



Available Online

Journal of Education and Social Studies

ISSN: 2789-8075 (Online), 2789-8067 (Print)

<http://www.scienceimpactpub.com/jess>

EMPOWERMENT AT THE CROSSROADS: OPPORTUNITY AS A MEDIATOR IN THE NEXUS BETWEEN MICRO FINANCIAL SERVICES AND WOMEN'S ECONOMIC WELLBEING, MODERATED BY VULNERABILITY

Raqia Yasmeen^{1,*}, Ali Sajjad², Hafiza Sana Kiran¹, Muhammad Haseeb Shakil³ and Qurat-ul-ain Rasheed¹

¹Scholar, Faculty of Business & Management Sciences, The Superior University, Lahore, Pakistan

²Assistant Professor, Chaudhary Abdul Rehman Business School, Faculty of Business & Management Sciences, The Superior University, Lahore, Pakistan

³Scholar, Department of Management Sciences, Faculty of Business Administration, COMSATS University Islamabad, Lahore Campus, Lahore, Pakistan

ABSTRACT

Women's empowerment is globally recognized, with economic empowerment being a key aspect—enabling decision-making, income growth, and asset ownership. This study investigates the mediating role of opportunity and microfinance elements, along with social capital, in enhancing women's economic empowerment. Data was collected from 205 female clients across three microfinance banks in Pakistan using closed-ended questionnaires. Employing Partial Least Squares-Structural Equation Modeling (PLS-SEM), the study reveals strong positive correlations between women entrepreneurs' sales performance and their ability to secure loans, acquire new skills, and establish networks. Social capital plays a pivotal role in boosting business outcomes. The relationship between loan availability, savings, skill development, social capital, and bonding is mediated by opportunities for business improvement. Vulnerability moderates the relationship between opportunity and women entrepreneurs' sales success, allowing for business expansion. Microfinance components positively impact women's economic empowerment.

Keywords: Women economic empowerment; Microfinance services; Micro credit; Micro saving; Financial training; Social capital; Opportunity; Vulnerability; Micro finance bank.

* Email: raqia342@gmail.com

© The Author(s) 2024.

<https://doi.org/10.52223/jess.2024.5111>

Received: December 16, 2023; Revised: March 23, 2024; Accepted: March 08, 2024

This is an open-access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>).

INTRODUCTION

Women's economic empowerment is a major priority on the development agendas of many developing countries (Shah et al., 2023). More than 500 million individuals worldwide live in impoverished conditions despite their active economic participation (Gogwe, 2019). Furthermore, noted that approximately seventy percent of the global impoverished demographic comprises women, who historically faced disadvantages in accessing credit and financial services (Alemu, 2020). In this context, "micro-finance factors" pertain to the range of services offered by micro-finance institutions to facilitate entrepreneurial endeavors, encompassing credit provisions such as loans and savings, alongside non-credit services like training and social capital (Joseph, 2018). Poverty and financial vulnerability have always been significant global issues (Sun et al., 2022). Currently, around 2.4 billion people worldwide are experiencing extreme poverty (Ragnhammar & Samelius, 2019). A financial service known as microfinance offers loans, savings accounts, money transfers, payment processing, and insurance assistance for those with modest incomes and households and the very poor (Hameed et al., 2019; Nasir & Farooqi, 2016). Many managers are looking for ways to substitute an additional entrepreneurial culture within their organizations (Hakola & Sarna, 2023). Together with females who had been discovered to be part of the key contributors to the financial progress (Grine et al., 2015) within a variety of small companies (Rashid, 2017; Still & Timms, 2000).

Moreover, conforming to the Tenth Malaysia Plan (Ishak & Thiruchelvam, 2023; Menteri, 2010), SME Annual Report 2014/2015 (Hamid & Sazali, 2020; Hamid et al., 2019) Since 2014, over 60 programs by MWFC, MID Sarawak, and MATRADE have aided 100,000 recipients, including women entrepreneurs, in human capital development and marketing access (Gomez et al., 2020; Hamid et al., 2019).

A vital poverty reduction policy, expanding to nearly 60 countries in 20 years (Bateman, 2010; Mader, 2016). Microfinance primarily empowers women, who are the most vulnerable and represent 70% of global poverty (Das, 2021). The empowerment of women has become a global issue in the last ten years, especially in developing and impoverished regions (Malik, 2023). In distinction, much research affirms that microcredit has a vital optimistic effect on family welfare (Yang et al., 2023). Poverty is without doubt one of the most continual points worldwide (Geddes, 2020), and it is very alarming in most growing international locations reminiscent of Pakistan. Women entrepreneurship has grown significantly over the years, but they still face substantial challenges, particularly in India's Telangana state, where gender disparities persist (Bilgrami et al., 2022). Microfinance institutions, like in many parts of the world, play a crucial role in empowering women and alleviating poverty. The microfinance sector is rapidly expanding globally (Fuentes, 2023). Microcredit empowers low-income individuals, particularly women, to escape poverty and achieve financial security, driving entrepreneurship (Al-Shami et al., 2021). It encompasses tangible and intangible resources, fueling global economic growth. In the UK, women contribute to Indonesia, microenterprises contribute 55% of GDP and 75% of employment, compared to 50% of GDP and 54.1% of employment in the country (Khondkar, 1998). Malaysia sees 44% in GDP and 56% in employment through such endeavours, highlighting their significant impact on national economies (Basch et al., 2020).

Women's empowerment is limited in many developing countries like Pakistan, with low female contributions to the economy (25-30%) (Asad et al., 2020). High unemployment rates in these nations contribute to the challenge. Sustainable development and economic growth are top priorities, highlighting the importance of women's participation (Nundy et al., 2021). However, women's empowerment remains a significant issue in Pakistan (Zafarullah & Nawaz, 2019). Pakistan's government has struggled to empower women for 63 years, hindering the country's economic growth (Shahid, 2022). Microfinance institutions aim to address this issue but face limitations (Mutamimah et al., 2022). They offer financial services like micro-credit and savings, promoting women's empowerment and poverty reduction (Varghese & Menon, 2023). Microfinance is a rapidly growing global industry, with many institutes advocating for women's empowerment, though challenges persist (Aziz et al., 2023). This research emphasizes exclusively the province of Punjab in Pakistan, an area characterized by numerous impoverished villages, offering significant Possibility of creating and growing microfinance organizations. Even with numerous microfinance institutions operating in Punjab (Gupta & Sharma, 2023), their impact on poverty alleviation remains notably limited. Consequently, the study concentrates on this region, with a specific emphasis on the core, the offerings from microfinance institutions, such as microcredit and micro-savings, financial training, and social capital.

Despite facing challenges, women's participation is increasing. (Gadzali et al., 2023). Women entrepreneurs frequently experience a deficiency in the financial and social resources required for business expansion, prompting them to turn to microfinance, often influenced by factors such as unemployment, low income, and high interest rates (Yousfani et al., 2019). Group formation in microfinance offers loan security (Joseph, 2023). Since they lack physical capital for conventional bank collateral, they rely on social capital from microfinance institutions (Postelnicu & Hermes, 2018). Despite the increasing women's participation in microfinance, women's empowerment remains a challenge in Pakistan (Ngoasong, 2023).

This research holds importance for microfinance institutions aiming to empower women. It explores three vital capital types - financial, human, and social - in the context of women's empowerment. The study reveals their interdependence and highlights factors like opportunity and vulnerability in Punjab, Pakistan. It fills gaps in prior literature by addressing the influence of these factors on women's empowerment

through microfinance. The results hold value for microfinance institutions, the State Bank of Pakistan, and the Pakistani government as they reveal persistent vulnerabilities and their impact on women's economic empowerment. In Pakistan, around 40% of females face poverty, with 30% considered economically and socially disadvantaged (Kausar et al., 2022). Women are vital for economic development but face challenges despite efforts for empowerment (Sudha & Reshi, 2023). Microfinance's role in enhancing women's status is debated, especially in Muslim countries with gender disparities. Pakistan has a large female population but low employment rates (Abrar ul Haq et al., 2019). These issues hinder women's contribution to the economy of the nation in comparison to both developed and developing countries (Hameed, 2019).

