

Article

Financial Literacy as a Catalyst for Women's Economic Empowerment in the MENA Region: Evidence from a Structural Equation Model

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Abstract

This study examines the role of financial literacy as a catalyst for women's economic empowerment in the MENA region, focusing on its impact on financial performance through the mediating effects of autonomy and family support, as well as the moderating effects of male partners and employment type. Drawing on data from 515 women professionals across five MENA countries, the research employs Partial Least Squares Structural Equation Modeling (PLS-SEM) to examine both direct and indirect relationships among key variables. The findings reveal that financial literacy significantly enhances financial performance, primarily by fostering greater autonomy in financial decision-making. While parental and spousal support also contribute, their mediating effects are comparatively weaker. Moreover, the relationship between financial literacy and autonomy is moderated by employment type and the presence of male partners, with employed women and those in collaborative environments experiencing stronger gains in autonomy. These results underscore the importance of targeted financial education and autonomy-enhancing policies to support women's economic advancement in culturally complex and economically volatile contexts. The study contributes to the literature on gender and development economics by offering empirical evidence from an under-researched region and provides actionable insights for policymakers, educators, and organizations aiming to promote inclusive economic growth.

Keywords: financial literacy; women's economic empowerment; financial performance; autonomy; spousal support; parental influence; gender and development; MENA



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1. Introduction

Achieving inclusive economic growth and gender equality remains a central objective of global development agendas, particularly within the framework of the United Nations Sustainable Development Goals (SDGs), including SDG 5 (Gender Equality), SDG 8 (Decent Work and Economic Growth), and SDG 10 (Reduced Inequalities). In this context, the economic empowerment of women professionals in the Middle East and North Africa (MENA) region has gained increasing scholarly and policy attention.

While existing literature has explored various determinants of women's professional success—such as education, spousal support, and parental influence—financial literacy

remains an underexamined factor, particularly in relation to its role in enhancing financial performance. Even less attention has been paid to the mediating role of autonomy, despite its potential to amplify the benefits of financial knowledge in decision-making and entrepreneurial outcomes (Salhi, 2024).

Although it is easier for women today to start and grow their businesses, lead organizations, and achieve financial success, they still face a number of social, economic, and educational obstacles (Fauzi et al., 2021). In nations where social and economic crises are the new normal (Al Hakim et al., 2022; Said et al., 2023; Makki et al., 2024; Mawad et al., 2022; Mawad & Makki, 2023; World Bank, 2021), it is more difficult to overcome these obstacles without the right support and skills.

The literature offers important insights into the traits and difficulties faced by women professionals around the world, particularly those related to autonomy, spousal support, and financial literacy (Khan et al., 2024; Rasool et al., 2019; Vадnjal, 2018). However, there is still a great deal to learn about these dynamics, how they affect financial performance, and how they are distinctive to the culturally and socioeconomically distinct MENA area (Mawad & Freiha, 2024). In this area, the interaction between gender expectations, societal standards, and economic circumstances is still little understood.

While previous studies have examined women's entrepreneurial intentions and performance globally, research specific to the MENA region often focuses on challenges rather than success factors. Moreover, the distinct characteristics of Middle Eastern women professionals, such as the roles of spousal and parental support, autonomy, and their mediation role between financial literacy and their financial performance, are rarely analyzed.

This study addresses these gaps by investigating whether financial literacy significantly improves financial performance among women professionals in the MENA region and whether this relationship is mediated by autonomy and family support (parental and spousal) and moderated by contextual factors such as the presence of male partners and the type of employment. Specifically, the study explores whether women's autonomy plays a stronger mediating role than family support and whether these effects vary depending on women's professional environments and collaboration dynamics. The paper investigates:

1. Does financial literacy positively impact women's financial performance in the Middle East?
2. Does autonomy play a stronger role than parental and spousal support in mediating the positive relationship between financial literacy and financial performance?
3. Do male partners and employment type moderate the relationship between financial literacy and autonomy, influencing the extent to which financial literacy translates into higher autonomy and improved financial outcomes?

Using a robust quantitative approach and data from 515 women across five MENA countries, the study contributes to the literature on gender, development economics, and financial inclusion by offering empirical insights with direct policy implications.

The traits of successful women are included in the study (Sullivan & Meek, 2012; Dyer et al., 2013; Lerner et al., 1997; Díaz-García & Brush, 2012) all cite the current yearly income of the company as the dependent variable for success.

The independent variable is financial literacy. The study examines three mediating variables—autonomy, parental influence, and spousal support—and two moderating variables—the presence of male partners and employment type—that shape the relationship between financial literacy and financial performance.

The remainder of this paper includes a brief literature review, the methodology used, the results and discussion, and the conclusion, including policy recommendations.

2. Literature Review: Characteristics of Successful Women

2.1. Financial Literacy and Financial Performance

Studies have found that financial literacy and financial self-discipline play a substantial part in explaining an individual's financial performance and behavior, in addition to demographic control factors like age, gender, and marital status ([Abdallah et al., 2025](#)). In the Middle East, financial knowledge increases the likelihood that people will make prudent financial decisions that improve their quality of life. Fiscal responsibility, including the quantity and the quality of savings, well-informed spending choices, and well-informed investing choices, are all favorably connected with financial literacy and education in the Middle East ([Alwadi et al., 2025](#)). Furthermore, having a strong sense of self-control over finances and expenditures may aid people in making wiser financial choices ([Alhammadi et al., 2025](#)).

Financial literacy improves men's and women's financial well-being and decision-making ([Mawad et al., 2022](#); [Mawad, 2022](#)). Female entrepreneurs, in particular, tend to start enterprises with less money than their male counterparts ([Alsos et al., 2006](#); [Andriamahery & Qamruzzaman, 2022](#); [Baporikar & Akino, 2020](#); [Boden & Nucci, 2000](#); [Coleman, 1988](#); [Iram et al., 2023](#); [Soomro et al., 2024](#)).

