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**Title:** Financial Well-being among Generation Y: Exploring the Impact of Financial Awareness, Experience, Skills, and the Roles of Financial Capability and Self-Control

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The author (s) declared no conflict of interest and have not received any funds for the project.

# Financial Well-being among Generation Y: Exploring the Impact of Financial Awareness, Experience, Skills, and the Roles of Financial Capability and Self- Control

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## Abstract

This study investigates the relationship between financial well-being among Generation Y in Karachi, focusing on three key variables: financial awareness, experience, and skills. It aims to identify the mediating role of financial capability and the moderating influence of self-control in these relationships. The research is based on social learning and social cognitive theories. Data was collected through a nonprobability purposive sampling method. Information was gathered via online surveys using a 5-point Likert scale and analyzed with Partial Least Squares Structural Equation Modeling (PLS-SEM). Results showed direct effects on financial awareness, financial socialization, and financial capacity. Additionally, positive but statistically insignificant links were observed between financial awareness, experience, skills, and financial capability. Similarly, "the mediating role of financial capability and the moderating effect of self-control on the relationship between financial capability and financial well-being were positive yet statistically insignificant." The study recommends improved financial education, personalized coaching, and a stronger culture of financial mentorship to boost financial

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well-being. Suggestions include incorporating financial wellness programs into workplaces and educational institutions, leveraging digital tools, sharing success stories, and encouraging collaboration among financial institutions, educational organizations, and employers. This research enhances understanding of financial well-being among Generation Y in Karachi, emphasizing the importance of targeted financial education and the benefits of a comprehensive approach involving various stakeholders. By acknowledging its limitations and advocating for future research on factors such as cultural influences and gender differences, the study enhances its originality and value.

**Keywords:** *Financial well-being, Generation Y, Financial capability, financial awareness, Pakistan.*

## Introduction

Financial well-being is the efficiency and effectiveness of managing financing smartly without stress. It is further defined as feeling confident and secure in financial decision-making based on financial resources and knowledge (Ramadani et al., 2023). Factors impacting financial well-being are classified into three categories: socioeconomic, psychological, and environmental; each plays a pivotal role in shaping financial outcomes (Müller, 2023). Financial capability, which refers to the blend of financial knowledge, skills, and behaviors, is observed as a mediator between these factors and financial well-being, strengthening decision-making and managerial practices (Dako-Gyeke et al., 2023). Moreover, self-control is defined as a moderator, recommending that individuals with higher self-control may leverage their financial capability more effectively, leading to improved financial results (Dare et al., 2023).

The research problem explores the considerable financial challenges Generation Y faces in Pakistan, which prominently affect their overall quality of life due to weak financial decisions in timely manners and sense of well-being. Fundamental issues include elevated housing costs, a highly competitive job market with limited opportunities, and a profound financial literacy, complicating youth's ability to manage finances effectively and efficiently (Guo & Huang, 2023). Moreover, Generation Y depends on digital financial gadgets, which, while convenient, compel them to think of associated risks like fraud and identity theft, further undermining their financial security (Munir & Siddiqui, 2023). Coupled with financial pressures for instant due liabilities and unemployment, the other factors contribute to increased stress and mental health, impacting their decision-making capabilities (Wutun et al., 2023).

The core motivation of this research is the immediate need to understand the financial well-being of Generation Y in Karachi (Karachi is considered a mini Pakistan;

the findings of this research can be generalized over the entire Pakistan), specifically as they navigate unique financial challenges as aforesaid. This study aims to fill this remaining gap in knowledge by looking into how financial awareness, experience, and skills, along with the mediating role of financial capability and the moderating effect of self-control, influence their financial well-being. By analyzing these unraveled areas, the research seeks to provide first-hand insight that may help enhance Generation Y's financial stability and satisfaction in Karachi.

The research gap identified in this study focuses on the unveiled financial well-being of Generation Y in Karachi, Pakistan, a group with unique financial circumstances, multifaceted challenges, and dynamic behaviors (Guo & Huang, 2023). To the best of our knowledge, no comprehensive research has been conducted in the context of Pakistan in detail. Therefore, there is an urgent need for detailed research in this area. Despite previous research on financial health, little attention has been given to the specific impact of financial awareness, experience, and skills on financial capability and, subsequently, on the financial well-being of this demographic (Xiao et al., 2022). Moreover, existing studies have largely overlooked how financial capacity mediates the association between these factors and financial well-being and how self-control might moderate this relationship, with most studies not considering the reasonable interactions among these selected variables (Birkenmaier et al., 2022).

This research aims to fill these gaps by “investigating the roles of financial awareness, experience, and skills, the mediating role of financial capacity, and the moderating effect of self-control on financial well-being among Generation Y in Karachi,” thus contributing new insight and fresh to the literature on financial well-being. Moreover, by highlighting financial capacity as a mediating variable, the study aims to deepen the understanding of how individuals may improve their finances through improved financial competence and efficient financial decision-making. This knowledge is vital for enhancing financial education and empowerment initiatives to bolster Generation Y's financial capabilities and well-being. Moreover, the study examines self-control as a potential moderating factor (which has surely not been tested in Pakistan), aiming to know how it influences the financial well-being of individuals. Insights into the interplay between self-control and financial decisions may inform strategies to promote prudent financial behaviors and effective decision-making among Generation Y, ultimately leading to better financial results.

The uniqueness of this study lies in its detailed investigation of the financial well-being of Generation Y in Karachi. This demographic has not yet been extensively studied in previous research. Unlike prior studies, which have broadly examined financial health

without a deep dive into the specific influences of financial capability and self-control (as mediating and moderating variables), this research employs a novel approach by incorporating these factors into the analysis. It also utilizes social learning and cognitive theories to understand the underlying mechanisms that influence financial behaviors.

The remaining part of the study is divided into four more segments: literature review, methodology, results and discussion, and conclusion and recommendation. A literature review will encompass relevant theories, hypothesis development, and recent research findings. The methodology will cover the research process and model development. Results and discussion will illustrate the obtained results. Lastly, the discussion and recommendations will focus on detailed and important discussions and suitable recommendations.

## **Literature Review**

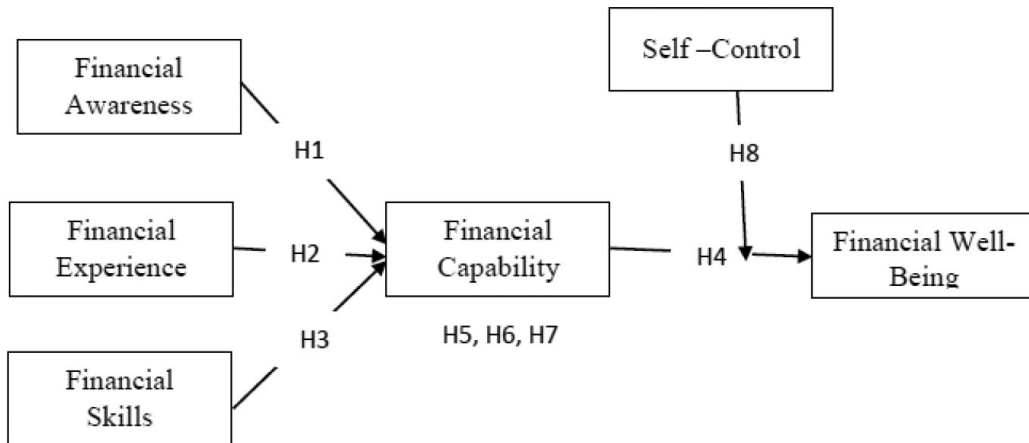
### **Theoretical Underpinning**

Social Cognitive Theory (SCT) and Social Learning Theory, presented by Albert Bandura, provide insights into how individuals develop financial behaviors and capabilities. SCT focuses on the interplay amid personal behaviors, environmental factors, and cognitive processes, specifically noting the roles of self-efficacy, observational learning, and self-regulation in financial decision-making (Bandura, 1986; Bandura & Walters, 1977). It recommends that individuals learn to manage their finances by benchmarking peers and mentors, with self-control playing a crucial role in effectively and efficiently applying financial knowledge, experience, and skills toward achieving financial well-being. The effect of these financial factors on the financial health of individuals is further moderated via their level of self-control (Naderi & Wohn, 2023).