Objectives of the Study

The main objective of the study is to determine the mediating role of opportunity between microfinance services, social capital, and Women's Economic Empowerment with the moderating role of vulnerability. Moreover, the sub-objectives are:

1. To examine the relationship between micro-credit and women's economic empowerment.
2. To examine the relationship between micro-saving and women's economic empowerment.
3. To examine the relationship between financial training and women's economic empowerment.
4. To examine the relationship between social capital and women's economic empowerment.
5. To examine the relationship between opportunity and women's economic empowerment.
6. To examine opportunity mediates the relationship between microfinance services, social capital, and women's economic empowerment.
7. To explore how vulnerability moderates the relationship between opportunity and women's economic empowerment.

LITERATURE REVIEW

Theoretical Foundation (Mayoux's Feminist Empowerment Theory)

Women's empowerment through microfinance forms a cornerstone for women's sustainability (Ajwani-Ramchandani, 2017). The concept of women's empowerment emphasizes empowerment in social and economic spheres, especially within developing nations, reducing gender discrimination and striving for equity and equality (Chant, 2008). It aims to alleviate poverty among women by promoting self-sustainability and providing socio-economic rights, contributing to gender equality (Rahayu, 2020). By providing options like credit and savings, increasing women's decision-making ability, and fostering economic empowerment through revenue-generating microenterprises, microfinance plays a critical role in empowering women (Ndabaningi et al., 2023). The idea of empowerment by the right of participation in decision-making, as put out by Freire, is consistent with Mayoux's definition of "equity, equality, and empowerment (Zafar, 2023). It prioritizes self-determination and equitable treatment for a better quality of life (Shogren & Raley, 2022). This idea is pertinent to the study's focus on women's poverty reduction and gender inequality, especially in Pakistan's Punjab province (Hussain et al., 2019). Because of its thorough understanding of women's empowerment through socioeconomic status and the proven ability of microfinance to enhance women's socioeconomic empowerment by addressing their strategic and gender-related vulnerabilities, Mayoux's Feminist Empowerment Theory is chosen (Asad et al., 2020).

Women-Empowerment

Economic autonomy is a key aspect of women's empowerment, Independence, and increased self-esteem, empowering them to tackle obstacles and promote societal progress (Kapoor, 2019). This empowerment confers the authority to govern an array of resources, encompassing monetary assets, cognitive capital, and participation in the decision-making process (Foss et al., 2021). Women empowerment is, without doubt, one of the means of training women to be economically unbiased, self-reliant, and have optimistic esteem

that allows women to face any difficult scenario in addition to contributing to numerous growth actions (Shin et al., 2016). In this course, women get extra management over the completely different assets, human and management over mental assets including data, information, concept, financial assets reminiscent of cash and management on determination making energy at family degree, group degree, nation degree and achieve extra energy (Jamal et al., 2016). Engage' signifies "to give someone the power or position to follow through with something or to give someone more command over their life or the circumstance they are in (Rehman et al., 2020)." Women strengthening is, without uncertainty, one of the cycles wherein women get additional administration over resources, human and mental resources including data, ideas, information, economic parts like money or section to money, and dynamic energy on the home, bunch, and cross-country fronts (Setargie et al., 2023).

For the most part, it is connected to intermediation and endeavors development which lastingly affects economic independence (Shaheen et al., 2018). In most developing worldwide areas like Pakistan, ladies strengthening is low coming about because of totally various causes suggestive of absence of section to resources, absence of FICO assessment, absence of training, absence of economic reserve funds and protection inclusion, and various focuses related to orientation segregation, custom and confidence (Suleri et al., 2018). Women's economic strengthening will be accomplished given the following: (a) The accessibility of resources and females having the capacities to capitalize on them; (b) Admittance to monetary other options and the executives over the monetary benefits of these other options; and (c) Ladies using these benefits to pursue vital choices bringing about hopeful adjustments of their lives and upgrade their way of life and that of their household (Uzoamaka et al., 2016). It is completely potential to take a gander at the effects in various aspects and never in others (Ojong & Simba, 2019).

Furthermore, characterized that the indistinguishable aspects suggestive of social, political and monetary, through the adaptability of individuals/groups, might actually be worked on in heading of the going with and changing of choices into wanted activities and outcomes (Olajide et al., 2016). These aspects are furthermore suitable because the financial aspect involves ownership of useful and non-useful resources notwithstanding passage to social and monetary things. These aspects furthermore involve a monetary commitment to family government assistance, which consolidates the women's means to create income, cut cost energy, the executive's assets, improve independence, and assure their essential needs and commitment inside the family dynamic course of Jinia (2016). In many developing nations, like Pakistan, women's empowerment faces barriers such as imperfect resource admittance, restricted credit, insufficient education, and deficiency of savings options (Lindvert et al., 2017). Multiple dimensions of women's empowerment, such as economic, legal, socio-cultural, political, familial, and psychological factors, are frequently mentioned (Basu, 2023). Economic empowerment hinges on resource access, skill utilization, financial opportunities, and control over their benefits (Thorpe et al., 2023). These dimensions, encompassing social, political, and economic facets, can be enhanced through individual or collective agency (Tklich, 2020). In numerous developing nations such as Pakistan, gender inequality hinders women's economic participation (Nasir et al., 2019). These dimensions address such issues by promoting gender equality and supporting women's economic activities, justifying their selection in this study.

Microfinance

Microfinance, considered a poverty alleviation tool, facilitates improved household welfare through increased financial efficiency via entrepreneurship and income generation (Mude, 2022). Access to microfinance services is a critical, independent variable aiding impoverished households in combating financial deprivation (Bondinuba et al., 2017). Adequate financial capital enables better opportunity utilization, enhancing socioeconomic performance (Haq et al., 2020). Microcredit programs are seen to reduce income inequality and poverty (Chhabra, 2021). Income's significant role in consumption and human wellbeing indicators is supported by multiple research findings (Sarwar et al., 2017). To put it briefly, a crucial component of our suggested strategy, microfinance services, has a good effect on

households' socioeconomic results, especially those of microbusiness owners, who frequently lack financial resources (Abdullah et al., 2021). The primary contention behind its influence is that families can further develop their economic productivity through business and pay-creating activities, assuming they are provided with fast admittance to financial providers (Ukanwa et al., 2018).

Subsequently, microfinance money-related (Al Mamun et al., 2019) suppliers are incorporated inside the life-sized model as a serious unprejudiced variable that might be valuable for unfortunate families to battle economic hardship. In the presence of the right financial capital, unfortunate families have the additional ability to benefit and take full advantage of most other options, subsequently improving their financial productivity (El Hadidi et al., 2020). It is firmly accepted that income imbalance and neediness will be diminished through microcredit packages. The meaning of microfinance economic administrations will be considered from various points of view. To begin with, a crucial instrument enables families by offering them independent work and serving them in delivering extra revenue (Hassan et al., 2020). Microfinance assists with monitoring from totally various risks and expands the undertaking to broaden wellsprings of income as a significant instrument for women's economic growth (Addai, 2017). Many specialists' results affirmed that income played a major situation in utilization, capital development, and various marks of human prosperity. At the point when the income degree will build passage to adjusted dinners, section to clinical benefits, and adolescents' tutoring are decidedly affected (Hussain et al., 2019). In particular, it is fundamental for monetary Thus, as per the above conversation, microfinance financial administrations are incorporated as one of numerous vitally fair factors inside the proposed life-sized model, and it is contended that these monetary administrations hopefully affect families' financial results. Microfinance buyers, especially miniature business holders, are frequently incapable of taking advantage of their monetary capital effectively coming about because of a shortfall of certain abilities and consciousness (Cieslik et al., 2019) development since it advances business and helps in making jobs (Al Mamun et al., 2019).

Pakistani women in microfinance foundations somewhere in the range of 2013 and 2017, the support of ladies will increase each year. In 2013, the entire assortment of ladies' supporters is 1.4 million, and it raised to 1.6 million in 2014. It came to 2.7 million of every 2023. It furthermore connotes that ladies support in microfinance is expanded in correlation with guys. Microfinance foundations are effective gadgets offering essential administrations like saving, microcredit, and training (Kastora et al., 2022). Most microfinance foundations have a straightforward expectation to enable women. The basic inspiration is totally unique among the numerous foundations. Some consider that women are the most unfortunate occupants and live in circumstances of weakness; because of this reality, serving to them is a priority, while some others consider that women should partake and contribute in development and monetary actions (Nasir & Farooqi, 2016). Programs for microfinance education strengthen these capacities, improving socioeconomic results (Abdullah et al., 2022). This also empowers women by improving their social and economic wellbeing, although in Pakistan, women face a financial barrier, which microfinance institutions address by providing microcredit (Hussain et al., 2019).

