfinancialservices.com/about-sector/association-banks-jordan (Accessed: October 27, 2022).

Atkinson, A. and Messy, F. (2012) *Measuring Financial Literacy Results of the OECD / International Network on Financial Education (INFE) Pilot Study*, *OECD Library*. OECD working papers on Finance, insurance and private pensions, no. 15, OECD Publishing. - references - scientific research publishing. Available at: https://www.scirp.org/(S(i43dyn45teexjx455qlt3d2q))/reference/ReferencesPapers.aspx?ReferenceID=2275403 (Accessed: October 30, 2022).

Atkinson, A. and Messy, F.A., 2012. Measuring financial literacy: Results of the OECD/International Network on Financial Education (INFE) pilot study.

Atkinson, J.W. (1964). *An introduction to motivation.* Van Nostrand.

Aziz, S. and Afaq, Z. (2018) “Adoption of Islamic banking in Pakistan an empirical investigation,” *Cogent Business & Management*, 5(1), p. 1548050. Available at: https://doi.org/10.1080/23311975.2018.1548050.

Baan, J., Gaikhorst, L. and Volman, M. (2019) “Stimulating teachers’ inquiring attitude in academic and professional teacher education programmes,” *European Journal of Teacher Education*, 43(3), pp. 352–367. Available at: https://doi.org/10.1080/02619768.2019.1693994.

Balder N, Singh H, and Mansor NNA, (2020) “The impact of entrepreneurship education on attitude, subjective norm and self-efficacy among undergraduates,” *International Journal of ADVANCED AND APPLIED SCIENCES*, 7(10), pp. 108–116. Available at: https://doi.org/10.21833/ijaas.2020.10.012.

Balushi, Y.A., Locke, S. and Boulanouar, Z. (2018) "Islamic financial decision-making among smes in the Sultanate of Oman: An adaption of the theory of planned behaviour," *Journal of Behavioral and Experimental Finance*, 20, pp. 30–38. Available at: https://doi.org/10.1016/j.jbef.2018.06.001.

Bandura, A. (1982) "Self-efficacy mechanism in human agency.," *American Psychologist*, 37(2), pp. 122–147. Available at: https://doi.org/10.1037/0003-066x.37.2.122.

Bandura, A. (1986) "The explanatory and predictive scope of self-efficacy theory," *Journal of Social and Clinical Psychology*, 4(3), pp. 359–373. Available at: https://doi.org/10.1521/jscp.1986.4.3.359.

Bandura, A. (1995) "Preface," *Self-Efficacy in Changing Societies*, pp. ix-xiv. Available at: https://doi.org/10.1017/cbo9780511527692.002.

Bandura, A. (2006). Guide for constructing self-efficacy scales. In F. Pajares, & T. C. Urdan (Eds.), Self-efficacy beliefs of adolescents (pp. 307–337). Greenwich, CT: Information Age.

Bapat, D. (2019) "Exploring antecedents to financial management behavior for young adults," *Journal of Financial Counseling and Planning*, 30(1), pp. 44–55. Available at: https://doi.org/10.1891/1052-3073.30.1.44.

Barnett, S. and Radmore, P. (2002) "Methods in theoretical quantum optics." Available at: https://doi.org/10.1093/acprof:oso/9780198563617.001.0001.

Barr, M.S. (2004) "Banking the poor: Policies to bring low- and moderate-income households in the United States into the financial mainstream," *New Frontiers in Banking Services*, pp. 323–351. Available at: https://doi.org/10.1007/978-3-540-46498-3_10.

Bashir, I. and Madhavaiah, C. (2014) "Determinants of young consumers' intention to use internet banking services in India," *Vision: The Journal of Business Perspective*, 18(3), pp. 153–163. Available at: https://doi.org/10.1177/0972262914538369.

Beauregard, A. (2012) "Perfectionism, self-efficacy and OCB: The moderating role of gender," *Personnel Review*, 41(5), pp. 590–608. Available at: https://doi.org/10.1108/00483481211249120.

Becker, G. S. (1976). *The economic approach to human behavior.* Chicago: The University of Chicago Press.

Becker, J.-M., Ringle, C.M., Sarstedt, M. and Völckner, F. (2015), "How collinearity affects mixture regression results", Marketing Letters, Vol. 26 No. 4, pp. 643-659.

Bellet, E. (2018). Empowering Women Financially – The Why and the How. In The Fintech Handbook for Investors, Entrepreneurs and Finance Visionaries (Vol. 194, pp. 194–196).

Bencivenga, V. R., & Smith, B. D. (1991). Financial intermediation and endogenous growth. *The Review of Economic Studies*, 58(2), 195–209.

Benne, K.D. (1976) "The processes of re-education: An assessment of Kurt Lewin's views," *Group & Organization Studies*, 1(1), pp. 26–42. Available at: https://doi.org/10.1177/105960117600100104.

Bentler, P.M. and Speckart, G. (1979) "Models of attitude–behavior relations.," *Psychological Review*, 86(5), pp. 452–464. Available at: https://doi.org/10.1037/0033-295x.86.5.452.

Bergendahl, G. and Lindblom, T. (2008) "Evaluating the performance of Swedish savings banks according to service efficiency," *European Journal of Operational Research*, 185(3), pp. 1663–1673. Available at: https://doi.org/10.1016/j.ejor.2006.08.027.

Bergeron, K.A., 2001. Relationship marketing: A key to success and survival. *Public roads*, *65*(2), pp.47-50

Berkman, L.F., Glass, T., Brissette, I. and Seeman, T. (2000) "From social integration to health: Durkheim in the New Millennium," *Social Science & Medicine*, 51(6), pp. 843–857. Available at: https://doi.org/10.1016/s0277-9536(00)00065-4.

Bertolino, M., Truxillo, D.M. and Fraccaroli, F. (2011) "Age as moderator of the relationship of proactive personality with training motivation, perceived career development from training, and training behavioral intentions," *Journal of Organizational Behavior*, 32(2), pp. 248–263. Available at: https://doi.org/10.1002/job.670.

Better Than Cash Alliance. 2020. *Better Than Cash Alliance*. [online] Available at: <https://www.betterthancash.org/> [Accessed 19 May 2020].

Bhandari, A., Borovicka, J. and Ho, P. (2019) "Survey data and subjective beliefs in business cycle models," *Federal Reserve Bank of Richmond Working Papers*, 19(14), pp.1–60. Available at: https://doi.org/10.21144/wp19-14.

Bhaumik, S.K., Kutan, A.M. and Majumdar, S. (2017) "How successful are banking sector reforms in emerging market economies? evidence from impact of monetary policy on levels and structures of firm debt in India," *The European Journal of Finance*, 24(12), pp. 1047–1062. Available at: https://doi.org/10.1080/1351847x.2017.1391857.

Bhushan, P., & Medury, Y. (2013). Gender Differences in Investment Behaviour among Employees. *Asian Journal of Research in Business Economics and Management, 3*, 147-157.

Billett, S. (2001), "*Learning through work: workplace affordances and individual engagement*", Journal of Workplace Learning, Vol. 13 No. 5, pp. 209-214.

Biswas, K., Boyle, B., Mitchell, R., and Casimir, G. (2016) "A mediated model of the effects of human resource management policies and practices on the intention to promote women: An investigation of the theory of planned behaviour," *The International Journal of Human Resource Management*, 28(9), pp. 1309–1331. Available at: https://doi.org/10.1080/09585192.2015.1126332.

Black, T.R. (1996) *Evaluating social science research: An introduction*. London: Sage.

Blank, R. and Barr, M. (2012) “Insufficient funds: Savings, assets, credit, and banking among low-income households,” *Eastern Economic Journal*, 39(1), pp. 143–144. Available at: https://doi.org/10.1057/eej.2011.12.

Bollen, K. and Lennox, R. (1991) “Conventional wisdom on measurement: A structural equation perspective.,” *Psychological Bulletin*, 110(2), pp. 305–314. Available at: https://doi.org/10.1037/0033-2909.110.2.305.

Bollen, K.A. (2002) “Latent variables in psychology and the Social Sciences,” *Annual Review of Psychology*, 53(1), pp. 605–634. Available at: https://doi.org/10.1146/annurev.psych.53.100901.135239.

Bollen, K.A. and Bauldry, S. (2011) “Three CS in measurement models: Causal indicators, composite indicators, and covariates.,” *Psychological Methods*, 16(3), pp. 265–284. Available at: https://doi.org/10.1037/a0024448.

Boot, A.W. and Thakor, A.V. (1994) “Moral hazard and secured lending in an infinitely repeated credit market game,” *International Economic Review*, 35(4), p. 899. Available at: https://doi.org/10.2307/2527003.

Borgers, A.C.T. and Pownall, R.A.J. (2014) “Attitudes towards socially and environmentally responsible investment,” *Journal of Behavioral and Experimental Finance*, 1, pp. 27–44. Available at: https://doi.org/10.1016/j.jbef.2014.01.005.

Borsboom, D., Mellenbergh, G.J. and van Heerden, J. (2004) “The concept of validity.,” *Psychological Review*, 111(4), pp. 1061–1071. Available at: https://doi.org/10.1037/0033-295x.111.4.1061.

Boston University School of Public Health (2019) *Why online learning modules? MPH Online Learning Modules*. Office of Teaching and Digital Learning. Available at: https://sphweb.bumc.bu.edu/otlt/MPH-Modules/Menu/ (Accessed: October 30, 2022).

Boyer, K.K. and Swink, M.L. (2008) “Empirical elephants-why multiple methods are essential to quality research in operations and Supply Chain Management,” *Journal of Operations Management*, 26(3), pp. 338–344. Available at: https://doi.org/10.1016/j.jom.2008.03.002.

Brannan, D., Biswas-Diener, R., Mohr, C., Mortazavi, S., and Stein, N. (2013) “Friends and family: A cross-cultural investigation of social support and subjective well-being among college students,” *The Journal of Positive Psychology*, 8(1), pp. 65–75. Available at: https://doi.org/10.1080/17439760.2012.743573.

Brodie, R.J., Ilić, A., Jurić, B. and Hollebeek, L.D. (2013), “*Consumer engagement in a virtual brand community: an exploratory analysis*”, Journal of Business Research, Vol. 66 No. 1, pp. 105-114. ISSN 0148-2963, https://doi.org/10.1016/j.jbusres.2011.07.029.

Bruner, G., James, K., and Hensel, P. (2001). Marketing scales handbook American Marketing Association, Chicago (2001)

Bryman, A. (2012). Social Research Methods, OUP Oxford.

Bryman, A. and Bell, A. (2007). *Business research methods,* New York, Oxford University Press.

Bryman, A. and Bell, E. (2011). Business research methods 3e, New York, Oxford University Press.

Butt, M. W., & Butt, U. J. (2020). Digitalisation of the Global FinTech Industry. In Dadwal, S. S. (Ed.), *Handbook of Research on Innovations in Technology and Marketing for the Connected Consumer* (pp. 431-449). IGI Global. http://doi:10.4018/978-1-7998-0131-3.ch021

Byrne, B.M. and Byrne, B.M. (2013) "Structural equation modeling with EQS." Available at: https://doi.org/10.4324/9780203726532.

Callon, M. (1998) "Introduction: The embeddedness of Economic Markets in Economics," *The Sociological Review*, 46(1_suppl), pp. 1–57. Available at: https://doi.org/10.1111/j.1467-954x.1998.tb03468.x.

Camerer, C.F., Loewenstein, G. and Rabin, M. (2004) *Advances in behavioral economics*. New York, NY: Russell Sage Foundation. Available at: https://doi.org/10.1515/9781400829118-004.

Cannoosamy, K., Pugo-Gunsam, P. and Jeewon, R. (2014) "Consumer knowledge and attitudes toward nutritional labels," *Journal of Nutrition Education and Behavior*, 46(5), pp. 334–340. Available at: https://doi.org/10.1016/j.jneb.2014.03.010.

Cao, L., Joachims, T., Wang, C., Gaussier, E., Li, J., and Ou, Y. (2014) "Behavior informatics: A new perspective," *IEEE Intelligent Systems*, 29(4), pp. 62–80. Available at: https://doi.org/10.1109/mis.2014.60.

Caplan, L.J. and Schooler, C. (2007) "Socioeconomic status and financial coping strategies: The mediating role of perceived control," *Social Psychology Quarterly*, 70(1), pp. 43–58. Available at: https://doi.org/10.1177/019027250707000106.

Carbó, S., Gardener, E.P. and Molyneux, P. (2005) "Financial Exclusion in Europe," *Financial Exclusion*, pp. 98–111. Available at: https://doi.org/10.1057/9780230508743_6.

Caspi, C., Kawachi, I., Subramanian, S., Tucker-Seeley, R. and Sorensen, G. (2013) "The social environment and walking behavior among low-income housing residents," *Social Science & Medicine*, 80, pp. 76–84. Available at: https://doi.org/10.1016/j.socscimed.2012.11.030.

Central Bank of Jordan (2016), Financial Stability Report. Available at http://jordanfinancialservices.com/about-sector/central-bank-jordan

Central Bank of Jordan (2017). Annual Report. Available at http://www.cbj.gov.jo/EchoBusV3.0/SystemAssets/5c395f60-ea7f-4da5-8897-d046f33b75f4.pdf

Central Bank of Jordan (2018) *The Financial Inclusion National Strategy Project 2018-2020*, *The Central Bank of Jordan*. Available at: https://www.cbj.gov.jo/Pages/viewpage.aspx?pageID=197 (Accessed: October 29, 2022).

Central Bank of Jordan (2022) *Spreading financial and banking literacy*, *Spreading Financial and Banking Literacy - The Central Bank of Jordan*. Central Bank of Jordan. Available at: https://www.cbj.gov.jo/Pages/viewpage.aspx?pageID=202 (Accessed: October 29, 2022).

Central Bank of Jordan, (2021). *Financial Inclusion Report 2018-2020*, *Central Bank of Jordan*. FINANCIAL STABILITY DEPARTMENT. Available at: https://www.cbj.gov.jo/DetailsPage/CBJEN/NewsDetails.aspx?ID=312 (Accessed: October 29, 2022).

Chai, J.C. and Dibb, S. (2014) "How consumer acculturation influences Interpersonal Trust," *Journal of Marketing Management*, 30(1-2), pp. 60–89. Available at: https://doi.org/10.1080/0267257x.2013.803140.

Chakravarty, S. and Yilmazer, T. (2009) "A multistage model of loans and the role of relationships," *Financial Management*, 38(4), pp. 781–816. Available at: https://doi.org/10.1111/j.1755-053x.2009.01056.x.

Chan, C., Lin, B, Chang, Y., and Liao, W. *et al.* (2013) "Does bank relationship matter for corporate risk-taking? evidence from listed firms in Taiwan," *The North American Journal of Economics and Finance*, 26, pp. 323–338. Available at: https://doi.org/10.1016/j.najef.2013.02.008.

Chang, V., Newman, R., Walters, R., and Wills, G. (2016) "Review of Economic bubbles," *International Journal of Information Management*, 36(4), pp. 497–506. Available at: https://doi.org/10.1016/j.ijinfomgt.2016.02.007.

Chen, H. and Volpe, R.P. (2002) *Gender differences in Personal Financial Literacy Among College students*, *Financial Services Review*. ProQuest pg. 289. Available at: https://www.researchgate.net/publication/285358406_Gender_Differences_in_Personal_Financial_Literacy_Among_College_Students (Accessed: October 30, 2022).

Chen, M.-F. (2007) "Consumer attitudes and purchase intentions in relation to organic foods in Taiwan: Moderating effects of food-related personality traits," *Food Quality and Preference*, 18(7), pp. 1008–1021. Available at: https://doi.org/10.1016/j.foodqual.2007.04.004.

Chen, Y., Yan, Y., Fan, W., and Gordon, M. (2015) "The joint moderating role of trust propensity and gender on consumers' online shopping behavior," *Computers in Human Behavior*, 43, pp. 272–283. Available at: https://doi.org/10.1016/j.chb.2014.10.020.

Chia-Chung Chan, Bing-Huei Lin, Yung-Ho Chang, Wei-Chen Liao, (2013), *Does bank relationship matter for corporate risk-taking? Evidence from listed firms in Taiwan,* The North American Journal of Economics and Finance, Volume 26, 2013, Pages 323-338, ISSN 1062-9408,

Choi, J.-C. and Song, C. (2020) "Factors explaining why some citizens engage in e-participation, while others do not," *Government Information Quarterly*, 37(4), p. 101524. Available at: https://doi.org/10.1016/j.giq.2020.101524.

Christofi, M., Vrontis, D., Leonidou, E., and Thrassou, A. (2018) "Customer engagement through choice in cause-related marketing," *International Marketing Review*, 37(4), pp. 621–650. Available at: https://doi.org/10.1108/imr-04-2018-0133.

Cicchetti, D.V. (1994) "Guidelines, criteria, and rules of thumb for evaluating normed and standardized assessment instruments in psychology.," *Psychological Assessment*, 6(4), pp. 284–290. Available at: https://doi.org/10.1037/1040-3590.6.4.284.

Ciranka, S. and Bos, W. (2021) "Social norms in adolescent risk engagement and recommendation," *British Journal of Developmental Psychology* [Preprint]. Available at: https://doi.org/10.1111/bjdp.12369.

Clark, A.M. (1998) "The qualitative-quantitative debate: Moving from positivism and confrontation to post-positivism and reconciliation," *Journal of Advanced Nursing*, 27(6), pp. 1242–1249. Available at: https://doi.org/10.1046/j.1365-2648.1998.00651.x.

Clark, R.L., d'Ambrosio, M.B. (2003). Ignorance is not bliss: The importance of financial education. TIAA-CREF Institute, Research Dialogue, 78 (14).

Cohen, J. (2013) "Statistical Power Analysis for the behavioral sciences." Available at: https://doi.org/10.4324/9780203771587.

