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Determinants of the Financial Capability: The Mediating role of Financial Self-efficacy and Financial Inclusion

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ABSTRACT

Identifying and addressing the predictors of financial capability in the context of a developing country such as Kingdom of Saudi Arabia is vital to advancing the financial behavior literature. Financial self-efficacy initially develops from financial literacy and the continuing development of each depends on the continuing development of the other. However, the exact nature of the relationship between financial self-efficacy and the relationship between financial literacy and financial inclusion remains a subject for argument. We, therefore, propose a model comprising both direct and indirect mechanisms with the goal of moving towards a logically complete understanding of how to determine financial capability. Our findings support all the proposed roles such that achieving financial literacy through its components constitutes the vital first step to gaining subsequent financial capability determinants. Further, our findings point to the need for a widespread and concerted effort to improve financial awareness among Saudi citizens. Given that our findings arise from a broad-based investigation into how financial capability is determined, they can be used as a basis for modifying existing approaches and for developing new directions to providing financial education to the citizenry.

Keywords: Financial Capability, Financial Inclusion, Financial Self-efficacy, Saudi Arabia, Financial Literacy
JEL Classifications: G20, G40, G41, G51, G53

1. INTRODUCTION

Broadly defined as a person's ability and capacity to manage his/her financial life throughout the course of a lifetime including through productive use of industry services and products, financial capability is a crucial skill for individuals in all aspects of life. Given that this is the case; it has become a focus of public policy-making in global terms in recent years. Policy-making centered on improving financial capability and, therefore, also improving financial behavior as a consequence originated in high-income countries in recognition of the need to protect vulnerable populations and maintain a stable economy. However, middle-income and developing countries are also seeking to support financial capability relative to economic development and the well-being of their citizenry. Overall, there is consensus that limited understanding of financial issues and practices and limited access to regulated financial products and services on the part of individuals has a negative impact on their financial lives and on economies in general as indicated by the relative inefficiency of financial markets and the over-indebtedness of households in many countries. For governments of low- and middle-income countries, in particular, there are challenges associated with connecting citizens to the standard services offered by the financial sector, whether savings or insurance vehicles, for example. It is also often the case that the advent of economic development in these countries both undermines family and community support structures and simultaneously requires citizens to take on increased responsibility for and to develop new skills to manage their financial lives (Holzmann et al., 2013).

Worldwide, governments are interested in ensuring that citizens gain an accurate and actionable understanding of financial products and services as a basis for making sound decisions to benefit individual, family, and social well-being relative to such

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issues as investing, financing an education, and planning for retirement. If citizens are to function effectively in these spheres, it is undoubtedly necessary that they gain a strong background in personal financial management knowledge and principles and that they take steps to put these into practice. In the recent literature, researchers highlight the need to develop financial literacy in the political and regulatory environments in order to support individuals in developing financial capability (Hira, 2012)-a concept introduced in 2006 by Atkinson et al. (2006). In the European context, the need for more targeted and sustained effort in this direction is supported by a relatively recent OECD (2015) report indicating that Europeans often lack not only financial skills but also foundational financial awareness. It should be noted here that in addition to the well-established term “financial literacy” (Bongini et al., 2018; Hensley, 2015), the term “financial capability” has also come into use in the last few decades (Hira, 2012). Further, researchers have offered comparisons between financial capability and financial literacy, generally viewing the former as a more broadly based concept than the latter (Johnson and Sherraden, 2007). In addition, researchers have recognized that the ideas inhering in financial capability should be examined in more depth (Kempson et al., 2013; Luukkanen and Uusitalo, 2019; Santini et al., 2019), including in relation to determining a way to measure financial capability in meaningful concrete terms.

In the present study, in accordance with the majority of the literature in this area, financial literacy is understood as encompassing citizens’ financial attitudes and related financial knowledge and financial behavior (Al Rahahleh, 2023; Huston, 2010). Put in a more specific way, the concept of financial literacy is operationalized as the knowledge and practical understanding of economic data needed for a person to engage in reasoned and effective financial planning as a means of managing his/her financial life including in terms of managing debt and gaining wealth (Lusardi and Mitchell, 2014). Along these same lines, the OECD (2013) has defined financial literacy as arising from a combination of knowledge and skills together with attitude and behavior that are, in turn, critical to a person’s ability to achieve and maintain financial well-being. In a more succinct version of the case, financial literacy has been defined many times in the literature as driven by three core considerations, namely financial attitude, financial knowledge, and financial behavior (Al Rahahleh, 2023; Atkinson and Messy, 2012; Garg and Singh, 2018; Huston, 2010; Potrich et al., 2015; Santini et al., 2019).

In the context of the overall definition of financial literacy, it is necessary to establish the exact nature and the extent of the association between this concept and financial capability. Importantly, it is generally recognized that although financial literacy is a much-needed concept, it is not by itself adequate to capture what an individual person or an entire citizenry needs to both understand financial exigencies and take action to effectively manage their financial lives. In short, the financial literacy concept is about gaining the essential knowledge needed to take effective action; yet, it neither includes having the opportunity to take effective action nor actually taking effective action (Chowa et al., 2014; Johnson and Sherraden, 2007). In recent years, interest in promoting financial capability has been on the rise (Loke et al., 2015; Luukkanen and Uusitalo, 2019). In Sherraden’s (2013) account, financial literacy includes the ability to take action whereas financial inclusion refers more to the environment-i.e., the opportunity to take action-such that the concepts taken together create the basis needed to develop financial capability (Sherraden, 2013). Likewise, for Kempson et al. (2013), in relying on both financial ability and financial opportunity, financial capability moves beyond the idea of financial knowledge at the heart of financial literacy to extend into financial decision-making in operation. On the negative side of financial capability, a person who has developed financial knowledge but who is not putting it to use in practical terms is properly considered to be financially incapable given that action is undeniably needed if a person is to secure financial advancement and well-being (Piotrowska, 2019; Vlaev and Elliott, 2017). Essential financial knowledge and skills are needed. The attitude needed to take action is critical. Yet, neither of these matter if a person’s environment does not provide opportunities to participate in financial life. It is at this point that financial literacy becomes meaningful for a person’s financial efficacy: Financial literacy focuses on the individual, whereas the environmental factor of financial inclusion must also be taken into account as essential to producing and sustaining financial capability (Johnson and Sherraden, 2007; Sherraden, 2013), which, therefore, encompasses the development of financial skills and knowledge together with key environmental considerations such as relative access to financial services (Loke et al., 2015).