Consequently, Social Learning Theory enlightens that financial learning is developed within social contexts, as individuals mimic the financial behaviors of those in their social networks and are influenced by the observed outcomes of these behaviors. This theory highlights the value of rewards in shaping financial behaviors, recommending that observing the benefits of efficient financial decisions encourages replication of these behaviors while showcasing negative outcomes deters undesirable financial actions (She et al., 2023). These insights recommend that financial well-being interventions may be optimized by controlling the power of social influences and the pivotal role of role models in financial education.

## Conceptual Framework

By extending the Social Cognitive Theory, the study has developed a theoretical model containing three mediating and one moderating hypothesis for direct. Figure 1 depicts the model.



**Figure 1: Conceptual Framework**

## Empirical Studies

Recent studies have examined the solid relationship between financial literacy (FL), financial capability (FC), and financial well-being (FW), as well as the impact of non-cognitive traits, such as instant self-control and novel interaction behaviors (NIB). Tahir et al. (2021) found that FC serves as a partial mediator between FL and FW, with NIB enhancing the impact of FL on FC and FW, particularly for individuals with strong or adequate NIB scores. Iramani and Lutfi (2021), by a comprehensive model involving 1,158 households, enlighten the direct impact of marital status, financial condition, knowledge, and experience on FW, underscoring the impactful role of financial behavior. Nevertheless, Xiao et al. (2022) focused on the vital role of financial behavior over skill and knowledge for the financial well-being of vulnerable customers, advocating for empowering low-income customers through beneficial financial practices.

Further research has enhanced the understanding of financial well-being through various lenses, including socioeconomic and demographic effects on financial literacy and decision-making. Dewi (2022) investigated the effect of socio-demographic factors on financial literacy amongst Indonesian academicians, and the findings revealed effects based on ethnicity, gender, age, and specialization. Guo and Huang (2023) emphasized the financial capabilities of low-income entrepreneurs, expressing their reduced access

to traditional financial products and higher reliance on high-fee alternative financial services. In contrast, (Davydenko et al., 2021) focused on the effect of a personal finance program on Indonesian undergraduates, noting a valuable improvement in financial literacy but not in attitudes or behaviors towards finances or financial management.

The systematic literature review analysis based on the above research points to a rich exploration of the “indicators and impacting factors of financial well-being,” including the important role of financial behavior, the mediation effect of financial capability, and the essential of non-cognitive traits like self-control. Moreover, various unraveled areas remained, particularly the long-term impact of financial education programs on behavior and attitudes toward financial literacy, the differential effects of financial socialization across cultures and socioeconomic backgrounds, and the vital role of digital financial services in enhancing financial well-being. Future research may be important to address identified literature gaps, focusing on the longitudinal study of the efficacy of financial education, cross-cultural comparisons of financial socialization processes, and the evolving landscape of digital financial inclusion and its implications for financial capability and well-being.

Financial well-being refers to the efficiency and effectiveness of managing finances wisely without stress. It is further defined as feeling confident and secure in financial decision-making based on financial resources and knowledge (Ramadani et al., 2023). Researchers assert that psychological and socioeconomic factors, in addition to other factors, are important precursors of financial outcomes (Müller, 2023). At the same time, the extant literature suggests that financial capability encompasses financial knowledge, skills, and behavior, which mediate financial well-being and managerial practices (Dako-Gyeke et al., 2023). However, past studies noted that self-control has a varying effect on financial capability and improved financial outcomes (Dare et al., 2023). Many past studies have noted that Generation Y in Pakistan has adversely affected their well-being due to low financial skills and weak decision-making. Moreover, the Young generation, especially in developing countries like Pakistan, suffers from the high cost of living and a highly competitive job market. As a result, they are unable to manage their finances efficiently (Guo & Huang, 2023). Furthermore, studies noted that Generation Y's dependence on digital financial gadgets has increased profoundly. Therefore, they focus on fraud and identity theft, and as a result, it also undermines their financial security (Munir & Siddiqui, 2023)

The core motivation of this research is the immediate need to understand the financial well-being of Generation Y in Karachi, as Karachi is considered a microcosm of Pakistan; the findings of this research can be generalized to the entire country. Specifically,

this research aims to explore the unique financial challenges faced by Generation Y in Karachi. This study aims to fill the remaining gap in knowledge by examining how financial awareness, experience, and skills, along with the mediating role of financial capability and the moderating effect of self-control, influence financial well-being. By analyzing these unraveled areas, the research seeks to provide first-end insight that may help enhance Generation Y's financial stability and satisfaction in Karachi.

We found limited studies that have examined the mediating role of financial capability on financial well-being and the moderating role of self-control between financial capability and financial well-being (Birkenmaier et al., 2022). Given this gap, the study has examined the mediating role of financial capability between (i) Financial awareness and financial well-being, (ii) financial experience and financial well-being, and (iii) Financial skills and financial well-being. Moreover, we have contributed to the body of knowledge by examining the moderating role of self-control between financial capability and financial well-being.

Insights into the interplay between self-control and financial decisions may inform strategies to promote prudent financial behaviors and effective decision-making among Generation Y, ultimately leading to better financial results.

This study's uniqueness lies in its detailed investigation of the financial well-being of Generation Y in Karachi. Previous research has not extensively studied this demographic.

## **Development of the Hypotheses**

### **Financial Awareness and Financial Capability**

Financial awareness is an important precursor of financial capability, which includes knowledge, attitude, and financial behaviors (Guo & Huang, 2023). Individuals with high financial awareness understand financial concepts, products, and systems (Wutun et al., 2023). As a result, such individuals can make informed financial decisions and manage finances efficiently (Guo & Huang, 2023). Moreover, sound financial awareness enables individuals to create rational budgets, save, invest, and manage their finances effectively (Munawar, 2023). Moreover, numerous past studies have documented that financial awareness is a precursor to financial independence, wise decision-making, and overall financial health (Wutun et al., 2023). Furthermore, healthy financial awareness allows individuals to educate themselves with the tools for financial stability, security, and satisfaction. Additionally, the existing literature notes that financial awareness enables individuals to plan for the future and adapt to changing economic conditions (Wutun et al., 2023). Extending Social Learning Theory (SLT), studies noted that financial

awareness enhances interactions with family, friends, educational systems, and media (Kiwanuka & Sibindi, 2023). Moreover, the theory posits that social interactions facilitate individuals' ability to learn and apply financial knowledge, which is crucial for achieving financial well-being (Munawar, 2023). Extending this argument, researchers assert that, in addition to other factors, financial awareness depends on financial education and observing how others use and apply financial knowledge.

*H1: "Financial awareness has a positive effect on financial capability."*

### **Financial Experience and Financial Capability**

Social Learning Theory suggests that individual financial behavior is largely governed by social norms, peers, family, and educational institutions. Researchers believe individuals' financial behavior promotes sensible money management practices. Numerous studies have demonstrated that parents play a crucial role in instilling financial literacy in their children (Smolo et al., 2023). Moreover, studies have shown that financially literate parents serve as role models for their children. By observing the financial behavior, they learn and adopt the same behavior (Wutun et al., 2023). Moreover, researchers assert that financial experience and cumulative exposure to various situations promote financial capability. Skills, knowledge, and attitudes are also essential for effective and efficient money management (Ramadani et al., 2023). Additionally, such financial experience enables individuals to make informed financial decisions. As a result, their confidence in managing finances increased significantly (Wutun et al., 2023)

Additionally, financial experience is instrumental in enhancing financial capability by providing practical exposure, improving financial management skills, and building confidence. These real-world lessons significantly contribute to better financial well-being as they equip individuals to make informed, effective, and efficient financial decisions (Stutts, 2022).