Collins, B.E. and Hoyt, M.F. (1972) "Personal responsibility-for-consequences: An integration and extension of the 'forced compliance' literature," *Journal of Experimental Social Psychology*, 8(6), pp. 558–593. Available at: https://doi.org/10.1016/0022-1031(72)90080-7.

Collis, J. and Hussey, R. (2009) Business Research: A Practical Guide for Undergraduate and Postgraduate Students. 3rd Edition, Palgrave Macmillan, Basingstoke.

Coltman, T., Devinney, T., Midgley, D. and Venaik, S., (2008). "Formative versus reflective measurement models: Two applications of formative measurement". *Journal of Business Research*, 61(12), pp.1250-1262. Available at: https://doi.org/10.1016/j.jbusres.2008.01.013.

Cooper, D.R. and Schindler, P.S., (2003). Business research methods McGraw-Hill: New York.

Cooper, W. and Schindler, D., (2003). Approaches to social research. *New York*.

Corbin, J. and Strauss, A. (1990) “Grounded theory research: Procedures, canons and evaluative criteria,” *Zeitschrift für Soziologie*, 19(6), pp. 418–427. Available at: https://doi.org/10.1515/zfsoz-1990-0602.

Corbitt, B.J., Thanasankit, T. and Yi, H. (2003) “Trust and e-commerce: A study of consumer perceptions,” *Electronic Commerce Research and Applications*, 2(3), pp. 203–215. Available at: https://doi.org/10.1016/s1567-4223(03)00024-3.

Cordero, J.M., Gil-Izquierdo, M. and Pedraja-Chaparro, F. (2020) “Financial Education and Student Financial Literacy: A cross-country analysis using Pisa 2012 Data,” *The Social Science Journal*, 59(1), pp. 15–33. Available at: https://doi.org/10.1016/j.soscij.2019.07.011.

Çoşkun, A. and Dalziel, N. (2020) “Mediation effect of financial attitude on financial knowledge and financial behavior,” *International Journal of Research in Business and Social Science (2147- 4478)*, 9(2), pp. 01–08. Available at: https://doi.org/10.20525/ijrbs.v9i2.647.

Coye, R. (2004), “*Managing customer expectations in the service encounter*”, International Journal of Service Industry Management, Vol. 15 No. 1, pp. 54-71.

Craighead, C.W., Ketchen, D., Dunn, K., and Hult, G. (2011) “Addressing common method variance: Guidelines for survey research on information technology, operations, and Supply Chain Management,” *IEEE Transactions on Engineering Management*, 58(3), pp. 578–588. Available at: https://doi.org/10.1109/tem.2011.2136437.

Creswell, J. W. (2009). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (3rd ed.). Thousand Oaks, CA: Sage Publications.

Crotty, M. (1998). Sociology; social sciences; research; methodology; philosophy.

Csikszentmihalyi, M. (1997). *Finding flow: The psychology of engagement with everyday life.* Basic Books.

Csiszárik-Kocsir, Á. and Varga, J. (2017) “The Relationship Between The Bank Products and The Financial Knowledge According to the Results of a Questionnaire Survey,” *Journal of International Scientific Publications: Economy & Business 11,* pp. 367–377. Available at: https://www.scientific-publications.net/en/article/1001534/

Cuevas-Molano, E., Matosas-Lopez, L. and Bernal-Bravo, C. (2021) “Factors increasing consumer engagement of branded content in Instagram,” *IEEE Access*, 9, pp. 143531–143548. Available at: https://doi.org/10.1109/access.2021.3121186.

Dabla-Norris, E., Ji, Y., Towsend, R. and Unsal, F. (2015), “Identifying Constraints to Financial Inclusion and their Impact on GDP and Inequality: A Structural Framework for policy,” *IMF Working Papers*, 15(22), p. 1. Available at: https://doi.org/10.5089/9781498381598.001.

Daqar, M. A. M. A. and Smoudy, A. K. A. (2019) "The Impact of Consumer Buying Behavior on Customer Relationship Management in the Banking Sector", *International Review of Management and Marketing*, 9(4), pp. 39–46. Available at: https://www.econjournals.com/index.php/irmm/article/view/8151 (Accessed: 8 October 2022).

Darko, J., Eggett, D.L. and Richards, R. (2013) "Shopping behaviors of low-income families during a 1-month period of Time," *Journal of Nutrition Education and Behavior*, 45(1), pp. 20–29. Available at: https://doi.org/10.1016/j.jneb.2012.05.016.

Darvish, H., Moayeri, M., Malekmohamadi Faradonbe, M., and Naderifar, A. (2013) "A survey on relationship between customer satisfaction and electronic banking features: A case study of tejarat bank in Iran," *Management Science Letters*, 3(2), pp. 425–430. Available at: https://doi.org/10.5267/j.msl.2013.01.006.

Davis, F.D. (1989) "Perceived usefulness, perceived ease of use, and user acceptance of Information Technology," *MIS Quarterly*, 13(3), p. 319. Available at: https://doi.org/10.2307/249008.

Dawson, J.F. (2013) "Moderation in management research: What, why, when, and how," *Journal of Business and Psychology*, 29(1), pp. 1–19. Available at: https://doi.org/10.1007/s10869-013-9308-7.

Deenanath, V., Danes, S.M. and Jang, J. (2019) "Purposive and unintentional family financial socialization, subjective financial knowledge, and financial behavior of high school students," *Journal of Financial Counseling and Planning*, 30(1), pp. 83–96. Available at: https://doi.org/10.1891/1052-3073.30.1.83.

Dehghani, M. and Tumer, M. (2015) "A research on effectiveness of Facebook advertising on enhancing purchase intention of consumers," *Computers in Human Behavior*, 49, pp. 597–600. Available at: https://doi.org/10.1016/j.chb.2015.03.051.

Demirguc-Kunt, A. , Klapper L., Singer D., and Van Oudheusden O. (2015) "The global findex database 2014: Measuring Financial Inclusion around the world," *Policy Research Working Papers* [Preprint]. Available at: https://doi.org/10.1596/1813-9450-7255.

Demirgüç-Kunt, A., Klapper L., Singer D., Ansar S., and Hess J. (2018) "Overview," *The Global Findex Database 2017: Measuring Financial Inclusion and the Fintech Revolution*, pp. 1–14. Available at: https://doi.org/10.1596/978-1-4648-1259-0_ov.

Demirguc-Kunt, A., Klapper, L. and Singer, D. (2017) "Financial inclusion and inclusive growth: A review of recent empirical evidence." Available at: https://doi.org/10.1596/1813-9450-8040.

Department of Statistics |. 2022. *Tables of expenditure and household income | Department of Statistics*. [online] Available at: <http://dosweb.dos.gov.jo/economic/expenditures-income/expend_tables/> [Accessed 17 October 2022].

Department of Statistics, Jordan 2022. Jordan in Figures 2021 (no date). Available at: http://dosweb.dos.gov.jo/DataBank/JordanInFigures/2020.pdf (Accessed: October 23, 2022).

Development Research Group, F.and P.S.D.U. (2022) *Global Financial Inclusion (global findex) database 2021*, *Jordan - Global Financial Inclusion (Global Findex) Database 2021*. Available at: https://microdata.worldbank.org/index.php/catalog/4662 (Accessed: November 5, 2022).

Dewey, J. (1916), *Democracy and Education. An introduction to the philosophy of education* (1966 edn.). New York: Free Press.

Di Noia, J., Contento, I.R. and Prochaska, J.O. (2008) "Computer-mediated intervention tailored on transtheoretical model stages and processes of change increases fruit and vegetable consumption among urban African-American adolescents," *American Journal of Health Promotion*, 22(5), pp. 336–341. Available at: https://doi.org/10.4278/ajhp.22.5.336.

Diamantopoulos, A. and Winklhofer, H.M. (2001) "Index construction with formative indicators: An alternative to scale development," *Journal of Marketing Research*, 38(2), pp. 269–277. Available at: https://doi.org/10.1509/jmkr.38.2.269.18845. (Diamantopoulos & Winklhofer, 2001)

Diener, E., & Biswas-Diener, R. (2002). "Will Money Increase Subjective Well-Being?: A Literature Review and Guide to Needed Research." . *Social Indicators Research*, *57* no. 2 (2002), 119–169. http://www.jstor.org/stable/27526987.

Don Vecchiarello (2016) *Bank of America Survey finds family, friends and community core to Small Business Success*, *Business Wire*. Bank of America. Available at: https://www.businesswire.com/news/home/20161115005176/en/Bank-America-Survey-Finds-Family-Friends-Community (Accessed: November 6, 2022).

Donaldson, J. (1934) "Simpson, George (translator). Emile Durkheim on the division of Labor in society. pp. XLIV, 439. New York: The Macmillan Company, 1933.," *The ANNALS of the American Academy of Political and Social Science*, 173(1), pp. 199–200. Available at: https://doi.org/10.1177/000271623417300127.

Donaldson, T. and Preston, L.E. (1995) "The stakeholder theory of the corporation: Concepts, evidence, and implications," *Academy of Management Review*, 20(1), pp. 65–91. Available at: https://doi.org/10.5465/amr.1995.9503271992.

Dong, Y. and Peng, C.-Y.J. (2013) "Principled missing data methods for researchers," *SpringerPlus*, 2(1). Available at: https://doi.org/10.1186/2193-1801-2-222.

Doyle, S. (2007) "The role of social networks in marketing," *Journal of Database Marketing & Customer Strategy Management*, 15(1), pp. 60–64. Available at: https://doi.org/10.1057/palgrave.dbm.3250070.

Doz, Y.L., 1996. The evolution of cooperation in strategic alliances: initial conditions or learning processes? *Strategic management journal*, *17*(S1), pp.55-83.

Durkheim, Emile. *On the Division of Labor in Society*. Trans. Simpson, George. The MacMillan Company, 1933.

Durvasula, S., Netemeyer, R., Andrews, J. and Lysonski, S., (2006) "Examining the cross-national applicability of multi-item, multi-dimensional measures using generalizability theory," *Journal of International Business Studies*, 37(4), pp. 469–483. Available at: https://doi.org/10.1057/palgrave.jibs.8400210.

Easterby-Smith, M., Thorpe, R. and Jackson, P.R. (2013) *Management research*. 4th ed. London: Sage.

Eckermann, S., Heidegger, H., Röhrig, M., Santos, S., and Zahn, C. (2021) *Building the corporate bank of the future*, *McKinsey & Company*. McKinsey & Company. Available at: https://www.mckinsey.com/industries/financial-services/our-insights/building-the-corporate-bank-of-the-future (Accessed: October 29, 2022).

Ehrentraud J., Garcia O.D., Garzoni L. & Piccolo M. (2020). *Policy responses to fintech: A cross-country overview. FSI insights on policy implementation no. 23, January*. Basel, Switzerland: Bank for International Settlements (BIS).

Emekci, S. (2019) "Green consumption behaviours of consumers within the scope of TPB," *Journal of Consumer Marketing*, 36(3), pp. 410–417. Available at: https://doi.org/10.1108/jcm-05-2018-2694.

Eriksson, P. and Kovalainen, A. (2008) "Qualitative methods in business research." Available at: https://doi.org/10.4135/9780857028044.

Fabrigar, L., Petty, R., Smith, S., and Crites S. (2006) "Understanding knowledge effects on attitude-behavior consistency: The role of relevance, complexity, and amount of knowledge.," *Journal of Personality and Social Psychology*, 90(4), pp. 556–577. Available at: https://doi.org/10.1037/0022-3514.90.4.556.

Falahi, L., & Paim, L. (2011). "Gender Differences in Financial Literacy among College Students". *Journal of American Science*, 7(6).

Fang, J., Zhao, Z., Wen, C. and Wang, R. (2017) "Design and performance attributes driving mobile travel application engagement," *International Journal of Information Management*, 37(4), pp. 269–283. Available at: https://doi.org/10.1016/j.ijinfomgt.2017.03.003.

Feinstein, L. (2003) "Inequality in the early cognitive development of British children in the 1970 cohort," *Economica*, 70(277), pp. 73–97. Available at: https://doi.org/10.1111/1468-0335.t01-1-00272.

Feinstein, L. and Hammond, C. (2004) "The contribution of adult learning to health and social capital," *Oxford Review of Education*, 30(2), pp. 199–221. Available at: https://doi.org/10.1080/0305498042000215520.

Felsenthal, M. and Hahn, R. (2018) *Financial Inclusion on the Rise, But Gaps Remain, Global Findex Database Shows*, *World Bank*. World Bank Group. Available at: https://www.worldbank.org/en/news/press-release/2018/04/19/financial-inclusion-on-the-rise-but-gaps-remain-global-findex-database-shows (Accessed: October 31, 2022).

Fernando, J. (2022) *What is Financial Literacy, and why is it so important? Investopedia*. Investopedia. Available at: https://www.investopedia.com/terms/f/financial-literacy.asp (Accessed: October 30, 2022).

Field, A. (2009) *Discovering statistics using SPSS*. London: Sage Publications.

Financial Inclusion Diagnostic Study in Jordan 2017, Synthesis Report, © 2017 Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and Central Bank of Jordan Amman, Jordan | December 2017.

Fishbach, A., Friedman, R.S. and Kruglanski, A.W. (2003) "Leading US not into temptation: Momentary allurements elicit overriding goal activation.," *Journal of Personality and Social Psychology*, 84(2), pp. 296–309. Available at: https://doi.org/10.1037/0022-3514.84.2.296.

Fishbein, M. & Ajzen, I. (1975), *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research.* Addison-Wesley, Reading, MA. Available at: http://people.umass.edu/aizen/f&a1975.html (Accessed: November 4, 2022).

Fitzpatrick, K. (2015) "The effect of bank account ownership on credit and consumption: Evidence from the UK," *Southern Economic Journal*, 82(1), pp. 55–80. Available at: https://doi.org/10.1002/soej.10.4284/0038-4038-2013.027.

Flores, S.A. and Vieira, K.M. (2014) "Propensity toward indebtedness: An analysis using behavioral factors," *Journal of Behavioral and Experimental Finance*, 3, pp. 1–10. Available at: https://doi.org/10.1016/j.jbef.2014.05.001.

Forum on: Enhancing financial stability – Union of Arab Banks (2022). Available at: https://uabonline.org/ar/event/forum-on-enhancing-financial-stability/ (Accessed: October 27, 2022).

Foxall, G.R. and Pallister, J.G. (1998) "Measuring purchase decision involvement for financial services: Comparison of the zaichkowsky and Mittal Scales," *International Journal of Bank Marketing*, 16(5), pp. 180–194. Available at: https://doi.org/10.1108/02652329810228181.

Franke, Robert H., (1988). *Relationship selling must focus on 'emotional bank accounts.* Bank Marketing, April 1988, Vol.20(4), p.10(2)

Freeman, R.E. (1984), Strategic Management: A Stakeholder Approach, Pitman, Boston, MA.

Freeman, R.E. and McVea, J. (2017) "A stakeholder approach to strategic management," *The Blackwell Handbook of Strategic Management*, pp. 183–201. Available at: https://doi.org/10.1111/b.9780631218616.2006.00007.x.

Freeman, R.E. and Reed, D.L. (1983) “Stockholders and stakeholders: A new perspective on corporate governance,” *California Management Review*, 25(3), pp. 88–106. Available at: https://doi.org/10.2307/41165018.

Fünfgeld, B. and Wang, M. (2009) “Attitudes and behaviour in everyday finance: Evidence from Switzerland,” *International Journal of Bank Marketing*, 27(2), pp. 108–128. Available at: https://doi.org/10.1108/02652320910935607.

Gai, K., Qiu, M. and Sun, X. (2018) “A survey on Fintech,” *Journal of Network and Computer Applications*, 103, pp. 262–273. Available at: https://doi.org/10.1016/j.jnca.2017.10.011.

Galdeano, D., Ahmed, U., Fati, M., Rehan, R. and Ahmed, A. (2019) “Financial performance and corporate social responsibility in the banking sector of Bahrain: Can engagement moderate?” *Management Science Letters*, pp. 1529–1542. Available at: https://doi.org/10.5267/j.msl.2019.5.032.

GDP per capita (current LCU) - Jordan (2022) *Data.worldbank.org. 2022*. Available at: https://data.worldbank.org/indicator/NY.GDP.PCAP.CN?locations=JO (Accessed: October 31, 2022).

Gefen, D. (2000) “E-commerce: The role of familiarity and trust,” *Omega*, 28(6), pp. 725–737. Available at: https://doi.org/10.1016/s0305-0483(00)00021-9.

Gefen, Karahanna and Straub (2003). “Trust and TAM in online shopping: An integrated model,” *MIS Quarterly*, 27(1), p. 51. Available at: https://doi.org/10.2307/30036519.

George, B. (2003) “Managing stakeholders vs. responding to shareholders,” *Strategy & Leadership*, 31(6), pp. 36–40. Available at: https://doi.org/10.1108/10878570310505587.

George, D., & Mallery, P. (2003). Using SPSS for Windows Step by Step: A Simple Guide and Reference (4th ed.). London: Pearson Education.

Gerrard, P. and Barton Cunningham, J. (1999) “The multiple banking behaviour of Singaporeans,” *International Journal of Bank Marketing*, 17(1), pp. 26–35. Available at: https://doi.org/10.1108/02652329910254028.

Geva, B. (2001) “Bank collections and payment transactions a comparative legal analysis.” Available at: https://doi.org/10.1093/acprof:oso/9780198298533.001.0001.

GHUMAN, K. 2010. *Management: concepts, practice & cases*, McGraw-Hill Education (India) Pvt Limited.

Giampietri, E., Verneau, F., Del Giudice, T., Carfora, V., and Finco, A. (2018) “A theory of planned behaviour perspective for investigating the role of trust in consumer purchasing decision related to short food supply chains,” *Food Quality and Preference*, 64, pp. 160–166. Available at: https://doi.org/10.1016/j.foodqual.2017.09.012.