In several studies, researchers have concluded that financial knowledge has a determining effect on how individuals behave and perform relative to financial management, and unsurprisingly that greater financial knowledge is associated with more effective performance (Hilgert et al., 2003; Mitchell and Lusardi, 2011; Nguyen and Rozsa, 2019). Further, researchers have also found that consumers’ attitudes towards money and the ways in which they use it vary in association with differences between consumers in terms of their financial goals (Shih and Ke, 2014). Similarly, and again predictably enough, financial behavior is affected by the individual’s attitude towards managing financial affairs (Henchoz et al., 2019), with one study showing that a stronger financial knowledge base and a more positive attitude towards financial management tends to be associated with more positive financially related behavior (Fessler et al., 2020). Characteristically, many efforts to improve financial literacy and financial inclusion have a further-even a defining-purpose of leading to greater financial capability on the part of a nation’s younger populations (Chowa et al., 2014). According to a number of studies, financial behavior arises directly from financial attitude and financial knowledge (Hayhoe et al., 2005; Potrich et al., 2016; Yong et al., 2018). Additionally, financial behavior, i.e., effective action, supports and even drives financial capability (Batty et al., 2015). Overall, the studies referenced clearly demonstrate that financial behavior has a critical role in mediating between financial literacy and financial inclusion. On this basis, therefore, financial behavior is an essential consideration in the conceptual framework proposed herein.

In the overall picture of the financial environment and financial behavior, we must also account for the role of financial self-efficacy, as financial literacy is a prerequisite for but by no means a guarantee of effective financial management. Instead, we must look to financial self-efficacy-the extent to which a person has the ability to use financial services to achieve given personal financial goals-as putting ideas into action (Asebedo and Payne, 2019). Simply put, financial self-efficacy is necessary to financial inclusion (Kim et al., 2020) and is also included as a vital personal quality in standard definitions of financial capability (Lusardi et al., 2010).

Whereas financial self-efficacy is centered on the individual's motivation to act and to do so based on sound financial knowledge, financial capability also depends on what the environment offers-i.e., the ways in which and the extent to which the immediate environment is financially inclusive (external capabilities) (Johnson and Sherraden, 2007; Sherraden, 2013). In its 2013 report, the OECD defined financial inclusion in very clear personal terms (i.e., awareness of and ability to use financial products and services) but also in environmental terms (i.e., ready access to financial products and services). In practice, where financial inclusion is limited, people fail to save sufficient money and fail likewise to invest and borrow wisely, so that they cannot protect their families either in the present or the future (GPFI, 2010). It is, therefore, undoubtedly necessary to ensure financial inclusion given the symbiotic nature of its relationship with financial capability (ACCION, 2019). In more concrete terms, easily accessible, affordable, safe financial products and services offered in a strong regulatory context are necessary if financial inclusion is to be achieved (Aprea et al., 2016; Nizam et al., 2020; Sherraden, 2013).

In a study based on a demographically broad sample of people in Saudi Arabia, Al Rahahleh (2023) found a strong relationship between financial inclusion and both financial literacy and financial self-efficacy. In fact, in accordance with Kim et al.'s (2018) finding of a close positive relationship between financial inclusion and economic growth, Al Rahahleh (2023) concluded that financial literacy is a necessary condition for financial inclusion and financial self-efficacy. Overall, the literature supports policy makers in addressing financial capability through efforts to promote financial inclusion via ensuring functioning financial markets and extending needed education and access to financial products and services to all citizens.

Strong and rising interest in improving financial capability has moved to the forefront of public policy concerns worldwide during the past decade. In Saudi Arabia-the focus of the present study-it is encouraging to note that promoting financial literacy throughout the population is part of the broad-based National Savings and Financial Literacy Strategy within the country's ambitious development agenda Vision 2030. Although the strategy is currently under review and, therefore, subject to change, its defining goal is to ensure that all Saudi citizens have the background needed to make sound decisions in the context of a rapidly evolving financial services environment.

The present study is motivated by a need to offer data-driven research support to this specific Vision 2030 strategy. A wide-ranging account of relative financial literacy on the part of a broad sample of the Saudi population is presented, therefore, with a focus on a number of well-established products and services offered by the financial industry and a consideration of well-known concepts associated with these. Given this motivation, the following research questions are addressed: (1) Do financial attitude and financial knowledge directly influence financial behavior? (2) Do financial literacy dimensions-i.e., financial attitude, financial knowledge, and financial behavior-directly influence financial self-efficacy? (3) Do financial literacy dimensions and financial inclusion directly influence financial capability? (4) Does financial self-efficacy directly influence financial capability? (5) Does financial behavior mediate the influence of financial self-efficacy on financial capability? (6) Does financial inclusion mediate the influence of financial self-efficacy on financial capability? (7) Does financial self-efficacy mediate the influence of financial attitude on financial inclusion? (8) Does financial self-efficacy mediate the influence of financial knowledge on financial inclusion?

Data were collected via an online survey instrument focused entirely on determining the financial literacy, financial self-efficacy, financial capability, and financial inclusion of a large sample of Saudi Arabians representing all generations and socioeconomic groups. Given that extensive reading in the literature did not bring a predecessor to light, the author believes the present study is the first to specifically examine the relationships between financial literacy dimensions and financial capability with an emphasis on the mediating function of financial self-efficacy together with financial attitude and financial behavior. Further, financial self-efficacy as a prerequisite for the development of financial capability is also investigated.

The rest of the paper is organized as follows: A literature review and a description of the main hypotheses are presented next (Section 2) followed by an account of the conceptual framework and the PLS-SEM mathematical model used in the analysis (Section 3). In the next two sections, the sample selection protocols, the results and findings of the data analysis (Section 4), and a discussion of their policy implications are described (Section 5).

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

This section comprises a review of the research most relevant to the present study and the foundation those studies offer for the present hypothesis development. In addition, the general state-of-the-art in terms of directions pursued, conclusions drawn, and key themes, concepts, and variables are discussed briefly.

In general, the present paper owes a debt to Al Rahahleh's (2023) study on the mediating role of financial self-efficacy between financial literacy and financial inclusion from the demand-side perspective in Saudi Arabia. However, whereas that paper focuses on connecting financial literacy to financial inclusion in quantitative terms by providing the first evidence of this relationship in Saudi Arabia, the present paper offers a broader perspective, accounting for financial inclusion, financial self-efficacy, and ultimately improvements to financial capability and behavior as a main target for the Saudi economy. In other words, this paper addresses the predictors of financial capability from a developing country context, and is, therefore, a vital contribution to the financial behavior literature. The exact ways in which financial literacy and financial self-efficacy develop in conjunction with each other and have a determinative relationship with financial inclusion remain a subject for argument. In this paper, therefore, a model is proposed comprising both direct and indirect mechanisms with the expectation that the findings will provide a logical understanding for how financial capability can be determined.

In multiple studies, researchers have confirmed that financial attitude is important in driving financial behavior (Potrich et al., 2016; Sample and Warland, 1973; Serido et al., 2013; Shih and Ke, 2014; Yap et al., 2018; Yong et al., 2018) and that both economic and non-economic beliefs are reflected in individuals' financial attitudes and financial decision-making (Ajzen, 1991; Potrich et al., 2015). Thus, the following hypothesis is proposed:

H_1: Financial attitude has a significant influence on financial behavior.