According to the latest studies, the most widely used theoretical framework directing research on the gender gap in financial literacy is the human capital framework ([Iwatsubo et al., 2025](#)). According to this theory, gender inequalities in financial literacy between men and women are explained by variations in traits like education, age, marital status, and personality; in other words, these factors influence the costs and returns of financial literacy investments ([Berlinger et al., 2025](#)). Similarly, the disparity can be a result of gender variations in the division of labor within the home, where financial management is regarded as a crucial component ([Preston et al., 2024](#)).

According to [Preston et al. \(2024\)](#), one of the more recent explanations for gender disparities in financial literacy is culture, which captures gendered institutions, conventions, and stereotypes. There are several ways that culture might influence financial literacy. It can be direct through official regulations (such as educational opportunities) or indirect through behavioral expectations and, consequently, incentives to become financially literate. As previously said, studies generally demonstrate that women who manage household finances have better financial literacy ([Preston et al., 2024](#)).

Furthermore, studies reveal that women are less likely than men to obtain financing from financial organizations ([Carter et al., 2007](#)). However, a significant barrier stopping female entrepreneurs from expanding their businesses is a lack of financial literacy ([OECD, 2018](#)).

According to the criteria of a five-year-old company with three or more employees, twenty-three female business owners were selected through purposive sampling for a study conducted by [Baporikar and Akino \(2020\)](#) that uses a qualitative technique in conjunction with information obtained through interviews. According to the findings, women's business success is significantly impacted by financial literacy. For this reason, it is recommended that women receive group-based, focused training through suitable programs in order to equip and enhance their financial literacy ([Baporikar & Akino, 2020](#)).

In this study, financial literacy is specifically conceptualized as subjective financial literacy, referring to an individual's self-perceived confidence in understanding, evaluating, and applying financial concepts in personal or professional contexts rather than objective financial knowledge. This construct captures perceived competence in areas such as budgeting, investment decision-making, and financial risk assessment ([Iram et al., 2024](#)). [Allgood and Walstad \(2016\)](#) demonstrated that people's perceived financial literacy, how knowledgeable they believe themselves to be, tends to influence their financial behaviors

more strongly than their actual financial knowledge, especially when it comes to everyday money management activities.

In the remainder of this paper, we refer to subjective financial literacy simply as “financial literacy” for readability, while recognizing that our measure reflects perceived rather than objective financial knowledge.

H1: *Financial literacy positively affects women’s financial performance.*

2.2. Factors Affecting Women’s Professional Success

The conditions surrounding the company and the approach taken determine whether or not women may be successful in the corporate world (Ekpe, 2011). Women entrepreneurs, according to Mordi and Okafor (2010), are those who design, develop, and manage businesses that use cutting-edge goods and services that could greatly enhance the social and economic development of the SME (Small and Medium Enterprises) sector (Elsaman et al., 2022; Mordi & Okafor, 2010).

SMEs account for over 95% of the business population in most countries and are the main job producers globally (Graña-Alvarez et al., 2024). Their impact on society in terms of contributing to innovation and improving economic conditions is universally acknowledged (Graña-Alvarez et al., 2024).

Several studies have examined the impact of financial literacy on SMEs using qualitative (Hussain et al., 2018), and quantitative methods (Yang et al., 2018). These studies have consistently indicated that financial literacy improves financial attitudes, behaviors, organizational skills, and both financial and nonfinancial performance (Abdallah et al., 2025).

Porter and Nagarajan (2005) pointed out that both societal progress and economic expansion are necessary for success, especially for female-owned enterprises. To succeed as an entrepreneur, one must possess the requisite skills (Porter & Nagarajan, 2005). The traits of successful female professionals are covered in the section that follows.

2.2.1. Parental Influences

In the realm of entrepreneurship, particularly women’s entrepreneurship, parental influences are vital (Staniewski et al., 2024). Using social and human capital, Vадnjal (2018) investigated the influence of parents on female entrepreneurs at three different times in their lives. Slovenian research indicates that parents of female entrepreneurs of all ages have different educational and professional backgrounds. Nonetheless, all female entrepreneurs give their parents’ moral and emotional support a reasonable amount of weight (Vадnjal, 2018).

Parents, particularly mothers, should be acknowledged as possible catalysts for their daughters to pick the professional paths they have always desired but have historically lacked the courage to pursue in order to promote and encourage female entrepreneurs in the future (Mkini Lugalla et al., 2023). According to Savage et al. (2023), the less patriarchal norms there are, the more successful women farmers are.

Additionally, in Pakistan, parents’ positive perceptions toward their daughters’ education acted as a mediating factor in their career success (Sadaf et al., 2024).

H1a1: *Parental influences positively mediate the relationship between financial literacy and financial performance.*

2.2.2. Spousal Support

Support from a spouse helps women develop adaptive psychological functioning, which increases their subjective happiness and well-being, claims Poggesi et al. (2017). Pak-

istani working women demonstrated greater degrees of inner contentment, self-assurance, and comfort with adjusting their work schedules to suit their husbands' approval as well as the emotional and social support they provided, according to (Nadgrodiewicz, 2011).

The study by Rasool et al. (2019) demonstrated a beneficial relationship between women's psychological well-being and their spouses' support. For instance, psychological well-being was positively correlated with physical health and spouse support (Y. Lee et al., 2018; L. Lee et al., 2011). Similarly, spousal support has a good correlation with women's psychological health and marital satisfaction (Jurado et al., 2019). This is because adaptive psychological functioning, which increases subjective happiness and well-being, is made possible by supporting spouses (Awotoye & Stevens, 2023).