Giddings, L.S. and Grant, B.M. (2007) "A trojan horse for positivism?" *Advances in Nursing Science*, 30(1), pp. 52–60. Available at: https://doi.org/10.1097/00012272-200701000-00006.

Glanz, K., Rimer, B.K. and Viswanath, K. (2008) "Theory of Reasoned Action, Theory of Planned Behavior and The Integrated Behavioral Model," in *Health Behavior and Health Education: Theory, research, and Practice*. 4th ed. San Francisco, CA: Jossey-Bass, p. 70.

Goerres, A. (2007) "Why are older people more likely to vote? the impact of ageing on electoral turnout in Europe," *The British Journal of Politics and International Relations*, 9(1), pp. 90–121. Available at: https://doi.org/10.1111/j.1467-856x.2006.00243.x.

Gollwitzer, P.M. and Schaal, B. (1998) "Metacognition in action: The importance of implementation intentions," *Personality and Social Psychology Review*, 2(2), pp. 124–136. Available at: https://doi.org/10.1207/s15327957pspr0202_5.

Gonçalves, J. (2015) *The seven decisions that matter in a digital transformation: A CEO's Guide to Reinvention*, *DIGITAL MCKINSEY*. McKinsey & Company. Available at: https://www.linkedin.com/pulse/seven-decisions-matter-digital-transformation-ceos-guide-gon%C3%A7alves (Accessed: November 6, 2022).

Gorshkova, N.V. and Ksenda, V.M. (2020) "Financial behavior as a component of Nanoeconomics," *Lecture Notes in Networks and Systems*, pp. 190–200. Available at: https://doi.org/10.1007/978-3-030-45913-0_22.

Gozali, J. (1971) "The relationship between age and attitude toward disabled persons," *The Gerontologist*, 11(4 Part 1), pp. 289–291. Available at: https://doi.org/10.1093/geront/11.4_part_1.289.

Grabner-Kräuter, S. and Faullant, R. (2008) "Consumer acceptance of internet banking: The influence of internet trust," *International Journal of Bank Marketing*, 26(7), pp. 483–504. Available at: https://doi.org/10.1108/02652320810913855.

Graham, K.L. and Rosén, L.A. (2019) "Working with older adults scale: Application of the theory of planned behavior," *The Gerontologist*, 60(6). Available at: https://doi.org/10.1093/geront/gnz077.

Gray, D. E. 2009. *Doing research in the real world*, Sage Publications

Green, G.P. (2015) "Financial capability and asset development: Research, education, policy, and practice, by Birkenmaier, J., sherraden, M., and Curley, J. (eds.)," *Journal of Community Practice*, 23(3-4), pp. 532–534. Available at: https://doi.org/10.1080/10705422.2015.1096186.

Grimmer, J., Roberts, M.E. and Stewart, B.M. (2021) "Machine Learning for Social Science: An agnostic approach," *Annual Review of Political Science*, 24(1), pp. 395–419. Available at: https://doi.org/10.1146/annurev-polisci-053119-015921.

Griswold, W. and Wright, N. (2004) “Cowbirds, locals, and the dynamic endurance of Regionalism,” *American Journal of Sociology*, 109(6), pp. 1411–1451. Available at: https://doi.org/10.1086/381773.

Guba, E. G., & Lincoln, Y. S. (1994) ‘Competing paradigms in qualitative research’, in N.K. Denzin & Y S. Lincoln (Eds.), *Handbook of qualitative research*. Thousand Oaks, CA: Sage.

Guba, E.G., 1981. Criteria for assessing the trustworthiness of naturalistic inquiries. *Ectj*, *29*(2), pp.75-91.

Guiso, L., Sapienza, P. and Zingales, L. (2004) “The role of social capital in financial development,” *American Economic Review*, 94(3), pp. 526–556. Available at: https://doi.org/10.1257/0002828041464498.

Gulati, R. (1995) “Social Structure and Alliance Formation Patterns: A longitudinal analysis,” *Administrative Science Quarterly*, 40(4), p. 619. Available at: https://doi.org/10.2307/2393756.

Gunay, G., Boylu, A.A. and Oğuz, A. (2015) “Determinants of financial management behaviors of families,” *Handbook of Research on Behavioral Finance and Investment Strategies*, pp. 236–254. Available at: https://doi.org/10.4018/978-1-4666-7484-4.ch014.

Gunnarsson, J. and Wahlund, R. (1997) “Household financial strategies in Sweden: An exploratory study,” *Journal of Economic Psychology*, 18(2-3), pp. 201–233. Available at: https://doi.org/10.1016/s0167-4870(97)00005-6.

Gupta, S., Pansari, A. and Kumar, V. (2018) “Global customer engagement,” *Journal of International Marketing*, 26(1), pp. 4–29. Available at: https://doi.org/10.1509/jim.17.0091.

Haenlein, M. and Kaplan, A.M. (2004) “A beginner's guide to partial least squares analysis,” *Understanding Statistics*, 3(4), pp. 283–297. Available at: https://doi.org/10.1207/s15328031us0304_4.

Haini, H. (2019) “Examining the relationship between finance, institutions and economic growth: Evidence from the asean economies,” *Economic Change and Restructuring*, 53(4), pp. 519–542. Available at: https://doi.org/10.1007/s10644-019-09257-5.

Hair, J. F. Jr., Hult, G. T. M., Ringle, C. M., and Sarstedt, M. (2014a). “A primer on partial least squares structural equation modeling (PLS-SEM)”. Sage Publications. ISBN: 978-1-4522-1744-4.

Hair, J., Risher, J., Sarstedt, M. and Ringle, C. (2019) “When to use and how to report the results of PLS-SEM,” *European Business Review*, 31(1), pp. 2–24. Available at: https://doi.org/10.1108/ebr-11-2018-0203.

Hair, J., Sarstedt, M., Hopkins, L., and Kuppelwieser, V. (2014) "Partial least squares structural equation modeling (PLS-SEM): An Emerging Tool in Business Research," *European Business Review*, 26(2), pp. 106–121. Available at: https://doi.org/10.1108/ebr-10-2013-0128.

Hair, J.F., Ringle, C.M. and Sarstedt, M. (2011) "PLS-SEM: Indeed a silver bullet," *Journal of Marketing Theory and Practice*, 19(2), pp. 139–152. Available at: https://doi.org/10.2753/mtp1069-6679190202.

Hair, J.F., Sarstedt, M. and Ringle, C.M. (2019) "Rethinking some of the rethinking of partial least squares," *European Journal of Marketing*, 53(4), pp. 566–584. Available at: https://doi.org/10.1108/ejm-10-2018-0665.

Hair, J.F., Sarstedt, M., Ringle, C., and Mena, J. (2011) "An assessment of the use of partial least squares structural equation modeling in Marketing Research," *Journal of the Academy of Marketing Science*, 40(3), pp. 414–433. Available at: https://doi.org/10.1007/s11747-011-0261-6.

Hansen, J.M., Saridakis, G. and Benson, V. (2018) "Risk, trust, and the interaction of perceived ease of use and behavioral control in predicting consumers' use of social media for transactions," *Computers in Human Behavior*, 80, pp. 197–206. Available at: https://doi.org/10.1016/j.chb.2017.11.010.

Hansen, T. (2008) "Consumer values, the theory of planned behaviour and online grocery shopping," *International Journal of Consumer Studies*, 32(2), pp. 128–137. Available at: https://doi.org/10.1111/j.1470-6431.2007.00655.x.

Harmeling, C.M., Moffett, J., Arnold, M., and Carlson, B. (2016) "Toward a theory of customer engagement marketing," *Journal of the Academy of Marketing Science*, 45(3), pp. 312–335. Available at: https://doi.org/10.1007/s11747-016-0509-2.

Harris, G. (2000), "The big four banks: dealing with the online challenge", *Journal of Financial Services Marketing*, Vol. 4 No. 4, pp. 296-305.

Haustein, S. and Møller, M. (2016) "Age and attitude: Changes in cycling patterns of different e-bike user segments," *International Journal of Sustainable Transportation*, 10(9), pp. 836–846. Available at: https://doi.org/10.1080/15568318.2016.1162881.

Hayhoe, C.R., Leach, L. and Turner, P.R. (1999) "Discriminating the number of credit cards held by college students using credit and money attitudes," *Journal of Economic Psychology*, 20(6), pp. 643–656. Available at: https://doi.org/10.1016/s0167-4870(99)00028-8.

Henager, R. and Cude, B.J. (2016) "Financial literacy and long- and short-term financial behavior in different age groups," *Journal of Financial Counseling and Planning*, 27(1), pp. 3–19. Available at: https://doi.org/10.1891/1052-3073.27.1.3.

Henisz, W.J., Dorobantu, S. and Nartey, L.J. (2013) "Spinning gold: The financial returns to stakeholder engagement," *Strategic Management Journal*, 35(12), pp. 1727–1748. Available at: https://doi.org/10.1002/smj.2180.

Henseler, J., Ringle, C.M. and Sarstedt, M. (2015), “A new criterion for assessing discriminant validity in variance-based structural equation modeling”, *Journal of the Academy of Marketing Science*, Vol. 43 No. 1, pp. 115-135.

Henseler, J., Ringle, C.M. and Sinkovics, R.R. (2009) “The use of partial least squares path modeling in International Marketing,” *Advances in International Marketing*, pp. 277–319. Available at: https://doi.org/10.1108/s1474-7979(2009)0000020014.

Herring, Susan C. (1996). "Posting in a different voice: Gender and ethics in computer-mediated communication." *Philosophical Perspectives on Computer-Mediated Communication*, 115-145. Albany: SUNY Press

Hira, T.K. (2012) “Promoting sustainable financial behaviour: Implications for education and research,” *International Journal of Consumer Studies*, 36(5), pp. 502–507. Available at: https://doi.org/10.1111/j.1470-6431.2012.01115.x.

Hira, T.K. (2016) “Financial Sustainability and Personal Finance Education,” *Handbook of Consumer Finance Research*, pp. 357–366. Available at: https://doi.org/10.1007/978-3-319-28887-1_29.

History of the Basel Committee (2014) *The Bank for International Settlements*. Available at: https://www.bis.org/bcbs/history.htm?m=3%7C14%7C573%7C76 (Accessed: October 23, 2022).

Hofferth, S.L. (2010) “Home Media and Children’s achievement and behavior,” *Child Development*, 81(5), pp. 1598–1619. Available at: https://doi.org/10.1111/j.1467-8624.2010.01494.x.

Hoffmann, A. and Plotkina, D. (2021). “Let your past define your future? How recalling successful financial experiences can increase beliefs of self-efficacy in financial planning”. *Journal of Consumer Affairs*, 55(3), pp.847-871.

Holbrook, M.B. and Schindler, R.M. (1996) “Market segmentation based on age and attitude toward the past: Concepts, methods, and findings concerning nostalgic influences on customer tastes,” *Journal of Business Research*, 37(1), pp. 27–39. Available at: https://doi.org/10.1016/0148-2963(96)00023-9

Hove, S., Tchana, F. and Touna Mama, A. (2017) “Do monetary, fiscal and financial institutions really matter for inflation targeting in emerging market economies?” *Research in International Business and Finance*, 39, pp. 128–149. Available at: https://doi.org/10.1016/j.ribaf.2016.07.025.

Howell, K. (2013) “An introduction to the philosophy of methodology.” London: SAGE Publications Ltd. Available at: https://doi.org/10.4135/9781473957633.

Howorth, C. and Moro, A. (2006) “Trust within Entrepreneur Bank relationships: Insights from Italy,” *Entrepreneurship Theory and Practice*, 30(4), pp. 495–517. Available at: https://doi.org/10.1111/j.1540-6520.2006.00132.x.

HSC PDHPE. 2020. *Pdhpe.Net*. [online] Available at: <https://www.pdhpe.net/pdhpe-net/> [Accessed 13 June 2020].

Hu, Z., Ding, S., Li, S., Chen, L., and Yang, S. (2019) “Adoption intention of Fintech services for bank users: An empirical examination with an extended technology acceptance model,” *Symmetry*, 11(3), p. 340. Available at: https://doi.org/10.3390/sym11030340.

Hulland, J. (1999) “Use of partial least squares (PLS) in Strategic Management Research: A review of four recent studies,” *Strategic Management Journal*, 20(2), pp. 195–204. Available at: https://doi.org/10.1002/(sici)1097-0266(199902)20:2<195: aid-smj13>3.0.co;2-7.

Hult, G.T., Neese, W.T. and Bashaw, R.E. (2009) “Worldwide faculty perceptions of marketing journals: rankings, trends, comparisons, and segmentations.” *Global Edge Business Review*, 3, pp. 1–23.

Husain, S., Ghufran, A. and Chaubey, D.S., (2016). “Relevance of Social Media in Marketing and Advertising”. A Quarterly Peer Reviewed Multi-Disciplinary International Journal A Quarterly Peer Reviewed Multi-Disciplinary International Journal. *Splint International Journal of Professionals,* **3**(7), pp. 21-28.

Hussain, J., Salia, S. and Karim, A. (2018) “Is knowledge that powerful? Financial Literacy and access to finance,” *Journal of Small Business and Enterprise Development*, 25(6), pp. 985–1003. Available at: https://doi.org/10.1108/jsbed-01-2018-0021.

Hyll, W. and Schneider, L. (2018) “Income comparisons and attitudes towards foreigners - evidence from a natural experiment,” *Journal of Comparative Economics*, 46(2), pp. 634–655. Available at: https://doi.org/10.1016/j.jce.2017.11.008.

Ibrahim, Y. and Arshad, I. (2017) “Examining the impact of product involvement, subjective norm and perceived behavioral control on investment intentions of individual investors in Pakistan,” *Investment Management and Financial Innovations*, 14(4), pp. 181–193. Available at: https://doi.org/10.21511/imfi.14(4).2017.15.

Im, D.-K. (2014) “The legitimation of inequality,” *Sociological Perspectives*, 57(4), pp. 506–525. Available at: https://doi.org/10.1177/0731121414536883.

Injaz (2022) *INJAZ*. Available at: https://injaz.org.jo/injazeducation (Accessed: November 6, 2022).

International Monetary Fund IMF (2022) “Jordan,” *Jordan Country Report No. 22/4*, 2022(PR21/391), p. 1. Washington, D.C.: International Monetary Fund, pp.4-87.

International Monetary Fund. 2022. *Jordan IMF Country Report No. 21/188*. [online] Available at: <http://www.imf.org/> [Accessed 25 June 2022].

Iwaniec, J. and Curdt-Christiansen, X.L. (2020) “Parents as agents: Engaging children in Environmental Literacy in China,” *Sustainability*, 12(16), p. 6605. Available at: https://doi.org/10.3390/su12166605.

J. Ehrentraud, D. Garcia Ocampo, L. Garzoni & M. Piccolo (2020) Policy responses to Fin-Tech: A cross-country overview, FSI Insights on policy implementation No. 23, BIS.

Jafarkarimi, H., Saadatdoost, R., Hee, J. (2016) "Behavioral intention in social networking sites ethical dilemmas: An extended model based on theory of planned behavior," *Computers in Human Behavior*, 62, pp. 545–561. Available at: https://doi.org/10.1016/j.chb.2016.04.024.

Jankowicz, A.D. (1995) "Business research projects." Available at: https://doi.org/10.1007/978-1-4899-3386-7.

Jappelli, T. (2010) "Economic literacy: An international comparison," *The Economic Journal*, 120(548). Available at: https://doi.org/10.1111/j.1468-0297.2010.02397.x.

Jarvis, C.B., MacKenzie, S.B. and Podsakoff, P.M. (2003) "A critical review of construct indicators and measurement model misspecification in marketing and Consumer Research," *Journal of Consumer Research*, 30(2), pp. 199–218. Available at: https://doi.org/10.1086/376806.

Jennings, M.K. and Stoker, L. (2004) "Social Trust and civic engagement across time and generations," *Acta Politica*, 39(4), pp. 342–379. Available at: https://doi.org/10.1057/palgrave.ap.5500077

Jha, S.K. and Agrawal, S. (2021) "A REVIEW OF CUSTOMER RELATIONSHIP MANAGEMENT," *International Journal of Advance Scientific Research and Engineering Trends*, 6(2), p. 192. Available at: https://doi.org/10.1504/ijecrm.2021.10044216.

Ji, J. and Wang, Y. (2014) "Commercial Bank Efficiency Evaluation in consideration of the undesirable output and its link with stakeholders' relationship: An application of China's commercial banks," *Mathematical Problems in Engineering*, 2014, pp. 1–7. Available at: https://doi.org/10.1155/2014/949717.

Joas, H. and Knöbl, W., 2009. Social Theory (trans. Alex Skinner).

Joas, H., Knobl, W. and Skinner, A., 2009. What is theory. *Social theory: twenty introductory lectures. Cambridge University Press, Cambridge*, pp.1-19.

Johnson, A.M., Jent, S. and Reynolds, L. (2007) "Library instruction and information literacy 2006," *Reference Services Review*, 35(4), pp. 584–640. Available at: https://doi.org/10.1108/00907320710838408.

Johnson, P. and Duberley, J. (2000) "Understanding Management Research." Available at: https://doi.org/10.4135/9780857020185.

Johnson, W. and Krueger, R.F. (2006) "How money buys happiness: Genetic and environmental processes linking finances and life satisfaction." *Journal of Personality and Social Psychology*, 90(4), pp. 680–691. Available at: https://doi.org/10.1037/0022-3514.90.4.680.

Jöreskog, K.G. (1971) "Simultaneous factor analysis in several populations," *Psychometrika*, 36(4), pp. 409–426. Available at: https://doi.org/10.1007/bf02291366.