*H2: "Financial experience has a positive effect on financial capability".*

### **Financial Skills and Financial Capability**

According to social learning theory, people learn personal finance skills from their parents by observation. These experiences include being exposed to money through one parent, realizing the need to work to support oneself financially, learning that money gives one access to desired products and services, picking up parental attitudes and behaviors, and learning about saving and spending habits. Individuals may acquire financial information, skills, and behavior by observation and interaction with family,

friends, and community members (Nizam et al., 2023).

Moreover, friends and the community play secondary roles, such as family and cultural values, which become more significant sources of influence and knowledge for an individual. The socioeconomic status of people and families affects the accessibility and availability of resources within a community (Oyeniya et al., 2022). Theoretically, people imitate the financial behaviors they perceive from their parents and elders, practicing and learning by observation while making financial decisions. A solid grasp of financial concepts and skills helps individuals manage their finances and support important financial reform initiatives (Munawar, 2023).

Financial skill is a vital component of financial capability, and it includes the practical knowledge needed to cop up one's resources effectively and efficiently. Financial capability is greatly influenced by having sound financial skills, which allows individuals to make prudent financial decisions and take charge of their financial lives (Müller, 2023). The capacity to indicate potential risks, evaluate financial possibilities, and make well-informed financial decisions is enhanced by having sound financial skills. They allow people to spot development possibilities, avoid hazards, and make prudent financial plans. People with strong financial literacy may make the most of their financial decisions by dealing with complicated financial environments and comprehending financial goods and services. Financial skills positively impact financial capability by giving people the practical skills to make prudent financial decisions and successfully manage their resources (Guo & Huang, 2023). individuals may improve their financial well-being, establish financial stability, and get closer to their long-term financial goals by learning and using these skills. Below is given a hypothesis based on the above arguments:

*H3: "Financial skills have a positive effect on financial capability."*

### **Financial Capability and Financial Wellbeing**

Financial capability refers to essential knowledge, skills, and attitudes required for effective and efficient financial management with informed financial decision-making, leading to enhanced financial health and satisfaction (Müller, 2023). Individuals with adequate financial capability are better equipped to understand financial concepts, evaluate inclusions, manage liabilities, save, invest, and budget effectively and efficiently, contributing to financial security and independence (Ramadani et al., 2023).

Social Cognitive Theory (SCT) explains that the ability of the individual to engage in specific behaviors, including financial behavior, is influenced by a mix of internal and external factors (internal and external locus of control), with self-efficacy playing

a pivotal role in facilitating behavior changed and overall life satisfaction (Lee et al., 2023). Financial capability involves managing resources based on knowledge and skills and entails psychological and attitudinal dimensions that impact financial decisions (Jayasekara, 2023).

Moreover, financial capability educates individuals to deal with challenges, be adaptive, seize financial growth opportunities, plan for the future, and mitigate risks, enhancing financial well-being (Sabri et al., 2023). This study recommends that a strong financial capability leads to better financial well-being through smart financial management and decision-making, promoting stability and satisfaction with an individual's financial situation.

*H4: "Financial capability has a positive effect on financial well-being."*

### **Financial Awareness, Financial Capability Financial Well-being**

Social Cognitive Theory (SCT) suggests that self-efficacy, an individual's belief in their abilities, influences their goals, decisions, resilience, and financial results. Sound financial self-efficacy means confidence in managing finances, leading to positive behaviors and financial well-being (FWB). Individuals with strong financial self-efficacy set challenging goals and make it easy to access financial support, contributing to long-term financial stability and satisfaction (Lee et al., 2023).

Financial capability acts as a bridge between financial knowledge and financial well-being. While financial awareness "provides the essential understanding of financial systems" and products (financial inclusion), financial capability involves applying this knowledge in real life or practically. It covers the skills, attitudes, and behaviors needed to make informed financial decisions and manage personal finances efficiently. Adequate financial capability enables individuals to navigate financial environments, identify opportunities, and mitigate risks, leveraging their financial awareness for tangible/intangible benefits (Bhargava et al., 2022). Hence, financial capability is important for navigating knowledge into actions that improve an individual's financial well-being and overall life satisfaction (Munir & Siddiqui, 2023).

*H5: "Financial capability mediates the effect of financial awareness on financial well-being".*

### **Financial Experience, Financial Capability, and Financial Wellbeing (H6)**

Financial experience provides individuals with exposure to various financial scenarios and understandings. However, developing and applying financial capability

permits them to leverage all these experiences to improve their well-being and financial standings (Müller, 2023). Financial capability allows individuals to reflect on their experiences, extract valuable lessons, and apply all these insights to lead their future financial decisions (Fernández-López et al., 2023). In conclusion, those with adequate financial capability are more likely to achieve financial well-being, translating their practical exposures into effective financial behaviors and decision-making, which lead to financial stability, security, and satisfaction (Guo & Huang, 2023). Financial capability is a vital mediator between financial experience and financial well-being, bridging the gap between experience and practical implementation to enhance financial outcomes (Hwang & Park, 2023).

*H6: “Financial capability mediates the effect of financial experience on financial well-being”.*

### **Financial Skills, Financial Capability, and Financial Well-being**

Financial skills, which posit the practical capabilities required for efficient money management, are vital for obtaining financial well-being when applied through financial capability. This concept, enlightened by (Munir and Siddiqui, 2023), recommends that leveraging financial skills enables people to enact adequate financial practices in budgeting, saving, investing, and managing liabilities (Hwang & Park, 2023). These practices directly impact the financial health of an individual. Financial capability provides the transition from theoretical knowledge to practical implementation, significantly affecting financial outcomes via promoting adaptability and resilience in the face of financial challenges in the current era. (Guo & Huang, 2023)

*H7: “Financial capability mediates the effect of financial skills on financial well-being.”*

### **Self-Control as Moderator (H8)**

Financial capability profoundly depends on financial skills. These skills promote individuals' overall financial well-being, both individually and collectively (Ramadani et al., 2023). Moreover, individuals who apply these skills make intelligent investment decisions and improve their financial health (Munir and Siddiqui, 2023). Many past studies document that self-control has varying effects on financial capability and well-being (Hwang & Park, 2023) Studies cited that high self-control has positively increased financial capability and financial well-being. At the same time, low self-control adversely affects the relationship between financial capability and well-being (Guo & Huang, 2023)

*H8: “Self-control positively moderates the effect of financial capability and financial well-being”.*

## Research Methodology

In this research, we adopted a quantitative research methodology (a deductive approach), employing numerical data to examine patterns, relationships, and trends about the financial well-being and other components (as mentioned in Table) in Generation Y. This approach was proposed by (Doumard et al., 2023), it is useful for due to its capability to produce concise data-driven insights which are essential for prudent decision making in such domains, e.g., accounting, finance, and economics. A correlational research design was used to analyze the links between several variables without inferring causality, aiming to understand the connections related to the financial health of Generation Y (García-Mata et al., 2022). The goal of this research was explanatory, which focuses on developing the understanding of causal relationships between these variables to highlight the components affecting the financial well-being of Generation Y in Karachi and align the obtained findings with (Zangeneh et al., 2023).

### Dataset, Research Procedure and Technique

We have targeted Generation Y in Karachi, targeting individuals born between the early 1980s and mid-1990s, to understand their financial well-being attitudes and behaviors (Safeer et al., 2023). Karachi was chosen for its diverse and extensive population (Mini Pakistan), offering a rich context for data collection due to its availability, accessibility, convenience, and cost-effectiveness, and obtaining findings can be generalized to the entire Pakistan (Safeer et al., 2023). We have used purposeful sampling because we wanted to target the Generation X who are involved in financial decisions making. The sample size for this study was 245. We used close-end questionnaire to collect the data as is more effective for a large sample (Ishebami & Aldhyani, 2022), The study used Smart PLS Modeling (PLS-SEM). This method is suitable for complex variable interactions and advantageous for its flexibility with sample size, data normality, and other requirements (Hair et al., 2019). PLS-SEM was selected due to its capability to produce high variance, consistency, and improved mediation outcomes, making it an ideal instrument for modeling the components of financial well-being in this demographic (Hair et al., 2011; Hair et al., 2019) We followed all the ethical protocol including informing the respondents that their data will be shared to third party. They were also informed that there is no compulsion for them to fill out the questionnaires. (Ketefian, 2015; Arifin, 2018)

### Scale and Measures

The study adopted all constructs and items based on past studies. Table 1 presents the constructs, number of items, sources, and internal consistency results from a pilot test of 50 samples.