H1a2: *Spousal support positively mediates the relationship between financial literacy and financial performance.*

2.2.3. Autonomy

Nguyen et al. (2020) define autonomy as the extent to which individuals possess independence, discretion, and freedom in their day-to-day activities. According to Mousa et al. (2024), autonomy refers to the internally perceived locus of control, which in this context is the ability of women entrepreneurs working remotely to decide what things to sell, how to market them, and when to work and take breaks. Women, therefore, view self-employment as a means of demonstrating their financial independence, sense of autonomy, and capacity to alter their assigned disadvantage (Atshan et al., 2024).

Autonomy is seen as a universal motivation for women entrepreneurs. As a result, the Global Entrepreneurship Monitor (GEM) report aimed to create a more comprehensive understanding of the factors that influence women to start their own businesses: (1) wanting to change the world; (2) wanting to accumulate enormous wealth or extremely high income; (3) wanting to carry on a family tradition; and (4) wanting to make a living due to a lack of employment opportunities (Bosma et al., 2025; Atshan et al., 2024).

According to Rindova et al. (2009), women entrepreneurs who achieve autonomy are using their business to empower their communities.

Women who have autonomy are better able to plan their workdays and schedules, take calculated risks, balance work and personal life, come up with and execute innovative ideas for their businesses, choose partners, and establish the parameters of business interactions (De Clercq & Brieger, 2022). However, in a study of a sample of men and women in Pakistan, autonomy was not found to be a significant modulator of subjective professional success (Diaa et al., 2024).

H1b: *Autonomy positively mediates the relationship between financial literacy and financial performance.*

2.2.4. Male Partners

Among the factors that could affect successful women are male companions and masculine traits. Depending on individual personalities, societal norms, and the particulars of the relationship, this impact can change (Moudry & Thaichon, 2020).

Studies on the ownership structure of female entrepreneurs, the function of male partnerships, and the assistance they offer are scarce. The way a worker's gender either helps or hinders their actions has been the subject of previous studies on women professionals (Bird & Brush, 2022; De Bruin et al., 2007; Jennings & Brush, 2013). Compared to men, women believe they have fewer opportunities to launch their own companies, hold higher-level jobs, and, once they do, are more likely to have resource limitations (Gupta et al., 2009).

Women use male partnerships to strengthen their areas of weakness and fill the gaps (Bridges et al., 2022). By providing emotional support, encouragement, and trust in her abilities, a supportive male partner can positively influence a woman's aspirations for personal development. In some situations, couples may choose to work together on a joint company initiative (Ahmetaj et al., 2023). A harmonious relationship can lead to effective cooperation and shared responsibility by combining the strengths of both sides. Furthermore, seeking guidance from male mentors can help women build a diverse network and increase the likelihood that they will eventually ask male coworkers for advice (Yan et al., 2024).

On the other hand, Graña-Alvarez et al. (2024) examined the relationship between employment type and financial literacy and autonomy. They found that self-employed people have a higher level of financial literacy than workers with paid salaries. The financial literacy levels of self-employed people or sole owners with employees and those without employees vary significantly. The consideration of self-employment with and without staff is explained by sociodemographic traits and financial product portfolios. A self-employed person should have a higher level of financial literacy since they are likely to assume greater financial responsibility than a paid employee (H1). In addition to the aforementioned, it would appear logical to compare the financial competencies of independent contractors with dependent employees (Graña-Alvarez et al., 2024).

H1b1: *Male partners moderate the relationship between financial literacy and autonomy.*

H1b2: *Employment type moderates the relationship between financial literacy and autonomy.*

3. Research Methodology

3.1. Analytical Approach

This paper study employs a quantitative approach to investigate the impact of financial literacy on the financial performance of women professionals in the MENA region. To achieve this, the researchers utilized Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS4 (Ringle et al., 2024).

Data was collected through a survey administered to 515 women professionals across five MENA countries: Lebanon, the UAE, Saudi Arabia, Egypt, and Turkey. Participants were recruited using a convenience sampling strategy through online distribution channels, including professional networks and social media platforms. This study was reviewed and approved by the HCR Ethical Committee at USEK, with the approval number HCR/EC 2024-090. All participants provided informed written consent to participate in the study by filling out the online questionnaire.

To analyze the collected data, the study employed Smart PLS4 software for PLS-SEM analysis. Pre-estimation tests, including Cronbach's alpha and composite reliability, were conducted to ensure the validity and reliability of the measures. Additionally, discriminant validity assessments (Fornell-Larcker method and HTMT ratio) confirmed that the constructs were distinct. A bootstrap analysis with a bootstrap sample of 5000 was also performed to test the significance of the hypothesized relationships, providing a robust framework for evaluating the model.

3.2. Data Description

The study surveyed 515 women from five MENA countries: Lebanon (473 respondents), the UAE (23), Saudi Arabia (11), Egypt (4), and Turkey (4). Lebanese participants represent the majority (92%), reflecting the primary research setting of the study. Participants were selected to represent diverse industries and socio-demographic back-

grounds. However, the sample distribution is geographically skewed, with 473 participants from Lebanon.

Of the participants, 46.21% are employees, while 53.79% are entrepreneurs. Notably, 71.65% hold graduate degrees, with the remainder having undergraduate degrees—none of the participants reported having a low education level. In terms of relationship status, 75.53% of the women are in a relationship, while the rest are single.

The work sectors of the participants are summarized in Table 1; the highest representation is in the education sector (12.6%), followed by sectors such as consulting and training, arts and design, fashion and retail, and marketing and media, each making up between 2.9% and 3.9% of the total. Other significant fields include food and agriculture (5.8%) and hospitality and tourism (2.9%). A diverse range of sectors, including legal, health, finance, events, and entrepreneurship, each accounts for smaller but notable percentages.

Table 1. Socio-Demographic and Professional Characteristics of Respondents.