Kahneman, D. (2003) "Maps of bounded rationality: Psychology for behavioral economics," *American Economic Review*, 93(5), pp. 1449–1475. Available at: https://doi.org/10.1257/000282803322655392.

Kalof, L., Dan, A. & Dietz, T. (2008). *Essentials of Social Research*, McGraw-Hill Education, USA.

Kane, M. and Trochim, W. (2007) "Concept mapping for planning and Evaluation." Available at: https://doi.org/10.4135/9781412983730.

Kant, I., 1785. Grounding for the Metaphysics of Morals, Hackett Publishing Company, Indianapolis (J.W. Elling- ton, Trans.).

Kaufmann, L. and Gaeckler, J. (2015) "On the relationship between purchasing integration and purchasing decision-making speed," *International Journal of Physical Distribution & Logistics Management*, 45(3), pp. 214–236. Available at: https://doi.org/10.1108/ijpdlm-05-2013-0150.

Kautonen, T., Hatak, I., Kibler, E. and Wainwright, T., (2015). Emergence of entrepreneurial behaviour: The role of age-based self-image. *Journal of Economic Psychology*, *50*, pp.41-51.

Kempson, E., Collard, S. and Moore, N., (2006). Measuring financial capability: An exploratory study for the Financial Services Authority. *Consumer financial capability: Empowering European consumers*, *39*, pp.44-76.

Kerlinger, F.N., Lee, H.B., (2000). Foundations of Behavioral Research, 4th ed. Harcourt College Publishers.

Kessels, U., Heyder, A., Latsch, M., Hannover, B. (2014) "How gender differences in academic engagement relate to students' gender identity," *Educational Research*, 56(2), pp. 220–229. Available at: https://doi.org/10.1080/00131881.2014.898916.

Khatoon, S., Zhengliang, X. and Hussain, H. (2020) "The mediating effect of customer satisfaction on the relationship between electronic banking service quality and customer purchase intention: Evidence from the Qatar Banking Sector," *SAGE Open*, 10(2), p. 215824402093588. Available at: https://doi.org/10.1177/2158244020935887.

Kim, J.H. and Lee, H.C. (2019) "Understanding the repurchase intention of premium economy passengers using an extended theory of planned behavior," *Sustainability*, 11(11), p. 3213. Available at: https://doi.org/10.3390/su11113213.

Kim, J., Kim, J.E. and Moon, U.J., 2016. Differences in bank account ownership among White, Black, and Latino children and young adults. *Journal of Financial Counseling and Planning*, *27*(2), pp.212-230.

King, G., Keohane, R.O. and Verba, S. (1995) "The importance of research design in political science," *American Political Science Review*, 89(2), pp. 475–481. Available at: https://doi.org/10.2307/2082445.

King, R.G. and Levine, R. (1993) "Finance and growth: Schumpeter might be right," *The Quarterly Journal of Economics*, 108(3), pp. 717–737. Available at: https://doi.org/10.2307/2118406.

Klein, E. (2017) "The World Bank on Mind, behaviour and Society," *Development and Change*, 48(3), pp. 481–501. Available at: https://doi.org/10.1111/dech.12308.

Kobus, G., Malyszko, J.S. and Małyszko, J. (2016) "Do age and religion have an impact on the attitude to organ transplantation?" *Transplantation Proceedings*, 48(5), pp. 1354–1359. Available at: https://doi.org/10.1016/j.transproceed.2016.02.055.

Kock, N. (2010) "Using WarpPls in E-collaboration studies," *International Journal of e-Collaboration*, 6(4), pp. 1–11. Available at: https://doi.org/10.4018/jec.2010100101.

Kock, N. and Hadaya, P. (2018) "Minimum sample size estimation in PLS-SEM: The inverse square root and gamma-exponential methods," *Information Systems Journal*, 28(1), pp. 227–261. Available at: https://doi.org/10.1111/isj.12131.

Kock, N. and Lynn, G. (2012) "Lateral collinearity and misleading results in variance-based SEM: An illustration and recommendations," *Journal of the Association for Information Systems*, 13(7), pp. 546–580. Available at: https://doi.org/10.17705/1jais.00302.

Kosiba, J.P., Boatenf, H., Okoe Amartey, A., Boakye, R., Hinson, R. (2018) "Examining customer engagement and brand loyalty in Retail Banking," *International Journal of Retail & Distribution Management*, 46(8), pp. 764–779. Available at: https://doi.org/10.1108/ijrdm-08-2017-0163.

Kosiba, J.P., Boateng, H., Okoe, A., Hinson, R. (2018) "Trust and customer engagement in the banking sector in Ghana," *The Service Industries Journal*, 40(13-14), pp. 960–973. Available at: https://doi.org/10.1080/02642069.2018.1520219.

Kothari, C.R. (2004), "Research Methodology: Methods and Techniques". 2nd Edition, *New Age International Publishers*, New Delhi.

Krefting, L., 1990. Rigor in Qualitative Research of Trustworthiness.

Krueger, N.F., Reilly, M.D. and Carsrud, A.L. (2000) "Competing models of entrepreneurial intentions," *Journal of Business Venturing*, 15(5-6), pp. 411–432. Available at: https://doi.org/10.1016/s0883-9026(98)00033-0.

Kruglanski A.W., Fishbach A., Friedman R., Woo Young Chun, Sleeth-Keppler D. (2002) "A theory of Goal Systems," *Advances in Experimental Social Psychology, Academic Press, New York, NY*, 34, pp. 331–378. Available at: https://doi.org/10.1016/s0065-2601(02)80008-9.

Kruglanski, A.W. (2006) “The nature of fit and the origins of ‘Feeling right’: A goal-systemic perspective,” *Journal of Marketing Research*, 43(1), pp. 11–14. Available at: https://doi.org/10.1509/jmkr.43.1.11.

Kulkarni, B. and Bharati, D.B. (2020) “Impact of COVID-19 Breakdown on Individual s Financial Behavior,” *Purakala (UGC Care Journal)*, 31(08). Available at: https://doi.org/ISSN:0971-2143.

Kumar, B. (2012) “Theory of planned behaviour approach to understand the purchasing behaviour for environmentally sustainable products”. (Working paper series, No. 2012-12-08). *Indian Institute of Management IIM*-Ahmedabad, India.

Kumar, V., Aksoy, L., Donkers, B., Venkatesan, R., Wiesel, T., & Tillmanns, S. (2010). Undervalued or Overvalued Customers: Capturing Total Customer Engagement Value. Journal of Service Research, 13(3), 297–310. https://doi.org/10.1177/1094670510375602

LaMorte, W. (2022) *Behavioral change models*, *The Theory of Planned Behavior*. Boston University School of Public Health. Available at: https://sphweb.bumc.bu.edu/otlt/MPH-Modules/SB/BehavioralChangeTheories/BehavioralChangeTheories3.html (Accessed: November 6, 2022).

Levine, R. (2005) “Chapter 12 Finance and Growth: Theory and evidence,” *Handbook of Economic Growth*, pp. 865–934. Available at: https://doi.org/10.1016/s1574-0684(05)01012-9.

Levine, R., & Zervos, S. (1998). “Stock Markets, Banks, and Economic Growth”. *The American Economic Review*, *88*(3), 537–558. http://www.jstor.org/stable/116848.

Levstik, L.S., & Tyson, C.A. (Eds.). (2008). “Handbook of Research in Social Studies Education” (1st ed.). Routledge. https://doi.org/10.4324/9780203930229

Li, K., Griffin, D., Yue, H., Zhao, L. (2013) “How does culture influence corporate risk-taking?” *Journal of Corporate Finance*, 23, pp. 1–22. Available at: https://doi.org/10.1016/j.jcorpfin.2013.07.008.

Lim, T.S. *et al.* (2018) “A serial mediation model of financial knowledge on the intention to invest: The central role of risk perception and attitude,” *Journal of Behavioral and Experimental Finance*, 20, pp. 74–79. Available at: https://doi.org/10.1016/j.jbef.2018.08.001.

Lin, C.H. and Chuang, S.C., 2005. THE EFFECT OF INDIVIDUAL DIFFERENCES ON ADOLESCENTS'IMPULSIVE BUYING BEHAVIOR. *Adolescence*, *40*(159).

Liu, X., Shin, H. and Burns, A.C. (2021) “Examining the impact of luxury brand's social media marketing on customer engagement: Using big data analytics and natural language processing,” *Journal of Business Research*, 125, pp. 815–826. Available at: https://doi.org/10.1016/j.jbusres.2019.04.042.

Loibl, C., Letkiewicz, J., McNair, S., Summers, B. and Bruine de Bruin, W., (2021) "On the association of debt attitudes with socioeconomic characteristics and financial behaviors," *Journal of Consumer Affairs*, 55(3), pp. 939–966. Available at: https://doi.org/10.1111/joca.12384.

Loukil, Sahar. and Jarboui, A. (2016) "Empirical determinants of relationship lending," *Cogent Economics & Finance*, 4(1), p. 1163773. Available at: https://doi.org/10.1080/23322039.2016.1163773.

Luksander, A., Beres, D., Huzdik, K. and Nemeth, E., 2014. Analysis of the Factors that Influence the Financial Literacy of Young People Studying in Higher Education. *Public Finance Quarterly*, *59*(2), pp.220-241.

Lusardi, A. and Mitchell, O.S. (2007) "Baby Boomer Retirement Security: The roles of planning, Financial Literacy, and housing wealth," *Journal of Monetary Economics*, 54(1), pp. 205–224. Available at: https://doi.org/10.1016/j.jmoneco.2006.12.001.

M.S. McDermott, M. Oliver, T. Simnadis, E.J. Beck, T. Coltman, D. Iverson, P. Caputi, R. Sharma, McDermott. (2015) "The theory of planned behaviour and dietary patterns: A systematic review and meta-analysis," *Preventive Medicine*, 81, pp. 150–156. Available at: https://doi.org/10.1016/j.ypmed.2015.08.020.

Machogu, A.M. and Okiko, L. (2015) "E-banking complexities and the perpetual effect on customer satisfaction in Rwandan Commercial Banking Industry: Gender as a moderating factor," *The Journal of Internet Banking and Commerce*, 20(3). Available at: https://doi.org/10.4172/1204-5357.1000118.

Madill, J.J., Riding, A.L. and Haines, G.H. (2006) "Women entrepreneurs: Debt financing and banking relationships," *Journal of Small Business & Entrepreneurship*, 19(2), pp. 121–142. Available at: https://doi.org/10.1080/08276331.2006.10593363.

Madu, C.N., (2003). *Statistics as easy as 1, 2, 3 with Microsoft Excel for Windows*. Chi Publishers Inc.

Maffey, K.R. and Smith, D.G. (2018) "Women's participation in the Jordanian military and police: An exploration of perceptions and aspirations," *Armed Forces & Society*, 46(1), pp. 46–67. Available at: https://doi.org/10.1177/0095327x18806520.

Manning, M. (2011) "When we do what we see: The moderating role of social motivation on the relation between subjective norms and behavior in the theory of planned behavior," *Basic and Applied Social Psychology*, 33(4), pp. 351–364. Available at: https://doi.org/10.1080/01973533.2011.589304.

March, J.G. (1996) "Continuity and change in theories of organizational action," *Administrative Science Quarterly*, 41(2), p. 278. Available at: https://doi.org/10.2307/2393720.

Martin, K.A. (2009) "Normalizing heterosexuality: Mothers' assumptions, talk, and strategies with Young Children," *American Sociological Review*, 74(2), pp. 190–207. Available at: https://doi.org/10.1177/000312240907400202.

Mason, C.H. and Perreault, W.D. (1991) “Collinearity, power, and interpretation of multiple regression analysis,” *Journal of Marketing Research*, 28(3), pp. 268–280. Available at: https://doi.org/10.1177/002224379102800302.

Mateos-Aparicio, G. (2011) “Partial least squares (PLS) methods: Origins, evolution, and application to Social Sciences,” *Communications in Statistics - Theory and Methods*, 40(13), pp. 2305–2317. Available at: https://doi.org/10.1080/03610921003778225.

Mathew, S., Jose, A., G, R. and Chacko, D. (2020) “Examining the relationship between E-service recovery quality and E-service recovery satisfaction moderated by perceived justice in the banking context,” *Benchmarking: An International Journal*, 27(6), pp. 1951–1980. Available at: https://doi.org/10.1108/bij-07-2019-0323.

Matthews, R.A., Bulger, C.A. and Barnes-Farrell, J.L. (2010) “Work social supports, role stressors, and work–family conflict: The moderating effect of age,” *Journal of Vocational Behavior*, 76(1), pp. 78–90. Available at: https://doi.org/10.1016/j.jvb.2009.06.011.

Mbama, C.I. and Ezepue, P.O. (2018) “Digital Banking, customer experience and Bank Financial Performance,” *International Journal of Bank Marketing*, 36(2), pp. 230–255. Available at: https://doi.org/10.1108/ijbm-11-2016-0181.

McDonald, L.M. and Rundle-Thiele, S. (2008) “Corporate Social Responsibility and bank customer satisfaction,” *International Journal of Bank Marketing*, 26(3), pp. 170–182. Available at: https://doi.org/10.1108/02652320810864643.

McEachan, R., Conner, M., Taylor, N., Lawton, R. (2011) “Prospective prediction of health-related behaviours with the theory of planned behaviour: A meta-analysis,” *Health Psychology Review*, 5(2), pp. 97–144. Available at: https://doi.org/10.1080/17437199.2010.521684.

McNabb, D.E. (2017) “Research methods in public administration and nonprofit management: quantitative and qualitative approaches.” Available at: https://doi.org/10.4324/9781315181158.

McNabb, D.E., (2013). *Nonsampling error in social surveys*. Sage publications.

MESP, USAID Jordan (2019) *The Comparative Performance of Banks Operating in Jordan during the Years 2017 and 2018*, *Comparative performance of banks operating in Jordan*. Available at: https://jordankmportal.com/resources/comparative-performance-of-banks-operating-in-jordan.

Mester, L.J., Nakamura, L.I. and Renault, M. (2006) “Transactions accounts and Loan Monitoring,” *Review of Financial Studies*, 20(3), pp. 529–556. Available at: https://doi.org/10.1093/rfs/hhl018.

Meyer, N. and Hamilton, L. (2020) “Female entrepreneurs’ business training and its effect on various entrepreneurial factors: Evidence from a developing country,” *International Journal of Economics and Finance Studies*, pp. 135–151. Available at: https://doi.org/10.34109/ijefs.202012109.

Meyrowitz, J. (1995) “No sense of place. the impact of electronic media on Social Behavior,” *Italian Political Science Review/Rivista Italiana di Scienza Politica*, 25(1), pp. 160–160. Available at: https://doi.org/10.1017/s004884020002339x.

Mielitz, K.S. *et al.* (2019) “Barriers to banking: A mixed-methods investigation of previously incarcerated individuals' banking perceptions and financial knowledge,” *Journal of Consumer Affairs*, 53(4), pp. 1748–1774. Available at: https://doi.org/10.1111/joca.12260.

Mindra, R., Moya, M., Zuze, L., Kodongo, O. (2017) “Financial self-efficacy: A determinant of financial inclusion,” *International Journal of Bank Marketing*, 35(3), pp. 338–353. Available at: https://doi.org/10.1108/ijbm-05-2016-0065.

Mittal, V., Anderson, E, Sayrak A., Tadikamalla P. (2005) “Dual emphasis and the long-term financial impact of customer satisfaction,” *Marketing Science*, 24(4), pp. 544–555. Available at: https://doi.org/10.1287/mksc.1050.0142.

Modig, N. (2020) “What do economic scholars consider powerful economic knowledge of importance for people in their private and public lives? implications for teaching and Learning Economics in social studies,” *Studies in Higher Education*, 46(11), pp. 2200–2215. Available at: https://doi.org/10.1080/03075079.2020.1716319.

Mohamed, N., Shahriza Abdul Karim, N. and Hussein, R. (2012) “Computer use ethics among university students and staffs,” *Campus-Wide Information Systems*, 29(5), pp. 328–343. Available at: https://doi.org/10.1108/10650741211275099.

Monette, D.R., Sullivan, T.J. and DeJong, C.R., 2013. *Applied social research: A tool for the human services*. Cengage Learning.

Morgan, P.J. and Long, T.Q. (2020) “Financial Literacy, financial inclusion, and savings behavior in Laos,” *Journal of Asian Economics*, 68, p. 101197. Available at: https://doi.org/10.1016/j.asieco.2020.101197.

Mthembu, M. (2014). “Marriage of convenience: Bank-Customer relationship in the age of the internet: a South African perspective”. *Journal of International Commercial Law and Technology*, 9(1), 14-23.

Myers, J.L., Well, A.D. and Lorch Jr, R.F. (2013) “Research design and statistical analysis.” Available at: https://doi.org/10.4324/9780203726631.

Myers, M.D. (2020) *Qualitative research in business and Management*. Los Angeles: Sage Publications.

Namasivayam, K. and Guchait, P. (2013) “The role of contingent self-esteem and trust in consumer satisfaction: Examining perceived control and fairness as predictors,” *International Journal of Hospitality Management*, 33, pp. 184–195. Available at: https://doi.org/10.1016/j.ijhm.2012.08.002.

National Financial Inclusion Strategy NFIS (2018 – 2020) Central Bank of Jordan. Available at: https://financialinclusionjo.com/national-financial-inclusion-strategy-2018-2020/ (Accessed: October 29, 2022).

Netemeyer, R., Bearden, W. and Sharma, S. (2003). *Scaling procedures: issues and applications*. London: Sage Publications.

Newman, D.A. and Harrison, D.A. (2008) "Been there, bottled that: Are state and behavioral work engagement new and useful construct 'wines'?" *Industrial and Organizational Psychology*, 1(1), pp. 31–35. Available at: https://doi.org/10.1111/j.1754-9434.2007.00003.x.