Concept of Vulnerability

Vulnerability refers to the likelihood of experiencing poverty or further impoverishment due to specific events or circumstances (Dintwa et al., 2019). It encompasses several factors that dictate the degree to which an individual's life and livelihood are vulnerable (Wang & Zhou, 2022). This concept is employed across multiple disciplines, including economics, psychology, production, ecology, and sociology (Riswan et al., 2022). In most cases, it denotes the potential for a human response to adverse conditions (Leite et al., 2020). Vulnerability assesses both the capacity and the extent to which a system can be impacted by exposure to hazards (Sharma & Ravindranath, 2019). It varies from poverty in that it delineates the diverse events or factors that can precipitate individuals into poverty. Essentially, vulnerability denotes the insecurity and susceptibility of the wellbeing of individuals, communities, and households in reaction to shifting environmental conditions (Thomas et al., 2020). Vulnerability encompasses community responses

to changes in social environment, and environmental and economic conditions (Schlosberg et al., 2017). It involves increased susceptibility to hazards, shocks, and food insufficiency that may jeopardize a family's ability to survive (Laborde et al., 2020). Additionally, social vulnerability can be influenced by factors such as race, ethnicity, and complexity, and it relates to the likelihood of being in poverty or falling deeper into poverty today (Gaynor & Wilson, 2020).

Empirical Review on Micro-credit and Women-empowerment

While credit support has been suggested to enhance entrepreneurship performance and the welfare of women entrepreneurs, existing literature consistently demonstrates that adequate access to credit positively influences entrepreneurship efficiency (Marei et al., 2023). Credit assistance, particularly for women, manifests in various beneficial outcomes, including increased income, access to credit training, enhanced social capital, savings, improved attitudes toward microfinance, higher business output, increased investment, employment generation, and overall welfare (Thapa & Chowdhary, 2022). Furthermore, microcredit programs have shown a favorable effect on women entrepreneurs' revenue, business success, and wellbeing (Alsaad et al., 2023).

H1: There is a positive relationship between Micro-credit and women's economic empowerment.

Empirical Review on Micro-Saving and Women-Empowerment

Investments serve as a form of collateral for credit, which is crucial for women entrepreneurs who often lack physical assets (Alshammari & Daud, 2021). The combination of savings and credit has been found to positively influence business productivity (Balogun, 2023). Additionally, the trio of savings, credit, and education revenues has a positive effect on women's entrepreneur income and overall well-being (Williams et al., 2023). Moreover, both savings and credit independently contribute to the improved wellbeing of entrepreneurs' women (Chatterjee et al., 2022).

H2: There is a positive relationship between micro-saving and women's economic empowerment.

Empirical Review on Micro-Training/Skill Development and Women Empowerment

Literature suggests credit and financial education should be integrated, even if the education is minimal (Mukhopadhyay & Ianole, 2021). Skill training is vital for entrepreneurial expertise needed in small business startups, while business and management education imparts essential managerial competence for daily and corporate decisions (Goodrich et al., 2018). Consequently, training has positively influenced women's entrepreneurship performance in various countries, including Ghana, Nigeria, the USA, Tanzania, and Canada (Kuada, 2022).

H3: There is a positive relationship between training and women's economic empowerment.

Empirical Review on Social Capital and Women-Empowerment

Women entrepreneurs, particularly in growing international locations, lacked social connections, which can be a supply of credit score and market data (Igechi & Onah, 2023). Meanwhile, social capital has been found to positively impact the effectiveness of entrepreneurial women. (Choudhury et al., 2023). Social capital resembling self-help groups (SHGs) encourages and assists in strengthening social systems (Setargie et al., 2023).

H4: There is a positive relationship between social capital and women's economic empowerment.

Mediation Role of Opportunity

Financial management studies assert that funds are typically sought to finance predetermined projects (Ayensu et al., 2023). In contrast, other theories emphasize that innovation in new products or services is a primary driver of business performance (Rajiani & Normuslim, 2023). However, a contradictory finding suggests no correlation between related diversification and firm performance; only vertical diversification exhibited a positive link with profitability (Han et al., 2023). The presence of

opportunities is crucial for entrepreneurial activity, as it relies on new products, fresh supply sources, or novel technologies (Jagtap et al., 2020).

Moreover, social capital, comprising networks, fosters entrepreneurial opportunities leading to enhanced efficiency (Cordero & Lewis, 2023). Market opportunities, driven by innovation, necessitate microfinance elements, thereby creating income-generating opportunities for entrepreneurs (Mengstie, 2023). Social capital enables women entrepreneurs to network for information and resources (Razzak et al., 2023). The link between microfinance elements and women entrepreneurs' business performance is the opportunity for entrepreneurial activity, be it a new venture or expansion (Anoke, 2023). Microfinance elements facilitate income generation for entrepreneurs (Bhatia & Singh, 2023). The identification of a business opportunity and deciding to pursue it initiates a search for external funds, and securing these funds creates opportunities for income-generating activities (Popa et al., 2023). Finally, the study proposed the following hypothesis:

H5: Opportunity acts as a mediator between micro-credit and the economic empowerment of women.

H6: Opportunity acts as a mediator between micro-saving and the economic empowerment of women.

H7: Opportunity acts as a mediator between financial training and the economic empowerment of women.

H8: Opportunity acts as a mediator between social capital and the economic empowerment of women.

Moderating Effects of Vulnerability

Opportunity positively impacts women's social and economic empowerment by enhancing their income, decision-making power, and status within families and communities (Mengstie, 2022). It reduces gender inequality, increases participation in decision-making, and contributes to poverty reduction and socio-economic empowerment (Asad et al., 2020). Opportunity significantly empowers women both socio-culturally and economically, as seen in (Hameed, 2019). It has a positive effect on income, savings, confidence, and skill enhancement (Dejaeghere et al., 2016). Yet, women's vulnerability frequently obstructs their capacity to leverage savings and attain empowerment. In Punjab where women face environmental shocks and other vulnerabilities, the connection between savings and the empowerment of women weakens (Hameed et al., 2019). Women's microenterprises benefit from the positive influence of savings, increasing their income and, subsequently, women's empowerment (Adhariani, 2022).

H9: The relationship between opportunity and women's economic empowerment is moderated by vulnerability.

Conceptual framework

This study aimed to investigate how credit, savings, training, and social capital relate to women's economic empowerment. Credit was assessed based on loan size and usage, drawing from existing research (Ekpe et al., 2010). Additionally, the study explored the mediating impact of entrepreneurial opportunities and the moderating influence of vulnerability to microfinance on the relationship between these factors and women's economic empowerment. See Figure 1 for the conceptual framework. Savings serve as a form of insurance for credit, especially since women entrepreneurs often lack physical collateral (Phillip, 2013). Research in Nigeria has shown that both saving and credit positively impact enterprise productivity (Ojo, 2009). Moreover, in Haiti, Kenya, Malawi, and Nigeria, saving, credit, and training have been found to enhance women entrepreneurs' income and wellbeing (Onyach-Olaa, 2003). Literature suggests that combining credit and training, no matter how minimal, is beneficial (Ekpe et al., 2010). Skill training is crucial for providing entrepreneurial skills for small business start-ups, while business or management training offers managerial competence for routine and corporate decisions (Ekpe, 2011). Thus, women's economic performance benefited from training in Ghana, Nigeria, the United States, Tanzania, and Canada, in that order (Ekpe, 2011; Zvirikuzhe, 2022). Social capital has been found to positively impact women entrepreneurs' performance in terms of economic empowerment (Ekpe et al., 2015). However, women

entrepreneurs, particularly those in developing countries, lack social connections that serve as a source of credit and market information.