Characteristic	Category	Frequency	Percentage (%)
Country of Residence	Lebanon	473	91.8
	UAE	23	4.5
	Saudi Arabia	11	2.1
	Egypt	4	0.8
	Turkey	4	0.8
Education Level	Undergraduate	146	28.4
	Graduate	369	71.6
Employment Type	Entrepreneur	277	53.8
	Employee	238	46.2
Marital Status	Married/In a Relationship	389	75.5
	Single	126	24.5
Business Sector	Education	65	12.6
	Consulting and Training	15	2.9
	Arts and Design	20	3.9
	Fashion and Retail	15	2.9
	Finance and Financial Advisory	10	1.9
	Marketing and Media	15	2.9
	Fitness and Wellness	10	1.9
	Food and Agriculture	30	5.8
	Hospitality and Tourism	15	2.9
	Legal and Law Firms	15	2.9
	Health and Medical	10	1.9
	Engineering and Architecture	5	1.0
	Humanitarian and Non-Profit	10	1.9
	Entrepreneurship and Small Business	10	1.9
	Trade and Commerce	10	1.9
	Insurance and Investments	10	1.9
	Events and Performance Venues	15	2.9
	Jewelry and Handicrafts	15	2.9
	Transportation and Logistics	10	1.9
	Miscellaneous (Other Sectors)	50	9.7

The distribution of women workers in the sample shows that participants from Lebanon have the highest frequency at 473, followed by the UAE with 23, KSA with 11, while both Egypt and Turkey have 4 women workers participants each.

3.3. The Variables and Conceptual Model

The dependent variable in this study is the perceived status of the women's business annual income, which measures the financial performance of the participants (FP) (Díaz-García & Brush, 2012; Dyer et al., 2013; Lerner et al., 1997; Sullivan & Meek, 2012). So, business income is recognized as a key indicator of success and as the dependent variable. Financial performance (FP) was measured in this study as self-reported annual income. For entrepreneurs, this referred to their business income or turnover, while for employees, it reflected their annual personal income or salary bracket.

The study includes one independent variable, which is financial literacy (FL), measured by questions evaluating the participant's self-assessed confidence in their financial knowledge and skills. This variable looks at how financial competence supports strategic planning and risk management, and whether external parties, such as investors, value women's financial literacy.

The study includes several factors playing as mediators between the dependent and independent variables. The first is parental influences (PI), measured through a set of questions that explore the role parents play in shaping the participant's career path. This includes their encouragement, serving as role models, providing financial assistance, influencing perceptions of gender roles, and emphasizing the importance of education in relation to business endeavors.

The second mediating variable is spousal support (SS), which examines the role of the participant's spouse in providing both emotional and practical help. The questions measure the extent to which husbands contribute to household chores, child-care, emotional support, and decision-making support in entrepreneurship and leadership positions.

PI and SS play an assumed serial mediation role for the relationship between FP and FL.

Lastly, women's autonomy (A) is also considered a mediating factor in the study, focusing on the participants' ability to independently make crucial business decisions. The questions assess the participant's freedom in strategic planning, risk-taking, and innovation, as well as their ability to structure their work-life balance and select business partners.

Two moderators are assumed in this model, moderating the relationship between FL and A. The first one is having male working partners (MP), which explores how the presence of male business partners influences entrepreneurial outcomes. MP refers primarily to male collaborators, co-founders, or professional peers with whom women work or share business responsibilities. The questions investigate whether having male partners provides increased access to resources, new business opportunities, diversity in problem-solving approaches, and improved external perceptions of the business. The second is the type of employment of the participating women, either entrepreneurs or employees.

The relationship between the independent variable described and the financial performance, the mediating factors, and the moderating factors is presented in the model in Figure 1:

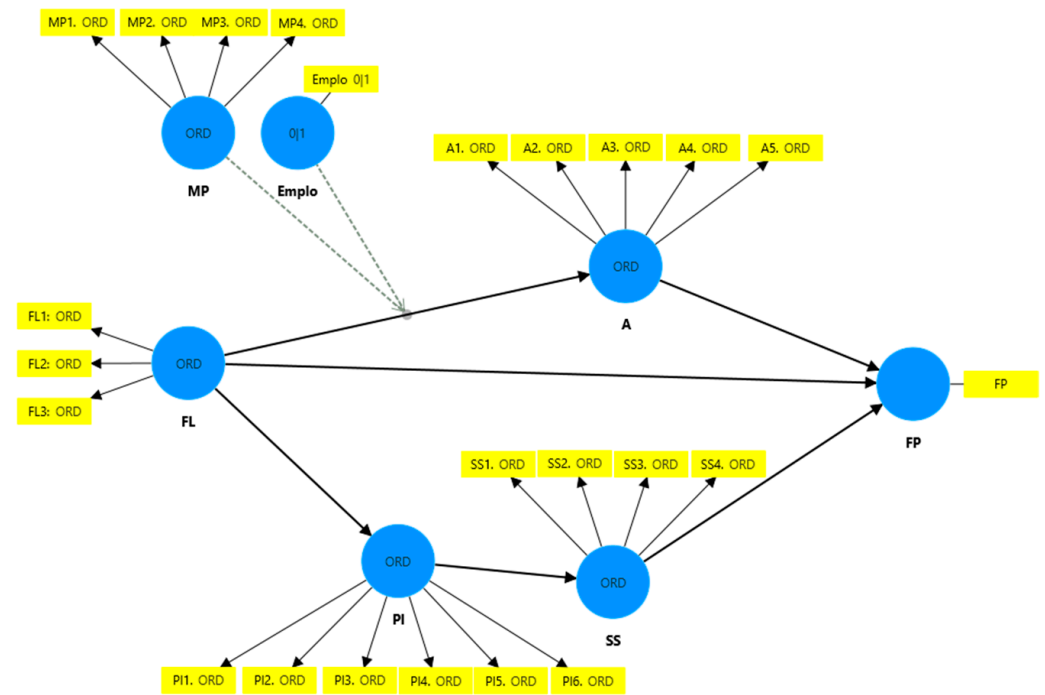


Figure 1. FL and FP model.