**Table 1: Scales and Measures**

| Variable Name              | Source                         | N\ Items |
|----------------------------|--------------------------------|----------|
| Financial Awareness (FA)   | Lone and Bhat (2022)           | 6        |
| Financial Capability (FC)  | Ilori (2022)                   | 4        |
| Financial Experience (FE)  | (Lone and Bhat, 2022)          | 5        |
| Financial Skills (FS)      | Ilori,(2022)                   | 4        |
| Financial Well-Being (FWB) | Lone and Bhat (2022)           | 5        |
| Self-Control (SC)          | (Alshebami and Aldhyani, 2022) | 5        |

## Results and Discussions

The research begins with data collection and data screening. In the data screening process for the study with 250 responses, no missing values were detected. However, five univariate outliers were identified and removed due to their Z-score values exceeding  $\pm 3.29$ , following the criteria by (Tabachnick & Fidell, 2007, 2021), reducing the dataset to 245 responses. No multivariate outliers were found in the adjusted dataset, as determined by Mahalanobis Distance (D2) criteria being below 0.001 (Tabachnick & Fidell, 2007, 2021). To enhance the validity of our data, we conducted a pilot test with 50 respondents. This pilot testing aimed to ensure that the questionnaire was comprehensible to the respondents. The results from the reliability screening of the constructs provided a positive indication, allowing us to proceed with the broader data analysis or the final analysis confidently. The results of the pilot research using Cronbach's alpha reliability analysis are shown in Table 2

**Table 2 Pilot Text (N=50)**

| Variable Name              | N Items | Cronbach's Alpha |
|----------------------------|---------|------------------|
| Financial Awareness (FA)   | 6       | 0.842            |
| Financial Capability (FC)  | 4       | 0.776            |
| Financial Experience (FE)  | 5       | 0.718            |
| Financial Skills (FS)      | 4       | 0.813            |
| Financial Well-Being (FWB) | 5       | 0.687            |
| Self-Control (SC)          | 5       | 0.619            |

Nunnally and Bernstein (1994) recommended that Cronbach's alpha values exceed 0.60 for acceptance. The results indicate that all variables achieved significant internal consistency, validating the data collection for the main study.

## Demographic Profile

Table 3 depicts the demographic profile of the targeted population.

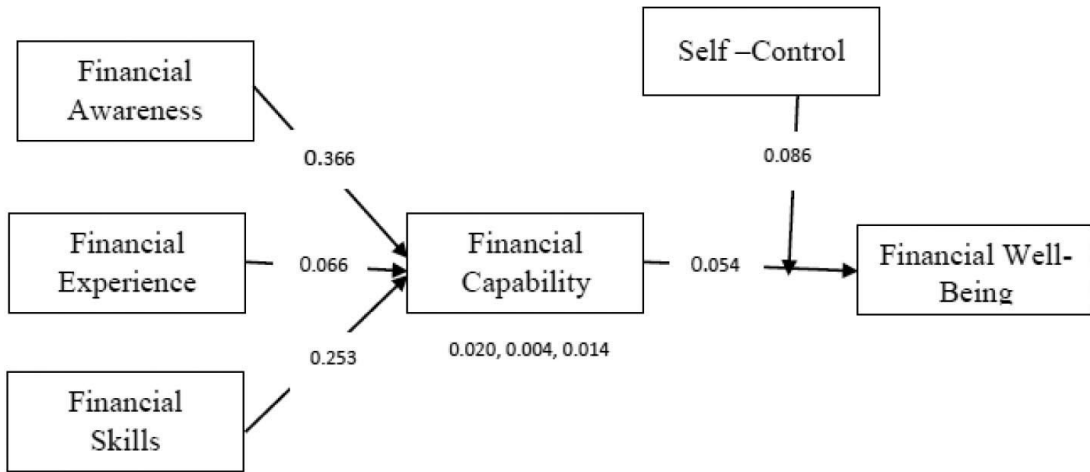
**Table 3: Demographic Profile (n = 245)**

|               |                 | <b>Frequency</b> | <b>Percent</b> |
|---------------|-----------------|------------------|----------------|
| Gender        | Male            | 195              | 79.6           |
|               | Female          | 50               | 20.4           |
| Age group     | 27 to 30 years  | 130              | 53.1           |
|               | 31 to 34 years  | 50               | 20.4           |
|               | 35 to 38 years  | 20               | 8.2            |
|               | 39 to 42 years  | 45               | 18.4           |
| Qualification | Undergraduate   | 20               | 8.2            |
|               | Graduate        | 100              | 40.8           |
|               | Postgraduate    | 110              | 44.9           |
|               | Above           | 15               | 6.1            |
| Occupation    | Working Student | 5                | 2              |
|               | Self-Employed   | 10               | 4.1            |
|               | Private Job     | 225              | 91.8           |
|               | Business        | 5                | 2              |

Table 3 offers a detailed breakdown of the demographics of the 245 respondents. The majority, 195 (79.6%), are male, while females account for 50 (20.4%). The largest group, 130 participants (53.1%), age-wise, falls within the 27 to 30 years range. The distribution for other age groups is: 31 to 34 years (50 respondents, 20.4%), 35 to 38 years (20, 8.2%), and 39 to 42 years (45, 18.4%). Regarding education, undergraduates represent 8.2% (20 individuals), graduates 40.8% (100), postgraduates 44.9% (110), and those with qualifications beyond the postgraduate level 6.1% (15). Occupation-wise, the survey includes five working students (2%), 10 self-employed individuals (4.1%), 225 private job employees (91.8%), and five business owners (2%). This demographic overview highlights the study's diverse representation across age, gender, education, and occupational status.

### **Measurement Model**

A measurement model describes the relationship between observed variables (indicators) and latent variables (constructs or factors). It's a critical component of structural equation modelling (SEM) and confirmatory factor analysis (CFA). Figure 2 depicts the measurement model.



**Figure 2 Measurement Model**

**Construct Validity**

Construct validity “refers to the degree to which a test or measurement tool accurately measures the theoretical construct or concept.” It is a critical aspect of validity in research and assessment. Refer to Table 4 for results.

**Table 4: Convergent Validity**

|             | Loadings | Prob. | VIF    | CR    | AVE   |       |       |
|-------------|----------|-------|--------|-------|-------|-------|-------|
| FA1 <- FA   | 0.746    | 0.000 | 1.770  | 0.874 | 0.636 |       |       |
| FA2 <- FA   | 0.860    | 0.000 | 2.533  |       |       |       |       |
| FA4 <- FA   | 0.766    | 0.000 | 1.709  |       |       |       |       |
| FA5 <- FA   | 0.813    | 0.000 | 1.558  |       |       |       |       |
| FC1 <- FC   | 0.767    | 0.000 | 1.316  |       |       | 0.762 | 0.518 |
| FC3 <- FC   | 0.642    | 0.000 | 1.316  |       |       |       |       |
| FC5 <- FC   | 0.744    | 0.000 | 1.065  |       |       |       |       |
| FE2 <- FE   | 0.749    | 0.000 | 1.7.16 | 0.835 | 0.562 |       |       |
| FE3 <- FE   | 0.718    | 0.000 | 1.687  |       |       |       |       |
| FE4 <- FE   | 0.646    | 0.000 | 1.284  |       |       |       |       |
| FE5 <- FE   | 0.869    | 0.000 | 1.438  |       |       |       |       |
| FS1 <- FS   | 0.767    | 0.000 | 1.683  |       |       | 0.881 | 0.650 |
| FS3 <- FS   | 0.848    | 0.000 | 1.982  |       |       |       |       |
| FS4 <- FS   | 0.800    | 0.000 | 1.846  |       |       |       |       |
| FS5 <- FS   | 0.808    | 0.000 | 1.643  |       |       |       |       |
| FWB2 <- FWB | 0.922    | 0.000 | 1.271  | 0.837 | 0.721 |       |       |

|             |       |       |       |       |       |
|-------------|-------|-------|-------|-------|-------|
| FWB5 <- FWB | 0.770 | 0.000 | 1.271 |       |       |
| SC4 <- SC   | 0.640 | 0.000 | 1.042 | 0.740 | 0.593 |
| SC5 <- SC   | 0.881 | 0.000 | 1.042 |       |       |

