A STUDY ON FINANCIAL INCLUSION AND ECONOMIC EMPOWERMENT OF WOMEN IN J&K

Thesis Submitted for the Award of the Degree of

DOCTOR OF PHILOSOPHY

in

Commerce

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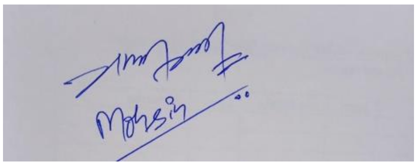
LOVELY PROFESSIONAL UNIVERSITY, PUNJAB

2025

DECLARATION

“I hereby affirm that the research presented in my thesis titled “**A Study on Financial Inclusion and Economic Empowerment of Women in J&K**” fulfils the requirements for the degree of **Doctor of Philosophy (Ph.D.).** This work is the result of my own research conducted under the guidance of Dr. Razia Nagina, Professor at the Mittal School of Business, Lovely Professional University, Punjab, India, and Dr. Usha Nori, Associate Professor at the Institute of Public Enterprise, Hyderabad, India. In accordance with established practices for reporting scientific findings, I have duly acknowledged all sources whenever this work has been informed by the research of others. This thesis has not been submitted, in whole or in part, to any other university or institution for the purpose of obtaining any degree.”



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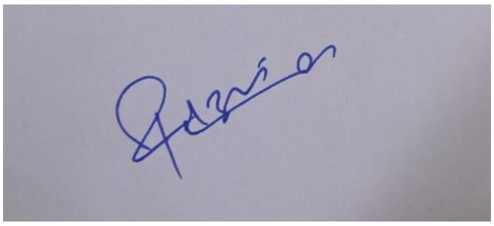
<u>**CERTIFICATE**</u>

“This is to certify that the research presented in the Ph.D. thesis titled “**A Study on Financial Inclusion and Economic Empowerment of Women in J&K,**” submitted to fulfil the requirements for the **Doctor of Philosophy (Ph.D.)** degree at the Mittal School of Business, Lovely Professional University, is the original work of Mohsin Showkat (12116739). This work has been conducted under our supervision and is a genuine record of his research. Furthermore, no portion of this thesis has been submitted for any other degree, diploma, or comparable program.”



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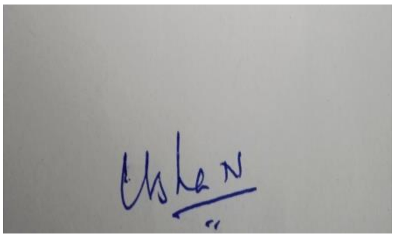

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ABSTRACT

The term "financial inclusion," which the RBI (2015) defines roughly as "access to the formal financial sector for the marginalised and formal-finance-deprived sections of society," has gained prominence in recent years of public debate. Globally, policymakers are investigating strategies to guarantee increased participation of economically marginalised groups in the community (Falaiye et al., 2024). Financial inclusion is seeing a renewed worldwide push, especially in the wake of the 2008 global financial crisis. Political support for financial inclusion is higher due to its welfare-enhancing effects, and it is becoming more widely acknowledged to be a key element in the advancement of the economy and the reduction of poverty (Ozili, 2024). Institutional financial access may encourage the growth of employment, increase investment in workforce development, and lessen vulnerability to shocks. However, individuals are compelled to depend on pricey unauthorized sources of funding because of the lack of adequate access to legitimate financial institutions or their own meagre resources, which restricts their ability to pursue chances for personal progress (Chowdhury & Chowdhury 2024). Demirguc-Kunt et al. (2018) state that access to banking services is essential to the progress of achieving financial independence (FI), particularly for women. Ashraf et al. (2010) emphasise the significance of how empowering women financially is greatly influenced by their inclusion in financial services availability. Moreover, Malhotra and Ranjan (2020), Rahman et al. (2017) also explain the importance of digital financial services that empowers women with more control over their spending and enables them to have formal financial services. In addition to providing timely, efficient, and secure modes of saving, payment, and investment, these services empower women to engage more vigorously in economic activities such as business and income-generating activities (Adams et al., 2017).

Women in Jammu and Kashmir

J&K, a union territory in northern India, has been at the forefront of experiencing various social and economic vulnerabilities such as poverty, unemployment, and gender imbalance. Women in Jammu and Kashmir, constituting nearly half of the region's population, face unique challenges and opportunities. Despite historical and cultural significance, their socio-economic status remains constrained by traditional gender roles and

political instability Gul (2015). The region under discussion does not provide adequate opportunities for women's economic engagement and empowerment due to multiple barriers, including but not limited to the following: education and poverty. In Jammu and Kashmir, financial inclusion has proven to be a vital accelerator for women's emancipation and increased economic engagement (Khaki, 2018).

The need for financial inclusion of women in Jammu and Kashmir

Unfortunately, women's financial inclusion has not gotten nearly as much attention as it should. Despite the widespread agreement that women may escape poverty to support themselves and their family, lower risk, stop their labour being exploited in the unorganised sector, and increase their capacity for engaging in profitable economic endeavours, women still lack sufficient control over their financial lives (Cabeza et al., 2019). Inequalities in gender may also be exacerbated by financial exclusion, women who have access to bank accounts, savings options, and other financial services may be better equipped to manage their income and make both personal and business-related purchases, as several studies have clearly shown (Ozili, 2024; Pinto & Arora 2021; Arnold & Gammage, 2019; Swamy, 2019; Nautiyal, 2017; Sorsa, 2015; Manta, 2015).

Objectives of the study:

The **Primary Objective** of this research is to explore Financial Inclusion and Economic Empowerment of Women. To facilitate an in-depth study, the following specific objectives have been framed:

1. To assess the current status of financial inclusion among women in J&K.
2. To examine how digital financial services promote female financial autonomy.
3. To determine how financial inclusion helps in achieving economic empowerment of women.
4. To evaluate the role of Government policies and schemes in economic empowerment of women in J&K.

Hypotheses

Based on the review of literature, to study the above objectives, following hypotheses have been framed

- *Hypothesis 1: Digital financial services positively influence female financial autonomy*
- *Hypothesis 2: There is a positive and significant relationship between financial inclusion and economic empowerment among women.*
- *Hypothesis 2a: There is a positive and significant relationship between financial inclusion and income.*
- *Hypothesis 2b: There is a positive and significant relationship exists between financial inclusion and savings.*
- *Hypothesis 2c: There is a positive and significant relationship between financial inclusion and asset generation.*
- *Hypothesis 2d: There is a positive and significant relationship between financial inclusion and control over household income.*

Aim of the study

The purpose of this research is to look at the connection amongst women's economic empowerment and financial inclusion in Jammu and Kashmir (J&K). It specifically aims to comprehend the methods by which financial services for women utilisation and access supports their capacity for economic autonomy and decision-making. The study also aims to make practical suggestions for enhancing legislative frameworks that encourage monetary inclusion and assist women for their economic progress. To improve women's engagement in both the home and market domains, the research looks at how they might get financial resources and manage their economic activities. By addressing these issues, the study highlights how fostering financial inclusion can help bridge gender gaps, ultimately enabling women to achieve greater control over their financial outcomes and economic wellbeing. The findings support initiatives aimed at reducing gender disparities at both the local and national levels.

Significance and scope of study

This study's importance lies from its applicability to the socioeconomic environment of Jammu and Kashmir, an area that faces unique difficulties because of its geographical isolation, conflict-ridden past and historical context. By shedding light on the financial and economic circumstances of women in the area where gaps in financial access continue to exist despite national efforts this study closes a significant knowledge gap. The study's primary goals are to evaluate the effectiveness of existing financial inclusion and investigate the barriers preventing women from fully engaging in the economy. By concentrating on the intersection of gender, financial inclusion, and economic empowerment, the study will produce useful information for stakeholders, involved in enhancing women's economic possibilities, such as financial institutions and policymakers. The scope includes a detailed analysis of existing financial inclusion initiatives, their execution, and their practical effects on women's capacity to achieve financial independence in J&K. The research also seeks to find creative, situation-specific solutions to the challenges women in this area confront. The results are anticipated to contribute to the larger objective of socioeconomic development in Jammu and Kashmir by informing focused actions and policies that support women's financial empowerment and inclusion.