Nicolini, G. and Cude, B.J. (2022) "The likely influence of financial literacy on financial behaviors," in *The Routledge Handbook of Financial Literacy*. 1st ed. New York, NY: Routledge, pp. 18–18.

O'Brien, R.L. (2017) "Redistribution and the new fiscal sociology: Race and the progressivity of state and local taxes," *American Journal of Sociology*, 122(4), pp. 1015–1049. Available at: https://doi.org/10.1086/690118.

O'Neal, C.W., Wickrama, K., Ralston, P., IIich, J., Hattis, C., Coccia, C., Young-Clark, I., Lemacks, J. (2012) "Eating behaviors of older African Americans: An application of the theory of planned behavior," *The Gerontologist*, 54(2), pp. 211–220. Available at: https://doi.org/10.1093/geront/gns155.

Oberoi, P., Patel, C. and Haon, C. (2017) "Technology sourcing for website personalization and social media marketing: A study of e-retailing industry," *Journal of Business Research*, 80, pp. 10–23. Available at: https://doi.org/10.1016/j.jbusres.2017.06.005.

Odedokun, M.O. (1998) "Financial intermediation and economic growth in developing countries," *Journal of Economic Studies*, 25(3), pp. 203–224. Available at: https://doi.org/10.1108/01443589810215351.

OECD (2016), "OECD/INFE International Survey of Adult Financial Literacy Competencies", OECD, Paris, www.oecd.org/finance/OECD-INFE-International-Survey-of-Adult-Financial-Literacy-Competencies.pdf

OECD (2017), "Meeting bank requirements is a barrier to access in many countries: Main reasons for not opening a bank account, by whether the households receive remittances", in *Interrelations between Public Policies, Migration and Development*, OECD Publishing, Paris, https://doi-org.plymouth.idm.oclc.org/10.1787/9789264265615-graph60-en.

Ongena, S. and Smith, D.C. (2000) "What determines the number of bank relationships? cross-country evidence," *Journal of Financial Intermediation*, 9(1), pp. 26–56. Available at: https://doi.org/10.1006/jfin.1999.0273.

Otte, E. and Rousseau, R. (2002) "Social Network Analysis: A powerful strategy, also for the Information Sciences," *Journal of Information Science*, 28(6), pp. 441–453. Available at: https://doi.org/10.1177/016555150202800601.

Oxford Business Group (2018) *The report: Jordan 2018: Country profile*. Bloomberg Terminal Research. Available at: https://oxfordbusinessgroup.com/node/935802/reader (Accessed: October 29, 2022).

Özmete, E. (2015) "Measuring the poverty of elderly people with needs analysis in Turkey," *Handbook of Research on Behavioral Finance and Investment Strategies*, pp. 127–146. Available at: https://doi.org/10.4018/978-1-4666-7484-4.ch008.

Pallant, J. (2013) SPSS Survival Manual. A Step by Step Guide to Data Analysis Using IBM SPSS. Open University Press, Berkshire

Paluri, R.A. and Mehra, S. (2016) "Financial attitude based segmentation of women in India: An exploratory study," *International Journal of Bank Marketing*, 34(5), pp. 670–689. Available at: https://doi.org/10.1108/ijbm-05-2015-0073.

Pansari, A. and Kumar, V. (2017) "Customer engagement: The Construct, antecedents, and consequences," *Journal of the Academy of Marketing Science*, 45(3), pp. 294–311. Available at: https://doi.org/10.1007/s11747-016-0485-6.

Parasuraman, A., Zeithaml, V.A. and Berry, L.L. (1988) "SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality," *PsycTESTS Dataset: Journal of Retailing* [Preprint]. Available at: https://doi.org/10.1037/t09264-000.

Patterson, P. and Yu, T. (2006) "Understanding Customer Engagement in Services" *Paper presented at the Advancing theory, maintaining relevance, proceedings of ANZMAC 2006 conference*, Brisbane.

Pdhpe.net (2018) HSC PDHPE. Available at: https://www.pdhpe.net/pdhpe-net/ (Accessed: October 24, 2022).

Peng, D.X. and Lai, F., (2012). "Using partial least squares in operations management research: A practical guideline and summary of past research". *Journal of operations management*, *30*(6), pp.467-480.

Perkins, H.W. and Berkowitz, A.D. (1986) "Perceiving the community norms of alcohol use among students: Some research implications for campus alcohol education programming*," *International Journal of the Addictions*, 21(9-10), pp. 961–976. Available at: https://doi.org/10.3109/10826088609077249.

Perry, V and Morris, M. (2005) "Who is in control? the role of self-perception, knowledge, and income in explaining consumer financial behavior," *Journal of Consumer Affairs*, 39(2), pp. 299–313. Available at: https://doi.org/10.1111/j.1745-6606.2005.00016.x.

Petersen, M., & Rajan, R. (1994). "The Benefits of Lending Relationships: Evidence from Small Business Data". *The Journal of Finance, 49*(1), 3-37. Available at: https://doi.org/10.1111/j.1540-6261.1994.tb04418.x.

Peterson, D., Rhoads, A. and Vaught, B.C. (2001) "Ethical beliefs of business professionals: A study of gender, age and external factors," *Journal of Business Ethics*, 31(3), pp. 225–232. Available at: https://doi.org/10.1023/a:1010744927551.

Peterson, D.K., Rhoads, A. and Vaught, B.C. (2001) "Belief in universal ethics: Gender differences, influence of referent others, and ethical beliefs of business professionals," *Business and Professional Ethics Journal*, 20(2), pp. 47–62. Available at: https://doi.org/10.5840/bpej20012029.

Phan, M. and Park, S.-Y. (2014) "Introduction: Social Media Marketing and luxury brands," *Journal of Global Fashion Marketing*, 5(3), pp. 195–196. Available at: https://doi.org/10.1080/20932685.2014.908528.

Polit, D.F., Beck, C.T. (2008). Nursing Research: Generating and Assessing Evidence for Nursing Practice, 8th ed. Lippincott Williams & Wilkins, Philadelphia, PA.

Popper, K. R. (1959). *The logic of scientific discovery*. New York, NY: Basic Books.

Preston, J., & Feinstein, L. (2004). Adult Education and Attitude Change [Wider Benefits of Learning Research Report No. 11]. Centre for Research on the Wider Benefits of Learning, Institute of Education, University of London: London.

Price Waterhouse Coopers (2019) *Digital Intelligence: Banks are evolving customer engagement strategies to recapture growth*, *Financial Services Publications*. Available at: https://www.pwc.com/us/en/industries/financial-services/library/customer-engagement-strategy-evolution.html (Accessed: December 17, 2022).

Purba, A.K. *et al.* (2021) "Social Media use and adolescent engagement in Health Risk Behaviours: A systematic review and meta-analysis," *The Lancet*, 398. Available at: https://doi.org/10.1016/s0140-6736(21)02636-2.

Purwanto A., Purba, J., Bernarto, I., Sijabat, R. (2021) "Effect of transformational leadership, job satisfaction, and organizational commitments on organizational citizenship behavior," *Inovbiz: Jurnal Inovasi Bisnis*, 9(1), p. 61. Available at: https://doi.org/10.35314/inovbiz.v9i1.1801.

Purwanto, A. *et al.* (2021) "The Role of Transformational Leadership, Organizational Citizenship Behaviour, Innovative Work Behaviour, Quality Work Life, Digital Transformation and Leader Member Exchange on Universities Performance," *SSRN Electronic Journal* [Preprint]. Available at: https://doi.org/10.2139/ssrn.3987573.

Ramalho, T.B. and Forte, D. (2019) "Financial Literacy in Brazil – do knowledge and self-confidence relate with behavior?" *RAUSP Management Journal*, 54(1), pp. 77–95. Available at: https://doi.org/10.1108/rausp-04-2018-0008.

Rasoolimanesh, S.M. and Ali, F. (2018) "Partial Least Squares – Structural Equation Modeling in Hospitality and Tourism" *Journal of Hospitality and Tourism Technology*, 9(3), pp. 238–248. Available at: https://doi.org/10.1108/jhtt-10-2018-142.

Rather, R.A. (2018) "Consequences of consumer engagement in service marketing: An empirical exploration," *Journal of Global Marketing*, 32(2), pp. 116–135. Available at: https://doi.org/10.1080/08911762.2018.1454995.

Rawashdeh, A. (2015) “Factors affecting adoption of internet banking in Jordan,” *International Journal of Bank Marketing*, 33(4), pp. 510–529. Available at: https://doi.org/10.1108/ijbm-03-2014-0043.

Rezayat, B. (2017) *Banking on Social Media Platforms*, *Finextra Research*. Finextra. Available at: https://www.finextra.com/blogposting/13785/banking-on-social-media-platforms (Accessed: October 27, 2022).

Richter, N.F., Cepeda-Carrion, G., Roldán Salgueiro, J.L. and Ringle, C.M., (2016). European management research using partial least squares structural equation modeling (PLS-SEM). *European Management Journal, 34 (6), 589-597.*

Richter, N.F., Sinkovics, R.R., Ringle, C.M. and Schlägel, C., (2016). A critical look at the use of SEM in international business research. *International marketing review*.

Rigdon, E.E. (2012) “Rethinking partial least squares path modeling: In praise of simple methods,” *Long Range Planning*, 45(5-6), pp. 341–358. Available at: https://doi.org/10.1016/j.lrp.2012.09.010.

Ringle, C.M., Sarstedt, M. and Mooi, E.A. (2010) “Response-based segmentation using finite mixture partial least squares,” *Annals of Information Systems*, pp. 19–49. Available at: https://doi.org/10.1007/978-1-4419-1280-0_2.

Ringle, C.M., Wende, S. and Becker, J.M. (2015) *SmartPLS 3*, *smartpls 3. SmartPLS GmbH, Boenningstedt. - references - scientific research publishing*. Available at: https://www.scirp.org/(S(351jmbntvnsjt1aadkozje))/reference/ReferencesPapers.aspx?ReferenceID=2376307 (Accessed: October 27, 2022).

Ritchie, D., Van Hal, G. and Van Den Broucke, S. (2018) “Applying the health belief model and theory of planned behaviour to mammography screening,” *European Journal of Public Health*, 28(suppl_4). Available at: https://doi.org/10.1093/eurpub/cky214.250.

Rivis, A. and Sheeran, P. (2003) “Descriptive norms as an additional predictor in the theory of planned behaviour: A meta-analysis,” *Current Psychology*, 22(3), pp. 218–233. Available at: https://doi.org/10.1007/s12144-003-1018-2.

Robb, C., Babiarz, P. and Woodyard, A. (2012) “The demand for financial professionals' advice: The role of financial knowledge, satisfaction, and confidence.,” *Financial Services Review*, 21, pp. 291–305.

Rosen, M.H. and Sade, O. (2019) “Investigating the introduction of fintech advancement aimed to reduce limited attention regarding inactive savings accounts: Data, survey, and Field Experiment,” *AEA Papers and Proceedings*, 112. Available at: https://doi.org/10.1257/pandp.20221123.

Rosenberg, A. (2005) *Philosophy of science: A contemporary introduction*. New York: Routledge.

Rosenzweig, M. (2001) “Savings behaviour in low-income countries,” *Oxford Review of Economic Policy*, 17(1), pp. 40–54. Available at: https://doi.org/10.1093/oxrep/17.1.40.

Rossiter, J.R. (2002) “The C-OAR-SE procedure for scale development in marketing,” *International Journal of Research in Marketing*, 19(4), pp. 305–335. Available at: https://doi.org/10.1016/s0167-8116(02)00097-6.

Rözer, J. and Kraaykamp, G. (2013) “Income inequality and subjective well-being: A cross-national study on the conditional effects of individual and national characteristics,” *Social Indicators Research*, 113(3), pp. 1009–1023. Available at: https://doi.org/10.1007/s11205-012-0124-7.

Sagar, Jones, Symons, Tyrie and Roberts, (2016) “Student involvement in the UK sex industry: Motivations and experiences,” *The British Journal of Sociology*, 67(4), pp. 697–718. Available at: https://doi.org/10.1111/1468-4446.12216.

Sahoo, D. and S. Pillai, S. (2017) “Role of mobile banking servicescape on customer attitude and engagement,” *International Journal of Bank Marketing*, 35(7), pp. 1115–1132. Available at: https://doi.org/10.1108/ijbm-09-2015-0144.

Sajjad, M. and Zaman, U. (2020) “Innovative perspective of marketing engagement: Enhancing users’ loyalty in social media through blogging,” *Journal of Open Innovation: Technology, Market, and Complexity*, 6(3), p. 93. Available at: https://doi.org/10.3390/joitmc6030093.

Samson, A. (2014). *The Behavioral Economics Guide 2022*. https://www.behavioraleconomics.com/be-guide/.

Sarstedt, M. *et al.* (2022) “Latent class analysis in PLS-SEM: A review and recommendations for future applications,” *Journal of Business Research*, 138, pp. 398–407. Available at: https://doi.org/10.1016/j.jbusres.2021.08.051.

Sarstedt, M., Hair, J., Ringle, C., Thiele, K., Gudergan, S. (2016) “Estimation issues with PLS and CBSEM: Where the bias lies!,” *Journal of Business Research*, 69(10), pp. 3998–4010. Available at: https://doi.org/10.1016/j.jbusres.2016.06.007.

Sarstedt, M., Hair, J.F., Pick, M., Liengaard, B.D., Radomir, L. and Ringle, C.M., (2022). “Progress in partial least squares structural equation modeling use in marketing research in the last decade”. *Psychology & Marketing*, *39*(5), pp.1035-1064.

Sarstedt, M., Radomir, L., Moisescu, O.I. and Ringle, C.M., (2022). “Latent class analysis in PLS-SEM: A review and recommendations for future applications”. *Journal of Business Research*, *138*, pp.398-407.

Sarstedt, M., Ringle, C.M. and Hair, J.F. (2017) “Partial least squares structural equation modeling,” *Handbook of Market Research*, pp. 1–40. Available at: https://doi.org/10.1007/978-3-319-05542-8_15-1.

Sashi, C.M. (2012) “Customer engagement, buyer-seller relationships, and Social Media,” *Management Decision*, 50(2), pp. 253–272. Available at: https://doi.org/10.1108/00251741211203551.

Saunders, M., Lewis, P. and Thornhill, A. (2019) *Research methods for business students*. Harlow: Pearson Education.

Savoie-Roskos, M., Coombs, C., Bingeman, B., Rowley, L., Christensen, D., LeBlanc, H. (2019) “P164 evaluating the effectiveness of an interactive and engaging nutrition education curriculum for children,” *Journal of Nutrition Education and Behavior*, 51(7). Available at: https://doi.org/10.1016/j.jneb.2019.05.540.

Schade, M. *et al.* (2016) “The impact of attitude functions on luxury brand consumption: An age-based group comparison,” *Journal of Business Research*, 69(1), pp. 314–322. Available at: https://doi.org/10.1016/j.jbusres.2015.08.003.

Schaufeli, W.B. and Bakker, A.B. (2004) “Job demands, job resources, and their relationship with burnout and Engagement: A multi-sample study,” *Journal of Organizational Behavior*, 25(3), pp. 293–315. Available at: https://doi.org/10.1002/job.248.

Schein, E.H. (1999) “Kurt Lewin's change theory in the field and in the classroom: Notes toward a model of managed learning,” *Reflections: The SoL Journal*, 1(1), pp. 59–74. Available at: https://doi.org/10.1162/152417399570287.

Schillewaert, N., Langerak, F. and Duharnel, T. (1998) “Non-probability sampling for WWW surveys: A comparison of methods,” *Market Research Society. Journal.*, 40(4), pp. 1–13. Available at: https://doi.org/10.1177/147078539804000403.

Schlomer, G.L., Bauman, S. and Card, N.A. (2010) “Best practices for missing data management in counseling psychology.” *Journal of Counseling Psychology*, 57(1), pp. 1–10. Available at: https://doi.org/10.1037/a0018082.

Schmitt, Manfred & Verantwortung, Arbeitsgruppe & Gerechtigkeit, & Psychologie, FB. (2004). Challenges to the construct validity of belief in a just world scales. Berichte aus der Arbeitsgruppe "Verantwortung, Gerechtigkeit, Moral", Nr. 107, ISSN 1430-1148, http://www.gerechtigkeitsforschung.de/berichte/beri107.pdf.

Scholtens, B. & van’t Klooster, S. (2019) “Sustainability and bank risk”, *Palgrave Communications*, Springer US, vol. 5 no. 1: 1–8

Schüller, S. (2016) “The effects of 9/11 on attitudes toward immigration and the moderating role of Education,” *Kyklos*, 69(4), pp. 604–632. Available at: https://doi.org/10.1111/kykl.12122.

Schutt, R.K. (2017) *Investigating the social world. the process and practice of Research*. London: SAGE Publications.

Schwitzgebel, E. (2019) *Belief*, *Stanford Encyclopedia of Philosophy*. Stanford University. Available at: https://plato.stanford.edu/entries/belief/ (Accessed: October 27, 2022).

Scott, R. (2012) “Insufficient funds: Savings, assets, credit, and banking among low-income households, by Rebecca M. Blank and Michael S. Barr,” *Eastern Economic Journal*, 39(1), pp. 143–144. Available at: https://doi.org/10.1057/eej.2011.12.

Sengupta, J., Vinayak, S., Chung, V., Ki, X., Ng, A., Xiao, L., Koh, K., Chem, C. (2019) *The Ecosystem Playbook: Winning in a world of ecosystems global banking practice*, *McKinsey & Company*. Available at: https://www.mckinsey.com/~/media/mckinsey/industries/financial%20services/our%20insights/winning%20in%20a%20world%20of%20ecosystems/winning-in-a-world-of-ecosystems-vf.ashx.