Given that parents are expected to exert significant influence on their children's attitudes towards financial matters, a number of studies explore this relationship between parents and college students. In an investigation into how college students' knowledge of personal finance topics and their financial self-efficacy might be influenced by their parents' attitudes towards debt, Heckman and Grable (2011) found that parents serve as a significant source of financial information for college students. The researchers based this conclusion on a scale developed to measure students' perceptions of their parents' attitudes towards debt. Joo et al. (2003) subsequently modified this scale to capture attitudes towards credit, which included items such as "The cost of using credit cards is too high." As anticipated, compared with students who thought their parents viewed debt in a relatively positive light, those who perceived their parents as having a negative view of debt reported having more financial knowledge and tended to indicate a higher degree of self-efficacy. Yet, these findings are not conclusive given that the total effect of dependency status on self-efficacy was found to be weak. Further, in another study focused on the extent to which students get financial information from their parents, Lachance and Choquette-Bernier (2004) found the relationship to be relatively weak. However, in that study, the scale was designed to capture the students' perceptions of their parents' attitudes towards debt specifically, which may or may not be sufficient by itself to indicate the relationship. It could also be the case that parental attitudes may not have a great influence on students while at college.

The literature does not include many studies in which the influence of financial attitude on financial self-efficacy features as a central concern. However, according to Dewi's (2022) investigation into this very issue, financial attitude does have an effect on financial self-efficacy. Thus, the following hypothesis is proposed:

H_2: Financial attitude has a significant influence on financial self-efficacy.

In terms of a person's financial life, attitude refers to how he/she thinks about and his/her general approach to financial decision-making and management (Arifin, 2018). Further, attitude encompasses a person's sense of confidence in this sphere and is determinative of financial capability (Shim et al., 2013). Through this relationship, Batty et al. (2015) found that a more positive attitude towards managing financial affairs had the effect of strengthening financial capability. A person who makes sound financial decisions can be termed financially capable. Thus, the following hypothesis is proposed:

H_3: Financial attitude has a significant influence on financial capability.

According to Mindra et al. (2017), financial self-efficacy has a fully mediating function in the relationship between financial attitude and financial inclusion and also financial self-efficacy mediates the relationship between financial literacy and financial inclusion to a significant extent. Through these relationships, those who have developed financial literacy to a high level and report a positive attitude towards managing their personal financial affairs express confidence in their ability to make beneficial choices regarding central financial issues pertinent to, for example, savings, credit, and insurance. On this basis, they seek access to regulated products and services offered by the financial industry. Thus, the following hypothesis is proposed:

H_4: Financial attitude has a significant indirect influence on financial inclusion through financial self-efficacy.

Defined as the basic understanding of financial concepts (Huston, 2010), financial knowledge has a marked influence on a person's economic stability and outlook (Hilgert et al., 2003). A relationship exists between a person's financial knowledge and his/her financial behavior (Civelek et al., 2019; Kalmi, 2018; Moreland, 2018) both in the present and in the long-term future (Kim et al., 2019). It has been shown, for example, that a high level of education focused on business subjects is positively related to a practice of ongoing personal saving (Belás et al., 2016; Nguyen et al., 2017) and also that financial knowledge has an influence on core financial decisions and practices such as borrowing, saving, and investment (Lusardi and Mitchell, 2014). The development of a high level of financial knowledge has a positive effect on retirement planning and investment (Mitchell and Lusardi, 2011; Robb and Woodyard, 2011). More specifically, financial knowledge has been strongly related to financial practices such as setting financial goals, scheduling payment obligations, and creating an emergency fund (Chu et al., 2017). Thus, the following hypothesis is proposed:

H_5: Financial knowledge has a significant influence on financial behavior.

Financial knowledge has been found to have a positive effect on financial self-efficacy (Amagir et al., 2018; Renaldo et al., 2021; Serido et al., 2013). By gaining an understanding of the broad financial concepts that underpin sound financial planning, individuals can succeed in protecting themselves financially. Thus, the following hypothesis is proposed:

H_6: Financial knowledge has a significant influence on financial self-efficacy.

In a more thoroughgoing sense, financial knowledge not only refers to a person's understanding of financial products and services in terms of immediate financial decision-making, but it also encompasses apprehension of micro-and macro-economics (Atlas et al., 2019; Rothwell et al., 2016). Researchers have argued that the extent to which consumers have gained financial knowledge should be determined in a very focused way with the goal of identifying the specific nature of its relationship with financial capability (Rothwell et al., 2016). According to Lusardi and Mitchell (2014), a person needs to understand financial markets and systems to drive financial capability. A relationship has been found between an actionable understanding of financial concepts and attitudes and behaviors that support sound financial decision-making, which over time can lead to a higher level of financial capability (Batty et al., 2015). Again in a more general sense, a person's overall level of formal education is also implicated such that poor financial behaviors, which are associated with limited financial capability, tend to be associated with a low level of formal education. Atkinson et al. (2006) even argued that the financial industry has shifted towards requiring a high level of financial capability on the part of consumers such that it is critical for researchers to afford the financial knowledge needed to achieve financial capability an important place in their investigations. Even though a handful of research studies have suggested that financial knowledge has a favorable effect on individuals' prospects related to future financial capability, more studies are needed to confirm or disprove conclusions in this regard (Batty et al., 2015). Thus, the following hypothesis is proposed:

H_7: Financial knowledge has a significant influence on financial capability.

In Lapp's (2010) account of the relationships between key financial concepts in a person's management of financial matters, financial self-efficacy is identified is the critical connection between financial knowledge operationalized as the effective use of formal financial service to thereby achieve financial inclusion in societal terms: Financial knowledge → Financial self-efficiency → Financial inclusion.

Given that financial knowledge is integral to financial literacy, Mindra et al. (2017) established that financial self-efficacy mediates to a significant extent the relationship between financial literacy and financial inclusion. As discussed in relation to H_8, consumers who have succeeded in developing a high level of financial literacy and a positive financial attitude are likely to report a high level of confidence in their ability to manage their financial affairs through multiple vehicles offered by the financial industry. Thus, the following hypothesis is proposed:

H_8: Financial knowledge has a significant indirect influence on financial inclusion through financial self-efficacy.

Determined by both structural elements within society (financial inclusion) and the characteristics of individuals, financial capability and financial behavior rely on the propensity to take action (financial self-efficacy) and opportunities to do so (Johnson and Sherraden, 2007). Inhering in the application of financial knowledge through beneficial financial behavior, financial capability (Potocki and Cierpiał-Wolan, 2019; Xiao et al., 2014) is demonstrated by financial behavior such that there is a positive relationship between financial capability developed to a high level and engagement in beneficial behaviors (Mitchell and Lusardi, 2011; Xiao et al., 2014). Thus, the following hypothesis is proposed:

H_9: Financial behavior has a significant influence on financial capability.