Hair et al. (2011, 2019) recommended that for satisfactory construct validity, outer loadings should exceed 0.60, while both average variance extracted (AVE) and composite reliability (CR) should surpass 0.70 and 0.50, respectively. Diamantopoulos and Siguaw (2006) suggested a threshold for variance inflation factors (VIF) of below 3 to indicate the absence of severe multi collinearity. The analysis presented in Table 3 confirms that all VIF values fall below this threshold, indicating that the data are ready for hypothesis testing. Consequently, the data meets the required reliability and convergent validity criteria, with all indicators and constructs demonstrating acceptable levels of measurement precision.

### **Cross Loading**

Cross-loading is a statistical technique used in factor analysis to identify highly correlated factors with multiple variables. It occurs when a variable load highly on multiple factors, making it difficult to determine which factor the variable truly belongs to. Table 5 summarizes the results.

**Table 5 Cross Loading**

|     | <b>FA</b> | <b>FC</b> | <b>FE</b> | <b>FS</b> | <b>FWB</b> | <b>SC</b> |
|-----|-----------|-----------|-----------|-----------|------------|-----------|
| FA1 | 0.746     | 0.387     | 0.501     | 0.429     | 0.089      | -0.281    |
| FA2 | 0.860     | 0.381     | 0.469     | 0.510     | 0.216      | -0.425    |
| FA4 | 0.766     | 0.462     | 0.243     | 0.495     | 0.042      | -0.349    |
| FA5 | 0.813     | 0.535     | 0.615     | 0.574     | 0.072      | -0.389    |
| FC1 | 0.414     | 0.767     | 0.321     | 0.388     | 0.204      | -0.176    |
| FC3 | 0.300     | 0.642     | 0.106     | 0.172     | 0.016      | 0.051     |
| FC5 | 0.468     | 0.744     | 0.439     | 0.492     | 0.110      | -0.524    |
| FE2 | 0.451     | 0.260     | 0.749     | 0.444     | 0.189      | -0.173    |
| FE3 | 0.312     | 0.211     | 0.718     | 0.421     | 0.136      | -0.245    |
| FE4 | 0.327     | 0.223     | 0.646     | 0.475     | 0.310      | -0.175    |
| FE5 | 0.559     | 0.503     | 0.869     | 0.624     | 0.348      | -0.494    |
| FS1 | 0.533     | 0.367     | 0.488     | 0.767     | 0.176      | -0.307    |
| FS3 | 0.505     | 0.474     | 0.479     | 0.848     | 0.386      | -0.396    |
| FS4 | 0.487     | 0.345     | 0.616     | 0.800     | 0.303      | -0.107    |
| FS5 | 0.533     | 0.490     | 0.598     | 0.808     | 0.124      | -0.282    |

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| FWB2                                  | 0.227  | 0.211  | 0.402  | 0.312  | 0.922                     | -0.341 |
| FWB5                                  | -0.090 | 0.049  | 0.132  | 0.183  | 0.770                     | -0.220 |
| SC4                                   | -0.148 | -0.305 | -0.167 | -0.181 | -0.195                    | 0.640  |
| SC5                                   | -0.490 | -0.296 | -0.426 | -0.336 | -0.316                    | 0.881  |

Table 5 illustrates that the indicator loadings within their respective theoretical constructs are higher than their cross-loadings in other constructs, indicating a significant shared variance within each construct (Hair et al., 2011; Hair et al., 2022). This observation confirms that discriminant validity, assessed through cross-loadings, has been successfully established.

### **Discriminant Validity (Fornell Larcker, 1981)**

The results in Table 6 indicate that the square root of the average variance extracted (AVE) for each construct, presented as bold diagonal values, exceeds horizontal and vertical correlation values with other constructs (Hair et al., 2011). This adherence to the criteria set by (Fornell and Larcker, 1981) confirms the attainment of discriminant validity through the Fornell-Larcker Criterion (FLC) method.

**Table 6: Discriminant Validity (Fornell & Larcker, 1981)**

| <b>Variable Name</b>       | <b>FA</b>    | <b>FC</b>    | <b>FE</b>    | <b>FS</b>    | <b>FWB</b>   | <b>SC</b>    |
|----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Financial Awareness (FA)   | <b>0.797</b> |              |              |              |              |              |
| Financial Capability (FC)  | 0.565        | <b>0.720</b> |              |              |              |              |
| Financial Experience (FE)  | 0.579        | 0.448        | <b>0.750</b> |              |              |              |
| Financial Skills (FS)      | 0.638        | 0.530        | 0.673        | <b>0.806</b> |              |              |
| Financial Well-Being (FWB) | 0.124        | 0.173        | 0.347        | 0.305        | <b>0.849</b> |              |
| Self-Control (SC)          | -0.456       | -0.379       | -0.415       | -0.351       | -0.342       | <b>0.770</b> |

### **Discriminant Validity (Heterotrait-Monotrait Ratio)**

The results presented in Table 7 show that Heterotrait-Monotrait (HTMT) ratios are below 0.900, suggesting that the latent variables are “unique and empirically different (Henseler et al. (2015, 2016))

**Table 7: Discriminant Validity (Heterotrait-Monotrait Ratio)**

| Variable Name              | FA    | FC    | FE    | FS    | FWB   | SC |
|----------------------------|-------|-------|-------|-------|-------|----|
| Financial Awareness (FA)   |       |       |       |       |       |    |
| Financial Capability (FC)  | 0.784 |       |       |       |       |    |
| Financial Experience (FE)  | 0.683 | 0.539 |       |       |       |    |
| Financial Skills (FS)      | 0.771 | 0.692 | 0.825 |       |       |    |
| Financial Well-Being (FWB) | 0.268 | 0.313 | 0.430 | 0.404 |       |    |
| Self-Control (SC)          | 0.797 | 0.806 | 0.664 | 0.722 | 0.699 |    |

### Predicative Power

Falk and Miller (1992) suggested that R square values should be at least 0.10. Table 8 shows that financial capability exhibits strong explanatory power, with 37% of the variance explained and a relevance of 34.5%. Financial well-being demonstrates moderate explanatory power, with 12.5% of the variance explained and a relevance of 11.9%.

**Table 8 Predictive Power**

|                      | R-Square | R-Square Adjusted | Q-Square |
|----------------------|----------|-------------------|----------|
| Financial Capability | 0.370    | 0.362             | 0.345    |
| Financial Well-Being | 0.125    | 0.114             | 0.119    |

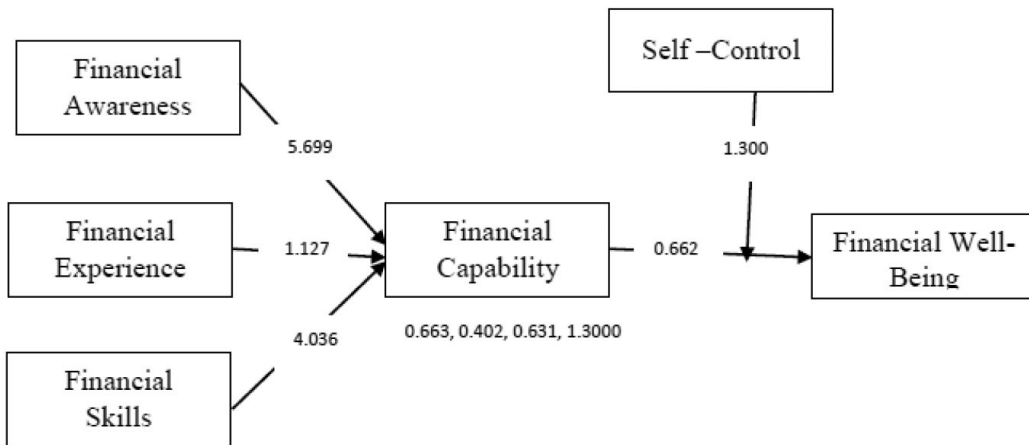
### Hypothesis Results

The results related to the hypotheses are depicted in Table 9. The structural model is depicted in Figure 2