Where Financial performance is (FP), Financial literacy is (FL), Autonomy is (A), Parental influence is (PI), Spousal support is (SS), Male Partners is (MP), and Employment Type is (Emplo).

The questionnaire items were conceptually informed by prior literature on financial literacy, gender and entrepreneurship, and family support frameworks (e.g., [OECD, 2018](#); [De Bruin et al., 2007](#); [Poggesi et al., 2017](#)). However, given the absence of a comprehensive, validated instrument encompassing these constructs in the MENA context, the items were contextually adapted and refined by the authors. The instrument was reviewed by domain experts, pilot-tested for clarity, and validated through reliability and discriminant validity checks, ensuring that all constructs were appropriately measured for this study's objectives.

4. Results and Discussion

4.1. Univariate Analysis

Table 2 presents a descriptive statistics summary of the variables used in the study.

Table 2. Descriptive results of the used variables.

	Minimum	Maximum	Mean	Std. Deviation	Kurtosis	Skewness
Age	24	53	40.392	6.322	−0.351	−0.395
A	3	5	4.443	0.578	−0.274	−0.698
FL	1	5	3.942	0.954	0.231	−0.719
PI	1	5	4.262	0.997	1.618	−1.484
SS	1	5	4.101	1.092	1.172	−1.397
MP	1	5	3.125	1.277	−0.863	−0.276
FP	0	4	2.584	0.988	−0.482	−0.23

Note: Financial performance (FP), Autonomy (A), Financial literacy (FL), Parental influence (PI), Spousal support (SS), Male Partners (MP).

The participants' ages range from 24 to 53 years, with an average of 40.39 years. The standard deviation of 6.3 shows moderate variability in the ages of the participants.

Regarding autonomy (A), the scores range from 3.0 to 5.0, with a mean of 4.443, suggesting that most participants report high levels of autonomy in their businesses. The standard deviation is relatively low at 0.578, reflecting limited variability in decision-making freedom.

Financial literacy (FL) ranges from 1 to 5, with an average score of 3.942, demonstrating moderate confidence in financial competence among participants. The standard deviation of 0.954 reveals some variability in financial knowledge.

The participants' perceptions of parental influence (PI) range from 1.0 to 5.0, with a mean score of 4.262, showing high levels of perceived parental support. The standard deviation is 0.997, reflecting moderate variability in responses.

For spousal support (SS), scores also range from 1.0 to 5.0, with an average of 4.101, indicating generally high levels of emotional and practical support from spouses. The standard deviation of 1.092 suggests moderate variability.

The measure of having male partners (MP) in business shows greater variability, with scores ranging from 1.0 to 5.0 and a mean of 3.125. The standard deviation is 1.277, reflecting significant differences in the levels of male partner involvement.

Finally, financial performance (FP) ranges from 0 to 4, with a mean score of 2.584, indicating moderate levels of business success among participants. The standard deviation of 0.988 reflects moderate variability in business performance.

4.2. Bootstrap Results

4.2.1. Pre-Estimation Tests

Before estimating the PLS SEM model, the measures' reliability Cronbach's alpha test, was performed along with other reliability and validity statistics.

Reliability and validity statistics

The measures' reliability test, Cronbach's alpha, was performed over the 5 measures of the independent variables Autonomy, Financial literacy, Parental influence, Spousal support, and Male Partners. The result is shown in Table 3:

Table 3. Reliability and validity Statistics.

	Cronbach's Alpha	Composite Reliability (rho_a)	Composite Reliability (rho_c)	Average Variance Extracted (AVE)	N of Items
A	0.833	0.857	0.882	0.6	5
FL	0.822	0.848	0.892	0.735	3
MP	0.933	1.072	0.934	0.781	6
PI	0.851	0.885	0.889	0.575	4
SS	0.748	0.767	0.842	0.575	4

Note: Autonomy (A), Financial literacy (FL), Male Partners (MP), Parental influence (PI), Spousal support (SS).

Cronbach's Alpha is higher than 0.7 for all measures, which shows that each of the questionnaire's items are reliably measuring the same construct, indicating consistency in the responses of participants across the measures. The same goes for the composite reliability (rho_a) and (rho_c). As for the AVE, they are all above 0.5, which indicates that the measures are all valid as well.

As for the Discriminant Validity assessment using the Fornell–Larker method and the Cross Loading and Heterotrait-Monotrait (HTMT) ratio found in Table 4, the output was valid, which means no discriminant validity issues were present in the model.

Table 4. Discriminant validity HTMT Matrix.

	A	Emplo	FL	FP	MP	PI	SS	MP × FL	Emplo × FL
A									
Emplo	0.45								
FL	0.336	0.144							
FP	0.28	0.434	0.426						
MP	0.118	0.136	0.118	0.108					
PI	0.138	0.249	0.408	0.086	0.269				
SS	0.149	0.093	0.186	0.134	0.256	0.429			
MP × FL	0.109	0.093	0.177	0.039	0.155	0.089	0.119		
Emplo × FL	0.124	0.087	0.811	0.303	0.108	0.363	0.13	0.147	

Note: Autonomy (A), Employment type (Emplo), Financial literacy (FL), Financial performance (FP), Male Partners (MP), Parental influence (PI), Spousal support (SS).

4.2.2. Results and Discussion

The relationships between financial literacy (FL), autonomy (A), parental influence (PI), spousal support (SS), and financial performance (FP) were tested.

The results are summarized in Table 5 and in Figure 2.

Table 5. Hypothesized paths significance.

Hypothesis	Paths	Original Sample (O)	p Values	Significance
Total effects				
Direct path	FL -> FP	0.42	0	Significant at 5%
Specific indirect effects				
Simple Mediation	FL -> A -> FP	0.065	0.002	Significant at 5%
Moderated Mediation (MP × FL)	MP × FL -> A -> FP	−0.015	0.059	Insignificant at 5%
Moderated Mediation (Emplo × FL)	Emplo × FL -> A -> FP	−0.045	0.018	Significant at 5%
Serial Mediation	FL -> PI -> SS -> FP	0.011	0.012	Significant

Note: Autonomy (A), Employment type (Emplo), Financial literacy (FL), Financial performance (FP), Male Partners (MP), Parental influence (PI), Spousal support (SS).