Methodology

This study adopts a descriptive research design and focuses on the Union Territory of Jammu and Kashmir due to its unique socioeconomic context, regulatory landscape around women's empowerment, and the distinct cultural dynamics that influence financial inclusion. The sample consists of 426 women with bank accounts from both rural and urban areas of Jammu and Kashmir. Primary data was collected through a structured schedule adapted from existing literature, ensuring relevance and reliability. Descriptive statistics were conducted using SPSS to analyze the respondents' profiles and financial behaviors, while structural equation modeling (SEM) was applied using Smart PLS 4.0 to explore the relationships between key variables. Additionally, activity mapping was carried out to identify patterns and insights regarding financial inclusion policy.

Findings

- Digital financial services have positive and significant influence on female financial autonomy.
- Financial inclusion has positive and significant impact on economic empowerment among women.
- Financial inclusion has positive and significant impact on income among women.
- Financial inclusion has positive and significant impact on savings among women.

- Financial inclusion has positive and significant impact on asset generation among women.
- Financial inclusion has positive and significant impact on control over household income among women.

Conclusion

This study demonstrates that financial inclusion significantly contributes to the economic empowerment of women in Jammu and Kashmir. Access to financial products and services enables women to better manage their finances, engage in entrepreneurial activities, and strengthen their economic autonomy. Digital financial services have emerged as a game-changer for female financial independence, overcoming traditional barriers and offering more flexible, inclusive options. To enhance these impacts, banks and financial institutions must provide tailored services and products specifically for women. Programs aimed at improving financial literacy should be developed with consideration of the region's unique socio-cultural context. To promote the use of digital financial services (DFS), government initiatives must focus on providing financial assistance specifically designed for women. Furthermore, supporting legislative changes that enhance women's financial independence is crucial. More accessible funding, mentorship, and training programs tailored to women establishing or growing their businesses are necessary to support women-led entrepreneurship. These interventions will help ensure that financial inclusion efforts lead to meaningful and sustainable economic empowerment for women across various socio-economic backgrounds.

Limitations and future research

The study's findings offer valuable insights into the relationship between financial inclusion and women's economic empowerment, yet certain limitations should be acknowledged. The research is geographically restricted to a specific region, which may limit the generalizability of the results to other areas or populations. Additionally, the selected variables and constructs, though comprehensive, may not fully capture the complex and multi-dimensional nature of financial inclusion and empowerment. Future research should consider expanding the scope to include diverse geographic and cultural contexts and integrating a broader range of variables to explore underrepresented factors.

ACKNOWLEDGEMENT

My PhD journey began the day I first set foot in school, and it has taken years of dedication, learning, and perseverance to reach this significant phase of life. Today, as I write these words of acknowledgement, I must first and foremost express my deepest gratitude to Almighty Allah. His guidance has always illuminated the right path, both in this life and beyond. Without His will and desire throughout these years, none of this would have been possible. This PhD journey has truly been a roller coaster, with daily challenges, setbacks, rejections, mistakes, and errors. Time management, maintaining discipline in my work, and staying calm amidst the struggles were constant hurdles. Monetary constraints and being away from my family were particularly difficult challenges I faced. However, I constantly reminded myself of my purpose, which kept me motivated to push forward.

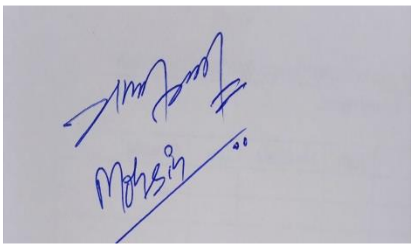
Research is a never-ending journey, but today, as I sign off from my thesis writing, I would like to acknowledge a few individuals who have played an instrumental role in helping me through this phase of life.

I would like to express my deepest gratitude to my respected supervisor, **Dr. Razia Nagina**, Professor at Mittal School of Business, Lovely Professional University. Her mentorship has been invaluable, and she has guided me with immense patience and dedication. Her constant encouragement and drive for excellence inspired me throughout this journey, especially during times when I felt discouraged. I will forever be grateful for her unwavering support, guidance and for being there always during the difficult times. I also deeply appreciate the expert advice of my co supervisor, **Dr. Usha Nori**, Associate Professor at the Institute of Public Enterprise. Her expert guidance, especially with statistical analysis, has been crucial to my research. She generously made time for discussions, even outside her regular work hours, for which I am sincerely thankful. My sincere thanks also go to the **Institute of Public Enterprise, Hyderabad**, for providing the National Research Fellowship and all the facilities particularly **IPE Library**. Without the support of this institute, much of my research would not have been possible. My heartfelt thanks also go to **Dr. Nitin Gupta**, Head of the department, and the entire family at the Mittal School of Business for the facilities, resources, and constant support made available to me during this process.

Words are not enough to express my gratitude to my parents. Though it wasn't always easy for them, they never wanted me to feel like anything was beyond reach. My father, **Showkat Ahmad Shah**, has always trusted me and supported every step of my academic journey, never denying me anything related to my career. His belief in me has been unwavering. I am at a complete loss for words to express how deeply I want to thank my mother, **Haseena**. Her love, care, and endless support, along with the immense hardships she has endured for me, are the reasons I am here today. This PhD is for her. Whatever I am today, it is solely because of her blessings and sacrifice. I want to give a special thanks to **Rumana Shah**, who has stood by me for so many years, continually motivating me and offering her unwavering support.

My sisters, **Sumaira** and **Taliya**, have always been by my side whenever I needed support, and I cannot thank them enough for that. A special mention goes to the newest member of our family, baby **Ebrah**, whose presence has been a source of motivation to complete this journey. I fondly remember my maternal uncle **M. Ayoub Shah**, who took me to school for the first time, where he was a teacher. The guidance he gave me at the start of my academic journey laid the foundation for what I have achieved today. My uncle **Manzoor Ahmad Shah** has also been immensely supportive, always ready to help whenever I needed anything.

I extend my sincere thanks to **Dr. Zahid Hussain Bhat**, **Dr. Tawheed Nabi Baba**, **Dr. Muzamil Ahmad Baba**, **Dr. Mandeep Bhardwaj**, **Dr. Mohsin Khan**, **Dr. Basit ali Bhat**, **Dr. Shubhangi Gautam** and **Dr. Muzamil Rehman** for all their support throughout this journey. Their guidance, encouragement, and assistance have been invaluable to me, and I am sincerely thankful for their contributions. I would also like to express my heartfelt gratitude to all my friends who have helped me in one way or another throughout this journey. A special thanks to my colleagues **Syed Rizwana**, **Aaliya**, **Ulfat, Obaid**, **Manpreet**, for their constant support and encouragement.



Dated: 01-10-2024 Mohsin Showkat

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Sr. No	Description	Abbreviation
01	RBI	Reserve Bank of India
02	J&K	Jammu and Kashmir
03	GDP	Gross Domestic Product
04	UN	United Nation
05	SDGs	Sustainable Development Goals
06	GPFI	Global Partnership for Financial Inclusion
07	AFI	Alliance for Financial Inclusion
08	FI	Financial Inclusion
09	PMJDY	Pradhan Mantri Jan Dhan Yojana
10	NPCI	National Payments Corporation of India
11	UPI	Unified Payments Interface
12	JAM	Jan Dhan, Aadhaar, and Mobile
13	FSDC	Financial Stability and Development Council
14	KCC	Kisan Credit Cards