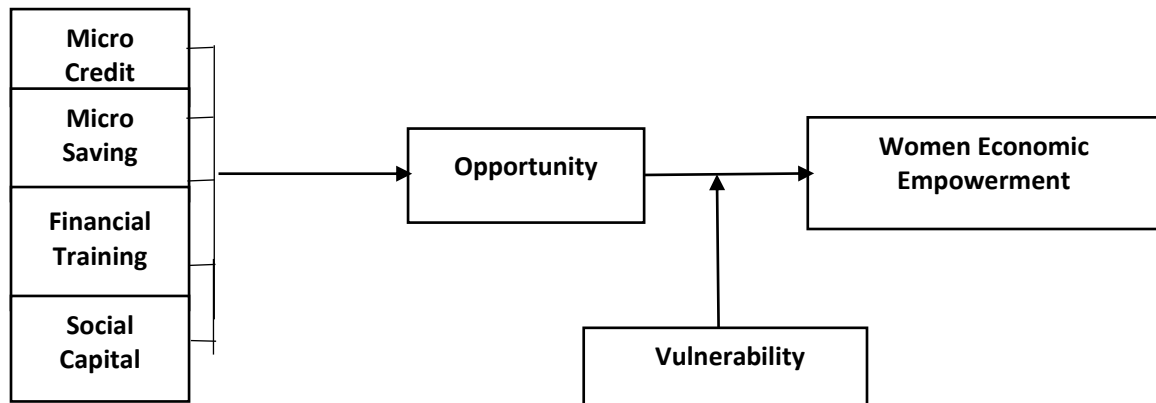


Figure 1. Research framework.

METHODOLOGY

This research collected data using structured questionnaires, which were sent to female clients of Lahore-based microfinance banks via their provided contacts. The questionnaire focused on loan details, usage, repayment, and various aspects of entrepreneurship, concluding with demographics (Ogunwale et al., 2020). The study assembled data from three microfinance banks, which constituted the sampling framework. Microfinance services included savings and loans, while non-financial services encompassed skills and social capital. The questionnaire featured clear language and closed-ended questions, and it was distributed to female entrepreneurs via microfinance banks’ provided contact details. The data analysis in this study was conducted employing Structural Equation Modelling (SEM). To examine the research hypotheses, the statistical software packages utilized were SPSS and Smart PLS 3.0. Data underwent cleaning and transformation in SPSS before analysis, addressing missing data and outliers. The final sample size for the study is 205 to ensure strong analysis. The widely used Likert scale, employed in this study through a structured questionnaire, provides respondents utilizing a 5-point Likert scale ranging from 'strongly disagree' to 'strongly agree' for accurate measurement of opinions (Tilahun et al., 2023). This scale is preferred over a 5-point scale for its precision, choice variety, and time efficiency. Table 1 presents the model evaluation. The analysis of convergent validity for the constructs involved assessing loadings and average variance extracted to ensure reliability and validity.

RESULTS AND ANALYSIS

Measurement Model Assessment

Convergent validity

The study reports that all constructs in Table 1 exhibit a Cronbach’s Alpha coefficient exceeding 0.7. According to Hair et al. (2014), a construct with a Cronbach’s Alpha below 0.7 can be disregarded if other constructs in the model possess a Cronbach’s Alpha greater than 0.7 (Kalhoru et al., 2017). Additionally, all loadings are within the acceptable range of 0.50, and the table demonstrates that the composite reliabilities of the constructs are within the acceptable range of 0.70. The average variance extracted for the constructs satisfies the recommended minimum threshold of 0.5, confirming satisfaction with the convergent validity test for the constructs.

Table 1. Reliability and convergent validity.

Constructs	CR	AVE
Financial Training	0.901	0.647
Micro Credit	0.872	0.577
Micro Saving	0.901	0.648
Opportunity	0.837	0.632
Social Capital	0.934	0.739
Vulnerability	0.896	0.634
WEE	0.891	0.579

Note. AVE (Average Variance Extracted), CR (Composite Reliability), WEE (Women Economic Empowerment).

As shown in Table 2, the correlations' square is less than the AVE of the construct that represents the acceptable discriminant validity. Earlier, the researcher utilized the Fornell and Larcker Criterion, which was proposed in 1981 to evaluate discriminant validity.

Table 2. Validity.

Validity	Financial Training	Opportunity	Social capital	micro-saving	Micro credit	vulnerability	WEE
Financial Training	0.804						
Opportunity	0.617	0.795					
Social capital	0.696	0.516	0.860				
micro-saving	0.721	0.607	0.702	0.805			
Microcredit	0.710	0.556	0.668	0.736	0.760		
Vulnerability	0.631	0.695	0.636	0.651	0.655	0.796	
WEE	0.696	0.624	0.744	0.701	0.629	0.667	0.761

Note: Bold values indicated the square root of AVE. WEE (Women Economic Empowerment).

Structural Model Assessment

In this section, direct analysis was performed to substantiate the research hypothesis. Subsequently, in the second phase, mediation and moderation analyses were conducted using Smart PLS-SEM. Table 3 displays the outcomes of a regression analysis investigating the connections between different factors and the economic empowerment of women. The coefficients (β) represent the strength and direction of the relationships, while the standard deviations (SD), t-statistics, and p-values offer insights into the significance of these relationships. Hypothesis 1 (H1) posits a favourable association between micro-credit and women's economic empowerment, a relationship substantiated by the data ($\beta = 0.071$, $p = <0.05$). Similarly, Hypotheses 2, 3, and 4 indicate positive relationships between micro-saving, financial training, and social capital, respectively, with economic empowerment of women, which of all sustained by the data. Hypotheses 5, 6, 7, and 8 introduce the mediating role of opportunity, and the findings indicate notable associations between micro credit, micro saving, financial training, and social capital with opportunity and, subsequently, economic empowerment of women. Lastly, Hypothesis 9 introduces vulnerability as a moderating factor in the relationship between opportunity and economic empowerment of women, with the data supporting this hypothesis ($\beta = 0.054$, $p = <0.05$). Overall, the findings suggest that micro-financial services, financial training, social capital, and the interplay between opportunity and vulnerability all play significant roles in influencing women's economic empowerment.

Table 3. Path analysis.

Hypothesis	Relationship	β	SD	t-statistics	p-values	Decision
H1	Micro-credit -> Women's Eco-empowerment	0.071	0.028	2.53	<0.05	Supported
H2	Micro-saving -> Women's Eco-empowerment	0.075	0.036	2.08	<0.05	Supported
H3	Financial Training -> Women's Eco-empowerment	0.095	0.046	2.06	<0.05	Supported
H4	Social capital -> Women's Eco-empowerment	0.088	0.036	2.44	<0.05	Supported
H5	Micro-credit -> Opportunity -> Women's Eco-empowerment	0.358	0.037	9.67	<0.001	Supported
H6	Micro-saving -> Opportunity -> Women's Eco-empowerment	0.122	0.023	5.30	<0.001	Supported
H7	Financial training -> Opportunity -> Women's Eco-empowerment	0.128	0.030	4.223	<0.001	Supported
H8	Social capital -> Opportunity -> Women's Eco-empowerment	0.130	0.019	6.768	<0.001	Supported
H9	Vulnerability*Opportunity -> Women Eco- empowerment	0.054	0.026	2.056	<0.05	Supported

Note*, **, ***Significant at 1%, 5% and 10%.

Discussion

This study showed an optimistic relationship between Micro-Saving (MS) and Economic Empowerment of Women (WEE) performance. Research indicates that microcredit has a favorable effect on women's social and economic empowerment by raising their standing in families and communities and improving their income and ability to make decisions (Mengstie, 2022). Micro Saving has been positively associated with women's economic empowerment. This means increasing savings, women's microenterprises, increasing their income, and, subsequently, women's empowerment (Adhariani, 2022). Likewise, financial training is positively related to Women's Economic Empowerment. Financial Training programs have been seen to enhance human capital within households with low income improving skills and knowledge for entrepreneurship, ultimately leading to better socioeconomic outcomes (Abbas et al., 2023). This study hypothesized that SC is positively related to WEE. Studies reveal a positive link between social capital and business success among rural Mexican women entrepreneurs (Bhunia & Shome, 2023). Opportunity for entrepreneurial exercise mediates the relationship between MC, MS, FT, SC, and WEE. Presence of opportunities is crucial for entrepreneurial activity, as it relies on new products, fresh supply sources, or novel technologies (Ungureanu & Ciloci, 2023). As hypothesized in this study, vulnerability moderates the connection between MC, MS, FT, SC, and WEE. However, the vulnerability of women frequently obstructs their capacity to leverage savings and attain empowerment. In Punjab, where women face environmental shocks and other vulnerabilities, the relationship between savings and the empowerment of women weakens (Mishra & Pati, 2023). Savings positively influence the performance of women's microenterprises, increasing their income and, subsequently, women's empowerment (Abebe & Kegne, 2023).