Shamim, F. (2007) “The ICT environment, financial sector and economic growth: A cross-country analysis,” *Journal of Economic Studies*, 34(4), pp. 352–370. Available at: https://doi.org/10.1108/01443580710817452.

Sheeran, P. (2002) “Intention—behavior relations: A conceptual and Empirical Review,” *European Review of Social Psychology*, 12(1), pp. 1–36. Available at: https://doi.org/10.1080/14792772143000003.

Sheeran, P., Norman, P. and Orbell, S. (1999) “Evidence that intentions based on attitudes better predict behaviour than intentions based on subjective norms,” *European Journal of Social Psychology*, 29(2-3), pp. 403–406. Available at: https://doi.org/10.1002/(sici)1099-0992(199903/05)29:2/3<403::aid-ejsp942>3.0.co;2-a.

Sherraden, M. (2013) “Building Blocks of Financial Capability,” *Financial Capability and Asset Development*, pp. 3–43. Available at: https://doi.org/10.1093/acprof:oso/9780199755950.003.0012.

Shiau, W.-L., Sarstedt, M. and Hair, J.F. (2019) “Internet research using partial least squares d: https://doi.org/10.1108/intr-10-2018-0447.

Shmueli G., and Koppius, O. (2011) “Predictive analytics in information systems research,” *MIS Quarterly*, 35(3), p. 553. Available at: https://doi.org/10.2307/23042796.

Shmueli, G., Ray, S., Velasquez estrada, J., Chatla, S. (2016) “The Elephant in the room: Predictive performance of PLS models,” *Journal of Business Research*, 69(10), pp. 4552–4564. Available at: https://doi.org/10.1016/j.jbusres.2016.03.049.

Shmueli, G., Sarstedt, M., Hair, J., Cheah, J., Ting, H., Vaithilingam, S., Ringle, C. (2019) “Predictive model assessment in PLS-SEM: Guidelines for using plspredict,” *European Journal of Marketing*, 53(11), pp. 2322–2347. Available at: https://doi.org/10.1108/ejm-02-2019-0189.

Shneiderman, B., Borkowski, E., Alavi, M., Norman, K., (1998) “Emergent patterns of teaching/learning in Electronic Classrooms,” *Educational Technology Research and Development*, 46(4), pp. 23–42. Available at: https://doi.org/10.1007/bf02299671.

Shneor, R. and Munim, Z.H. (2019) “Reward crowdfunding contribution as planned behaviour: An extended framework,” *Journal of Business Research*, 103, pp. 56–70. Available at: https://doi.org/10.1016/j.jbusres.2019.06.013.

Shortell, S. M., O'Brien, J. L., Carman, J. M., Foster, R. W., Hughes, E. F., Boerstler, H., & O'Connor, E. J. (1995). “Assessing the impact of continuous quality improvement/total quality management: concept versus implementation”. *Health services research*, *30*(2), 377–401.

Shryock, A. (2004) “The new Jordanian hospitality: House, host, and guest in the culture of public display,” *Comparative Studies in Society and History*, 46(01). Available at: https://doi.org/10.1017/s0010417504000039.

Sikarwar, T.S. (2019) “Social influence and individual financial behavior for Digital Banking: A causal study,” *International Journal of Accounting and Financial Reporting*, 9(4), p. 242. Available at: https://doi.org/10.5296/ijafr.v9i4.15905.

Smith, M.K. (2015) “What is education? A definition and discussion. ,” *The Encyclopedia of pedagogy and informal education*, pp. 497–497. Available at: https://doi.org/10.1007/978-94-007-2150-0_100616.

Smith, Adam (1776). An Inquiry into the Nature and Causes of the Wealth of Nations. Ed. by Jim Manis. PSU-Hazleton, Hazleton, PA 18202: The Electronic Classics Series

Smith, C.W. and Peller, P., 2020. “You Can’t Get There from Here”: Mapping Access to Canada’s Teacher Education Programs. In *Rural Teacher Education* (pp. 75-98). Springer, Singapore.

Souiden, N., Ladhari, R. and Chaouali, W. (2020) “Mobile banking adoption: A systematic review,” *International Journal of Bank Marketing*, 39(2), pp. 214–241. Available at: https://doi.org/10.1108/ijbm-04-2020-0182.

Srivastav, M.K. and Nath, A. (2015) “A comprehensive study on complexity of relationship in social networks,” *2015 International Conference on Computational Intelligence and Communication Networks (CICN)* [Preprint]. Available at: https://doi.org/10.1109/cicn.2015.146.

Stadler, C., Helfat, C.E. and Verona, G. (2013) “The impact of dynamic capabilities on Resource Access and Development,” *Organization Science*, 24(6), pp. 1782–1804. Available at: https://doi.org/10.1287/orsc.1120.0810.

Stangor, D., Tarry, H., Cheung, B., Stangor, C., Jhangiani, R. (2020) *Principles of Social Psychology - 1st International Edition*, *Principles of Social Psychology 1st International Edition*. Available at: https://pressbooks.bccampus.ca/socialpsychben/ (Accessed: October 30, 2022).

Stanton, B., Xiaoming, L., Black, M., Ricardo, I., Galbraith, J., Feigelman, S., Kaljee, L. (1996) “Longitudinal stability and predictability of sexual perceptions, intentions, and behaviors among early adolescent African-Americans,” *Journal of Adolescent Health*, 18(1), pp. 10–19. Available at: https://doi.org/10.1016/1054-139x(95)00070-9.

Stead, M. *et al.* (2004) “Development and evaluation of a mass media theory of planned behaviour intervention to reduce speeding,” *Health Education Research*, 20(1), pp. 36–50. Available at: https://doi.org/10.1093/her/cyg093.

Steiner, P. (2001) “The sociology of Economic Knowledge,” *European Journal of Social Theory*, 4(4), pp. 443–458. Available at: https://doi.org/10.1177/13684310122225253.

Sternad Zabukovšek, S., Tominc, P., Bobek, S., Strukelj, T. (2020) “Spatial exploration of economic data—insight into attitudes of students towards interdisciplinary knowledge,” *ISPRS International Journal of Geo-Information*, 9(7), p. 421. Available at: https://doi.org/10.3390/ijgi9070421.

Stix, H. (2013) “Why do people save in cash? distrust, memories of banking crises, weak institutions and Dollarization,” *Journal of Banking & Finance*, 37(11), pp. 4087–4106. Available at: https://doi.org/10.1016/j.jbankfin.2013.07.015.

Strömbäck, C., Lind, T., Skagerlund, K., Västfjäll, D., Tinghög, G. (2017) “Does self-control predict financial behavior and financial well-being?” *Journal of Behavioral and Experimental Finance*, 14, pp. 30–38. Available at: https://doi.org/10.1016/j.jbef.2017.04.002.

Subagio, H., Satoto, S.H. and Ediningsih, S.I. (2020) “The effect of investment education and investment experience on investment decision with financial knowledge as intervening variable,” *Russian Journal of Agricultural and Socio-Economic Sciences*, 99(3), pp. 143–150. Available at: https://doi.org/10.18551/rjoas.2020-03.16.

Suganya, S., Sakthivelrani, S. and Durai, K. (2013) “Development and validation of financial literacy scale,” *International Journal of Research in Commerce and Management*, 4(1), pp. 99–104.

Talwar, M., Talwar Shalini, Kaur Puneet, Tripathy Naliniprava, and Dhir Amandeep, (2021) “Has financial attitude impacted the trading activity of retail investors during the COVID-19 pandemic?” *Journal of Retailing and Consumer Services*, 58, p. 102341. Available at: https://doi.org/10.1016/j.jretconser.2020.102341.

Tang, Z., Luo, J. and Xiao, J. (2011) “Antecedents of intention to purchase mass customized products,” *Journal of Product & Brand Management*, 20(4), pp. 316–326. Available at: https://doi.org/10.1108/10610421111148333.

Teece, D.J., Pisano, G. and Shuen, A. (1997) “Dynamic capabilities and strategic management,” *Strategic Management Journal*, 18(7), pp. 509–533. Available at: https://doi.org/10.1002/(sici)1097-0266(199708)18:7<509::aid-smj882>3.0.co;2-z.

Tezel, Z. (2015) “Financial Education for Children and youth,” *Handbook of Research on Behavioral Finance and Investment Strategies*, pp. 69–92. Available at: https://doi.org/10.4018/978-1-4666-7484-4.ch005.

Thaler, Richard H. (1999) “Mental accounting matters,” *Journal of Behavioral Decision Making*, 12(3), pp. 183–206. Available at: https://doi.org/10.1002/(sici)1099-0771(199909)12:3<183::aid-bdm318>3.0.co;2-f.

The World Bank (2021) *Global Financial Inclusion*, *DataBank*. Available at: https://databank.worldbank.org/source/global-financial-inclusion (Accessed: November 5, 2022).

Trochim, W.M. (2007) *The Research Methods Knowledge Base*. Available at: https://www.researchgate.net/publication/243783609_The_Research_Methods_Knowledge_Base (Accessed: October 27, 2022).

Tucker, M., Jubb, C. and Yap, C.J. (2019) "The theory of planned behaviour and student banking in Australia," *International Journal of Bank Marketing*, 38(1), pp. 113–137. Available at: https://doi.org/10.1108/ijbm-11-2018-0324.

Urban, G.L., Sultan, F. and Quails, W.J. (2000) *Placing trust at the center of your internet strategy*, *MIT Sloan Management Review*. Available at: https://sloanreview.mit.edu/article/placing-trust-at-the-center-of-your-internet-strategy/ (Accessed: October 27, 2022).

Utkarsh *et al.* (2020) "Catch them young: Impact of financial socialization, financial literacy and attitude towards money on financial well-being of young adults," *International Journal of Consumer Studies*, 44(6), pp. 531–541. Available at: https://doi.org/10.1111/ijcs.12583.

van Doorn, J. *et al.* (2010) "Customer engagement behavior: Theoretical foundations and research directions," *Journal of Service Research*, 13(3), pp. 253–266. Available at: https://doi.org/10.1177/1094670510375599.

van Hooft, E.A. and Crossley, C.D. (2008) "The joint role of Locus of control and perceived financial need in job search," *International Journal of Selection and Assessment*, 16(3), pp. 258–271. Available at: https://doi.org/10.1111/j.1468-2389.2008.00432.x.

van Rooij, M.C.J., Lusardi, A. and Alessie, R.J.M. (2012) "Financial Literacy, retirement planning and household wealth," *The Economic Journal*, 122(560), pp. 449–478. Available at: https://doi.org/10.1111/j.1468-0297.2012.02501.x.

Vehovar, V. and Manfreda, K.L. (2008) "Overview: Online surveys," *The SAGE Handbook of Online Research Methods*, pp. 176–194. Available at: https://doi.org/10.4135/9780857020055.n10.

Venkatesh, Morris, Davis and Davis (2003) "User acceptance of information technology: Toward a unified view," *MIS Quarterly*, 27(3), p. 425. Available at: https://doi.org/10.2307/30036540.

Venz, R.A. and Gardiner, E. (2017) "It pays to be well-connected: The moderating role of networking ability on the relationship between core self-evaluations and income," *Personality and Individual Differences*, 110, pp. 85–89. Available at: https://doi.org/10.1016/j.paid.2017.01.032.

Vermeir, I. and Verbeke, W. (2006) "Sustainable Food Consumption: Exploring the consumer 'attitude – behavioral intention' gap," *Journal of Agricultural and Environmental Ethics*, 19(2), pp. 169–194. Available at: https://doi.org/10.1007/s10806-005-5485-3.

Vitória, Salgueiro, Silva and Vries, (2009) “The impact of social influence on adolescent intention to smoke: Combining types and referents of influence,” *British Journal of Health Psychology*, 14(4), pp. 681–699. Available at: https://doi.org/10.1348/135910709x421341.

Vivek, S.D., Beatty, S.E. and Morgan, R.M. (2012) “Customer engagement: Exploring customer relationships beyond purchase,” *Journal of Marketing Theory and Practice*, 20(2), pp. 122–146. Available at: https://doi.org/10.2753/mtp1069-6679200201.

Vogt, W.P. (2007) *Quantitative research methods for professionals*. Boston, MA: schindPearson/Allyn and Bacon.

Voorhees, C.M. *et al.* (2015) “Discriminant validity testing in marketing: An analysis, causes for concern, and proposed remedies,” *Journal of the Academy of Marketing Science*, 44(1), pp. 119–134. Available at: https://doi.org/10.1007/s11747-015-0455-4.

Wachtel, P., Hasan, I. and Zhou, M. (2006) “Institutional development, financial deepening and economic growth: Evidence from China,” *SSRN Electronic Journal* [Preprint]. Available at: https://doi.org/10.2139/ssrn.921624.

Walstad, W.B. and Rebeck, K. (2002) “Assessing the economic knowledge and economic opinions of adults,” *The Quarterly Review of Economics and Finance*, 42(5), pp. 921–935. Available at: https://doi.org/10.1016/s1062-9769(01)00120-x. (

Weber, B. (2002) *Economic Education in Germany*, *OSD 2/2002: Civic and Economic Education in Europe*. Journal of Social Science Education. Available at: https://www.researchgate.net/publication/237702749_Economic_Education_in_Germany/fulltext/02c6a2d00cf2142c574c7a18/237702749_Economic_Education_in_Germany.pdf (Accessed: November 17, 2022).

Whetten, D.A. (1989) “What constitutes a theoretical contribution?” *Academy of Management Review*, 14(4), pp. 490–495. Available at: https://doi.org/10.5465/amr.1989.4308371.

Widyastuti Umi, Sumiati Ati, Herlitah and Inaya Melati (2020) “Financial Education, Financial Literacy, and financial behaviour: What does really matter?” *Management Science Letters*, pp. 2715–2720. Available at: https://doi.org/10.5267/j.msl.2020.4.039.

Wigglesworth, R. (2016) *Fintech: Search for a super-algo*, *Subscribe to read | Financial Times*. Financial Times. Available at: https://www.ft.com/content/5eb91614-bee5-11e5-846f-79b0e3d20eaf (Accessed: October 28, 2022).

Wold, H.O. (1982) *Soft modelling: The Basic Design and Some Extensions.*, *systems under indirect observations part II, North-Holland, Amsterdam, 1-54.* . Scientific Research Publishing. Available at: https://www.scirp.org/reference/ReferencesPapers.aspx?ReferenceID=2333614 (Accessed: October 28, 2022).

World Bank Group (2022) *The global findex database 2021*, *World Bank*. World Bank Group. Available at: https://www.worldbank.org/en/publication/globalfindex (Accessed: October 27, 2022).

Wu, M., Jayawardhena, C. and Hamilton, R. (2014) “A comprehensive examination of internet banking user behaviour: Evidence from customers yet to adopt, currently using and stopped using,” *Journal of Marketing Management*, 30(9-10), pp. 1006–1038. Available at: https://doi.org/10.1080/0267257x.2014.935459.

Xiao, J.J. and Porto, N. (2017) “Financial Education and financial satisfaction,” *International Journal of Bank Marketing*, 35(5), pp. 805–817. Available at: https://doi.org/10.1108/ijbm-01-2016-0009.

Xiao, J.J., Chen, C. and Sun, L. (2015) “Age differences in consumer financial capability,” *International Journal of Consumer Studies*, 39(4), pp. 387–395. Available at: https://doi.org/10.1111/ijcs.12205.

Xiao, J.J., Ford, M.W. and Kim, J. (2010) “A review of financial behavior research: implications for financial education.,” *National Endowment for Financial Education* [Preprint].

Xiao, J.J., Ford, M.W. and Kim, J. (2011) “Consumer financial behavior: An interdisciplinary review of selected theories and research,” *Family and Consumer Sciences Research Journal*, 39(4), pp. 399–414. Available at: https://doi.org/10.1111/j.1552-3934.2011.02078.x.

Xie, X. and Lv, J. (2016) “Social networks of female tech-entrepreneurs and New Venture Performance: The moderating effects of entrepreneurial alertness and gender discrimination,” *International Entrepreneurship and Management Journal*, 12(4), pp. 963–983. Available at: https://doi.org/10.1007/s11365-016-0413-8.

Xu, L. and Zia, B. (2012) “Financial literacy around the world: An overview of the evidence with practical suggestions for the way forward,” *Policy Research Working Papers* [Preprint]. Available at: https://doi.org/10.1596/1813-9450-6107.

Xu, Z. (2000) “Financial Development, investment, and economic growth,” *Economic Inquiry*, 38(2), pp. 331–344. Available at: https://doi.org/10.1111/j.1465-7295.2000.tb00021.x.

Yadav, R., Chauhan, V. and Pathak, G.S. (2015) “Intention to adopt internet banking in an emerging economy: A perspective of Indian youth,” *International Journal of Bank Marketing*, 33(4), pp. 530–544. Available at: https://doi.org/10.1108/ijbm-06-2014-0075.

Yilmaz, V., Ari, E. and Gürbüz, H. (2018) “Investigating the relationship between service quality dimensions, customer satisfaction and loyalty in Turkish banking sector,” *International Journal of Bank Marketing*, 36(3), pp. 423–440. Available at: https://doi.org/10.1108/ijbm-02-2017-0037.

Yuan, Y., Lai, F. and Chu, Z. (2018) “Continuous usage intention of internet banking: A Commitment-Trust model,” *Information Systems and e-Business Management*, 17(1), pp. 1–25. Available at: https://doi.org/10.1007/s10257-018-0372-4.

YudhistiraP, A. (2014) Analysis of Factors Affecting the Preferences and Accessibility Against Use of Electronic Payment Card. Brawijaya University Available at: http://repository.ub.ac.id/id/eprint/107487 (Accessed: October 28, 2022).

Zaichkowsky, J.L. (1985) "Measuring the involvement construct," *Journal of Consumer Research*, 12(3), p. 341. Available at: https://doi.org/10.1086/208520.