15	GCC	General Purpose Credit Cards
16	BSBD	Basic Saving Bank Deposit
17	SBLP	Self-Help Groups Bank Linkage Programs
18	BF	Business Facilitators
19	KYC	Know Your Customer
20	DBT	Direct Benefit Transfer
21	OECD	Organisation for Economic Co-operation and Development
22	NGOs	Non-Governmental Organization (NGO)
23	ILO	International Labour Organisation
24	WED	Women's Entrepreneurship Development
25	SIGI	The Social Institutions and Gender Index
26	SHGs	Self-Help Groups
27	UT	Union Territory
28	ATISG	Access through Innovation Subgroup
29	GPFI	Global Partnership for financial Inclusion
30	FIEG	Financial Inclusion Experts Group
31	IFC	The International Finance Corporation
32	PCA	Principal Component Analysis
33	NFHS	National Family Health Survey
34	FII	Financial Inclusion Index
35	HDI	Human Development Index
36	CRISIL	Credit Rating Information Services of India Limited
37	MENA	Middle East and North Africa
38	SADC	Southern African Development Community
39	JKEDI	Jammu and Kashmir Entrepreneurship Development Institute
40	IT	Information Technology
41	DFS	Digital Financial Services
42	NITI	National Institution for Transforming India
43	CVR	Content Validity Ratio

44	SEM	Structural Equation Modeling
45	SPSS	Statistical Package for Social Sciences
46	PLS-SEM	Partial Least Squares Structural Equation Modelling
47	APL	Above Poverty Line
48	AAY	Antyodaya Anna Yojana
49	BPL	Below Poverty Line
50	KM	Kilometres
51	DF	Degrees of Freedom
52	INR	Indian National Rupee
53	FFA	Female Financial Autonomy
54	TAM	Technology Acceptance Model
55	HTMT	Heterotrait-monotrait ratio
56	CR	Composite Reliability
57	AVE	Average Variance Extracted
58	VIF	Variance Inflation Factor
59	SRMR	Standardised Root Mean Square Residual
60	CI	Confidence Interval
61	B	Standardized Beta
62	LM	Linear Model
63	PLS	Partial Least Squares
64	RMSE	Root Mean Squared Error
65	FIA	Financial Inclusion Access
66	FIU	Financial Inclusion Usage
67	FIQ	Financial Inclusion Quality
68	FIT	Financial Inclusion Trust
69	WE	Women Economic Empowerment
70	WEI	Women Economic Empowerment Income
71	WES	Women Economic Empowerment Savings
72	WEA	Women Economic Empowerment Asset

		Generation
73	WEH	Women Economic Empowerment Control over Household Income
74	Hypo	Hypothesis
75	LV	Latent Variables
76	MFIs	Micro-Finance Institutions
77	SIDBI	Small Industrial Development Bank of India
78	MSME	Micro, Small and Medium Enterprise
79	NMDFC	National Minorities Development & Finance Corporation
80	NBCFDC	National Backward Classes Finance & Development Corporation
81	WEP	Women Entrepreneurship Programme
82	RMK	Rashtriya Mahila Kosh Loan
83	IMOs	Intermediary Organizations
84	Vos	Voluntary Organisation
85	IMF	International Monetary Fund
86	WB	World Bank
87	WEE	Women Economic Empowerment

Chapter -1

Introduction

1.1 An overview of financial inclusion

The term "financial inclusion" has become increasingly prevalent in public discourse over the past few years. The Reserve Bank of India (2015) defines it as "access to the formal financial sector for the marginalized and formal-finance-deprived sections of society." Policymakers worldwide are currently exploring methods to ensure that economically marginalized groups are more actively engaged in the community (Falaiye et al., 2024). Especially in the aftermath of the 2008 global financial crisis, there is a renewed global drive for financial inclusion (FI). Political support for FI is increasing due to its welfare-enhancing effects, and it is increasingly acknowledged as a key element in reducing poverty and economic development (Ozili, 2024). Access to formal financial services can enhance investments in human capital, decrease vulnerability to disruptions, and promote job creation (Falaiye et al., 2024). However, the lack of sufficient access to formal financial services compels individuals to rely on costly unofficial sources of financing or their own limited resources, which impedes their capacity to pursue opportunities for personal growth (Chowdhury & Chowdhury 2024).

The term "financial inclusion" is increasingly often used to denote both access to fundamental financial services and associated more complex processes (Allen et al. 2016). Regulators and legislators globally prioritise supporting at least seven sustainable development goals on the international agenda (Lee et al., 2023). Achieving financial inclusion via the formal banking system is a significant challenge, especially for women. The lack of adequate financial services, including credit, insurance and digital payment solutions at competitive prices, is a substantial challenge for developing economies (Ozili et al., 2023).

1.2 Background and factors driving the global movement for increased financial inclusion

Financial inclusion aims to provide all societal segments with affordable and accessible financial services (Demirguc-Kunt et al., 2015). This guarantees the provision of practical and reasonably priced financial goods and services, including bank accounts, credit, insurance, payments, and remittance services, to private citizens and commercial entities in an ethical and sustainable manner (Klapper et al., 2016). The concept first emerged in the 1990s as a key facilitator of economic growth and poverty reduction (Sarma & Pais, 2011).

Before this, a large segment of the global population remained "unbanked" or excluded from the formal financial system (Demirguc-Kunt & Klapper, 2012). This lack of access to financing was believed to hinder growth and economic opportunities (Demirguc-Kunt et al., 2017). Research indicates that financial accessibility can enhance household spending, stimulate profitable investments, facilitate income distribution, and assist individuals in escaping impoverished situations (Beck et al., 2007; Burgess & Pande, 2005). There is evidence linking higher economic growth to financial depth (e.g., private lending as a percentage of GDP) (Mader, 2018). Financial exclusion disproportionately affects underprivileged groups, including the impoverished, women, rural areas, and marginalised populations (Demirgüç-Kunt et al., 2015). The development of novel, low-cost digital technologies and fresh business strategies can penetrate historically underserved markets (Goel & Sharma). Coordinated initiatives to raise financial awareness and leverage are necessary to achieve full financial inclusion (Miller et al., 2015).

Bexell and Jonsson (2017), along with the World Bank Group, emphasize the crucial role of financial inclusion in alleviating extreme poverty and fostering prosperity for all. As part of its Universal Financial Access 2020 strategy, the World Bank aimed to provide 1 billion people with access to transaction accounts by 2020 (Demirguc-Kunt et al., 2018). Additionally, the World Bank provides financial support, technical assistance, and knowledge sharing for developing countries' financial inclusion policies and initiatives. Financial inclusion is a major objective (8.10) of the United Nations' Sustainable Development Goal 8, which focusses on encouraging inclusive economic growth (United Nations, 2015). To digitise payments and move towards cashless economies, the UN collaborates with governments, the private sector, and other stakeholders through programs like the Better than Cash Alliance (Bernstein, 2017). Established in 2010, the Global Partnership for Financial Inclusion (GPFI) of the G20 aims to synchronise and advance financial inclusion initiatives among its member nations. The GPFI has produced important guidelines and policies in areas such as national strategy development, SME financing, digital financial services, and financial consumer protection (GPFI, 2016). Organisations like the Alliance for Financial Inclusion (AFI), a global policy leadership alliance, have been instrumental in supporting financial inclusion policy and regulation for developing and emerging economies at the regional level (Hannig & Jansen, 2010).

1.3 Concept and definition of financial inclusion

The initiative termed financial inclusion aims to ensure that financial services are affordable, accessible, and available to everyone, including individuals and businesses, regardless of their income or net worth (Demirguc-Kunt et al., 2022; Chakrabarty, 2013). The key financial services under its purview include credit, savings, insurance, payments, and remittance facilities (Leeladhar, 2006). A comprehensive definition by the Centre for Financial Inclusion states it aims to achieve "universal access, with a focus on people who are currently underserved, at an affordable cost in a convenient and dignified manner" (Ozili, 2020). The idea extends beyond simply creating a bank account to facilitate the efficient use of high-quality financial services tailored to the underprivileged unique requirements (Falaiye et al., 2024). It includes elements such as suitability, awareness, availability, cost, and accessibility of financial products (Karış & Cil, 2024). Thus, financial inclusion is a multifaceted idea that aims to provide choice, voice, and unlimited participation to the "unbanked" people while also integrating them into the official financial system (Ozili, 2024).

1.4 Some definitions of financial inclusion provided by authors and organizations

Rangarajan Committee (2008) financial inclusion (FI) is defined as the provision of financial assistance to the needy including the poor and low-income earners and ensuring that they get adequate and affordable credit at the right time.