In summary, obtaining microfinance factors, particularly MC and FT, can open doors for starting or enhancing businesses (Akol & Abuga, 2023). A significant positive correlation exists between entrepreneurial opportunities and the sales performance of entrepreneurial women in Pakistan. (Qadri & Yan, 2023). Entrepreneurial opportunities mediate the association between credit, training, social capital, and sales performance (Sipahi & Artantaş, 2023). Additionally, vulnerability to microfinance moderates the association between these influences and entrepreneurial opportunities, impacting sales performance (Elijah & Moses, 2023).

CONCLUSION AND PRACTICAL IMPLICATIONS

The study concludes that microfinance factors (MC, MS, FT, and SC) positively impact women's economic empowerment (WEE) in Pakistan, correlating with enhanced business performance. Investigating 7 hypotheses, it highlights the direct and indirect effects of microfinance factors, mediated by opportunity and moderated by vulnerability, on WEE and economic growth. Microfinance, considered a poverty alleviation tool, improves household welfare through entrepreneurship and income generation. This underscores practical, policy, and managerial implications, emphasizing the significant influence of microfinance parameters on WEE. Regression analysis confirms their impact, with entrepreneurial opportunities mediating and vulnerability moderating this association. The study suggests beneficial implications for Pakistan's government to promote women's economic empowerment through improved financial and non-financial services, addressing barriers like limited resource access and insufficient education.

This study's practical implications are significant for policymakers, practitioners, and organizations advocating women's economic empowerment through micro-financial services. Firstly, the positive link between Micro-Saving (MS) and Women's Economic Empowerment (WEE) highlights the need to promote women's savings initiatives, enhancing income and empowerment. Second, fostering financial literacy among women shows promise for WEE, urging support for financial education programs. Third, Social Capital (SC) positively impacts WEE, suggesting the importance of nurturing women's social networks. Fourth, entrepreneurial opportunities mediate the effects of micro-financial services, training, and SC on WEE, urging an enabling environment for innovation and business growth. Lastly, understanding the nuanced relationship between Micro Saving and Opportunity is crucial for tailored interventions to address local challenges effectively.

Limitations and Future Research Directions

This research has some limitations. Firstly, this research focus is limited to Pakistan, and Thus, the findings might not apply to other countries. Secondly, this study didn't target specific industries, which may have affected the results. Thirdly, previous studies have used one or two microfinance service mediator opportunities, whereas this study did not. Fourthly, the study's questionnaire was adapted to include MC, MS, MF, and SC, which may have been influenced by cultural differences. Finally, the study is subject to typical survey and questionnaire limitations. Despite these limitations, this research contributes to the improvement of entrepreneurship finance acquaintance, benefiting the Pakistani government, microfinance institutions, and women entrepreneurs. Future research could explore the impact of self-confidence, perform predictive validity studies using Structural Equation Modelling, and investigate how women's business performance influences economic growth. Additionally, other mediating and moderating variables can be investigated between Micro Finance Services and WEE.

REFERENCES

Abbasi, B. N., Yang, C., & Sohail, A. (2023). Uncovering basic educational skills and intelligence among women and children in rural Pakistan. *SN Social Sciences*, 3(7), 116.

- Abdullah, W. M. Z. B. W., Zainudin, W. N. R. A. B., Ismail, S. B., Haat, M. H. C., & Zia-Ul-Haq, H. M. (2021). The Impact of Microfinance on Households' Socioeconomic Performance: A Proposed Mediation Model. *Journal of Asian Finance, Economics and Business*, 8(3), 821-832.
- Abdullah, W. M. Z. B. W., Zainudin, W. N. R. A. B., Ismail, S. B., & Muhammad Zia-ul-haq, H. (2022). The Impact of Microfinance Services on Malaysian B40 Households' Socioeconomic Performance: A Moderated Mediation Analysis. *Planning*, 17(6), 1983-1996.
- Abebe, A., & Kegne, M. (2023). The role of microfinance institutions on women's entrepreneurship development. *Journal of Innovation and Entrepreneurship*, 12(1), 1-24.
- Abrar ul Haq, M., Akram, F., Ashiq, U., & Raza, S. (2019). The employment paradox to improve women's empowerment in Pakistan. *Cogent Social Sciences*, 5(1), 1707005.
- Addai, B. (2017). Women empowerment through microfinance: Empirical evidence from Ghana. *Journal of finance and accounting*, 5(1), 1-11.
- Adhariani, D. (2022). Microfinance and the Role of Accounting in Supporting Family-Resilience-Based Women's Empowerment. *The Qualitative Report*, 27(2), 366-384.
- Ajwani-Ramchandani, R. (2017). *The role of microfinance in women's empowerment: A comparative study of rural & urban groups in India*: Emerald Publishing Limited.
- Akol, A. S., & Abuga, I. (2023). Microfinance credit services and performance of small and medium agribusiness in juba county of central Equatoria state, South Sudan. *International Research Journal of Business and Strategic Management*, 5(3), 111-121.
- Al Mamun, A., Muniady, R., Fazal, S. A., & Malarvizhi, C. (2019). Micro-enterprise development training and entrepreneurial competencies among low-income households in Malaysia. *Asia Pacific Journal of Innovation and Entrepreneurship*, 13(3), 354-366.
- Alemu, A. (2020). Women empowerment and participation in saving and credit cooperative in the case of Hawassa city administration, SNRS, Ethiopia.
- Alsaad, R. I., Hamdan, A., Binsaddig, R., & Kanan, M. A. (2023). Empowerment sustainability perspectives for Bahraini women as entrepreneurs. *International Journal of Innovation Studies*, 7(4), 245-262.
- Al-Shami, S. A., Al Mamun, A., Rashid, N., & Al-shami, M. (2021). Microcredit impact on socio-economic development and women empowerment in low-income countries: Evidence from Yemen. *Sustainability*, 13(16), 9326.
- Alshammari, A. M. A., & Daud, W. M. N. W. (2021). The Effect of Microfinance Bank Services on Women Empowerment: The case for Women Entrepreneurs in Irbid, Jordan (SMEs). *Journal of Entrepreneurship and Business (JEB)*, 9(1), 38-49.
- Anoke, A. F. (2023). Microfinance services and the growth of women entrepreneurial businesses in North Central Nigeria. *Management*, 4(4), 379-393.
- Asad, A., Waseem Ul Hameed, M. I., Jiang, J., & Naveed, R. T. (2020). The Contribution of Microfinance Institutes in Women-Empowerment and role of Vulnerability. *Revista Argentina de Clínica Psicológica*, 29(3), 223-238.
- Ayensu, D. B., Amoah, t. f., & Gyawu, p. m. (2023). the impact of financial management practices on the performance of methodist church Ghana, Kumasi diocese. *Christian service University college*.
- Aziz, N., Khan, I., Nadahrajan, D., & He, J. (2023). A mixed-method (quantitative and qualitative) approach to measure women's empowerment in agriculture: evidence from Azad Jammu & Kashmir, Pakistan. *Community, Work & Family*, 26(1), 21-44.
- Balogun, J. A. (2023). *Reimagining Nigeria's Educational System: Improving Academic Performance Through High Stakes Standardized Testing*: Taylor & Francis.
- Basch, L., Schiller, N. G., & Blanc, C. S. (2020). *Nations unbound: Transnational projects, postcolonial predicaments and deterritorialized nation-states*: Routledge.
- Basu, S. (2023). *Women in the family enterprises of handloom weaving: a case study of Nadia, West Bengal*.
- Bateman, M. (2010). *Why doesn't microfinance work?: The destructive rise of local neoliberalism*: Bloomsbury Publishing.
- Bhatia, S., & Singh, S. (2023). The role of financial inclusion in driving women empowerment: a study of ghettos. *International Journal of Public Sector Performance Management*, 11(3), 265-284.
- Bhunja, A. K., & Shome, M. K. (2023). Impact of social capital on entrepreneurial intention of polytechnic students: The mediating role of innovativeness. *International Journal of Innovative Research and Scientific Studies*, 6(2), 358-365.