**Table 9: Hypotheses Results**

|                      | Estimate | S. D. | t-Stats | Prob. | Decision     |
|----------------------|----------|-------|---------|-------|--------------|
| FA -> FC (H1)        | 0.366    | 0.064 | 5.699   | 0.000 | Accepted     |
| FE -> FC (H2)        | 0.066    | 0.058 | 1.127   | 0.260 | Not Accepted |
| FS -> FC(H3)         | 0.253    | 0.063 | 4.036   | 0.000 | Accepted     |
| FC -> FWB (H4)       | 0.054    | 0.081 | 0.662   | 0.508 | Not Accepted |
| FE -> FC -> FWB (H6) | 0.004    | 0.009 | 0.402   | 0.687 | Not accepted |
| FS -> FC -> FWB (H7) | 0.014    | 0.021 | 0.631   | 0.528 | Not accepted |
| SC x FC -> FWB (H8)  | 0.086    | 0.066 | 1.300   | 0.194 | Not Accepted |

The results support Hypothesis 2 ( $\beta = 0.366$ ,  $t = 5.699 < .05$ ) and Hypothesis 3 ( $\beta = 0.253$ ,  $t = 4.036 < 0.05$ ). The study did not support Hypothesis 2 ( $\beta = 0.066$ ,  $t = 0.058 > 0.05$ ). We also did not support three mediating and one moderating hypothesis.



**Figure 3: Structural Model**

## Discussions

This study found that financial awareness significantly enhances financial capability, aligning with the findings of Al Rahahleh (2023) and Atanda (2023). It highlights the importance of financial awareness in equipping individuals with the essential knowledge and skills necessary for making informed financial decisions, managing risks effectively, and planning proactively, thereby enhancing their financial capability (Tzora et al., 2023).

However, the study found a positive yet insignificant impact of financial capability on financial well-being, aligning with insights from Guo and Huang (2023) and Pak et al. (2023). The variation in financial priorities and values among Generation Y may explain these insignificant findings, recommending that financial capability impacts well-being and does not uniformly align with individual financial aspirations (Guo & Huang, 2023).

Similarly, financial experience has a positive but insignificant impact on financial capability, which aligns with the findings of Al Rahahleh (2023) and Atanda (2023). The diverse range and effect of financial experiences on individual capabilities enlighten the complexity of translating these experiences into a unified financial competency (Potocki & Białowas, 2023; Fitria et al., 2023).

On the flip side, financial skills were noticed to improve financial capability; findings are corroborated by (Atanda, 2023; Guo & Huang, 2023). This reaffirms the considerable role of financial skills in informed and prudent financial decision-making and effective financial management.

This research also explored the mediating impact of financial capability between financial awareness, experience, skills, and financial well-being, finding a consistently positive yet statistically insignificant impact. This corroborates with (Lučić et al., 2023 Pak et al., 2023 and Kumar et al., 2023), whose findings recommend that individual differences in applying knowledge and skills and external factors like economic conditions may dilute the mediation impact of financial capability on well-being.

Last but not least, the study found that self-control played a positive but statistically insignificant moderating role between financial capability and well-being, which is supported by Bai's research (2023) and van Raaij et al. (2023). The variation in self-control application and the complex nature of financial well-being contribute to this insignificance, indicating that the impact of self-control on financial well-being may be influenced and not fully captured within the study (van Raaij et al., 2023; Fitria et al., 2023).

## **Conclusion and Recommendations**

### **Conclusion**

This research examined the dynamics among financial awareness, experience, skills, self-control, financial capability, and well-being among Generation Y in Karachi, utilizing social learning and cognitive theories as their theoretical foundation. Adopting a non-probability purposive sampling technique, data was gathered through an online questionnaire with a 5-point Likert scale and examined by PLS-SEM. Findings explored that while financial awareness, experience, and skills positively relate to financial capability, their effects were not statistically significant (unfortunately), which recommends that knowledge and experience alone do not substantially influence financial capability. Furthermore, financial capability played a mediating role in translating financial awareness and experience into well-being. In contrast, the moderating effect of self-control on the relationship between financial capability and well-being was found to be positive but statistically insignificant. These findings enlighten the complex interplay impacting financial well-being, emphasizing the importance of considering individual variations, timing, and external factors in understanding and enhancing financial well-being.

### **Recommendations**

The crux of the research is the financial behaviors of Generation Y in Karachi, and it recommends actionable strategies for enhancing financial well-being. Targeted

financial education programs focusing on practical application are crucial in addressing the gap between financial awareness, experience, skills, and financial capability (Bai, 2023). Financial institutions and educational bodies should collaborate to offer tailored financial planning services, enabling individuals to apply their knowledge effectively (van Raaij et al., 2023).

To enhance self-control in financial decision-making, the systematic deployment of behavioral economics principles through workshops, seminars, or digital applications can encourage disciplined financial behaviors (Lučić et al., 2023). Corporates and educational institutions play a key role in incorporating financial well-being programs, equipping Generation Y with essential financial management skills and knowledge (Kumar et al., 2023).

Promoting a culture of financial supervision and leveraging technology for personalized financial advice can be further enhanced to strengthen financial capability and well-being. Peer learning, as recommended by social learning theory, and digital coaching platforms can provide considerable financial guidance and motivate positive financial behaviors (Fitria et al., 2023; Potocki & Białowąs, 2023).

Integrating success stories such as case studies or real-life role models within financial education, as focused on social cognitive theory, may be tailored as motivational instruments, enlightening the practical implementation of financial knowledge and behaviors (Guo & Huang, 2023). Collaborative efforts between industrial corporations, financial institutions, and academia are very important for a comprehensive approach to financial education, effectively addressing both theoretical and practical aspects of financial well-being in Generation Y of Karachi.

## **Limitations of the Study**

This study offers significant insights into the financial behaviors of Generation Y in Karachi, but has considerable limitations. Using nonprobability purposive sampling and an online survey may lead to selection bias (fewer chances but possible), limiting the representativeness of Generation Y of Karachi and impacting the generalizability of the obtained findings. Furthermore, the reliance on self-reported data by a Likert scale questionnaire may introduce response and social desirability biases (although this is possible), where respondents may have skewed answers to fit societal norms rather than accurately depicting their original financial behaviors.

The study focused on Generation Y in Karachi, which limited the applicability of

its conclusions to other age groups or regions due to the potential impact of specific cultural or economic contexts. Furthermore, the cross-sectional design limited the ability to determine causality among the studied variables, further restricting the broader applicability of the study and insights into dynamic financial behaviors over time.

## **Future Research Directions**

Future research may look into several key areas: analyzing the long-term impact of financial education on the financial well-being of Generation Y by thorough longitudinal studies, which may develop an understanding of how cultural, contextual, and economic components impact financial behaviors across Generations X, Y, and Z and so on; exploring the impact of financial technology (FinTech) on financial management practices on the young generation. Furthermore, it investigates the intergenerational transmission of financial knowledge and habits and studies gender differences in financial behaviors among younger generations for insights into financial inclusion. Last but not least, assessing adaptation to financial uncertainties of Generation Y to enhance financial resilience. These research directions promise to expand our knowledge of financial well-being and guide future interventions.

## Annexure 1

### Constructs and Items Used in the Questionnaire

#### Financial Awareness

FA1- I know the interest rates banks and other financial institutions charge.

FA2- I am familiar with the fundamentals of personal finance management.