Mandira Sarma (2008) the process of guaranteeing that every member of an economy has access to and uses the formal financial system.

Arpita Sharma and Sumil Kukreja (2013) FI implies that all the people in society especially the vulnerable groups like the poor and the low-income earners should be availed of the right and appropriate financial services. The regulated mainstream institutions should offer this access to the populace at a reasonable fee, in a non-discriminatory manner.

World Bank (2014) FI entails giving people and firms the ability to use appropriate and reasonable financial services and products such as transactions, payments, savings, credit, and insurance sustainably and responsibly.

United Nations (2016) FI is realized when consumers from all income levels have accessibility well as the ability to use a variety of affordable, suitable, and accessible financial services.

Centre for Financial Inclusion (2022) full financial access occurs when all individuals who need them have access to a several comprehensive reasonably priced, excellent banking services, provided by a variety of institutions within a well-structured and well-governed system.

Reserve Bank of India (2022) FI refers to the process of granting vulnerable groups, including economically disadvantaged and low-income populations, access to financial services and timely, adequate credit at affordable rates.

These definitions highlight the common aspects of financial inclusion like access, affordability, appropriate products, responsible delivery and effective application of banking services for all sections of society, especially the vulnerable and underserved groups.

1.5 Importance of financial inclusion

Financial inclusion (FI) has a crucial role in improving economic growth, reducing poverty, and advancing civilisation. Therefore, Jejeniwa et al. (2024) assert that the FI paradigm, by providing appropriate banking services to all groups, including the most vulnerable, aids in reducing the wealth gap. Furthermore, it contributes to economic growth and advancement in the modern world (Hasan et al., 2023) and addresses a particular obstacle to continued progress in developing countries by providing financial services to the less fortunate (Hendriks, 2019). By promoting the use of digital financial services, improving financial literacy, and formalising the economy, FI supports the growth of an equitable and sustainable economy (Nanduri, 2021; Chikalipah, 2017). It encourages venture creation, aids in the deployment of funds, and harnesses savings at the macroeconomic level (Cull et al., 2014), strengthens the financial system's solidity, and improves the effectiveness of monitoring policy implementation (Mehrotra & Yetman, 2015). It allows individuals and households to deal with financial risks, fund their health and education, and have deeper and better access to the so-called formal financial sector from a social perspective (Demirgüç-Kunt et al., 2017). It fosters economic pluralism, creativity, and employment, especially for entrepreneurial small businesses and medium businesses (Beck et al., 2015). In the public sector, FI improves the quality of government services, reduces corruption risk due to increased transparency, and increases tax collection effectiveness (Klapper & Singer, 2014). Furthermore, it promotes gender equity by assisting women to economically and socially empower themselves (Ghosh & Vinod, 2017). Even though digital financial services are essential in opening up FI by reducing transaction costs and going beyond geographical issues (Ozili, 2018), important areas to consider are consumer protection, infrastructure, and digital literacy (World Bank, 2021). To foster fair and sustainable economic growth, governments, international organisations, and financial institutions must work together in concert, as shown by the inclusion of finance (FI) in the United Nations Sustainable Development Goals (Badullahewage, 2019).

1.6 Financial inclusion in India

After discovering that over 7.5 million individuals were unable to access a bank account, the term "financial inclusion" (FI) gained prominence in the British context. However, the FI is not a new idea for the Indian economy at all. For financial inclusion, the RBI has taken several measures, such as the nationalisation of the banks in 1969, the opening of RRBs, and the SHG-Bank Linkage programs (Iqbal and Sami 2017). Thus, the main objective of FI is to enhance the standard of living and income distribution to the heterogeneous population by ensuring everybody, especially the marginalised, gets favourable access to formal financial services (Aggarwal, 2014). In the context of the economic growth strategy, this approach facilitates the integration of economic growth across all societal segments, with a particular focus on vulnerable groups. Thirdly, financial inclusion drives investments, increases the savings rate, and enables organizations and individuals to mitigate risk, thereby fostering economic stability and growth (Ouma et al., 2017).

In the last decade, India has achieved a great deal in the process of achieving financial inclusion, particularly in the banking sector, which has a large portion of the population that is still unbanked. One such remarkable intervention was the Pradhan Mantri Jan Dhan Yojana (PMJDY) 2014, followed by the agenda of extending basic bank accounts, bank credit to the excluded/uninformed section of society, and financial inclusion (Verma & Giri, 2024). By 2022, PMJDY reported the opening of nearly 460 million PMJDY accounts. Yet, India's goal is more than just forming addresses to improve financial service utilization (Raman 2012; Lal 2018). This strategy includes introducing inferior debit cards like RuPay, increasing banking correspondents, and evolving the digital financial front. As per NPCI (2022), the Unified

Payments Interface (UPI) has been a game-changer, recording 7.7 billion transactions. The JAM trinity that comprises Jan Dhan, Aadhaar, and Mobile, supported by the vision documents of the Reserve Bank of India, has been the basis for the FI initiatives in India (Goel, 2020). However, persistent challenges remain, including inactive accounts, low credit uptake, particularly among women and rural dwellers, the gender gap in credit technology, and financial illiteracy/weak financial consciousness (Jain, 2018). It requires continuous processes that involve specific products, technologies, and programs to attain inclusive and effective money solutions in India (Garg & Agarwal, 2014). Women's FI has been an area of focus because men's and women's rates of access to financial services have been vastly different (Pal et al., 2022). In 2021, the Global Findex survey revealed that 90% of males in the country had bank accounts, compared to 77% for females. To encourage entrepreneurship and improve women's money lending facilities, the government has created dedicated schemes such as the Stand-Up India scheme and the Pradhan Mantri Mudra Yojana (Ghosh & Vinod, 2017). Over 220 million women have opened accounts thanks to the Jan Dhan Yojana (PMJDY, 2022). Nevertheless, there are difficulties with the engagement of other financial products and services, including credit, insurance, and digital transactions; inactive accounts; and small average balances (Sharma & Chakraborty, 2022).

Women, especially in rural areas, face constraints in gaining financial services due to lesser chances of possessing official identification documents, mobility and decision-making power, and less financial literacy (Kaur & Singh, 2015). In order to address these issues, the government, banks, and fintech must provide support through policy reforms that consider gender issues when designing products that cater to women's needs. Additionally, self-help groups for women in business should be utilized, and financial literacy campaigns targeting women in business should intensify their output and impact (Akpuokwe et al., 2022). The integrated banking services provided by SEWA Bank to low-income women, the mobile financial literacy initiative of the Grameen Foundation, and the focus of other microfinance banks on women's economic empowerment are examples of creative solutions (Vyas, 2020). More coordinated initiatives involving many stakeholders would be necessary to achieve financial inclusion for women throughout India (Mehra et al., 2012).

1.7 Approaches to achieve financial inclusion in India

The above evidence clearly indicates that India urgently needs to include women in the financial inclusion space. However, this section of the study will demonstrate that although financial inclusion processes are in progress, they do not specifically target women. In India, it is possible to identify three key principles: financial education, financial inclusion, and financial stability as the foundation of the overall strategy to promote the development and use of the financial services network. Both the concept of financial inclusion and the aspect of financial literacy are right and proper within the purview of the Financial Stability and Development Council (FSDC).

Source: www.rbi.org **Figure 01: The financial tripod**

To achieve FI, the government and the Reserve Bank of India (RBI) have collaborated on various initiatives. We can broadly categorise these measures into five approaches: knowledge-based, technology-based, government-driven, bank-led, and product-based.

Financial institutions employing a product-led strategy focus on creating innovative solutions to make financial inclusion accessible to the broader population. This includes programs such as "Kisan Credit Cards (KCC), General Purpose Credit Cards (GCC), Basic Savings Bank Deposit (BSBD) accounts, No Frills accounts, and savings accounts with overdraft facilities".

In the bank-led approach, banks leverage their delivery channels to provide financial and banking services to the masses. This approach includes programs such as Self-Help Groups Bank Linkage Programmes (SBLP), as well as the use of business facilitators (BF) or business correspondents. The regulatory approach is to relax the regulations to enable availability of financial services for the unbanked population; this includes measures like simplified Know Your Customer (KYC) norms.