Zhang, J., Luximon, Y. and Song, Y. (2019) "The role of consumers' perceived security, perceived control, interface design features, and conscientiousness in continuous use of mobile payment services," *Sustainability*, 11(23), p. 6843. Available at: https://doi.org/10.3390/su11236843.

Zhang, L., Cude, B.J. and Zhao, H. (2019) "Determinants of Chinese consumers' purchase intentions for Luxury Goods," *International Journal of Market Research*, 62(3), pp. 369–385. Available at: https://doi.org/10.1177/1470785319853674.

Zhou, T. (2011) "An empirical examination of initial trust in Mobile banking," *Internet Research*, 21(5), pp. 527–540. Available at: https://doi.org/10.1108/10662241111176353.

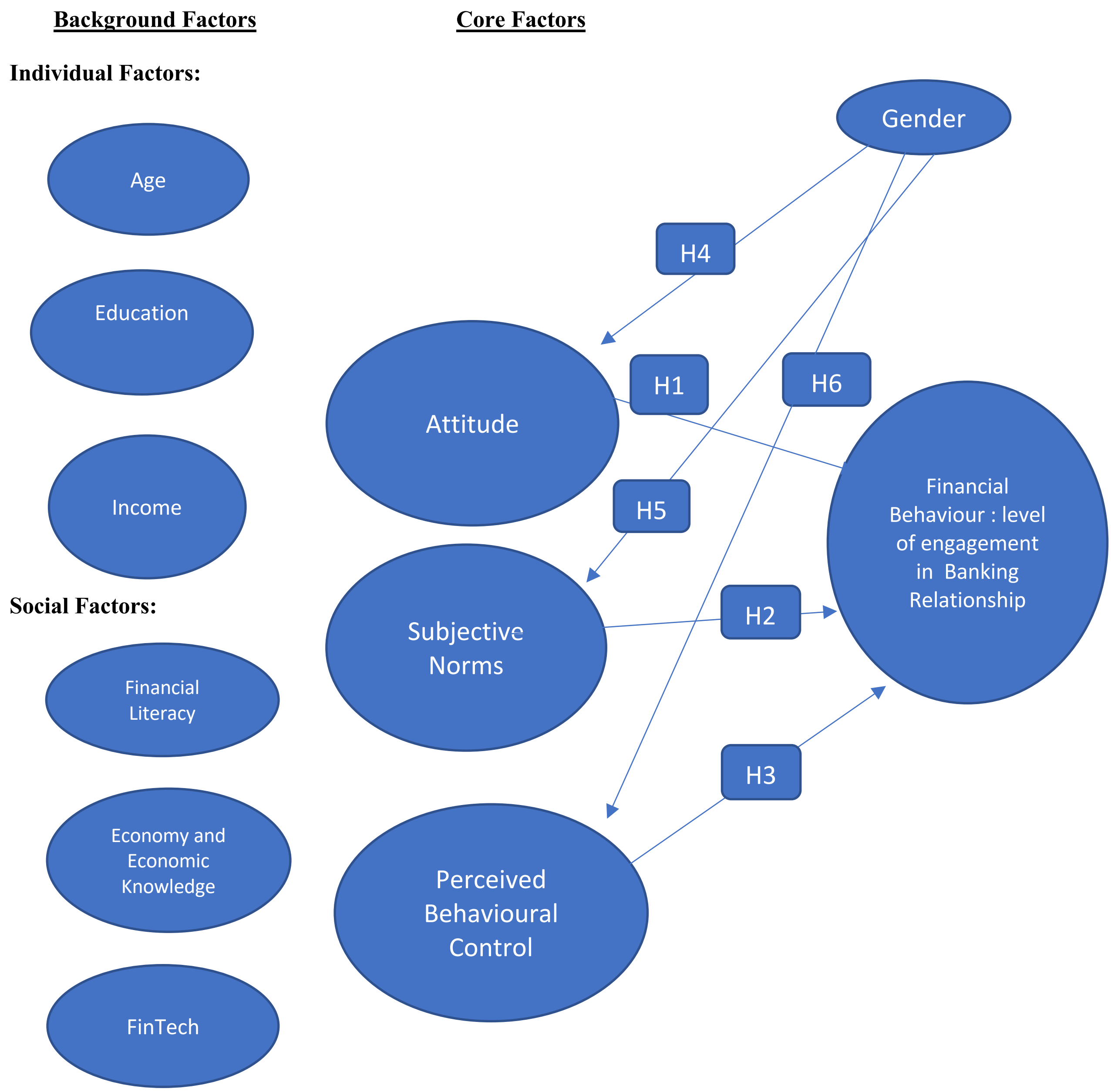
Zhu, D., Hodgkinson, L. and Wang, Q. (2018). "Academic Performance and Financial Forecasting Performance: A Survey Study," *Journal of Behavioral and Experimental Finance*, 20, pp. 45–51. Available at : https://doi.org/10.1016/j.jbef.2018.07.002.

Zick, C.D., Mayer, R.N., & Kara, G. (2012). The Kids are All Right: Generational Differences in Responses to the Great Recession. *ERN: Behavioral Economics (Topic)*.

Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2010). "Business Research Methods" (8th ed.). United States of America: South-Western, *Cengage Learning*.

Zou, X., Tam Kim-Pong, Morris Michael, Lee Sau-lai, Lau Ivy, and Chiu Chi-yue (2009) "Culture as common sense: Perceived consensus versus personal beliefs as mechanisms of cultural influence.," *Journal of Personality and Social Psychology*, 97(4), pp. 579–597. Available at: https://doi.org/10.1037/a0016399.

Appendix A: Research Conceptual Model



Appendix B: Questionnaire in English

Banking Relationship - Survey

My name is Nawal Tarazi, I am working on a research study in relation to the banking sector in Jordan; a requirement for my doctorate degree at Plymouth University- United Kingdom. Several individual and social factors will be examined and investigated in order to answer the research question which is: "What factors influence individuals to establish a banking relationship in Jordan?"

If you agree to complete the questionnaire, please click on the word 'Continue' and it will take around 10 minutes to complete. At the end you are kindly requested to click on the "Submit" to send along your responses.

If you decide NOT to continue, you are kindly requested to click on the word "Leave" below, that will take you to the end of the questionnaire, with thanks.

All answers will be treated in full confidentiality and will only be used for the purpose of this research without any reference to any participant.

I would like to thank you in advance for taking the time to complete the questionnaire.

* Required

1. I would like to complete the questionnaire and you have my consent to use the responses for the research purposes. *

Mark only one oval.

- ◯ Continue *Skip to question 2*
- ◯ Leave

2. Your Age? *

Mark only one oval.

- ◯ < 19 years
- ◯ 20 - 24 years
- ◯ 25 - 29 years
- ◯ 30 - 39 years
- ◯ 40 - 49 years
- ◯ 50 - 59 years
- ◯ 60 +

3. What is your gender? *

Mark only one oval.

- ◯ Female
- ◯ Male

4. Where are you currently living? *

Mark only one oval.

- ◯ Amman
- ◯ Balqa
- ◯ Zarqa
- ◯ Madaba
- ◯ Irbid
- ◯ Mafraq
- ◯ Jarash
- ◯ Ajloun
- ◯ Karak
- ◯ Tafiela
- ◯ Ma'an
- ◯ Aqaba
- ◯ Other: ____________

5. Marital Status *

Mark only one oval.

- Single
- Married
- Divorced
- Widowed

6. Profession *

Mark only one oval.

- Government employee
- Private business employee
- Business owner
- Self-employed (example: freelancer, consultant...)
- Student
- Housewife
- Unemployed
- Other: ____________________

7. Highest level of Education *

Mark only one oval.

- Less than high school
- High school
- Diploma
- Graduate Studies (BA, BSc...)
- Post Graduate/ Higher Studies (MA. MSc, MBA, PhD...)

8. How would you rate your 'financial knowledge' level? ((For this research 'financial knowledge' is defined as the knowledge of basic economic and financial concepts, as well as the ability to use that knowledge and other financial skills to manage financial resources effectively for a lifetime of financial well-being)). *

Mark only one oval.

- Very good
- Good
- Average
- Poor
- Very Poor

9. Which of the following best describes your education in finance or economics? *

Mark only one oval.

- I have a major in Finance or Economics
- I have taken some university courses in Finance or Economics
- I have taken some training (nonacademic) courses in Finance or Economics
- I have taken non-economic or finance courses that included some economic related content (Political Sciences, Legal Studies....)
- I have NOT taken any Economics or Finance course ever

10. Monthly Income *

Mark only one oval.

- < JD 200
- JD 201- JD 500
- JD 501- JD 1000
- JD 1001-JD 2500
- JD 2501-JD 4000
- JD 4001-JD 6000
- Above JD6001

11. How often, if ever, do you currently use 'banking services'? ((Banking services include but not limited to cash withdrawal, deposit, credit card purchases, transfers, payments, loans, in addition to digital payments such as online purchase and online payments...)) *

Mark only one oval.

- Extremely often (almost daily)
- Very often (weekly)
- Somewhat often (once or twice monthly)
- Not so often (maximum 4 times a year)
- Never (I don't have a bank account)

12. When you think about banking services, do you think of it as something you need or don't need? *

Mark only one oval.

- Definitely need
- Probably need
- Neutral Probably don't need
- Definitely don't need

13. Do you have a bank account?

Mark only one oval.

- Yes *Skip to question 16*
- No *Skip to question 14*

14. If you do not have a bank account, how much do you agree/ disagree with the following statements? *

Mark only one oval per row.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I intend to open a bank account	◯	◯	◯	◯	◯
I plan to open a bank account in the forthcoming month	◯	◯	◯	◯	◯
I will consider opening a bank account in the forthcoming few months	◯	◯	◯	◯	◯

15. What are the main reasons that you have not opened a bank account yet?(Check all that apply) *

Check all that apply.

- [ ] Underage
- [ ] Concerned about security
- [ ] Don't see real value in having an account at a bank
- [ ] Bank location
- [ ] Banking is too complex and I find it hard to understand
- [ ] Bank charges
- [ ] Other: ____________________

Skip to question 17

16. Indicate whether you have heard of any of these types of financial products; if Yes indicate if you personally hold any of these types: *

Mark only one oval per row.

	Yes	Yes and I have one or more	No
A loan secured by property	◯	◯	◯
An unsecured loan	◯	◯	◯
A credit card facility	◯	◯	◯
A current/ checking account	◯	◯	◯
A saving account	◯	◯	◯
A microfinance loan	◯	◯	◯
Stocks or shares	◯	◯	◯
Bonds	◯	◯	◯
Mobile/cell phone payment account (not directly linked to a bank) like Zain cash	◯	◯	◯
A prepaid debit card/payment card not related to a bank account, like e-fawateerkom	◯	◯	◯
Crypto assets (example: Bitcoin)	◯	◯	◯

17. Suppose you have JDs 100 in a savings account earning 2% compound interest a year. After 5 years, how much in total would you have in the account? *

Mark only one oval.

- ◯ More than JDs 110
- ◯ Exactly JDs 110
- ◯ Less than JDs 110
- ◯ Don't know

18. Imagine now that the interest rate on your savings account is 1% a year and inflation is 2% a year. After one year, would the money in the account buy more than it does today, exactly the same, or less than today? *

Mark only one oval.

- ◯ More
- ◯ Same
- ◯ Less
- ◯ Don't know

19. Economic outlook: How much do you agree/ disagree with the statements below? *

Mark only one oval per row.

	Strongly disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
In the next three years there is a risk of depression in the economy	◯	◯	◯	◯	◯
Economic growth is necessary to finance public health and pension systems	◯	◯	◯	◯	◯
Making the income distribution more equal should get a higher priority than economic growth	◯	◯	◯	◯	◯
Economic growth is necessary to improve all sectors	◯	◯	◯	◯	◯
Economic growth raises incomes which in return make people care more about financial decisions	◯	◯	◯	◯	◯
A 'good life' without economic growth is possible	◯	◯	◯	◯	◯

20. FinTech services are defined as innovative financial services using new technology tools, such as mobile technology, online banking, mobile banking, online personal loan, online insurance, financial wallets, e-payments....How often is your FinTech service usage? *

Mark only one oval.

◯ Never
◯ Very Limited
◯ Occasionally
◯ Usually
◯ Everyday

21. How many times last week did you use e-banking facilities? *

Mark only one oval.

◯ Never
◯ Once
◯ 2-3 times
◯ 4-5 times
◯ 5+ times

22. How much do you agree/ disagree with the statements below? *

Mark only one oval per row.

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
When performing a financial transaction on the internet I know exactly what will happen	◯	◯	◯	◯	◯
I use my mobile phone to make or receive payments	◯	◯	◯	◯	◯
Internet/online transactions always function as expected	◯	◯	◯	◯	◯
With adequate safety measures on a website I do not hesitate to enter my credit card information	◯	◯	◯	◯	◯
I trust the internet/FinTech services	◯	◯	◯	◯	◯

23. Trust in FinTech Services offered by banks: How much do you agree/disagree with the statements below? *

Mark only one oval per row.

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
I trust and willing to depend on a bank	⬭	⬭	⬭	⬭	⬭
When performing a transaction with a bank I know exactly what will happen	⬭	⬭	⬭	⬭	⬭
Banking transactions always function as expected	⬭	⬭	⬭	⬭	⬭

24. How much do you agree/ disagree with the statements below? *

Mark only one oval per row.

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Before buying something, I ask myself if I have paid my necessary expenses	⬭	⬭	⬭	⬭	⬭
Before buying something, I compare prices	⬭	⬭	⬭	⬭	⬭
Before signing a financial contract, I carefully read its contents	⬭	⬭	⬭	⬭	⬭
The first thought I have when I borrow money is that I want to return the money on time	⬭	⬭	⬭	⬭	⬭
Before making online payments, I am concerned about the security of my data	⬭	⬭	⬭	⬭	⬭
It is important to save money on a monthly basis	⬭	⬭	⬭	⬭	⬭

25. Social Pressure: How much do you agree/ disagree with the statements below? *

Mark only one oval per row.

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
My friends or relatives would support my decision to own an account at a bank	⬭	⬭	⬭	⬭	⬭
People who are important to me would prefer that I have one or more banking relationships	⬭	⬭	⬭	⬭	⬭
My family and friends think I should use the various services offered by the bank	⬭	⬭	⬭	⬭	⬭

26. How much do you agree/ disagree with the statements below? *

Mark only one oval per row.

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
I feel in control when using various services offered by a bank	⬭	⬭	⬭	⬭	⬭
I think I have the resources, knowledge and ability to use the various facilities and services provided by the banks	⬭	⬭	⬭	⬭	⬭
If I want to use the banking services, it would be easy	⬭	⬭	⬭	⬭	⬭
Using banking services would enable me to accomplish tasks more quickly	⬭	⬭	⬭	⬭	⬭
Overall, I would find a banking relationship to be advantageous	⬭	⬭	⬭	⬭	⬭

27. Financial Behavior: How much do you agree/ disagree with the statements below? *

Mark only one oval per row.

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
I set financial goals for the next 1-2 years for what I want to achieve with my money.	◯	◯	◯	◯	◯
I consult my bank advisor to see how much money I have left for the next 1-2 years.	◯	◯	◯	◯	◯
In a typical month, it is difficult for me to cover my expenses and pay all my bills.	◯	◯	◯	◯	◯
When I get money, I save some of it at the bank no matter what.	◯	◯	◯	◯	◯
I do a good job of budgeting my money.	◯	◯	◯	◯	◯

28. Financial Education in Jordan is available and taught at: *

Mark only one oval.

- ◯ Public Schools
- ◯ Private Schools
- ◯ Taught compulsory
- ◯ Taught separately
- ◯ Not available

29. What do you prefer for investment? *

Check all that apply.

- ☐ Fixed deposit
- ☐ Insurance
- ☐ Shares
- ☐ Real estate
- ☐ Other: ______________________________

Appendix C: Questionnaire in Arabic

استبيان حول التعامل مع البنوك

أود أولاً أن أعرفك بنفسي، نوال طرزي طالبة دكتوراة في جامعة بليموث في المملكة المتحدة. أعمل حاليًا على بحث حول قطاع البنوك في الأردن، وفي هذا البحث، سأقوم بالتحقق من عدة عوامل فردية واجتماعية ودراستها للإجابة على سؤال البحث وهو: "ما هي العوامل التي تدفع الأفراد لفتح حساب والتعامل مع البنوك في الأردن؟".

وكي أتمكن من دراسة هذه العوامل، يجب أن أجمع المعلومات اللازمة من خلال هذا الاستبيان الذي سيحتاج 10 دقائق تقريباً للإجابة عليه. فإن كنت موافقاً على تعبئة الاستبيان، يرجى الضغط على كلمة "الاستمرار"، وفي نهايته، يرجى منك أن تضغط على كلمة "إرسال" "Submit".

وفي حال عدم رغبتك في تعبئة الاستبيان، يرجى منك الضغط على كلمة "عدم الاستمرار"، والتي ستأخذك مباشرة إلى نهاية الاستبيان، مع الشكر.

وأود أن أنوه أن جميع الإجابات ستعامل بسرية تامة وستستخدم فقط لأغراض هذا البحث دون الإشارة إلى إي من المشاركين.

وختاماً، اسمح لي أن أشكرك مقدماً على الوقت الذي منحته لي في تعبئة هذا الاستبيان.

* Required

1. أرغب بتعبئة الاستبيان وأوافق على استخدام إجاباتي لأغراض البحث *

Mark only one oval.

- ◯ الاستمرار Skip to question 2
- ◯ عدم الاستمرار

2. العمر *

Mark only one oval.