FA3- I often make a list before shopping.

FA4- I always compare financial products before making a decision.

FA5- I often gather information related to financial issues.

FA6- I am always willing to discuss financial issues.

#### Financial Experience

FE1. I always hold emergency savings.

FE2. I always maintain financial records.

FE3. I have experience managing personal assets.

FE4. I have an investing experience in the stock market.

FE5. I plan how I will spend and invest my money.

#### Financial Skills

FS1. I evaluate personal financial statements regularly.

FS2. I manage risks through purchasing insurance.

FS3. I regularly evaluate my debt position.

FS4. I always try to diversify my investments.

#### Financial Capability

FC1. I am confident in my ability to manage my funds.

FC2. I can plan for the future from the money saved in my bank.

FC3. I possess the potential to take/raise a loan from the bank.

FC4. I use financial skills efficiently to manage my financial goals.

#### Financial Wellbeing

FW1. How satisfied are you with your current financial situation?

FW2. How confident do you feel in your ability to manage your finances effectively?

FW3. How often do you worry about insufficient money to meet your financial obligations?

FW4. How satisfied are you with your ability to save for long-term financial goals, such as retirement or a down payment on a house?

FW5. How secure do you feel in your financial situation regarding being able to withstand unexpected expenses or financial setbacks?

#### Financial Control

FC1. I have a clear understanding of my financial expenses and income.

FC2. I regularly track my spending to ensure I am staying within my budget.

FC3. I have a budget that outlines projected income and expenses for the next month, quarter, and year.

FC4. I have a system in place for saving and investing my money.

FC5. I feel confident in my ability to make smart financial decisions.

## Reference

- Al Rahahleh, N. (2023). Determinants of the Financial Capability: The Mediating role of Financial Self-efficacy and Financial Inclusion. *International Journal of Economics and Financial Issues*, 13(6), 15.
- Alshebami, A. S., & Aldhyani, T. H. (2022). The interplay of social influence, financial literacy, and saving behaviour among Saudi youth and the moderating effect of self-control. *Sustainability*, 14(14), 8780.
- Andriamahery, A., & Qamruzzaman, M. (2022). Do access to finance, technical know-how, and financial literacy offer women empowerment through women's entrepreneurial development? *Frontiers in psychology*, 12, 776844.
- Arifin, S. R. M. (2018). Ethical considerations in qualitative study. *International journal of care scholars*, 1(2), 30-33.
- Atanda, O. O. (2023). Financial literacy and financial resilience: the mediating role of financial capability. *Journal of Namibian Studies: History Politics Culture*, 35, 2998-3024.
- Bai, R. (2023). Impact of financial literacy, mental budgeting and self control on financial wellbeing: Mediating impact of investment decision making. *Plos one*, 18(11), e0294466.
- Bandura, A. (1986). *Social foundations of thought and action*. Englewood Cliffs, NJ, 1986(23-28).
- Bandura, A., & Walters, R. H. (1977). *Social learning theory* (Vol. 1). Englewood cliffs Prentice Hall.
- Bhargava, M., Mohanty, B., & Tak, K. (2022). Impact of Financial Literacy on Financial Capability Evidence from Urban Working Women in Rajasthan. *Academy of Marketing Studies Journal*, 26(5).
- Bhatia, S., & Singh, S. (2023). Exploring financial well-being of working professionals in the Indian context. *Journal of Financial Services Marketing*, 1-14.
- Birkenmaier, J., Rothwell, D., & Agar, M. (2022). How is consumer financial capability measured? *Journal of Family and Economic Issues*, 43(4), 654-666.
- Dako-Gyeke, M., Abekah-Carter, K., Hervie, V. M., & Boateng, D. A. (2023). Delivering financial capability and asset building curriculum: strengthening the competencies of social work faculty. *Global Social Welfare*, 10(1), 61-69.

- Dare, S. E., van Dijk, W. W., van Dijk, E., van Dillen, L. F., Gallucci, M., & Simonse, O. (2023). How executive functioning and financial self-efficacy predict subjective financial well-being via positive financial behaviors. *Journal of Family and Economic Issues*, 44(2), 232-248.
- Davydenko, M., Kolbuszewska, M., & Peetz, J. (2021). A meta-analysis of financial self-control strategies: Comparing empirical findings with online media and lay person perspectives on what helps individuals curb spending and start saving. *Plos one*, 16(7), e0253938.
- Dewi, V. I. (2022). How do demographic and socioeconomic factors affect financial literacy and its variables? *Cogent Business & Management*, 9(1), 2077640.
- Diamantopoulos, A., & Siguaw, J. A. (2006). Formative versus reflective indicators in organizational measure development: A comparison and empirical illustration. *British Journal of Management*, 17(4), 263-282.
- Doumard, E., Aligon, J., Escriva, E., Excoffier, J.-B., Monsarrat, P., & Soulé-Dupuy, C. (2023). A quantitative approach for the comparison of additive local explanation methods. *Information Systems*, 114, 102162.
- Falk, R. F., & Miller, N. B. (1992). A primer for soft modeling (1st ed.). University of Akron Press.
- Fernández-López, S., Álvarez-Espiño, M., Castro-González, S., & Rey-Ares, L. (2023). Financial capability and households' financial vulnerability: evidence for the Spanish case. *Managerial Finance*, 49(4), 679-702.
- Fitria, R. R., Rahayu, D. P., Septiana, M., & Arrasid, J. (2023). Unraveling the Link between Financial Literacy and Financial Capability among Java's Students. *JBMP (Jurnal Bisnis, Manajemen dan Perbankan)*, 9(2), 190-209.
- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of marketing research*, 18(3), 382-388.
- García-Mata, O., Zerón-Félix, M., & Briano, G. (2022). Financial Well-Being Index in México. *Social Indicators Research*, 163(1), 111-135.
- Guo, B., & Huang, J. (2023). Financial Well-Being and Financial Capability among Low-Income Entrepreneurs. *Journal of Risk and Financial Management*, 16(3), 181.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A primer on partial least squares structural equation modeling (PLS-SEM)* (3rd ed.). SAGE Publications.

- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing theory and Practice*, 19(2), 139-152.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European business review*, 31(1), 2-24.
- Hashemian, M., Abdolkarimi, M., Asadollahi, Z., & Nasirzadeh, M. (2021). Effect of "social cognitive theory"-based intervention on promoting physical activity in female high-school students of rafsanjan city, iran. *Journal of Education and Community Health*, 8(2), 111-119.
- Henseler, J., Hubona, G., & Ray, P. A. (2016). Using PLS path modeling in new technology research: updated guidelines. *Industrial management & data systems*, 116(1), 2-20.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the academy of marketing science*, 43(1), 115-135.
- Hidzir, P. A. M., Ismail, S., Nor, S. H. S., & Sahiq, A. N. M. (2023). Financial Well-Being of Micro-Entrepreneurs: A Proposed Conceptual Framework. *Information Management and Business Review*, 15(3 (I)), 418-428.
- Hofmann, W. (2023). Self-control.
- Hwang, H., & Park, H. I. (2023). The relationships of financial literacy with both financial behavior and financial well-being: Meta-analyses based on the selective literature review. *Journal of Consumer Affairs*, 57(1), 222-244.
- Iannello, P., Sorgente, A., Lanz, M., & Antonietti, A. (2021). Financial well-being and its relationship with subjective and psychological well-being among emerging adults: Testing the moderating effect of individual differences. *Journal of Happiness Studies*, 22(3), 1385-1411.
- Ilori, D. B. (2022). Assessment of Financial Capability of Small and Medium Enterprises in Akure, Nigeria. *Technoarete Journal on Advances in E-Commerce and E-Business*, 1(2), 1-6.
- Iramani, R., & Lutfi, L. (2021). An integrated model of financial well-being: The role of financial behavior. *Accounting*, 7(3), 691-700.
- Jayasekara, B. (2023). Impact of Financial Capability on Financial Stress of Small and Medium Entrepreneurs in Sri Lanka: Special Reference to the Western Province.
- Ketefian, S. (2015). Ethical considerations in research. Focus on vulnerable groups. *Investigación y Educación en Enfermería*, 33(1), 164-172.