A knowledge-based approach focuses on financial institutions' strategies for enabling people to effectively use the financial services network. Financial education raises awareness among low-income groups about the significance and benefits of using these institutions' financial services. It encompasses institutional programs that aim to enhance awareness, capabilities, and cognitive skills in managing money through workshops, special camps for students, publicity campaigns, and other methods. Fifth, the use of technology facilitates the prompt delivery of benefits while minimizing the risk of corruption. For example, the digital revolution in the Indian banking sector has enabled innovations like mobile banking, ATM-based banking, Aadhaar-enabled banking, etc.

1.8 Financial inclusion policies in India

The concept of FI has been part of India's broader policy discussions since the social control of banks began in the 1960s. However, significant changes have occurred in the financial inclusion landscape over the past two decades with increased efforts to integrate marginalised and poor sections into the financial mainstream. In recent years, the Government of India and the Reserve Bank of India (RBI) have launched several initiatives to extend financial services to unbanked individuals. In 2005, the RBI introduced the no-frills account to provide basic banking services to those financially excluded, allowing customers to open accounts with minimal or no balance. The RBI has introduced other major initiatives to promote financial inclusion, including Know Your Customer (KYC), Electronic Benefits Transfer, Unified Payments Interface (UPI), Direct Benefit Transfer (DBT), Pradhan Mantri Jan Dhan Yojana (PMJDY), banking correspondents, and MUDRA loans. The following figure visually represents the overall state strategy adopted in India.

Financial Inclusion Initiatives

Major Schemes	Product/ Services	Digital Technologies
Pradhan Mantri Jan Dhan Yojana Pradhan Mantri Suraksha BimaYojana Pradhan Mantri Mudra Yojana Pradhan Mantri Jeevan Jyoti Bima Yojana Atal Pension Yojana Stand Up India Scheme	Kisan credit card General credit card Overdraft facility Financial Literacy centers Business Correspondence	Mobile Banking Internet Banking ATM Debit/Credit card RuPay card Digital Apps like (Paytm, Phone pay Bhim)

Source: Authors work

Figure 02: Financial inclusion initiatives in India

The JAM trinity, comprising Jan Dhan bank accounts, Aadhaar unique identity numbers, and mobile phones, embodies the government's unique integrated vision. This combination is considered essential for implementing large-scale direct benefit transfers in India. The government designed the Jan Dhan Yojana to broaden and simplify access to financial services. The second component, Aadhaar, provides a nearly universal, unique identity number within the country. The third component is mobile phone access, which has proliferated nationwide, primarily through private licensed operators. The Jan Aadhaar Mobile (JAM) initiative encourages individuals to link their Jan Dhan accounts with their mobile numbers and Aadhaar cards, allowing them to receive government subsidies directly into their bank accounts. This system has two main benefits: it reduces corruption by eliminating ghost beneficiaries and facilitates direct money transfers to beneficiaries without intermediary linkages, thereby enhancing governance. This strategy is considered a social revolution due to its integration of financial inclusion (PMJDY), biometric identification (Aadhaar), and mobile telecommunications. Poor households rely on the government's financial pipeline to receive government subsidies for essential commodities. The JAM initiative has demonstrated its potential to improve delivery mechanisms by minimising delays, leakages, and administrative burdens. Despite the JAM strategy's significant improvements in financial inclusion, the Economic Survey of 2016-17 advises caution. Further progress is necessary to ensure robust bank-beneficiary linkages for effective direct benefit transfers without exclusion errors, according to indicators of JAM readiness. Government investments in enhancing banking correspondent networks and digital connectivity can mitigate this issue. Since 2014, there has been a concerted push towards financial inclusion. The following table summarises the key steps taken in this direction:

Table 01: JAM initiative

Initiative	Description
Jan Dhan Yojana	Expands and makes financial services affordable.
Aadhaar	Provides a unique identity number to nearly all citizens
Mobile Phones	Ensures widespread access through private operators

Source: Authors work

By linking Jan Dhan accounts, Aadhaar numbers, and mobile phones, the JAM initiative aims to streamline the subsidy distribution process, reducing corruption and improving governance, while addressing the on-going challenges through continued investment in digital and banking infrastructure.

Table 02: Financial inclusion initiatives since 2014

Scheme	Highlight
Pradhan Mantri Jan Dhan Yojana (PMJDY)	• "Launched by the Government of India on August 15, 2014". • The "Pradhan Mantri Jan-Dhan Yojana (PMJDY)" aims to provide excluded groups, such as low-income and weaker sectors, with access to a range of financial services, including basic savings bank accounts, need-based credit, remittance facilities, insurance, and pensions. Only with the efficient use of technology is this extensive penetration at a reasonable cost feasible.
Pradhan Mantri Suraksha BimaYojana (PMSBY)	• "Available to all individuals with bank or post office accounts between the ages of 18 and 70 who consent to register or initiate auto-debit by May 31 for coverage starting on June 1 and ending on May 31, subject to an annual renewal." • "Yearly premium of Rs. 12 is deducted from the account holder's bank account. The program gives risk protection of Rs. 2 lakhs for accidental death. Banks have enrolled around 15.47 crore people under the PMSBY program as of March 31, 2019, and 32,176 claims of Rs. 643.52 crore have been paid out, pending verification of eligibility requirements."

Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY)	• Available to individuals aged 18 to 50 who have a bank account. • The annual premium is Rs. 330. • As of March 31, 2019, approximately 5.91 crore people have enrolled in PMJJBY through banks, with 1,35,212 claims amounting to Rs. 2704.24 crore disbursed.
Atal Pension Yojana (APY)	• Launched by the Prime Minister on May 9, 2015. • Available to all savings bank account holders aged 18 to 40, depending on the chosen pension amount. • "Subscribers are guaranteed a minimum monthly pension." • As of March 31, 2019, there are 149.53 lakh subscribers with Assets under Management (AUM) amounting to Rs. 6860.30 crore.
Pradhan Mantri Mudra Yojana (PMMY)	• Launched on April 8, 2015: Small businesses can receive loans up to Rs. 10 lakhs without requiring collateral. • Loans are categorized into Shishu (up to Rs. 50,000), Kishore (Rs. 50,000 to Rs. 5 lakh), and Tarun (Rs. 5 lakhs to Rs. 10 lakh). • Aims to boost the confidence of women, young, educated, or skilled workers. • Facilitates the expansion of small

	business activities. • The scheme covers businesses such as small manufacturing units, shopkeepers, fruit and vegetable vendors, hair salons, beauty parlors, transport operators, hawkers, repair shops, and artisans with financing needs up to Rs. 10 lakhs. • In the fiscal year 2018-19, the sanctioned amount was Rs. 3,21,722 crores.
Stand Up India Scheme	• Launched on April 5, 2016: Aims to promote entrepreneurship among women, as well as scheduled castes and tribes. • Provides bank loans ranging from Rs. 10 lakhs to Rs. 1 crore. • Implemented through all Scheduled Commercial Banks.

Source: Authors work

The recent years have heralded an exciting era of “financial inclusion in India”. The genuine assessment of these policies is found in their actual execution. The following paragraphs will assess the progress of the three most well-known schemes, which epitomize the government's financial inclusion efforts. Since these initiatives are relatively recent, long-term trends cannot yet be identified. Nevertheless, the available data provides a preliminary overview of their impact.

a. Progress under Pradhan Mantri Jan Dhan Yojana.