The structural model results indicate that financial literacy (FL) has a significant positive impact on financial performance (FP) ($\beta = 0.370$, $p = 0.000$), suggesting that individuals with higher financial literacy levels tend to achieve better financial outcomes.

The total effects analysis demonstrates that financial literacy has a strong overall impact on financial performance ($\beta = 0.42$, $p = 0.000$). This confirms that even when accounting for indirect effects, financial literacy remains a critical factor in determining financial success.

Mediation Analysis: The Role of Autonomy, Parental Influence, and Spousal Support

In addition, financial literacy significantly enhances autonomy (A) ($\beta = 0.405$, $p = 0.000$), indicating that financially literate individuals are more likely to make independent financial decisions. The direct effect of autonomy on financial performance ($\beta = 0.160$, $p = 0.000$) supports the role of autonomy as a key driver of financial success.

Autonomy (A) significantly mediates the relationship between financial literacy and financial performance. This is backed by the significance of the specific indirect mediation effect (FL → A → FP, $\beta = 0.065$, $p = 0.002$). This confirms that individuals with

higher financial literacy tend to have greater autonomy, which in turn enhances their financial performance.

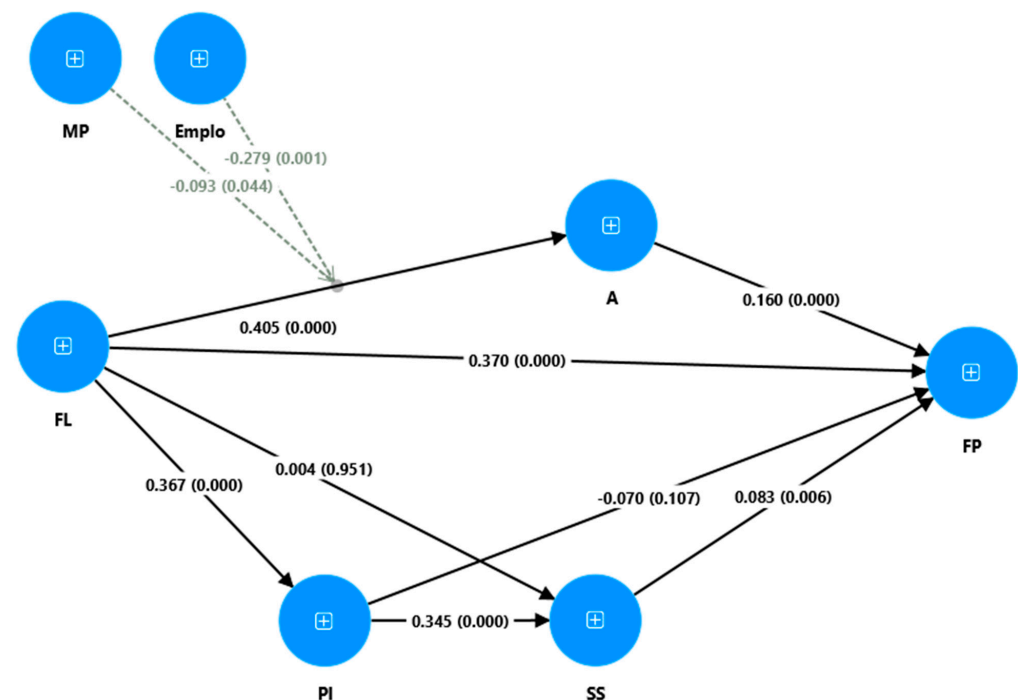


Figure 2. Bootstrap paths coefficients.

Parental influence (PI) is also significantly influenced by financial literacy ($\beta = 0.367$, $p = 0.000$), but its direct effect on financial performance is not statistically significant ($\beta = -0.070$, $p = 0.107$), implying that parental influence alone does not directly contribute to better financial performance, but it serves as a mediator for the relationship between FL and FP through SS. The positive signs of all the indirect path coefficients show that a partial mediation is present between the variables, and this mediation is complementary (Zhao et al., 2010).

On the other hand, spousal support (SS) is not significantly affected by financial literacy ($\beta = 0.004$, $p = 0.951$), but it is affected by PI and does have a small yet significant positive effect on FP ($\beta = 0.083$, $p = 0.006$), indicating that SS plays a minor role in financial decision-making, followed by a positive effect of PI and a positive FL. The positive signs of all the indirect path coefficients show that a partial mediation is present between the variables FL, SS, and FP, and this mediation is complementary (Zhao et al., 2010). But the negative sign between PI and FP shows FL, PI, and FP have a partial but competitive mediation.

This is supported by the serial mediation effect of $FL \rightarrow PI \rightarrow SS \rightarrow FP$ that is also statistically significant ($\beta = 0.011$, $p = 0.012$), although the effect size is relatively small, suggesting that while parental influence and spousal support play a role, they are not the primary mechanisms through which financial literacy improves financial performance.

When comparing the mediation effects of A and PI and SS, the pathway coefficient of A is stronger than that of PI and SS, which means that the effect of A is greater on the relationship between FL and FP than PI and SS.

Moderation Analysis: The Influence of Male Partnership and Employment Type

The results also indicate the presence of a moderated mediation: male partnerships (MP) and employment type (Empl) affect the strength of the relationship between FL and A.

Figure 3 illustrates the interaction effect between Male Partnership (MP) and Financial Literacy (FL) on Autonomy (A). The graph shows that as financial literacy increases,

autonomy also increases across all levels of MP. However, the steepest slope is observed when MP is high (red line), indicating that individuals in higher male partnership settings experience a stronger positive effect of financial literacy on autonomy. Conversely, when MP is low (green line), the slope is flatter, suggesting that financial literacy contributes less to autonomy in these conditions.