According to the OECD (2013), financial inclusion arises from a combination of consumers' awareness of and the external environment in relation to consumers' access to financial products and services. Further, in order to be considered accessible and, therefore, conducive to financial inclusion, those products and services must be relatively easy to understand and manage, affordable, and secure (Aprea et al., 2016; Nizam et al., 2020; Sherraden, 2013). In the most concrete terms, access to a bank account is strongly indicative of financial inclusion, which also supports consumers in making investments and managing risk effectively and, therefore, protecting and advancing the financial well-being of individuals and of a society in general (Kempson et al., 2013). Thus, the following hypothesis is proposed:

H_{10}: Financial inclusion has a significant influence on financial capability.

The association between the concept of self-efficacy and behavior has been empirically demonstrated across a range of contexts, including in sporting and career environments (Domingo and Buvanendra, 2021; Hepler and Feltz, 2012; Newman et al., 2019; Taylor and Betz, 1983). In terms of financial decision-making and management, in a study with Australian women comprising the sample, Farrell et al. (2016) reported that "self-belief" is needed to be effective in this sphere such that financial self-efficacy has a marked effect on personal finance behavior, determining, for example, both the number and the kinds of financial products and services accessed. That is, in the sample examined, compared with those with a lower level of financial self-efficacy, those with a higher level were more likely to have savings, to own insurance policies, to take out mortgages, and to hold investments in shares and property. It is also the case as one might reasonably expect that financial self-efficacy as demonstrated by budgeting, saving, and general financial planning leads to beneficial financial results for individual people (Perry and Morris, 2005). Moreover, according to a study with pre-retirees as the sample, Asebedo and Seay (2018) found that with socio-demographic attributes and financial characteristics controlled for financial self-efficacy, including saving behavior, is positively related to saving motives. Researchers have also found a positive relationship between financial self-efficacy and long-term investment decisions (Husnain, 2019) and between financial self-efficacy and the prospect of realizing a high equity allocation (Montford and Goldsmith, 2016). A relationship between financial self-efficacy and the propensity to take risk has also been demonstrated with a high level of financial self-efficacy associated with a low propensity to engage in a high level of risk (Forbes and Kara, 2010). Yet, the literature includes few studies focused on financial self-efficacy in terms of specific kinds of personal financial management behavior such that there is a need to evaluate financial self-efficacy in that regard to improve financial outcomes achieved by women (Farrell et al., 2016) and also by men.

In a study with undergraduate students comprising the sample, Arofah (2019) found that a high level of self-efficacy is associated with more effective financial management. Other studies in a similar vein in reference specifically to financial self-efficacy and financial management affirm that the extent of a person's self-efficacy has a determinative relationship with the effectiveness of his/her financial behavior (Danes and Haberman, 2007; Farrell et al., 2016).

Financial self-efficacy has been found to impact financial management behavior in general (Qamar et al., 2016) and saving behavior in particular (Lown et al., 2015). Thus, the following hypothesis is proposed:
H_{11}: Financial self-efficacy has a significant influence on financial behavior.

Financial self-efficacy refers to the ability to manage personal financial matters by accessing industry products and services and encompasses the ability to engage with complicated financial affairs (Amatucci and Crawley, 2011; Noor et al., 2020). Given that it has an impact on performance via a person's motivation, self-efficacy has the effect of mediating relationships between a number of variables. On this basis, it is implicated in the extent to which a person succeeds in meeting financial goals. It is also the case that domain-specific self-efficacy has a direct impact on an individual's specific financial choices and also exerts an influence albeit indirectly on how individuals perceive the financial results that accrue. Further, individual people have the potential to take the action needed to achieve a desired outcome if they have the self-efficacy required but also enough relevant financial knowledge (Noor et al., 2020). Thus, the following hypothesis is proposed:
H_{12}: Financial self-efficacy has a significant impact on financial inclusion.

Self-efficacy as defined in social learning theory (Bandura, 1977) refers to the extent to which individuals view themselves as having the competence needed to carry out a given task. In Farrell's et al. (2016) account, financial self-efficacy is positively associated with a person's financial management behavior. Specifically, he found that a high level of financial self-efficacy generally goes hand in hand with the use of investment and savings products and services. Likewise, in Amagir et al. (2018) and Arofah (2019), financial literacy and financial self-efficacy are each shown to have a positive impact on financial management behavior.

The relationship between financial self-efficacy and financial management behavior is conceptualized in reference to social cognitive theory (Djou and Lukiastuti, 2021). In approaching and completing any given task or managing any given situation, a person must have both the confidence and the skills needed to be successful. In terms of financial self-efficacy in particular, Amran (2011) described it as the individual's self-confidence relative to taking action to meet stated financial objectives. Financial self-efficacy has an influence on a person's propensity to access savings products and services (Lown et al., 2015) and on financial management behavior in a more overarching sense (Fanani and Saudale, 2019; Farrell et al., 2016; Putri and Pamungkas, 2019; Qamar et al., 2016). Derived from a high level of financial self-efficacy, a high level of financial capability is associated with more desirable financial behaviors and fewer risky financial behaviors (Xiao et al., 2014). In general, researchers have found that financial behavior mediates the relationship between financial self-efficacy and financial capability. Thus, the following hypothesis is proposed:
H_{13}: Financial self-efficacy has a significant indirect influence on financial capability through financial behavior.

In studies focused on developing countries, researchers have found financial self-efficacy to be a driver of financial inclusion, specifically in Uganda (Mindra and Moya, 2017) and Indonesia (Wijaya and Leon, 2019). In the case of Indonesia, the research lends weight to the government's efforts to educate the country's citizenry about financial products.

The concept of financial capability inheres in the motivation and ability of individuals but also in the opportunities afforded to them by the educational, financial industry, and regulatory landscape (Sherraden et al., 2015). In order to improve financial capability, it is necessary to render improvements to the behavior of individuals, but also to simultaneously render this landscape more approachable and accessible (Johnson and Sherraden, 2007; Sherraden, 2013; Sherraden et al., 2015).

Accordingly, financial inclusion has a mediating function between financial self-efficacy and financial capability. Thus, the following hypothesis is proposed:
H_{14}: Financial self-efficacy has a significant indirect influence on financial capability through financial inclusion.

3. DATA AND METHODOLOGY

3.1. Analytical Tools and Tests

This study focuses on investigating relationships between the following variables: financial attitude, financial knowledge, financial behavior, financial self-efficacy, financial inclusion, and financial capability. And, partial least squares structural equation modeling (PLS SEM)-one of the most widely used analysis techniques in the social sciences (Hair et al., 2021)-is used for the data analysis, which was performed in accordance with the guidelines set out by Anderson and Gerbing (1988). Firstly, the quality of the measurement model was examined through Confirmatory Factor Analysis (CFA) to validate the factor structure based on examining individual statements in terms of factor loading, composite reliability (CR), Cronbach's alpha, and Average Variance Extracted (AVE). These coefficients validated the statistical reliability and convergent validity of the measurement model, whereas discriminant validity was satisfied based on the Fornell-Larcker approach, the cross-loading approach, and the Heterotrait-Monotrait Ratio of Correlations (HTMT) approach. Secondly, the structural model was tested through path analysis to identify influences and generate mediation and moderation estimates.