Table 03: Progress of PMJDY

Year	No. of PMJDY accounts (in Crore)	Deposit in PMJDY accounts (in Rs. Crore)	Number of RuPay debit cards issued to PMJDY account holders (in Crore)
March 2015	14.72	15,670	13.15
March 2016	21.43	35,672	17.75
March 2017	28.17	62,972	21.99
March 2018	31.40	78,494	23.65
March 2019	35.27	96,107	27.91
March 2020	38.33	1,18,434	29.30
March 2021	42.20	1,45,551	30.90
March 2022	45.06	1,66,459	31,62
March 2023	48.65	1,98,844	32.94

Source: www.pmjdy.com

The above table indicates consistent progress across major parameters under PMJDY over the years. Since its launch, the scheme has steadily advanced in terms of the number of accounts, amount deposited, and issuance of Rupay cards. The unbanked population's integration into the formal financial system has been made possible in large part by this endeavour.

b. Progress under Mudra Yojana

Table 04: Progress of MUDRA by loan category and social group (2021-2022)

Category	Shishu Amount sanctioned	Kishor Amount sanctioned	Tarun Amount sanctioned	Total Amount sanctioned (in Crore)
General	**59,381.87** 47.60%	**88,233.56** 64.10%	**66,268.48** 86.38%	**2,13,883.91** 63.07%

SC	**22,633.19** 18.14%	**12,949.13** 9.41%	**1,721.29** 2.24%	**37,303.61** 11.00%
ST	**8,086.12** 6.48%	**5,241.43** 3.81%	**1,124.98** 1.47%	**14,452.53** 4.26%
OBC	**34,646.18** 27.77%	**31,220.26** 22.68%	**7,603.86** 9.91%	**73,470.30** 21.67%
Total	**124,747.36** 100%	**137,644.38** 100%	**76,718.61** 100%	**339,110.35** 100%

Source: Financialservices.gov.in

This table provides a detailed breakdown of the amount sanctioned under the MUDRA loan scheme by loan category (Shishu, Kishor, and Tarun) and social group (General, SC, ST, OBC) for the financial year 2021-2022. The General population receives a disproportionately large share of the MUDRA loans across all categories, particularly in the larger (Tarun) loans. SC and ST groups receive most of their loans in the (Shishu) category, indicating a potential bias in loan distribution. The data highlights the need for targeted interventions to ensure that SC, ST, and OBC groups receive more balanced support across all loan categories to promote true financial inclusion.

c. Progress under stand-up India schemes

Table 05: Cumulative progress of stand-up India scheme on 31.03.2020

Marginalized Section	Sanctioned Amount (in Crore)
Scheduled Castes	**2791.43 (13.27)**
Scheduled Tribes	**834.29 (39.68)**
Women	**17396.5 (82.75)**
Total	**21022.22 (100)**

Source: Financialservices.gov.in

As of March 31, 2020, the cumulative amount sanctioned under the scheme is ₹21,022 crores. Women entrepreneurs have significantly benefited, receiving 82.75% of the total amount. However, scheduled caste entrepreneurs are still trailing, with only 13.27% of the funds directed towards them. While it is evident that these schemes have achieved some level of financial inclusion for weaker sections, there is still a pressing need for targeted efforts to enhance the flow of credit to entrepreneurs from scheduled castes and scheduled tribes.

1.9 Economic empowerment of women

Mulema (2018) argues that without this empowerment, we cannot achieve equitable and sustainable economic growth. Economic empowerment for women raises income equality, diversifies the economy, and promotes productivity (ICRW, 2011). According to Sahay et al. (2022), it is essential for attaining gender equality, advancing household food and economic security, improving human capital development outcomes, including health and education, and lowering intergenerational poverty. When women take charge of household decision-making, they invest more money in their children's health, education, and nutrition, benefiting future generations (World Bank, 2012). According to Hunt and Samman (2016), it enables women to acquire independence, self-assurance, respect, and deservingness in their homes and communities. As per Cameron and Tedds (2021) and UN Women (2019), women who lack economic empowerment are more susceptible to unfavourable outcomes, gender-based violence, economic instability, and hardship. The literature underscores the many potential barriers holding women back from achieving economic success, including unequal access to financial services, productive assets and inputs, education, and skills; discrimination in the workplace; unremunerated care work; and unfavourable social norms (Mulema, 2018). Deliberate efforts through interventions like financial inclusion are necessary to fully enable women to develop their potential for economic empowerment (Chibba, 2009).

Attaining the “Sustainable Development Goals” (SDGs) requires an emphasis on women's economic empowerment since it directly supports many objectives. Goal 5 seeks to "implement reforms to ensure women possess equal rights to economic resources, including ownership and control over land and other property, financial services, inheritance, and natural resources, as mandated by national laws" (UN Women, 2022). “Attaining gender equality and enabling women and girls to participate fully and effectively in society,” including economically, is an important prerequisite for sustainable development (UN

Women, 2018). “SDG 1: No Poverty” and “SDG 8: Decent Work and Economic Growth” women's control over economic resources, their equal participation in all spheres of economic life, including formal employment, and their access to labour market participation opportunities have become crucial (Thomas et al., 2021). “SDG 10: Reduced Inequalities: Women's economic empowerment can contribute to the reduction of inequalities by enhancing their economic security and resilience, as well as their share in income and resources” (Dugarova, 2016). Research indicates that financially independent women make greater investments in the health, nutrition, and education of their offspring, facilitating advantages across generations and supporting many Sustainable Development Goals (SDGs) (Yıldırım & Koroglu, 2024).

1.10 Benefits of economic empowerment of women

- The empowerment of female participation in economic processes has proven to be an indispensable part of projects promoting equal opportunities and rights for women. While economic empowerment is a key factor, it is equally necessary for women to have an unrestricted right to make decisions about productive resources. In this scenario, women receive an adequate number of jobs, allowing them to make their own decisions about how to spend their time, whether to pursue jobs, and their safety, without external influence (UN Women, 2018).
- “Targets 5 (gender equality)” and “8 (decent work and economic development)” will not be met unless women are encouraged to participate in the economy and gender inequality in the working is reduced. "Leave No One Behind" highlights how important it is. One such indication may be the 2016 report of the UN SG's High-Level Panel on Economic Empowerment of Women (UN Women, 2018).
- Furthermore, an increase in female employment positively correlates with economic growth, fostering a more productive society and broadening the scope of development beyond income inequality (IMF, 2018). The world's uplifted data shows that raising female employment rates to the levels in OECD countries will probably lead to GDP inflation of over USD 6 trillion (PwC, Women in Work Index 2018). However, it is not binding that economic development will lead to a decrease in gender-based inequalities (Cuberes & Teignier, 2016).
- Improving women's and girls' education is essential for boosting women's economic empowerment and fostering inclusive economic development. Education enhances

knowledge, skills, and income-generating capabilities, enabling active participation in the formal job market and contributing to overall well-being (OECD, 2014).

- Promoting women's economic equality benefits not only society but also businesses. Providing more employment and leadership roles for women has a positive impact on organizational performance and growth, with studies showing improved performance when there are at least three women in senior management positions or more (McKinsey, 2021).

1.11 Global initiatives for economic empowerment of women

The past few decades have seen a notable increase in the number of global initiatives aimed at empowering women economically, which is indicative of a growing awareness of the critical role that women play in both economic growth and sustainable development. These initiatives are broad in scope and involve a multitude of stakeholders, including governments, NGOs, international organisations, and the private sector, as shown in the table below.

Table 06: Global initiatives for economic empowerment of women

Initiative	**Goals**
UN, “Sustainable Development Goals” (SDGs)	• The Sustainable Development Goals (SDGs) of the United Nations, especially SDG 5. • This strives for gender equality and the empowerment of all women and girls are among the most well-known worldwide frameworks. • This goal includes objectives about women's economic rights, resource accessibility, and involvement in financial decision-making (United Nations, 2015).

World Bank Group's Gender Strategy (2016–2023)	• The four main goals of the World Bank Group's Gender Strategy (2016–2023) are to increase women's agency and voice, engage men and boys, improve human endowments, and remove barriers to more and better jobs. • The World Bank uses this strategy to guide its lending and advising services in a number of industries (World Bank, 2015).
International Labour Organisation (ILO)	• Through focused support and policy advocacy, the Women's Entrepreneurship Development (WED) programme, launched by the International Labour Organisation (ILO), aims to empower women entrepreneurs in poor nations (ILO, 2021).
Women Entrepreneurs Finance Initiative (We-Fi)	• Established in 2017 with the goal of enabling financing for women-led enterprises in underdeveloped nations, is one of the actions the G20 has done to support women's economic empowerment (We-Fi, 2021).
The Social Institutions and Gender Index (SIGI)	• Created by the Organisation for Economic Co-operation and Development (OECD) in 180 countries, monitors discrimination

	against women in social institutions and informs policy initiatives to improve women's economic possibilities (OECD, 2019).