- Kiwanuka, A., & Sibindi, A. B. (2023). Insurance Literacy: Significance of Its Dimensions for Insurance Inclusion in Uganda. *Economies*, 11(2), 33.
- Klein, V. (2023). *Investigation of the Relationship of Social Media Use, Self-control, and Well-being in Young Adults* University of Twente.]
- Kumar, P., Pillai, R., Kumar, N., & Tabash, M. I. (2023). The interplay of skills, digital financial literacy, capability, and autonomy in financial decision making and well-being. *Borsa Istanbul Review*, 23(1), 169-183.
- Lamichhane, M. (2023). Investment behaviour and financial literacy: A case of Kathmandu Valley. *PERSPECTIVES IN NEPALESE MANAGEMENT*, 209.
- Lee, J. M., Rabbani, A., & Heo, W. (2023). Examining Financial Anxiety Focusing on Interactions between Financial Knowledge and Financial Self-efficacy. *Journal of Financial Therapy*, 14(1), 2.
- Lone, U. M., & Bhat, S. A. (2022). Impact of financial literacy on financial well-being: a mediational role of financial self-efficacy. *Journal of Financial Services Marketing*, 1-16.
- Lučić, A., Barbić, D., & Uzelac, M. (2023). Theoretical underpinnings of consumers' financial capability research. *International Journal of Consumer Studies*, 47(1), 373-399.
- Mpaata, E., Koske, N., & Saina, E. (2021). Does self-control moderate financial literacy and savings behavior relationship? A case of micro and small enterprise owners. *Current Psychology*, 1-14.
- Müller, R. (2023). *The Impact of Financial Literacy on Financial Capability: Evidence Based on the National Financial Capability Study* Eastern Michigan University.]
- Munawar, S. (2023). The Influence of Social Factors and Financial Education on Financial Literacy for Financial Management among Youth of Educational Institutes. *Pakistan Journal of Humanities and Social Sciences*, 11(2), 2512-2521.
- Munir, S., & Siddiqui, D. A. (2023). Workforce Generations: Dependable Asset or Negligible Liability. *Available at SSRN*.
- Naderi, A., & Wohn, D. Y. (2023). User engagement behaviors: Exploring predictors of ARMY's active and passive media usage behaviors using social cognitive theory. Extended Abstracts of the 2023 CHI Conference on Human Factors in Computing Systems,
- Nizam, F., Hassan, V., Muna, F., & Wider, W. (2023). Teaching Financial Literacy in Young Age: Perspectives of Teachers and Parents. *Journal for ReAttach Therapy and Developmental Diversities*, 6(1), 257-267.

- Nuhođlu, İ., Gramling, A. A., & Wood, D. A. (2014). Are the activities of the internal audit function associated with audit committee quality factors? *Bođaziđi Journal Review of Social, Economic and Administrative Studies*, 28(1).
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric Theory* (3rd ed.). McGraw-Hill Education.
- Oyeniya, K., Egunjobi, G., & Togun, O. (2022). Mediating effect of Financial Literacy on the relationship between Financial Behavior and SMEs' Performance: Evidence from Osun State, Nigeria. *Best Journal of Innovation in Science, Research and Development*, 1(2), 20-29.
- Pak, T. Y., Fan, L., & Chatterjee, S. (2023). Financial socialization and financial well-being in early adulthood: The mediating role of financial capability. *Family Relations*.
- Potocki, T., & Białowaś, S. (2023). What Factors Predict a Positive Change in a Consumer's Financial Capability over Time? The New Evidence from Poland. *Journal of Family and Economic Issues*, 44(3), 634-654.
- Rahman, M. M., Tabash, M. I., Salamzadeh, A., Abdul, S., & Rahaman, M. S. (2022). Sampling techniques (probability) for quantitative social science researchers: a conceptual guidelines with examples. *Seeu Review*, 17(1), 42-51.
- Ramadani, A. G., Tubastuvi, N., Fitriati, A., & Widhiandono, H. (2023). Millennials' Investment Decision in Capital Market Investment With Financial Behavior as An Intervening Variable. *Riset Akuntansi dan Keuangan Indonesia*, 7(3), 355-375.
- Rey-Ares, L., Fernández-López, S., Castro-González, S., & Rodeiro-Pazos, D. (2021). Does self-control constitute a driver of millennials' financial behaviors and attitudes? *Journal of Behavioral and Experimental Economics*, 93, 101702.
- Sabri, M. F., Anthony, M., Law, S. H., Rahim, H. A., Burhan, N. A. S., & Ithnin, M. (2023). Impact of financial behaviour on financial well-being: evidence among young adults in Malaysia. *Journal of Financial Services Marketing*, 1-20.
- Safeer, A. A., He, Y., Lin, Y., Abrar, M., & Nawaz, Z. (2023). Impact of perceived brand authenticity on consumer behavior: an evidence from generation Y in Asian perspective. *International Journal of Emerging Markets*, 18(3), 685-704.
- Schomburgk, L., & Hoffmann, A. (2023). How mindfulness reduces BNPL usage and how that relates to overall well-being. *European Journal of Marketing*, 57(2), 325-359.
- Shah, S. M. A., Jiang, Y., Wu, H., Ahmed, Z., Ullah, I., & Adebayo, T. S. (2021). Linking green human resource practices and environmental economics performance: The role of green economic organizational culture and green psychological climate. *International Journal of Environmental Research and Public Health*, 18(20), 10953.

- She, L., Waheed, H., Lim, W. M., & E-Vahdati, S. (2023). Young adults' financial well-being: current insights and future directions. *International Journal of Bank Marketing*, 41(2), 333-368.
- Smolo, E., Knezović, E., & Aydin, Š. (2023). Extending the concept of financial literacy: A step toward a sustainable society. *Heritage and Sustainable Development*, 5(1), 65-76.
- Soper, D. S. (2024). *A-priori sample size calculator for structural equation models [Software]*. <https://www.danielsoper.com/statcalc/references.aspx?id=89>
- Stutts, J. S. (2022). *What Influence Do the Government, Economy, Industry, and Society Have on Workforce Development and Interdisciplinary Education Programs in the United States?* Southeastern Louisiana University.]
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). Allyn & Bacon/Pearson Education.
- Tabachnick, B. G., & Fidell, L. S. (2021). *Using multivariate statistics* (7th ed.). Pearson Education.
- Tahir, M. S., Ahmed, A. D., & Richards, D. W. (2021). Financial literacy and financial well-being of Australian consumers: A moderated mediation model of impulsivity and financial capability. *International Journal of Bank Marketing*, 39(7), 1377-1394.
- Tzora, V. A., Philippas, N. D., & Panos, G. A. (2023). The financial capability of 15-year-olds in Greece. *Economics Letters*, 225, 111044.
- van Raaij, W. F., Riitsalu, L., & Pöder, K. (2023). Direct and indirect effects of self-control and future time perspective on financial well-being. *Journal of Economic Psychology*, 99, 102667.
- Wutun, M. B. M. G., Niha, S. S., & Manafe, H. A. (2023). Financial attitude and financial behavior analysis towards student financial literacy in Kupang City. *Enrichment: Journal of Management*, 13(1), 644-653.
- Xiao, J. J., Huang, J., Goyal, K., & Kumar, S. (2022). Financial capability: a systematic conceptual review, extension and synthesis. *International Journal of Bank Marketing*(ahead-of-print).
- Zamfir, A.-M., Năstasă, A., & Molea, R. M. (2022). Educational Attainment and Financial Well-being in Romania. *Revista Romaneasca pentru Educatie Multidimensionala*, 14(1), 491-503.
- Zangeneh, M., Ahmadi, H., Iman, M. T., & Tabiee, M. (2023). A Sequential Explanatory Study of the Cultural Values Gap between Mothers and Girls: A Case of Study of Female Students of Bushehr Farhangian University. *Iranian Journal of Educational Society*, 9(1).