- Bilgrami, F., Purohit, H., & Tanwar, V. (2022). A theoretical assessment of Problems Faced by Women Entrepreneurs (in micro industry): A study of Indian scenario. *International Journal for Global Academic & Scientific Research*, 1(4), 34-47.
- Bondinuba, F. K., Hedidor, D., Opoku, A., & Teye, A. L. (2017). De/motivations in housing microfinance delivery in Ghana. *Property Management*, 35(5), 528-544.
- Chant, S. (2008). The 'feminisation of poverty' and the 'feminisation' of anti-poverty programmes: Room for revision? *The Journal of Development Studies*, 44(2), 165-197.
- Chatterjee, I., Shepherd, D. A., & Wincent, J. (2022). Women's entrepreneurship and wellbeing at the base of the pyramid. *Journal of Business Venturing*, 37(4), 106222.
- Chhabra, M. (2021). 18 Sustainable Enterprise Development. *Entrepreneurship and Big Data: The Digital Revolution*, 267.
- Choudhury Kaul, S., Supriyadi, O., & Fahlevi, N. (2023). Muslim Indonesian women entrepreneurs: a factor analysis of business performance. *Journal of Islamic Marketing*, 14(12), 3186-3207.
- Cieslik, K., Hudon, M., & Verwimp, P. (2019). Unruly entrepreneurs—investigating value creation by microfinance clients in rural Burundi. *Oxford Development Studies*, 47(4), 373-390.
- Cordero, A. M., & Lewis, A. C. (2023). How Does Regional Social Capital Structure the Relationship Between Entrepreneurship, Ethnic Diversity, and Residential Segregation? *Entrepreneurship Theory and Practice*, 10422587231198450.
- Das, R. (2021). Impact of microfinance institutions on women empowerment—a qualitative study in the Indian context. *International Journal of Business and Globalisation*, 29(1), 61-79.
- Dejaeghere, J., Wiger, N. P., & Willemsen, L. W. (2016). Broadening educational outcomes: Social relations, skills development, and employability for youth. *Comparative Education Review*, 60(3), 457-479.
- Dintwa, K. F., Letamo, G., & Navaneetham, K. (2019). Quantifying social vulnerability to natural hazards in Botswana: An application of cutter model. *International Journal of Disaster Risk Reduction*, 37, 101189.
- Ekpe, I. (2011). Women entrepreneurs' performance: Microfinance factors with mediating effect of opportunity and moderating effect of attitude. PhD diss., Universiti Utara Malaysia.
- Ekpe, I., Mat, N. B., & Razak, R. C. (2010). The effect of microfinance factors on women entrepreneurs' performance in Nigeria: A conceptual framework. *International Journal of Business and Social Science*, 1(2), 255–263.
- Ekpe, I., Mat, N., Mamun, A. A., & Nik Mahdi, N. M. (2015). Enhancing the socio-economic wellbeing of Malaysian local women through social capital and micro-enterprise performance. *Journal of Entrepreneurship and Business Innovation*, 3(2), 13-25.
- El Hadidi, S., Samir Bazan, N., Byrne, S., Darweesh, E., & Bermingham, M. (2020). Heart failure prescribing quality at discharge from a critical care unit in Egypt: the impact of multidisciplinary care. *Pharmacy*, 8(3), 159.
- Elijah, M., & Moses, A. (2023). Microfinance Institution Services and Performance of Small and Medium Enterprises in Kabale District Uganda. *International Journal of Entrepreneurship and Business Management*, 2(1), 1-18.
- Foss, N. J., Klein, P. G., Lien, L. B., Zellweger, T., & Zenger, T. (2021). Ownership competence. *Strategic management journal*, 42(2), 302-328.
- Fuentes, M. P. (2023). Unveiling the Constraints: Exploring limiting Factors for Microfinance Institutions Effectiveness in Fostering Women's Empowerment in India. Retrieved online from: https://projekter.aau.dk/projekter/files/546856350/Master_Thesis__Maria_Fuentes_1_.pdf.
- Gadzali, S. S., Harahap, M. A. K., Tarigan, I. M., Nasution, A. A., & Ausat, A. M. A. (2023). Women's Entrepreneurship: An Examination of Government Support and the Role of Knowledge Skills. *Community Development Journal: Jurnal Pengabdian Masyarakat*, 4(1), 713-717.
- Gaynor, T. S., & Wilson, M. E. (2020). Social vulnerability and equity: The disproportionate impact of COVID-19. *Public administration review*, 80(5), 832-838.
- Geddes, P. (2020). Think global, act local. The University of New Brunswick.
- Gogwe, D. J. (2019). Effect of Microfinance Services on Women Economic Empowerment in Jos South Local Government. International centre of excellence for rural finance and entrepreneurship (ICERFE), Department of business management, Ahmadu Bello University Business School Zaria.
- Gomez, E. T., Tham, S. Y., Li, R., Cheong, K. C., Gomez, E. T., Tham, S. Y., . . . Cheong, K. C. (2020). Chinese Investment Case Studies from Malaysia. *China in Malaysia: State-Business Relations and the New Order of Investment Flows*, 25-74.

- Goodrich, C., Gurung, K., Rizal, P., & Silpakar, S. (2018). Reflections on policies for women small and medium entrepreneurs: Status, challenges and opportunities in the Hindu Kush Himalayas and the SAARC region. Paper presented at the South Asian Women Development Forum.
- Grine, F., Fares, D., & Meguellati, A. (2015). Islamic spirituality and entrepreneurship: A case study of women entrepreneurs in Malaysia. *The Journal of Happiness & Wellbeing*, 3(1), 41-56.
- Gupta, P. K., & Sharma, S. (2023). Literature review on effect of microfinance institutions on poverty in South Asian countries and their sustainability. *International Journal of Emerging Markets*, 18(8), 1827-1845.
- Hair, J. F., Gabriel, M., & Patel, V. (2014). AMOS covariance-based structural equation modeling (CB-SEM): Guidelines on its application as a marketing research tool. *Brazilian Journal of Marketing*, 13(2).
- Hakola, D., & Sarna, B. (2023). 7. Motivation behind alternative growth modes in SMEs: a systematic. *Contextual Embeddedness of Entrepreneurship: Frontiers in European Entrepreneurship Research*, 107.
- Hameed, W. U. (2019). The effects of microfinance factors, social capital and vulnerability on women-empowerment in southern Punjab, Pakistan. https://etd.uum.edu.my/8586/2/s901699_01.pdf.
- Hameed, W. U., Nisar, Q. A., Abbas, A., Waqas, A., & Meo, M. S. (2019). Microfinance institutions as a strategic tool to enhance women's career development in Pakistan. *Asian Women*, 35(2), 93-128.
- Hamid, H. A., & Sazali, N. T. (2020). Shrinking "Salariat" and Growing "Precariat". *Khazanah Research Institute. Discussion Paper*, 10(20), 10.
- Hamid, M., Mohamed, S., & Abdullah, A. (2019). Profiling of manufacturing industries bumiputera entrepreneurs (MIBE) government related agencies. *International Journal of Academics Research in Business & Social Sciences*, 9(7), 1212-1262.
- Han, J., Li, T., & Philbin, S. P. (2023). Does low-carbon pilot policy in China improve corporate profitability? The role of innovation and subsidy. *Innovation and Green Development*, 2(2), 100050.
- Haq, M. A. U., Nawaz, M. A., Akram, F., & Natarajan, V. K. (2020). Theoretical implications of renewable energy using improved cooking stoves for rural households. *International Journal of Energy Economics and Policy*, 10(5), 546.
- Hassan, R., Tantawy, M., Gouda, N. A., Elzayat, M. G., Gabra, S., Nabih, A., . . . Shoeb, M. R. (2020). Genotypic characterization of multiple drug resistant *Escherichia coli* isolates from a pediatric cancer hospital in Egypt. *Scientific reports*, 10(1), 4165.
- Hussain, J., Mahmood, S., & Scott, J. (2019). Gender, microcredit and poverty alleviation in a developing country: The case of women entrepreneurs in Pakistan. *Journal of International Development*, 31(3), 247-270.
- Igechi, O. G., & Onah, C. A. (2023). Economic Inequality in Sub Saharan Africa: Nigeria In Perspective. *EJAMSS*, 35.
- Ishak, N. F., & Thiruchelvam, V. (2023). Sustainable innovations in Malaysia's public procurement: strategic policy initiatives and coherences. *International Journal of Innovation Science*, 16(2), 338-372.
- Jagtap, S., Bader, F., Garcia-Garcia, G., Trollman, H., Fadiji, T., & Saloniitis, K. (2020). Food logistics 4.0: Opportunities and challenges. *Logistics*, 5(1), 2.
- Jamal, M. A., Raihana, A. K. A., & Sultana, H. Y. (2016). Empowerment of Muslim women through microfinance and self help groups: A case study of Chennai City. *Asian Business Review*, 6(2), 117-124.
- Jinia, N. J. (2016). Microcredit and Women's Empowerment. Does Microcredit Promote the Borrowers to Participate in the Household Decision-making Process in Bangladesh? <https://trepo.tuni.fi/handle/10024/99815>.
- Joseph, K. (2018). Micro finance institutions and poverty reduction in Uganda: a case study of Mukono Municipality, Mukono District. <https://ir.kiu.ac.ug/handle/20.500.12306/11783>.
- Joseph, S. (2023). A research on the impact of microfinance on India's economic development. *EPR International Journal of Research and Development (IJRD)*, 8(5), 116-119.
- Kalhor, M., Jhatial, A. A., & Khokhar, S. (2017). Investigating the influence of extrinsic and intrinsic motivation on work performance: Study of bank officers. *GMJACS*, 7(1), 9-9.
- Kapoor, S. (2019). Entrepreneurship for economic and social empowerment of women: A case study of a self help credit program in Nithari Village, Noida, India. *Australasian Accounting, Business and Finance Journal*, 13(2), 123-142.
- Kastora, S., Patel, M., Carter, B., Delibegovic, M., & Myint, P. K. (2022). Impact of diabetes on COVID-19 mortality and hospital outcomes from a global perspective: An umbrella systematic review and meta-analysis. *Endocrinology, diabetes & metabolism*, 5(3), e00338.
- Kausar, S., Butt, M. Z., Kousar, N., & Adeel-Farooq, R. M. (2022). Exploring Men's Perceptions of Women's Role in Agriculture: A Qualitative Study of Union Council 79, Multan. *Pakistan Journal of Humanities and Social Sciences*, 10(2), 926-934-926-934.