Source: Authors work

All these global initiatives aim to eliminate structural constraints that impede women's full economic participation through discriminatory laws and practices, limited access to finance, inadequate educational opportunities, and the disproportionate burden of unpaid caregiving responsibilities. This is the kind of environment these programs are trying to create globally in support of “women's economic empowerment.”

1.12 Women economic empowerment schemes in India

Recognizing the contribution of women to the country's socioeconomic development, India has initiated several schemes aimed at empowering women economically. These programs aim to enable women to participate in the economy in various capacities such as social security, skill development, entrepreneurship, and financial inclusion (Ghosh & Vinod, 2017). The present Indian government has launched several large-scale programs involving various stakeholders to create an environment that encourages women entrepreneurship. These programs focus on a range of women’s organisations, from the urban businesswoman to the village-based self-help groups, cut across many sectors (Saxena, 2020). By focusing on issues such as capacity building, market access, computer literacy among women, and credit access, these programs aim to remove historical barriers that excluded women from the nation's economic activity (Biswal, 2023). The following description highlights several significant programs that add to the goal of women's economic empowerment in India with a focus on the pluralist approach.

Table 07: Recent schemes towards economic empowerment of women in India

Initiative	Goals
Pradhan Mantri Matru Vandana Yojana	• This government-sponsored programme, which was launched in

	2017, offers cash incentives to expectant and nursing mothers (Rs. 5,000 over three payments) in an effort to encourage them to seek prenatal and postnatal care and to support institutional deliveries. • By partially compensating for salary loss, the programme seeks to enhance mother and child health, lower maternal mortality, and guarantee women's empowerment.
Mahila E-Haat	• A unique direct online marketing platform that was introduced in 2016 with the goal of assisting and motivating women self-help groups (SHGs) and entrepreneurs by giving them a web-based platform to market and sell their goods. • By giving them access to employment possibilities and financial independence, the programme aims to empower women, particularly those living in rural areas.
Stree Shakti: Package for Women Entrepreneurs	• This package, which was unveiled in 2001, offers a number of advantages and incentives to encourage women to become entrepreneurs. • It covers things like lower interest rates on loans, easier access to financing, help with marketing, and training initiatives. In order to support

	women entrepreneurs' economic emancipation and self-reliance, the package attempts to establish an atmosphere that makes it easier for them to launch and expand their enterprises.
Mahila Kisan Sashaktikaran Pariyojana (MKSP)	• MKSP, which was introduced in 2011, is a part of the National Rural Livelihoods Mission (NRLM). Its main goals are to improve women's access to assets and inputs to promote them in agriculture, chances for sustainable agriculture livelihoods, and skill development. • The project is to support women farmers' involvement in decision-making processes and raise their revenue and productivity.

Source: Authors work

Despite the national programs aimed at achieving economic independence for women across the nation, there are significant variations in their implementation and impact, especially in areas with significant socioeconomic challenges (Ghosh & Vinod, 2017). An example of such an area is the union territory of Jammu and Kashmir UT in northern India, which possesses its own social and economic issues and risks (Kour & Chahal, 2022). In Jammu and Kashmir, women continue to face socio-economic challenges towards the realisation of employment and economic independence despite major national initiatives (Ara, 2014). Because of the peculiarities of this area, which include its geographical location, a long history of conflict, and culture, it becomes important to look at the relationship between national policies and local reality more closely (Khurshid, 2008). Understanding the status of women in Jammu and Kashmir sheds light on the need for customised solutions to address issues unique to the region and offers insightful information on the difficulties of executing large-scale economic empowerment programs in a variety of regional settings (Nanda et al., 2016).

1.13 Challenges women face in accessing financial services

Women face a myriad of interconnected challenges in accessing financial services, rooted in socio-cultural, economic, and institutional barriers (Adams et al., 2017). Deeply ingrained gender norms and patriarchal structures often limit women's financial independence, positioning men as the primary decision-makers in households, which constrains women's ability to engage directly with financial institutions (Adera & Abdisa, 2023). This dynamic is exacerbated by mobility constraints, especially in rural or conservative areas, where women are discouraged from traveling alone or interacting with male-dominated financial service providers (Adnan & Tasir, 2014). These socio-cultural barriers are compounded by a significant lack of financial literacy among women, who are often unaware of the available financial products and services (Agarwal & Zhou, 2016). With minimal financial education, many women rely on male family members for financial decisions, perpetuating a cycle of exclusion from the formal financial system (Aggarwal, 2014). The increasing digitization of financial services presents another hurdle, as women are disproportionately affected by the digital divide (Ahmed et al., 2018). Limited access to smartphones, internet connectivity, and low digital literacy further restricts their ability to adopt digital financial tools, leaving them out of the digital financial ecosystem that is critical for modern financial inclusion. Even when formal financial institutions are geographically accessible, the lack of women-friendly financial products and services poses a challenge (Adams et al., 2017). Financial institutions often fail to design flexible loans, or savings plans that cater to women's unique financial needs, especially those with irregular or informal incomes. This, coupled with women's lack of collateral due to unequal property rights and the absence of credit histories, makes it difficult for them to access credit, as they are often viewed as high-risk borrowers by financial institutions. Moreover, institutional distrust plays a key role in furthering this exclusion (Aker et al., 2016). Many women, particularly those from marginalized communities, harbor distrust toward formal financial institutions, perceiving them as opaque or overly complex. This is often accompanied by a lack of confidence in their own financial abilities, which discourages women from engaging with financial services independently. Economic factors also exacerbate these issues, as women frequently earn lower and more irregular incomes compared to men, limiting their capacity to save, invest, or seek credit (Crittenden et al., 2019). Their economic dependence on male family members diminishes their financial autonomy, restricting their ability to build a credit profile or access financial resources in their own name. Institutionally, regulatory barriers add further complexity, as many women, particularly in rural areas, lack the identification documents necessary to open bank accounts or access loans. Even when government financial inclusion schemes, such as the Pradhan Mantri Jan Dhan Yojana (PMJDY), are in place, many women are unaware of these programs or face bureaucratic challenges that prevent them from benefiting (Bharti, 2021). Without targeted outreach and simplified processes, these programs often fail to reach women, leaving them excluded from formal financial services. Additionally, weak legal protections and gender-blind policies that do not account for the specific needs of women further entrench gender disparities in access to financial services. Together, these interconnected barriers create a cycle of exclusion, limiting women’s ability to fully participate in the financial system and, by extension, their economic empowerment (Akpuokwe et al., 2014).

1.14 The role of digital financial services in advancing women's financial inclusion

Digital financial services (DFS) have emerged as a powerful tool in advancing women’s financial inclusion, offering accessible and convenient ways for women to engage with the formal financial system. By overcoming traditional barriers such as physical distance from financial institutions, DFS allows women, especially those in remote or underserved areas, to access banking services through mobile phones or the internet (David & Nwagwu, 2018).This significantly reduces the need for women to travel long distances to reach a bank, which is often a challenge due to mobility constraints and safety concerns in conservative or rural regions. Furthermore, digital platforms provide women with autonomy in managing their finances, enabling them to open accounts, transfer funds, and make payments without relying on male intermediaries, a step towards greater financial independence (Arora, 2020). The convenience of mobile money services, digital wallets, and online banking has simplified savings and transactions for women, particularly those engaged in informal economies or earning irregular incomes. These services allow them to securely save small amounts of money, track their finances, and even access microloans, which would otherwise be difficult due to lack of collateral or formal credit histories (Bull & Klapper, 2023). Digital financial services also enhance women’s participation in economic activities by integrating them into formal financial systems, providing opportunities to build credit histories that can facilitate access to larger loans in the future. This shift is crucial for women entrepreneurs who previously found it challenging to secure business financing through traditional banking systems (Chen & Rutherford, 2020).