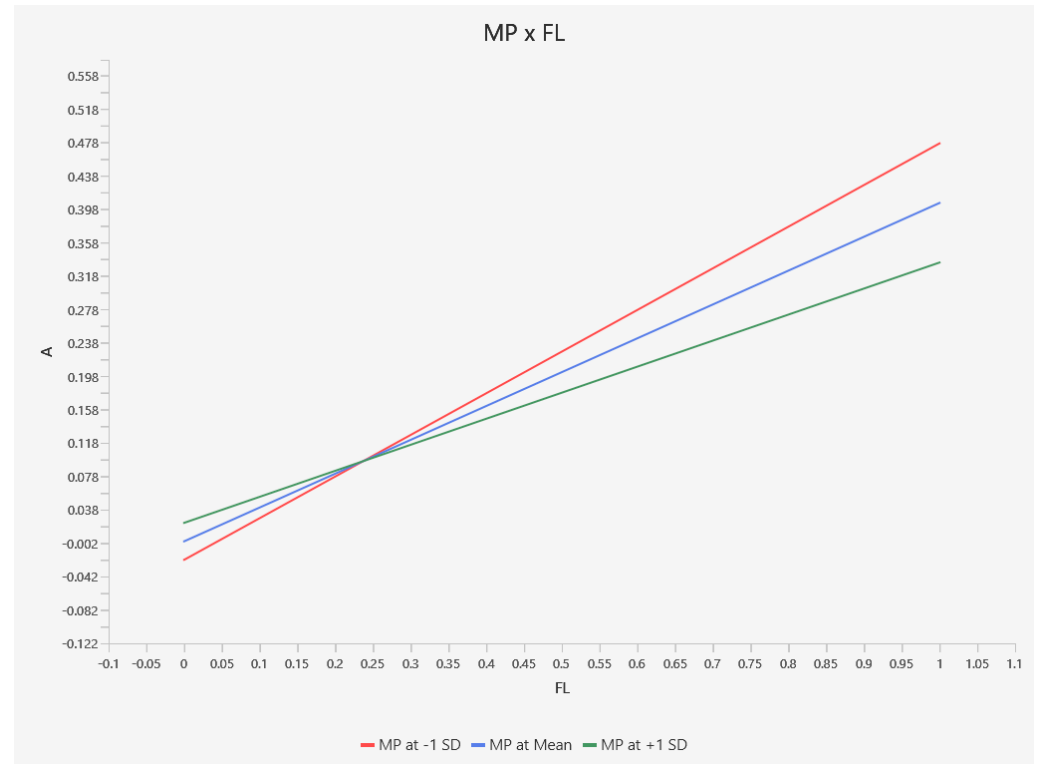


Figure 3. Parallel lines for MP.

This result suggests that the presence of a male partnership does not necessarily weaken the relationship between financial literacy and autonomy. Instead, higher male partnership enhances the impact of financial literacy on autonomy, possibly because financial decision-making becomes more pronounced when male partners are actively involved.

Figure 4 presents the moderation effect of Employment Type (Emplo) on the relationship between Financial Literacy (FL) and Autonomy (A). Autonomy (A) is significantly lower when Emplo is at zero, which means women are employed, compared to when it is at one, which means women are entrepreneurs.

Additionally, the line has a steeper positive slope when women are employed, indicating that for women who are employed, increases in financial literacy lead to larger gains in autonomy. In contrast, for women entrepreneurs, autonomy is already high, and financial literacy has a smaller incremental effect.

Finally, the effect size analysis further supports these findings. The interaction effect of $MP \times FL \rightarrow A$ has an f^2 of 0.013, indicating a moderate effect, while $Emplo \times FL \rightarrow A$ has an f^2 of 0.025, suggesting a large effect. This confirms that employment type has a more substantial impact on reducing autonomy compared to male partnership.

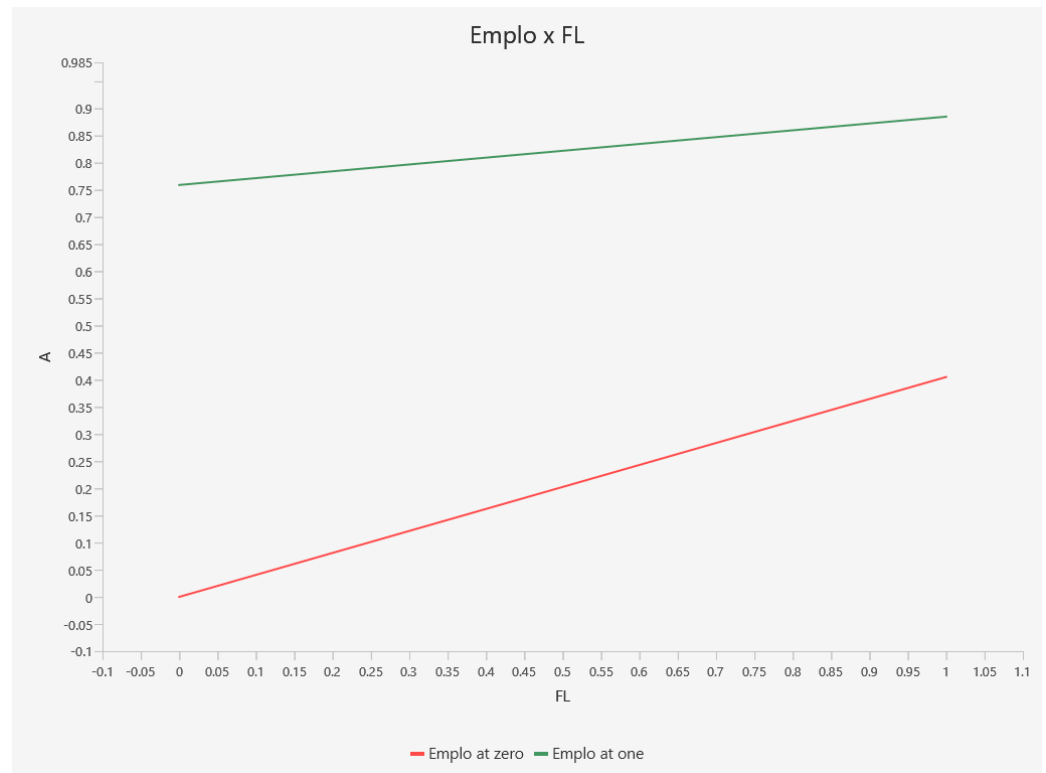


Figure 4. Parallel lines for Employment.