- Khondkar, M. (1998). *Women's Access to Credit and Gender Relations in Bangladesh: The University of Manchester, United Kingdom.*
- Kuada, J. (2022). Changing role of finance in rural small enterprise growth in Ghana. *Journal of Entrepreneurship in Emerging Economies*, 15(6), 1438-1458.
- Laborde, D., Martin, W., Swinnen, J., & Vos, R. (2020). COVID-19 risks to global food security. *Science*, 369(6503), 500-502.
- Leite, H., Hodgkinson, I. R., & Gruber, T. (2020). New development: 'Healing at a distance'—telemedicine and COVID-19. *Public money & management*, 40(6), 483-485.
- Lindvert, M., Patel, P. C., & Wincent, J. (2017). Struggling with social capital: Pakistani women micro entrepreneurs' challenges in acquiring resources. *Entrepreneurship & Regional Development*, 29(7-8), 759-790.
- Mader, P. (2016). Card crusaders, cash infidels and the holy grails of digital financial inclusion.
- Malik, A. (2023). Educational Experiences and Aspiration of Muslim Women in India: Issue and Challenges. *Journal of Social Inclusion Studies*, 9(1), 61-81.
- Marei, A., Abou-Moghli, A., Shehadeh, M., Salhab, H., & Othman, M. (2023). Entrepreneurial competence and information technology capability as indicators of business success. *Uncertain Supply Chain Management*, 11(1), 339-350.
- Mengstie, B. (2022). Impact of microfinance on women's economic empowerment. *Journal of Innovation and Entrepreneurship*, 11(1), 1-12.
- Mengstie, B. (2023). Entrepreneurship Development through Microfinance: Evidence from Amhara Regional State of Ethiopia. *Journal of the Knowledge Economy*, 1-19. <https://doi.org/10.1007/s13132-023-01348-z>.
- Menteri, J. P. (2010). Rancangan Malaysia Kesepuluh. Retrieved online from: <https://statics.scnu.edu.cn/pics/southeastasia/2020/0623/1592900193107428.pdf>.
- Mishra, S., & Pati, S. (2023). A comparative study on women empowerment through self-help groups of Khordha district. *Journal of Pharmacognosy and Phytochemistry*, 12(3), 188-194.
- Mude, K. E. (2022). The role of microfinance institution in poverty alleviation: the case of Shebedino woreda, Sidaama regional state, Ethiopia. Hu.
- Mukhopadhyay, B., & Ianole, R. (2021). Community level impact of solar entrepreneurs in rural Odisha, India: The rise of women led solar energy-based enterprises. *International Journal of Entrepreneurship and Small Business*, 42(4), 472-503.
- Mutamimah, M., Zaenudin, Z., & Bin Mislan Cokrohadisumarto, W. (2022). Risk management practices of Islamic microfinance institutions to improve their financial performance and sustainability: a study on Baitut Tamwil Muhammadiyah, Indonesia. *Qualitative Research in Financial Markets*, 14(5), 679-696.
- Nasir, M., Iqbal, R., & Akhtar, C. S. (2019). Factors affecting growth of women entrepreneurs in Pakistan. *Pakistan Administrative Review*, 3(1), 35-50.
- Nasir, S., & Farooqi, S. (2016). Impact of microfinance on women empowerment with special references to district Aligarh. *Middle-East Journal of Scientific Research*, 24(3), 491-497.
- Ndabaningi, A., Tirivangasi, H. M., & Bastiaensen, J. (2023). Bottom-up microfinance plus as an entry point for transformative empowerment of women and climate change adaptation in the smallholder domain in Chimanimani, Zimbabwe. In *The Palgrave handbook of global social problems* (pp. 1-25). Cham: Springer International Publishing.
- Ngoasong, M. Z. (2023). *Women's Entrepreneurial Journeys in Sub-Saharan Africa: Edward Elgar Publishing.*
- Nundy, S., Ghosh, A., Mesloub, A., Albaqawy, G. A., & Alnaim, M. M. (2021). Impact of COVID-19 pandemic on socio-economic, energy-environment and transport sector globally and sustainable development goal (SDG). *Journal of Cleaner Production*, 312, 127705.
- Ogunwale, A. N., Colon-Emeric, C. S., Sloane, R., Adler, R. A., Lyles, K. W., & Lee, R. H. (2020). Acetylcholinesterase inhibitors are associated with reduced fracture risk among older veterans with dementia. *Journal of Bone and Mineral Research*, 35(3), 440-445.
- Ojo, O. (2009). Impact assessment of corporate culture on employee job performance. *Business Intelligence Journal*, 2(2), 388-397.
- Ojong, N., & Simba, A. (2019). Fostering micro-entrepreneurs' structural and relational social capital through microfinance. *Journal of Small Business & Entrepreneurship*, 31(1), 1-20.
- Olajide, O. J., Enaibe, B. U., Bankole, O. O., Akinola, O. B., Laoye, B. J., & Ogundele, O. M. (2016). Kolaviron was protective against sodium azide (NaN₃) induced oxidative stress in the prefrontal cortex. *Metabolic brain disease*, 31, 25-35.