3.2. Instrument Design

The questionnaire instrument used in this study was designed to support comprehensive investigations into multiple questions centered on financial literacy, inclusion, and efficacy in Saudi Arabia such that extensive data were collected. However, only data regarding the sample's sociodemographic background relevant to the present study are provided herein. For a more comprehensive account of the respondents' characteristics, please consult two studies by Al Rahahleh: In the first (2022), a thorough examination of financial literacy among Saudi citizens is presented, covering topics such as budgeting, debt, saving, investment, and insurance. In the second (2023), the relationship between financial literacy and financial inclusion in Saudi Arabia is examined with a focus on the role of financial self-efficacy as a mediator from the perspective of the demand-side.

In the present study, the respondents' perceptions were determined based on their answers to items in an online survey, which was used to collect the following personal and occupational information: Gender, age, marital status, educational level and major, employment sector/type of employment, sources of financial knowledge, and income sources and yearly income in Saudi Riyal. The remaining scales, all of which were adopted from prior studies, were designed to examine the respondents' perceptions in relation to the focal variables. The scales for financial attitude, financial knowledge, financial behavior, financial self-efficacy, and financial inclusion were all adopted from Al Rahahleh (2023), Perry and Morris (2005), and Robb and Woodyard (2011). The items for the financial capability scale, however, are from a study published by the Financial Industry Regulatory Authority (FINRA, 2012):

1. I am capable of obtaining at least SR 1000 in the event of an unexpected expense in the next month
2. I have sufficient funds to sustain for 3 months without a regular income
3. I am proficient in handling day-to-day financial matters, such as checking accounts, credit and debit cards, and tracking expenses.

3.3. Sampling, Data Screening, and Preparation

For the data collection, a link to the online survey was shared via social media channels in the period of April 2022 to June 2022. A total of 891 surveys were completed, and the data thus collected were then coded in SPSS. Based on this coding, four completed surveys were omitted from the final sample because the answers were found to have regular patterns, although no outliers were identified. Given these results from the coding, 887 questionnaires were considered valid and, therefore, subjected to further analysis. Normal distribution issues were not a concern in the data, and neither skewness nor kurtosis issues were found given that all the values were within the proposed range of +2.2-−2.2 (Sposito et al., 1983) for skewness and kurtosis.

Further, the scales were found to be free of any bias issue: the amount of explained variance was 30.774%, which is below Harman's single factor cutoff of below 50% (Podsakoff et al., 2012). Also, non-response bias was checked using the independent samples t-test to compare significant differences between early and late responses: Whenever a non-significant difference is found, a non-response bias has not occurred. The six variables were found to be free of non-response bias, as the results of the t-tests were non-significant. The t-test values were as follows: Financial Attitude (T = 0.727, P = 0.467), Financial Knowledge (T = 0.642, P = 0.521), Financial Behavior (T = 1.609, P = 0.108), Financial Self-efficacy (T = −0.253, P = 0.800), Financial Inclusion (T = 1.416, P = 0.157), and Financial Capability (T = −0.085, P = 0.932).

3.4. Demographic Profile

The sample was diverse in relation to all the standard demographic characteristics with the exception of gender:

- Gender: Both genders were included in the sample. However, male respondents accounted for a much larger proportion (79.0%, n = 701) as compared with female respondents (21.0%, n = 186).
- Age: The majority of the respondents were in the younger age groups: 25–34 (37.8%, n = 335), 18–24 (36.2%, n = 321), 35–44 (19.3%, n = 171), 45–54 (5.2%, n = 46), and more than 54 years 1.6% (n = 14).
- Marital status: The majority of the respondents were single, which is in line with expectations given the youthfulness of most of the sample: single (52.3%, n = 464), married (44.3%, n = 393), divorced (2.8%, n = 25), widowed (0.3%, n = 3), and other (0.2%, n = 2).
- Educational level: Overall, the respondents were found to have a high level of formal education, with percentages and numbers for the highest level engaged with as follows: diploma or less (46.0%, n = 408), bachelor (45.5%, n = 404), postgraduate (8.3%, n = 74), and other (0.1%, n = 1).
- Yearly income in Saudi riyal: Close to half the respondents were in the lowest income category of <19.999 (48.7%, n = 432), whereas the sample's composition relative to the higher-income levels was as follows: 20,000–99,999 (18.4%, n = 163), 100,000–149,999 (7.2%, n = 64), 150,000–199,999 (4.1%, n = 36), 200,000–499,999 (3.8%, n = 34), 500,000–99,999 (1.0%, n = 9), 1,000,000–4,999,999 (0.8%, n = 7), more than 5M (0.2%, n = 2), and income not reported (15.8%, n = 140).
- Source of income: The majority of the sample reported income from salary or wages as their only source of income (58.2%, n = 566), with the next largest group comprising students with no source of income (15.9%, n = 155) followed by students with a source of income (8.8%, n = 86). Those reporting their sole source of income as profits from a business comprised the next largest group (7.0%, n = 68). Smaller groups of respondents reported their sources of income as follows: rent only (3.2%, n = 31), salary and rent only (4.9%, n = 48), and other sources (2.0%, n = 19).
- Major: The respondents were diverse in relation to the subjects they had majored in, with the highest proportions with a background in areas related to finance: public administration (15.0%, n = 133), finance (13.4%, n = 119), business administration (11.3%, n = 100), accounting (10.8%, n = 96), economics (6.5%, n = 58), marketing (3.4%, n = 30), human resources (HR) (3.0%, n = 27), management information systems (MIS) (2.1%, n = 19), and others (34.4%, n = 305).

A complete list of majors reported by the respondents is available on request.

- Employment sector and status: The respondents worked in a broad range of sectors and varied in terms of employment status: public sector (31.7%, n = 281), student (30.1%, n = 267), private sector (27.1%, n = 240), and freelance (6.9%, n = 61). There was also a category designated as other (4.3%, n = 38), which included those who reported their status as retired, unemployed, or housewife.
- Source of knowledge related to financial awareness: The respondents reported gaining financial awareness from a number of sources: home (41.1%, n = 365), university major (18.6%, n = 165), prior mistakes (15.2%, n = 135), training courses (10.3%, n = 91), friends and colleagues (8.0%, n = 71), relatives (3.0%, n = 27), and other including the Internet and social media and self-education (3.7%, n = 33).