4.3. Discussion of Findings

The findings confirm that financial literacy significantly enhances women's financial performance, primarily through the mediating role of autonomy. This result aligns with prior studies showing that financially literate women demonstrate greater confidence and independence in financial decision-making (OECD, 2018; Soomro et al., 2024). Similarly to De Clercq and Brieger (2022), our results indicate that autonomy operates as a central mechanism linking financial capability with professional and economic success.

The weaker mediating roles of parental and spousal support are consistent with evidence from Vadjnal (2018) and Poggesi et al. (2017), who found that family encouragement contributes positively but less directly to financial outcomes. This suggests that while social and emotional backing remain relevant, personal agency and financial competence play a more decisive role in achieving economic empowerment.

The moderating results further reveal that employment type and male partnership shape the strength of this relationship. The positive moderation of male partners complements prior work on gendered collaboration (Bridges et al., 2022), implying that constructive professional partnerships with men can reinforce women's autonomy rather than constrain it. Likewise, the stronger autonomy gains among employed women relative to entrepreneurs highlight that the workplace context may amplify the benefits of financial literacy, a nuance rarely examined in MENA settings.

Theoretically, these results extend models of women's economic empowerment by integrating financial literacy as both a resource and a catalyst of autonomy within social-support systems. The study contributes to the literature by demonstrating that empowerment is multidimensional: it depends not only on knowledge and resources but also on contextual enablers such as work environment and gendered collaboration. By incorporating both mediating and moderating mechanisms into one structural model, this research moves beyond descriptive evidence and provides a conceptual bridge between human-capital, social support, and gender empowerment theories.

Overall, the findings underscore that enhancing women's financial capability, particularly through autonomy-focused education and inclusive professional networks, can yield significant developmental and theoretical insights for gender and development economics.

5. Conclusions and Recommendations

Financial literacy, in developing countries (Iram et al., 2024), countries in development (Mawad, 2022), or under development, plays a crucial role in entrepreneurship and work success, especially for women (Mishra et al., 2024). But being financially literate does not suffice alone for women to find financial success, especially in the MENA region.

Using a sample of 515 Middle Eastern women professionals in various industries, the research employed a quantitative statistical analysis: SEM using Smart PLS4 to test whether financial literacy positively impacts the financial performance of women in the Middle East and whether autonomy plays a stronger role in mediating this relationship than family support (parental and spousal).

The findings highlight the role of financial literacy in enhancing financial performance, primarily through its direct impact and mediation via autonomy.

The results found that individuals with higher financial literacy levels are more autonomous in their financial decisions, which significantly boosts their financial performance. The mediation analysis further underscores that autonomy is the strongest mediating factor, surpassing the effects of parental influence and spousal support.

While parental influence does not directly affect financial performance, it indirectly contributes through spousal support, which, despite having a minor impact, plays a complementary role in financial decision-making.

The moderation analysis provides further insights, demonstrating that male partnership and employment type significantly influence the relationship between financial literacy and autonomy. Contrary to the assumption that male partnership might weaken women's autonomy, the results show that financial literacy exerts a stronger impact on autonomy in higher male partnership settings, suggesting that financial decision-making becomes more pronounced in these environments.

Being an entrepreneur, however, has a more substantial effect, with financial literacy leading to greater autonomy gains among employed women compared to entrepreneurs, who already exhibit high autonomy. This indicates that financial literacy plays a more transformative role for employed women by significantly increasing their financial independence, whereas for entrepreneurs, its influence is less pronounced due to their inherently higher autonomy levels.

The results lead to practical recommendations that revolve around:

- Fostering autonomy: policies should focus on empowering women's autonomy in working environments and society.
- Financial education: setting up programs and initiatives aimed at improving financial literacy among women can help enhance their professional success.
- Support systems: Providing support systems, such as mentoring programs or networking opportunities, can help women navigate the challenges and balance personal and professional responsibilities.
- Women-friendly HR policies: to provide further autonomy and organizational support necessary for the growth and advancement of women within organizations.
- Policy changes: working on designing policies that promote gender equality and support women-owned businesses can create a more favorable environment for women entrepreneurs.

Finally, undertaking the study did not come without its challenges. First and foremost, reaching the desired audience number proved difficult. With the ongoing war in

Lebanon, priorities have shifted, and people are less flexible in responding positively to answering surveys. Furthermore, the sensitive nature of some of the questions, particularly those related to personal finances and relationships, may have deterred some participants from sharing their honest opinions. Additionally, reaching the desired population in more countries was challenging due to a lack of networks or strategic partners. These limitations could potentially affect the generalizability of the findings and the representativeness of the sample. Future research should aim for a more balanced geographic representation to enhance generalizability. Future studies could also examine cases where husbands simultaneously act as work partners, allowing for a more nuanced understanding of overlapping domestic and professional male influences on women's autonomy and financial outcomes. To complement the quantitative analysis, future studies could also incorporate qualitative methods such as interviews or focus groups. These methods would allow for a deeper exploration of cultural and societal nuances influencing women's financial performance and success.

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