- Onyach-Olaa, M. (2003). The challenges of implementing decentralisation: Recent experiences in Uganda. *Public Administration and Development: The International Journal of Management Research and Practice*, 23(1), 105-113.
- Phillip, P. G. (2013). The effect of microfinance factors on women entrepreneur's performance in Batticaloa District special reference to Seeds (GTE) Ltd. <http://ir.lib.seu.ac.lk/handle/123456789/528>.
- Popa, R.-G., Bălăcescu, A., & Popescu, L. G. (2023). Organic Walnut Cultivation in Intensive and Super-Intensive System—Sustainable Investment. Case Study: Gorj County, Romania. *Sustainability*, 15(2), 1244.
- Postelnicu, L., & Hermes, N. (2018). Microfinance performance and social capital: A cross-country analysis. *Journal of Business Ethics*, 153, 427-445.
- Qadri, A., & Yan, H. (2023). To promote entrepreneurship: Factors that influence the success of women entrepreneurs in Pakistan. *Access J*, 4, 155-167.
- Ragnhammar, S., & Samelius, E. (2019). The relationship between microcredit and women's empowerment and wellbeing: A minor field study in Bangladesh. Retrieved online from: <https://www.diva-portal.org/smash/record.jsf?pid=diva2:1337113>.
- Rahayu, N. S. (2020). The intersection of Islamic microfinance and women's empowerment: a case study of Baitul Maal wat Tamwil in Indonesia. *International Journal of Financial Studies*, 8(2), 37.
- Rajiani, I., & Normuslim, N. (2023). Knowledge management and organizational learning to improve the organizational performance of mines in Indonesia. *Journal of Infrastructure, Policy and Development*, 7(2), 2227.
- Rashid, U. (2017). The effects of entrepreneurial management, entrepreneurial orientation and ethics on the women-owned SMEs business performance in Malaysia (An unpublished doctoral dissertation submitted to Universiti Utara Malaysia). Universiti Utara Malaysia.
- Razzak, B. M., Idris, B., Hasan, R., Saridakis, G., & Hansen, J. M. (2023). The impact of Covid-19 on struggling ethnic minority entrepreneurs' business strategy: the case of Bangladeshi curry houses in the United Kingdom. *International Journal of Entrepreneurial Behavior & Research*, 29(8), 1837-1866.
- Riswan, R., Rajiani, I., Handy, M. R. N., Abbas, E. W., & Rusmaniah, R. (2022). The Role of Economic in Social Studies Education. *The Kalimantan Social Studies Journal*, 3(2), 144-151.
- Sarwar, S., Chen, W., & Waheed, R. (2017). Electricity consumption, oil price and economic growth: Global perspective. *Renewable and Sustainable Energy Reviews*, 76, 9-18.
- Schlosberg, D., Collins, L. B., & Niemeyer, S. (2017). Adaptation policy and community discourse: risk, vulnerability, and just transformation. *Environmental politics*, 26(3), 413-437.
- Setargie, T. A., Tsunekawa, A., Haregeweyn, N., Tsubo, M., Fenta, A. A., Berihun, M. L., . . . Nzioki, B. (2023). Random Forest-based gully erosion susceptibility assessment across different agro-ecologies of the Upper Blue Nile basin, Ethiopia. *Geomorphology*, 431, 108671.
- Shah, E., Ali, S., & Katper, N. (2023). An Overview of Women Empowerment Policy With a Social Justice Lens and Frugal Innovation. *Frugal Innovation and Social Transitions in the Digital Era*, 123-132.
- Shaheen, I., Hussain, I., & Mujtaba, G. (2018). Role of microfinance in economic empowerment of women in Lahore, Pakistan: A study of Akhuwat supported women clients. *International journal of economics and financial issues*, 8(2), 337.
- Shahid, F. (2022). Gender inequality: A stumbling block in Pakistan's socio-economic development. *Journal of Peace and Diplomacy*, 3(1), 61-70.
- Sharma, J., & Ravindranath, N. H. (2019). Applying IPCC 2014 framework for hazard-specific vulnerability assessment under climate change. *Environmental Research Communications*, 1(5), 051004.
- Shin, J. M., Gwak, J. W., Kamarajan, P., Fenno, J. C., Rickard, A. H., & Kapila, Y. L. (2016). Biomedical applications of nisin. *Journal of applied microbiology*, 120(6), 1449-1465.
- Shogren, K. A., & Raley, S. K. (2022). *Self-determination and causal agency theory: Integrating research into practice*: Springer Nature.
- Sipahi D, E., & Artantaş, E. (2023). Exploring the link between social work, entrepreneurial leadership, social embeddedness, social entrepreneurship and firm performance: a case of SMES owned by Chinese ethnic community in Turkey. *Journal of Enterprising Communities: People and Places in the Global Economy*, 17(3), 684-707.
- Still, L. V., & Timms, W. (2000). Women's business: the flexible alternative workstyle for women. *Women in management review*, 15(5/6), 272-283.
- Sudha, T., & Reshi, I. A. (2023). Unleashing the power: empowering women for a stronger economy. *International Journal of Educational Review, Law and Social Sciences (IJERLAS)*, 3(3), 826-833.

- Suleri, A. Q., Javed, S. A., Chatha, I. A., & Iqbal, M. (2018). Risk Management Practices of Small Farmers: A Feasibility Study for Introducing R4 Rual Resilience Initiative in Punjab. Oxfam International Secretariat World Food Programme Sustainable Development Policy Institute: Nairobi, Kenya, 2018; 186.
- Sun, L., Fang, S., Iqbal, S., & Bilal, A. R. (2022). Financial stability role on climate risks, and climate change mitigation: implications for green economic recovery. *Environmental Science and Pollution Research*, 29(22), 33063-33074.
- Thapa, B. S., & Chowdhary, S. (2022). Impact of microfinance on the empowerment of women entrepreneurs in Rupandehi District, Nepal. *Journal of Business and Management*, 6(01), 100-115.
- Thomas, D. S., Jang, S., & Scandlyn, J. (2020). The CHASMS conceptual model of cascading disasters and social vulnerability: The COVID-19 case example. *International Journal of Disaster Risk Reduction*, 51, 101828.
- Thorpe, J., Ault, A., Barenboim, I., Guimarães, L., Quak, E.-j., & Taela, K. (2023). Learning from Entrepreneurship Programming for Women's Economic Empowerment. Brighton: Institute of Development Studies.
- Tilahun, M., Berhan, E., & Tesfaye, G. (2023). Determinants of consumers' purchase intention on digital business model platform: evidence from Ethiopia using partial least square structural equation model (PLS-SEM) technique. *Journal of Innovation and Entrepreneurship*, 12(1), 1-28.
- Tkalich, A. (2020). Agile coaching in Norway and the USA: The role of the agile coach in teamwork, organisational culture and leadership. NTNU. <https://ntnuopen.ntnu.no/ntnu-xmlui/handle/11250/2776027>.
- Ukanwa, I., Xiong, L., & Anderson, A. (2018). Experiencing microfinance: Effects on poor women entrepreneurs' livelihood strategies. *Journal of Small Business and Enterprise Development*, 25(3), 428-446.
- Ungureanu, A., & Ciloci, R. (2023). The Entrepreneurship Osmosis In Relation To Economic Growth'S Conceptual Framework. *The USV Annals of Economics and Public Administration*, 22(2 (36)), 44-53.
- Uzoamaka, O. E., Gerald, N., & Jude, E. (2016). Women empowerment: Panacea for poverty reduction and economic development in Nigeria. *Journal of Policy and Development Studies*, 10(2), 31-41.
- Varghese, R., & Menon, S. D. (2023). A Quantitative Study On The Influence Of Micro Finance Service Upon The Economic Empowerment Of Rural Women. *Journal of Namibian Studies: History Politics Culture*, 35, 1767-1794.
- Wang, Y., & Zhou, L.-h. (2022). What are the keys to influence the life satisfaction of eco-migrants in the northern foot of the Qilian Mountains? A test based on the livelihood risk interaction. *Journal of Mountain Science*, 19(11), 3227-3245.
- Williams, M., Ghorbani, M., & Kalnins, A. (2023). Moving to the big city: Temporal, demographic, and geographic Influences on the perceptions of gender-related business acumen among male and female migrant entrepreneurs in China. *Academy of Management Discoveries*, 9(3), 383-407.
- Yang, J., Wu, Y., & Huang, B. (2023). Digital Finance and Financial Literacy: Evidence from Chinese Households. *Journal of Banking & Finance*, 107005.
- Yousfani, K., Aslam, Y., Mahar, Q., & Kazi, H. (2019). The impact of microfinance on growth of women entrepreneurship in Pakistan. *Journal of Entrepreneurship, Business and Economics*, 7(1), 133-152.
- Zafar, A. (2023). The Impact of Microfinance on Poverty Alleviation and Women Empowerment. *Journal of Banking and Social Equity (JBSE)*, 2(1), 19-36.
- Zafarullah, H., & Nawaz, F. (2019). Pathways to women's empowerment in Bangladesh: Employment and microfinance as interventions. *Asian Education and Development Studies*, 8(4), 387-404.
- Zvirikuzhe, C. (2022). The influence of microfinance institutions programs on women-owned small and medium enterprises (smes) development in mashonaland west province of zimbabwe. Chinhoyi University of Technology. <https://ir.cut.ac.zw/xmlui/bitstream/handle/123456789/389/ZVIRIKUZHE%20PhD%20THESIS%20BINDED%20ONE.pdf?sequence=1&isAllowed=y>.