4. DESCRIPTIVE FINDINGS

4.1. Descriptive Analysis and Correlation Matrix

The descriptive analysis of our model variables is presented in Table 1: A high level of agreement was found for all the mean values, showing that the respondents had adequate Financial Attitude (4.29), Financial Knowledge (4.07), Financial Behavior (4.22), Financial Self-efficacy (4.10), Financial Inclusion (4.09), and Financial Capability (3.89). Also a high level of agreement among the respondents was found: The std. values were lower than 1, indicating agreement among the respondents.

The Pearson correlations presented in Table 2 provided initial support for the relationships between the variables. Significant positive moderate correlations were seen between the model predictors, which did not show any high correlations in relation to multicollinearity issues. Financial Self-efficacy correlated significantly with aspects of Financial Literacy, including the strongest correlation with Financial Knowledge (r = 0.532**). On the other hand, the strongest predictor of Financial Capability was Financial Self-efficacy (r = 0.627**).

4.2. Stage 1: Examining the Quality of the Measurement Model

Stage 1 of PLS modeling entails examining the quality of the measurement model through Confirmatory Factor Analysis (CFA) in order to validate the factor structure in terms of the individual statements' factor loading, composite reliability (CR), Cronbach's alpha, and Average Variance Extracted (AVE). These coefficients validate the statistical reliability and convergent validity of the measurement model. Discriminant validity was satisfied based on the Fornell-Larcker approach, the cross-loading approach, and the Heterotrait-Monotrait Ratio of Correlations (HTMT) approach (Hair et al., 2021).

According to the CFA findings, the individual statements' Factor Loading (FL) values were higher than the cutoff value of 0.50 cutoff and most were above the preferred cutoff value of 0.70 along with t-values higher than 1.96 and $P < 0.05$. However, based on the AVE coefficients, decreases were seen for the Financial Knowledge and Financial Inclusion factors. The statements with the lowest FL values (FK1, FI2, and FI5) were, therefore, dropped to enhance the AVE coefficients.

The convergent validity of the model was satisfied based on the findings presented in Table 3. All the retained statements had an FL value higher than the cutoff value of 0.50 and most were below the preferred cutoff value of 0.70, with significant t-values higher than 1.96 and $P < 0.05$. The CR coefficients were found to be higher than the cutoff value of 0.70, thereby showing adequate convergent validity and internal consistency: Financial Attitude (0.828), Financial Knowledge (0.825), Financial Behavior (0.838), Financial Self-efficacy (0.868), Financial Inclusion (0.844), and Financial Capability (0.854). The same results accrued for the Cronbach's alpha coefficients, which were higher than the cutoff value of 0.70 and, therefore, contributed to the internal consistency and statistical reliability of the model: Financial Attitude (0.723), Financial Knowledge (0.718), Financial Behavior (0.758), Financial Self-efficacy (0.810), Financial Inclusion (0.754), and Financial Capability (0.747). Also, the AVE coefficients were higher than the cutoff value of 0.50 such that

Table 1: Descriptive analysis (n=887)

Number	Variable	Mean	Level	SD	Minimum	Maximum
1	Financial attitude	4.29	High	0.63	1.50	5.00
2	Financial knowledge	4.07	High	0.70	1.00	5.00
3	Financial behavior	4.22	High	0.64	2.00	5.00
4	Financial self-efficacy	4.10	High	0.75	1.00	5.00
5	Financial inclusion	4.09	High	0.68	1.00	5.00
6	Financial capability	3.89	High	0.95	1.00	5.00

SD: Standard deviation

Table 2: Correlation matrix (n=887)

Number	Variable	1	2	3	4	5	6
1	Financial attitude	1					
2	Financial knowledge	0.530**	1				
3	Financial behavior	0.515**	0.384**	1			
4	Financial self-efficacy	0.523**	0.532**	0.461**	1		
5	Financial inclusion	0.458**	0.550**	0.443**	0.588**	1	
6	Financial capability	0.387**	0.453**	0.386**	0.627**	0.469**	1

**Correlation is significant at the (0.01) level

Table 3: Confirmatory factor analysis report (n=887)

Statement	FL	t	Cronbach's α/CR/AVE
Financial attitude			
FA1: Setting goals for the future is crucial	0.717	28.567***	Cronbach's α (0.723)
FA2: I ensure prompt payment of my bills	0.740	27.944***	CR (0.828)
FA3: I maintain a vigilant personal oversight of my financial situation	0.812	56.874***	AVE (0.547)
FA4: I am willing to invest, at risk, a portion of my own funds for savings or investment purposes	0.684	27.469***	
Financial knowledge			
FK2: I excel in calculations such as profit/loss, percentages, etc.	0.726	30.533***	Cronbach's α (0.718)
FK3: Investments with a high yield tend to be accompanied by a high level of risk	0.756	35.475***	CR (0.825)
FK4: Rapidly rising cost of living is a hallmark of high inflation	0.751	34.357***	AVE (0.541)
FK5: If prices soar, the purchasing power of savings could be severely diminished	0.709	27.064***	
Financial behavior			
FB1: I set long-term financial objectives that guide my spending habits	0.750	32.051***	Cronbach's α (0.758)
FB2: I adhere to a weekly or monthly budget for expenses	0.764	36.656***	CR (0.838)
FB3: I compare prices before making a purchase	0.644	21.168***	AVE (0.510)
FB4: I assess my financial status prior to a significant purchase	0.639	21.728***	
FB5: I have a strategy in place to reach my financial goals (retirement, savings, investments, etc.)	0.762	40.929***	
Financial self-efficacy			
FSE1: I am self-assured in managing my finances	0.766	41.647***	Cronbach's α (0.810)
FSE2: I can easily spend less than my income each month	0.763	35.837***	CR (0.868)
FSE3: I can comfortably deposit money into the bank to plan for the future	0.797	45.577***	AVE (0.570)
FSE4: I have the ability to obtain a loan from the bank	0.654	22.216***	
FSE5: I have the necessary skills to utilize financial services to achieve my financial goals	0.784	46.870***	
Financial inclusion			
FI3: I am knowledgeable about conventional financial products and services (savings, loans, insurance, and payments/remittances)	0.759	34.486***	Cronbach's α (0.754) CR (0.844)
FI4: I have employed my savings account to prepare for future expenses	0.811	48.306***	AVE (0.575)
FI5: I am aware of the necessary documentation to open a bank account	0.688	22.858***	
FI6: I receive timely information regarding my financial transactions	0.771	37.182***	
Financial capability			
FC1: I am capable of obtaining at least SR 1,000 in the event of an unexpected expense in the next month	0.813	45.248***	Cronbach's α (0.747) CR (0.854)
FC2: I have sufficient funds to sustain for 3 months without a regular income	0.817	48.339***	AVE (0.661)
FC3: I am proficient in handling day-to-day financial matters, such as checking accounts, credit and debit cards, and tracking expenses	0.808	50.689***	

***P<0.001. AVE: Average variance extracted, CR: Composite reliability

Source: The author adapted questionnaires originally developed by Al Rahahleh (2023), Perry & Morris (2005), and Robb & Woodyard (2011), as well as the Financial Industry Regulatory Authority (FINRA, 2012), to align them more effectively with the specific goals of the study.

they contributed to the convergent validity of the model: Financial Attitude (0.547), Financial Knowledge (0.541), Financial Behavior (0.510), Financial Self-efficacy (0.570), Financial Inclusion (0.575), and Financial Capability (0.661).