- ◯ أقل من 19 سنة
- ◯ 20 - 24 سنة
- ◯ 25 - 29 سنة
- ◯ 30 - 39 سنة
- ◯ 40 - 49 سنة
- ◯ 50 - 59 سنة
- ◯ أكبر من 60 سنة

3. الجنس *

Mark only one oval.

- ◯ أنثى
- ◯ ذكر

4. مكان الإقامة *

Mark only one oval.

- ◯ عمان
- ◯ البلقاء
- ◯ الزرقاء
- ◯ مادبا
- ◯ إربد
- ◯ المفرق
- ◯ جرش
- ◯ عجلون
- ◯ الكرك
- ◯ الطفيلة
- ◯ معان
- ◯ العقبة
- ◯ Other: ____________

5. الحالة الاجتماعية *

Mark only one oval.

- ◯ أعزب / عزباء
- ◯ متزوج / متزوجة
- ◯ مطلق / مطلقة
- ◯ أرمل / أرملة

6. المهنة *

Mark only one oval.

- ◯ موظف/ موظفة حكومي
- ◯ موظف/ موظفة قطاع خاص
- ◯ صاحب /صاحبة عمل (شركة، محل، مشروع،...الخ)
- ◯ طالب/ طالبة
- ◯ ربة منزل
- ◯ عاطل/ عاطلة عن العمل
- ◯ Other: ____________

7. أعلى مستوى من التعليم *

Mark only one oval.

- ( ) أقل من الثانوية العامة
- ( ) الثانوية العامة
- ( ) دبلوم
- ( ) بكالوريوس
- ( ) شهادة عليا (ماجستير، دبلوم عالي، دكتوراة، ...الخ)

8. كيف تصنف مستوى "معرفتك المالية"؟ (لأغراض هذا البحث، "المعرفة المالية" هي معرفة المفاهيم الاقتصادية والمالية الأساسية، والقدرة على استخدام هذه المعرفة مع المهارات المالية الأخرى لإدارة مواردك المالية بكفاءة من أجل المحافظة على رفاهك المالي مدى الحياة) *

Mark only one oval.

- ( ) جيد جداً
- ( ) جيد
- ( ) عادي
- ( ) قليل
- ( ) قليل جداً

9. أياً من الخيارات التالية تصف مستوى تعليمك في مجال المالية أو الاقتصاد؟ *

Mark only one oval.

- ( ) حاصل على بكالوريوس بتخصص رئيسي في المالية أو الاقتصاد
- ( ) أخذت بعض المساقات في المالية أو الاقتصاد في الجامعة
- ( ) حصلت على دورات تدريبية (غير أكاديمية) في مجال المالية أو الاقتصاد
- ( ) التحقت بدورات ليست متخصصة بالاقتصاد أو المالية، ولكنها تتضمن معلومات لها علاقة بالاقتصاد (علوم سياسية، دراسات قانونية... الخ)
- ( ) لم ألتحق بأي دورات أو أي مساقات لها علاقة بالاقتصاد أو المالية أبداً

10. الدخل الشهري *

Mark only one oval.

- ( ) أقل من 200 دينار
- ( ) 201 - 500 دينار
- ( ) 501 - 1000 دينار
- ( ) 1001 - 2500 دينار
- ( ) 2501-4000 دينار
- ( ) 4001-6000 دينار
- ( ) أكثر من 6001 دينار

11. إن كنت تستخدم الخدمات البنكية، فما مدى تكرار استخدامك لها؟ (الخدمات البنكية تتضمن، ولا تقتصر على، السحوبات النقدية، الودائع، عمليات الشراء على البطاقات الائتمانية، الحوالات، الدفعات، القروض، بالإضافة إلى عمليات الدفع الإلكتروني مثل عمليات الشراء والدفع عبر الإنترنت...الخ). *

Mark only one oval.

- ◯ متكررة كثيرًا (يومياً تقريبًا)
- ◯ متكررة جدًا (أسبوعيًا)
- ◯ متكررة نسبيًا (مرة أو مرتين في الشهر)
- ◯ غير متكررة كثيرًا (4 مرات في السنة كحد أقصى)
- ◯ لا استخدمها أبدًا (لا يوجد لدي حساب بنكي)

12. عندما تفكر بالخدمات البنكية، هل تراها كخدمات تحتاج إليها أم لا تحتاج إليها؟ *

Mark only one oval.

- ◯ أحتاجها على الأكيد
- ◯ من المحتمل أني أحتاجها
- ◯ محايد
- ◯ لا احتاجها على الأكيد

13. هل لديك حساب في البنك؟

Mark only one oval.

- ◯ نعم *Skip to question 16*
- ◯ لا *Skip to question 14*

14. إذا لم يكن لديك حساب في البنك، ما درجة موافقتك أو عدم موافقتك مع العبارات التالية؟ *

Mark only one oval per row.

	لا أوافق بشدة	لا أوافق	محايد	أوافق	أوافق بشدة
أنوي على الأكيد فتح حساب في البنك	◯	◯	◯	◯	◯
أخطط أن افتح حساب في البنك خلال الشهر القادم	◯	◯	◯	◯	◯
أقوم حاليًا بدراسة فكرة فتح حساب في البنك خلال الاشهر القادمة	◯	◯	◯	◯	◯

15. ما هي الأسباب الرئيسية التي لم تجعلك تفتح حساب بنكي بعد؟ (ضع علامة على كل الأسباب التي ترى أنها تنطبق على حالتك). *

Check all that apply.

- ☐ تحت السن القانونية
- ☐ تشعر بالقلق من التعامل مع البنك فيما يخص سرية معلوماتك الشخصية
- ☐ لا ترى فائدة عملية حقيقية لفتح حساب في البنك
- ☐ صعوبة الوصول إلى موقع البنك
- ☐ الأعمال البنكية معقدة جدًا وأجد صعوبة في فهمها
- ☐ الرسوم البنكية العالية
- ☐ Other: ____________

16. وضّح إن كنت قد سمعت عن أي من هذه الأنواع من المنتجات المالية. إذا كانت إجابتك نعم، أوضح إن كان لديك أيًا من هذه الأنواع *

Mark only one oval per row.

	نعم	نعم ولدي أكثر من نوع	لا
قرض مضمون بعقار	◯	◯	◯
قرض غير مضمون مثل القروض الشخصية	◯	◯	◯
تسهيلات البطاقات الائتمانية	◯	◯	◯
حساب جاري	◯	◯	◯
حساب توفير	◯	◯	◯
قرض التمويل الأصغر	◯	◯	◯
أسهم	◯	◯	◯
سندات	◯	◯	◯
حساب دفع على الموبايل (غير مرتبط مباشرة بالبنك) مثل زين كاش	◯	◯	◯
العملات الرقمية مثل البيتكوين	◯	◯	◯

17. فلنفرض أن لديك ١٠٠ دينار في حساب التوفير وبفائدة ٢% سنويًا. كم برأيك سيكون لديك في حسابك بعد ٥ سنوات؟ *

Mark only one oval.

- ◯ أكثر من 110 دينار
- ◯ بالضبط 110 دينار
- ◯ أقل من 110 دينار
- ◯ لا أعرف

18. تخيل الآن أن معدل الفائدة على حسابك التوفير هو ١% سنوياً، وأن التضخم هو ٢% سنوياً. بعد عام واحد، هل ستكون القيمة الشرائية للمبلغ الموجود في حسابك أكثر منها اليوم، أم نفس القيمة، أم أقل مما هي اليوم؟ *

Mark only one oval.

- ◯ أكثر
- ◯ نفس القيمة
- ◯ أقل
- ◯ لا أعرف

19. ما مدى موافقتك/ عدم موافقتك على العبارات الواردة أدناه؟ *

Mark only one oval per row.

	لا أوافق بشدة	لا أوافق	رأيي محايد	أوافق	أوافق بشدة
يواجه الاقتصاد خطر حدوث كساد في السنوات الثلاث المقبلة	◯	◯	◯	◯	◯
النمو الاقتصادي ضروري لتمويل نظام الرعاية الصحية والضمان الاجتماعي.	◯	◯	◯	◯	◯
التركيز على جعل توزيع الدخل أكثر مساواة يجب أن يحظى بأولوية أعلى من التركيز على النمو الاقتصادي.	◯	◯	◯	◯	◯
النمو الاقتصادي ضروري لتحسين جميع القطاعات.	◯	◯	◯	◯	◯
النمو الاقتصادي يرفع مستوى الدخل، والذي بدوره يجعل الناس يهتمون أكثر بقراراتهم المالية.	◯	◯	◯	◯	◯
من الممكن الوصول إلى حالة "حياة جيدة" دون تحقيق النمو الاقتصادي.	◯	◯	◯	◯	◯

20. * هي خدمات التكنولوجيا المالية (FinTech) وتُعرَّف على أنها خدمات مالية مبتكرة تستخدم أدوات تكنولوجية جديدة، مثل تكنولوجيا الهاتف المحمول، والخدمات البنكية عبر الإنترنت، والخدمات البنكية عبر الهاتف المحمول، والقروض الشخصي عبر الإنترنت، والتأمين عبر الإنترنت، والمحافظ المالية مثل زين كاش، وخدمات الدفع الإلكترونية مثل إي فواتيركم. ما مدى تكرارك في استخدام خدمات التكنولوجيا المالية:

Mark only one oval.

- ◯ لا استخدمها مطلقاً
- ◯ استخدمها بشكل محدود جداً
- ◯ استخدمها أحياناً
- ◯ استخدمها غالباً
- ◯ استخدمها يومياً

21. كم مرة في الأسبوع الماضي استخدمت التسهيلات المصرفية الإلكترونية؟ *

Mark only one oval.

- ◯ ولا مرة
- ◯ مرة واحدة
- ◯ 2-3 مرات
- ◯ 4-5 مرات
- ◯ أكثر من 5 مرات

22. ما مدى موافقتك/ عدم موافقتك على العبارات الواردة أدناه؟ *

Mark only one oval per row.

	لا أوافق بشدة	لا أوافق	محايد	أوافق	أوافق بشدة
عند إجراء معاملة مالية على الإنترنت، أعرف بالضبط ماذا سيحدث.					
استخدم الموبايل للدفع واستلام الدفعات.					
تسير المعاملات الإلكترونية دائماً كما هو متوقع.					
مع وجود تدابير الحماية الكافية على موقع إلكتروني، لا أتردد في إدخال معلومات بطاقتي الائتمانية.					
أثق بخدمات التكنولوجيا المالية/ الخدمات المالية الإلكترونية					

23. الثقة في خدمات التكنولوجيا المالية التي تقدمها البنوك: ما مدى موافقتك / عدم موافقتك على البيانات الواردة أدناه؟ *

Mark only one oval per row.

	لا أوافق بشدة	لا أوافق	محايد	أوافق	أوافق بشدة
أثق وأنا مستعد أن اعتمد على بنك في خدمات التكنولوجيا المالية.					
عند إجراء معاملة مالية مع بنك، أعرف بالضبط ماذا سيحدث.					
تسير المعاملات البنكية دائماً كما هو متوقع بالضبط.					

24. ما مدى موافقتك / عدم موافقتك على العبارات التالية؟ *

Mark only one oval per row.

	لا أوافق بشدة	لا أوافق	محايد	أوافق	أوافق بشدة
قبل أن اشتري شيئاً، أسأل نفسي: هل دفعت جميع مصاريفي الضرورية؟					
قبل أن اشتري شيئاً، أقارن الأسعار.					
قبل أن أوقع على اتفاقية مالية، أقرأ محتوياتها بتمعن.					
أول أمر أفكر فيه عندما اقترض مبلغاً من المال هو أنني أريد سداد هذا المبلغ في الوقت المحدد.					
قبل إجراء عمليات الدفع عبر الإنترنت، أفكر بأمن بياناتي.					
من المهم أن أوفر المال شهرياً.					

25. السلوك الاجتماعي: ما مدى موافقتك/ عدم موافقتك على العبارات التالية؟ *

Mark only one oval per row.

	لا أوافق بشدة	لا أوافق	محايد	أوافق	أوفق بشدة
سيؤيد أصدقائي أو أقاربي قراري بفتح حساب في البنك.					
يفضل الأشخاص المهمون بالنسبة لي أن أتعامل مع بنك واحد أو اكثر					
يعتقد أصدقائي وعائلتي أنه يجب علي استخدام الخدمات المختلفة التي يقدمها البنك.					

26. ما مدى موافقتك/ عدم موافقتك على العبارات التالية؟ *

Mark only one oval per row.

	لا أوفق بشدة	لا أوفق	محايد	أوافق	أوافق بشدة
أشعر أنني متمكّن ومسيطر على الوضع عندما استخدم الخدمات المختلفة التي يقدمها البنك.					
أعتقد أن لدي المعلومات والقدرة على استخدام التسهيلات والخدمات المختلفة التي تقدمها البنوك.					
إذا رغبتُ باستخدام الخدمات البنكية، فمن السهل أن يكون لدي ما يكفي من المعلومات لاستخدام معظم الخدمات البنكية.					
استخدام الخدمات البنكية سيمكنني من إنجاز المهام بسرعة أكبر.					
بشكل عام، أجد التعامل مع البنك مفيداً.					

27. السلوك المالي: ما مدى موافقتك / عدم موافقتك على العبارات أدناه؟ *

Mark only one oval per row.

	لا أوافق بشدة	لا أوافق	محايد	أوافق	أوفق بشدة
أحدد أهدافي المالية للسنتين القادمتين فيما يتعلق بإدارة أموالي					
استشير الشخص المسؤول عن حسابي في البنك بخصوص مخططاتي المالية للعامين القادمين.					
في شهر عادي، يصعب علي تغطية مصاريفي ودفع جميع فواتيري.					
عندما أحصل على مبالغ مالية، أوفر بعضاً منها في البنك مهما حدث.					
أنا جيد في وضع الميزانية لأموالي.					

28. التعليم حول الشؤون المالية متاح في الأردن ويُدرّس في: *

Mark only one oval.

- ◯ المدارس الحكومية
- ◯ المدارس الخاصة
- ◯ يُدرّس بشكل إلزامي
- ◯ يُدرّس بشكل منفصل
- ◯ غير موجود

29. ما هو خيارك المفضل للاستثمار؟ *

Check all that apply.

- ☐ الودائع الثابتة
- ☐ التأمين
- ☐ الأسهم
- ☐ العقارات
- ☐ أخرى

Appendix D: Table of Household Average Total Income in Jordan

جدول 5.3: متوسط الدخل الجاري السنوي للأسر الأردنية حسب مصدر الدخل وحجم الأسرة (بالدينار الأردني)

Table 3.5: Average of Annual Current Income of Jordanian Households by Source of Income and Household Size (JOD)

Household Size	Source of Income					مصدر الدخل	حجم الأسرة
	متوسط إجمالي الدخل **Average Total Income**	دخول تحويلية **Transactions Incomes**	دخول الملكية **Property Incomes**	دخول الإيجارات **Rentals Incomes**	دخول العاملين لحسابهم الخاص **Incomes from Own Private Work**	الدخل من الاستخدام **Income from Employment**	
1- 2	**8861.6**	4225.5	53.6	2111.7	382.7	2086.7	2 -1
3 - 4	**11494.3**	3864.9	106.7	2128.7	934.9	4458.1	4 - 3
5 - 6	**12012.6**	3510.0	62.9	1881.6	1161.8	5391.9	6 - 5
7 - 8	**12445.9**	3957.8	18.8	1942.3	1201.4	5325.3	8 - 7
9 - 10	**12848.5**	4140.2	22.9	1843.9	1206.3	5628.0	10 - 9
11 - 12	**16998.1**	4955.6	0.0	2594.7	2870.5	6577.4	12 - 11
13 - 14	**14346.9**	2605.5	52.8	1838.7	1295.1	8554.9	14 - 13
15+	**6427.5**	839.9	0.0	741.4	1906.3	2940.0	+15
Kingdom	**11512.4**	**3823.8**	**65.2**	**2001.0**	**995.0**	**4625.0**	**المملكة**

Department of Statistics\ Household Expenditures & Income Survey 2017

دائرة الإحصاءات العامة/ مسح نفقات ودخل الأسرة 2017

Appendix E: Ethical Approval

UNIVERSITY OF PLYMOUTH
Faculty of Arts, Humanities and Business

Date: 6 October 2020

Dear Nawal

Ethical Approval Application No: FREIC1920.45
Title: What factors influence customers to establish a formal banking relationship in Jordan?

The members of the Committee have carefully considered your application and are in agreement that, the application was very well presented with most potential related ethics carefully addressed.

However, we are only able to grant a **conditional approval** to your application and we would appreciate it if you could address the following queries before a full approval is granted:

- Please provide a data management plan for the research.
- The questionnaire needs to provide information to the participants, providing details about the brief purpose of the questionnaire, how their data will be managed etc.
- The form states that the participants will have the right to withdraw; please can this be clear on the questionnaire.
- It is not clear on the form if vulnerable group of people will be included as participants in the research and how participants will be protected from harm.
- Please provide information about the security and retention of research data.

Note: Please respond to these comments to FoAHBEthics@plymouth.ac.uk, by resubmitting a copy of your FREIC application form with your amendments addressing the comments highlighted, together with the requested data management plan. This will help speed up the response time.

On receipt of these clarifications (and assuming that they are satisfactory), the Committee will grant approval as soon as possible.

Yours sincerely
(Sent as email attachment)

Mr Derek Shepherd
Chair
Faculty Research Ethics & Integrity Committee
Faculty of Arts & Humanities (SoLCG & PBS)

Derek Shepherd, Chair, Faculty Research Ethics & Integrity Committee, Faculty of Arts & Humanities (SoLCG & PBS),
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T +44(0)1752 585587 E FoAHBEthics@plymouth.ac.uk W www.plymouth.ac.uk

Appendix F:

(Figure 3.4): PLS System Generated Independent, Mediating and Dependent Variables and Relationships