In regard to discriminant validity as a basis for checking significant variance between the model variables, three approaches were adopted. Firstly, according to the Fornell and Larcker (1981) approach, as shown in Table 4, the square root of the AVE of each factor was higher than the factor correlations with the remaining model factors. According to the HTMT approach (Henseler et al., 2015), as shown in Table 5, the coefficients were lower than 1 with most below 0.85, the preferred cutoff. Finally, according to the cross-loading approach, as shown in Table 4, the item loading for each factor was greater than its FL in the other factors.

4.3. Stage 2: Examining the Paths of the Structural Model

To test the associations between the model variables, the structural model was evaluated through path analysis and the quality of the structural model was examined based on the coefficients of explained variance (R^2). The full model comprising all the variables explained a satisfactory amount of variation in the predicted variables given the coefficient values: Financial Behavior (R^2 = 32.5%), Financial Self-efficacy (R^2 = 37%), Finanical Inclusion (R^2 = 36.2%), and Financial Capability (R^2 = 32.1%). Further, the possibility of a multicollinearity issue between the model variables was examined: The Variance Inflation Factor (VIF) coefficients were lower than the cutoff value of 10, suggesting that the structural model was free of the multicollinearity issue (Pallant, 2020). The structural model estimates are presented in Figure 1, and the path estimates for the proposed hypotheses were as follows:

H_1: Financial attitude has a significant influence on financial behavior.

The path estimate was B = 0.340, P = 0.000, which reflects a significant positive influence and thereby supports H_1.

H_2: Financial attitude has a significant influence on financial self-efficiency.

The path estimate was B = 0.358, P = 0.000, which reflects a significant positive influence and thereby supports H_2.

H_3: Financial attitude has a significant influence on financial capability.

Table 4: Discriminant validity based on the cross-loading approach (n=887)

Label	Financial attitude	Financial behavior	Financial capability	Financial inclusion	Financial knowledge	Financial self-efficacy
FA1	0.717	0.365	0.251	0.315	0.369	0.355
FA2	0.740	0.369	0.243	0.349	0.337	0.378
FA3	0.812	0.432	0.325	0.407	0.394	0.438
FA4	0.684	0.358	0.347	0.320	0.426	0.401
FB1	0.353	0.750	0.344	0.315	0.271	0.367
FB2	0.381	0.764	0.283	0.334	0.256	0.354
FB3	0.361	0.644	0.218	0.303	0.250	0.294
FB4	0.380	0.639	0.183	0.276	0.296	0.270
FB5	0.377	0.762	0.371	0.405	0.325	0.387
FC1	0.305	0.295	0.813	0.361	0.313	0.524
FC2	0.261	0.298	0.817	0.374	0.322	0.471
FC3	0.385	0.369	0.808	0.444	0.444	0.544
FI3	0.315	0.330	0.368	0.759	0.399	0.425
FI4	0.387	0.418	0.440	0.811	0.389	0.508
FI5	0.340	0.312	0.293	0.688	0.415	0.392
FI6	0.389	0.327	0.367	0.771	0.381	0.487
FK2	0.341	0.315	0.386	0.437	0.726	0.399
FK3	0.364	0.278	0.354	0.398	0.756	0.408
FK4	0.436	0.304	0.295	0.364	0.751	0.384
FK5	0.390	0.251	0.283	0.314	0.709	0.351
FSE1	0.460	0.413	0.485	0.453	0.398	0.766
FSE2	0.375	0.334	0.486	0.416	0.351	0.763
FSE3	0.435	0.397	0.477	0.488	0.397	0.797
FSE4	0.280	0.262	0.457	0.414	0.353	0.654
FSE5	0.441	0.357	0.495	0.492	0.473	0.784

Table 5: Discriminant validity based on the Fornell and Larcker approach and the heterotrait-monotrait ratio of correlations approach (n=887)

Variable	Fornell and Larcker						HTMT					
	1	2	3	4	5	6	1	2	3	4	5	6
Financial attitude	0.740											
Financial behavior	0.517	0.714					0.700					
Financial capability	0.398	0.400	0.813				0.524	0.512				
Financial inclusion	0.473	0.460	0.489	0.758			0.636	0.602	0.635			
Financial knowledge	0.517	0.392	0.452	0.517	0.736		0.720	0.529	0.596	0.704		
Financial self-efficacy	0.534	0.472	0.635	0.602	0.526	0.755	0.687	0.593	0.812	0.763	0.683	

The path estimate was B = 0.083, P = 0.048, which reflects a significant positive influence and thereby supports H_3.

H_4: Financial self-efficacy mediates the influence between financial attitude and financial inclusion.

The path estimate for the indirect influence was B = 0.215, P = 0.000, which reflects a significant indirect influence and thereby supports H_4.

H_5: Financial knowledge has a significant influence on financial behavior.

The path estimate was B = 0.086, P = 0.019, which reflects a significant positive influence and thereby supports H_5.

H_6: Financial knowledge has a significant influence on financial self-efficacy.

The path estimate was B = 0.340, P = 0.000, which reflects a significant positive influence and thereby supports H_6.

H_7: Financial knowledge has a significant influence on financial capability.

The path estimate was B = 0.208, P = 0.000, which reflects a significant positive influence and thereby supports H_7.

H_8: Financial self-efficacy mediates the influence between Financial Knowledge and Financial Inclusion.

The path estimate was B = 0.205, P = 0.000, which reflects a significant indirect influence and thereby supports H_8.

H_9: Financial behavior has a significant influence on financial capability.

The path estimate was B = 0.151, P = 0.000, which reflects a significant positive influence and thereby supports H_9.

H_{10}: Financial inclusion has a significant influence on financial capability.

Table 6: Summary of path estimates (n=887)

H	Path	Beta	Decision
H_1	Financial attitude → financial behavior	0.340*	Supported
H_2	Financial attitude → financial self-efficacy	0.358*	Supported
H_3	Financial attitude → financial capability	0.083*	Supported
H_4	Financial attitude → financial self-efficacy → financial inclusion	Indirect (0.215*)	Supported
H_5	Financial knowledge → financial behavior	0.086*	Supported
H_6	Financial knowledge → financial self-efficacy	0.340*	Supported
H_7	Financial knowledge → financial capability	0.208*	Supported
H_8	Financial knowledge → financial self-efficacy → financial inclusion	Indirect (0.205*)	Supported
H_9	Financial behavior → financial capability	0.151*	Supported
H_{10}	Financial inclusion → Financial capability	0.272*	Supported
H_{11}	Financial self-efficacy → financial behavior	0.246*	Supported
H_{12}	Financial self-efficacy → financial inclusion	0.602*	Supported
H_{13}	Financial self-efficacy → financial behavior → financial capability	Indirect (0.037*)	Supported
H_{14}	Financial self-efficacy → financial inclusion → financial capability	Indirect (0.164*)	Supported
Financial behavior (R^2=32.5%)			
Financial self-efficacy (R^2=37%)			
Financial inclusion (R^2=36.2%)			
Financial capability (R^2=32.1%)			

*P<0.05

The path estimate was B = 0.272, P = 0.000, which reflects a significant positive influence and thereby supports H_{10}.

H_{11}: Financial self-efficacy has a significant influence on financial behavior.

The path estimate was B = 0.246, P = 0.000, which reflects a significant positive influence and thereby supports H_{11}.

H_{12}: Financial self-efficiency has a significant influence on financial inclusion.

The path estimate was B = 0.602, P = 0.000, which reflects a significant positive influence and thereby supports H_{12}.

H_{13}: Financial behavior mediates the influence between financial self-efficacy and financial capability.

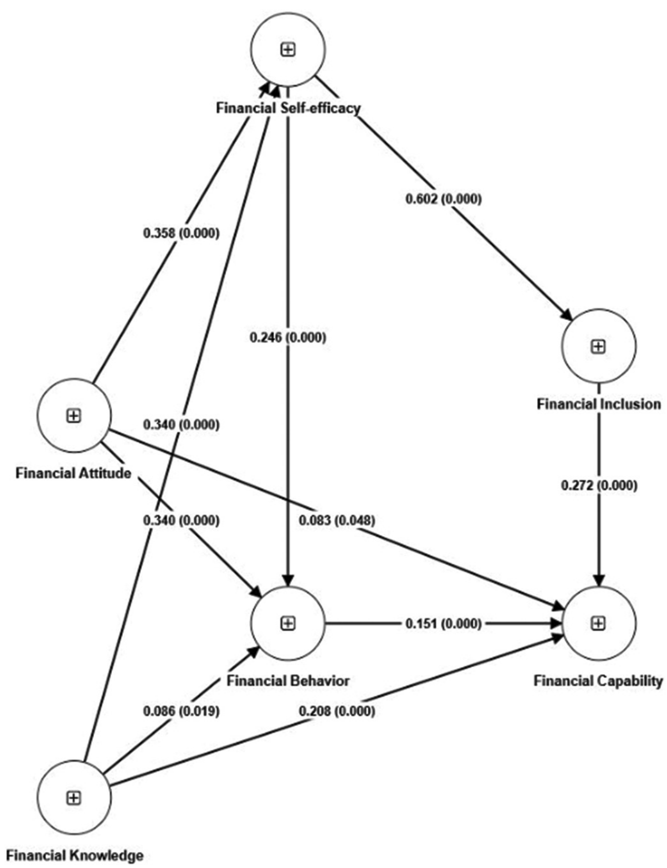
The path estimate was B = 0.037, P = 0.006, which reflects a significant indirect influence and thereby supports H_{13}.

H_{14}: Financial inclusion mediates the influence between financial self-efficacy and financial capability.

The path estimate was B = 0.164, P = 0.000, which reflects a significant indirect influence and thereby supports H_{14}.

A summary of the path estimates is presented in Table 6.

Figure 1: Structural model estimates



5. DISCUSSION

The purpose of this study was to investigate the influences between a number of variables pertinent to citizens' ability to access and function in relation to the formal financial environment, i.e., Financial Attitude, Financial Knowledge, Financial Behavior, Financial Self-efficacy, Financial Inclusion, and Financial Capability. The model proposes direct and indirect influences to deepen the field's understanding of how financial capability, financial inclusion, and financial self-efficacy are determined among Saudi citizens. A sample consisting of 887 valid responses was subjected to PLS path modeling, and the findings provided support for all the hypotheses investigated.

Building financial capability relies on supporting multiple mechanisms that rely, in turn, on multiple interdependent relationships. Overall, the literature supports this statement, but does not explore all these relationships in detail. The present study constitutes a step towards addressing this research gap by setting a new direction and providing a new model to inform and drive future research.

In terms of the relationships proposed in the model, it is evident that each of the focal variables is vital in determining the extent to which an individual and a society as a whole can develop financial capability and realize financial inclusion. Given its interest in building financial capability among its country's citizens, the Saudi government, and, indeed, the governments of many other countries, would be well-advised to consider extensive programming efforts in which all the aspects included in the model investigated herein are taken into account, i.e., financial attitude, financial knowledge, financial behavior, financial self-efficacy, and financial inclusion.

According to the study findings, the three dimensions of financial literacy, i.e., financial attitude, financial knowledge, and financial behavior, are interrelated, which is in line with findings reported in prior studies. On this basis, it is reasonable to conclude that financial knowledge and financial attitude have a determining influence on and are predictive of individuals' financial behavior. These components were also found to have a vital role in determining financial self-efficacy and actual financial behavior, both of which arise from and influence financial literacy,

Financial self-efficacy, which is an outcome of the financial literacy components, was found to be a prerequisite for achieving financial inclusion, such that its part in various relationships between the components is an essential consideration in this regard—particularly as a predictor of financial capability. In fact, the findings support direct and indirect mechanisms in terms of building financial capability as mainly determined by either components or outcomes of financial literacy such as self-efficacy. Indeed, these findings reveal interdependent relationships between self-awareness aspects, including financial literacy, financial inclusion, and financial self-efficacy. Hence, those looking to build a positive personal financial life would achieve it by developing financial capability through the variables examined herein.

Overall, a set of direct and indirect mechanisms were examined in relation to predicting financial capability, and interrelationships and interdependency were found among them. However, the findings presented are only the beginning of this research direction such that more research effort is needed to extend this work to confirm and complicate our understanding of the relationships identified and to integrate more aspects into the model.

6. CONCLUSION

Addressing the predictors of financial capability in a developing country context such as the Kingdom of Saudi Arabia is a vital contribution to advancing the field's understanding of individual aspects related to determining the extent of an individual's financial inclusion and the extent to which a country has realized financial inclusion as determined by its educational, socio-economic, and regulatory environments.

As the sequential process in which financial literacy and financial self-efficacy are mutually dependent and also influence financial inclusion and financial capability remains open to debate, the proposed model comprises both direct and indirect mechanisms in relation to determining the pathways through which financial capability is determined. The findings support all the relationships and roles proposed, showing that financial literacy, achieved, maintained, and advanced through many components, is the vital starter for subsequent determinants of financial capability.

Additionally, the findings indicate the need for more effort to raise the level of financial awareness among Saudi citizens. The findings provide a comprehensive picture of how financial capability is determined, which should be considered by all governments, agencies, and institutions with responsibility for providing financial education to citizens.

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