Moreover, DFS can bridge the gap created by lower financial literacy rates among women by offering user-friendly interfaces and simplified processes. Many digital platforms provide financial literacy tools, tutorials, and resources, enabling women to better understand "financial products and services" (Demirguc-Kunt et al., 2022). This increased knowledge empowers women to make informed financial decisions, leading to improved household financial management and economic empowerment. The digitization of government welfare programs and direct benefit transfers also plays a key role in promoting women's financial inclusion (Doe, 2020). Through digital accounts, women can directly receive welfare benefits, subsidies, or wages, which not only ensures timely payments but also grants them control over their financial resources. Importantly, digital financial services are inclusive of women who may lack formal identification documents. In many regions, digital platforms have simplified Know Your Customer (KYC) requirements, allowing women who lack traditional documentation to open basic financial accounts, increasing their access to the formal economy (Dubey & Jyoti, 2011). Additionally, with the rise of fintech innovations, digital financial tools are being tailored to women's specific financial needs, such as offering products that cater to small-scale savings or providing micro-insurance. These developments collectively reduce the gender gap in financial inclusion by addressing the structural challenges that women have historically faced in accessing formal financial systems, ultimately fostering their economic empowerment (Herbert, 2017).

1.15 Digital technologies for financial inclusion: the way ahead for India

The impact of digital technologies in promoting financial inclusion is widely recognized worldwide. Numerous studies have demonstrated that mobile and internet banking enhance people's banking practices, accelerate financial transactions, and offer more accurate, reliable, and secure financial services (Alam et al, 2013). Over the past decade, India has experienced significant advancements in digital banking. The introduction of innovative technologies has revolutionized the country's traditional banking system. A cash-dependent economy has shifted towards a largely cashless model with the rapid growth of e-banking and e-commerce (Joarder & Mazumdar, 2024)). Additionally, the period following demonetization saw a marked increase in digital transactions. When the Government of India withdrew Rs. 1000 and Rs. 500 notes on November 8, 2016, the resulting cash shortage prompted people to increasingly adopt various non-cash payment methods for their transactions (Panwar & Agarwal).

The widespread use of mobile phones and the internet has significantly extended banking services to previously unbanked populations in India, even in areas without physical bank branches (Le Quoc, 2024). In addition, many Indian banks have launched their own mobile apps to provide convenient banking services to customers. Other technological advancements, such as the introduction of micro-ATMs, debit/credit cards, and e-wallets, have further fuelled the growth of digital finance in the country (Pinto & Arora, 2021). The Government of India has also introduced several e-wallet systems through smartphone apps, such as Bharat Interface for Money (BHIM) and Aadhar Pay, which are widely known. These e-wallets allow users to make cashless transactions both online and offline using electronic devices like mobile phones. The government has launched affordable e-wallets that offer regional language options alongside English, aiming to make India a fully cashless economy in the coming years. These e-wallets not only facilitate payments but also allow users to transfer funds between bank accounts. These digital financial applications are highly beneficial as they play a dual role in promoting financial inclusion and helping to reduce corruption (Singh, 2019).

The government is integrating the use of digital platforms with schemes like the PM SVANidhi Yojana, a microcredit initiative for street vendors launched on June 1, 2020. Vendors using digital methods for loan repayment are eligible for cash-back bonuses. Additionally, these digital transactions create a digital footprint, enabling them to build a credit score, which can be beneficial for securing future loans from formal financial institutions (Dubey & Jyoti, 2011). When designed effectively, digital financial services have the potential to greatly reduce the gender gap in financial inclusion by offering tailored solutions that meet the unique needs of women. These services can help overcome the barriers women often face in accessing and using formal financial services (Gupta et al, 2023). While digital financial tools come in various forms, such as ATMs, point-of-sale terminals, and debit cards, mobile-based financial services stand out for their accessibility. With mobile phones becoming an essential and widely available tool, they offer an easy entry point for women to adopt digital finance, particularly in regions where physical banking infrastructure is limited (Herbert, 2017). Additionally, mobile financial services can provide women with greater flexibility and control over their finances, contributing to their financial independence and empowerment. This accessibility can help women engage more actively in the economy, leading to broader socio-economic benefits for communities (Kofman & Payne, 2021).

1.16 Future trends and innovations

Artificial Intelligence (AI) and Machine Learning (ML) are reshaping financial services in India, offering advanced tools that allow institutions to better understand customer behaviors and needs. Over the past decade, India's rapid digital transformation has enabled the development of AI-driven platforms that cater specifically to underserved populations, including unbanked women (Nanduri, 2021). These technologies are particularly beneficial for addressing the financial inclusion of unbanked women, as they enable personalized financial solutions. For instance, AI can analyze transaction histories and spending patterns, allowing banks to create customized financial products like microloans or savings accounts tailored for women (Roy & Sinha, 2020). By reducing reliance on traditional credit scores and assessing financial behaviors through data-driven insights, AI can help women, especially those with limited credit history, gain access to loans and other financial services (Das, 2022).Moreover, AI-powered chatbots and virtual assistants enhance women's financial literacy by providing tailored advice and support, improving their understanding of digital financial products (Kaur & Wadhwani, 2021). These tools can be particularly effective in regions with lower literacy rates, where women may feel intimidated by traditional banking systems.

Fintech innovations, such as mobile banking applications and digital payment platforms, have also played a transformative role in driving financial inclusion among women in India. The government's initiatives, such as the Digital India campaign, have promoted the adoption of these tools, providing easier access to formal financial services, especially in rural areas where bank branches are scarce. Mobile banking allows women to manage accounts, make transactions, and access credit conveniently from their phones, effectively removing physical barriers to financial inclusion (Srinivasan & Mehta, 2022). Research by the National Bank for Agriculture and Rural Development (NABARD) indicates that women who utilize mobile banking are more likely to save and invest, further contributing to their economic empowerment (NABARD, 2021). Additionally, fintech companies are developing solutions that cater specifically to women's financial needs, including microcredit schemes and digital savings platforms. These innovations offer flexibility and convenience, enabling women to take control of their financial lives and participate more actively in the economy (Kumar & Singh, 2023).

Furthermore, the integration of social features in fintech platforms enhances community support and trust among users. For instance, peer-to-peer lending networks and community savings groups facilitated by digital platforms allow women to collaborate, share experiences, and support each other's financial journeys. A study by the Centre for Financial Inclusion (CFI) emphasizes that such social interactions can significantly increase women's confidence in using financial services, thereby fostering a sense of empowerment (CFI, 2022). Moreover, AI and fintech can facilitate financial education programs tailored for women, addressing specific cultural and social barriers they face in accessing financial services. Workshops and online courses delivered through mobile apps can educate women on budgeting, saving, and investment strategies, further boosting their confidence and encouraging them to utilize digital financial tools (Choudhury & Singh, 2021). By leveraging AI and fintech innovations, financial institutions can develop targeted strategies that address the specific challenges faced by unbanked women, fostering greater economic empowerment and reducing the gender gap in financial services.

1.17 Women in Jammu and Kashmir: an overview

J&K, a union territory in northern India, has been at the forefront of experiencing various social and economic vulnerabilities such as poverty, unemployment, and gender imbalance. Women in Jammu and Kashmir, constituting nearly half of the region's population, face unique challenges and opportunities. Despite historical and cultural significance, their socio-economic status remains constrained by traditional gender roles and political instability. The region under discussion does not provide adequate opportunities for women's economic engagement and empowerment due to multiple barriers, including but not limited to the following: education and poverty. In Jammu and Kashmir, financial inclusion has proven to be a vital accelerator for women's emancipation and increased economic engagement (Khaki, 2018). Having use of banking services such as credit cards, bank accounts, and electronic payments can enable women to earn a living, build wealth, and make wise financial decisions (Sarma & Pais, 2011; Demirgüç-Kunt et al., 2018). Nonetheless, there have traditionally been large gender disparities in Jammu and Kashmir's financial inclusion environment. The government and financial institutions in Jammu and Kashmir have launched several initiatives to close these disparities and encourage women's FI. These include the Mudra Yojana, which makes financing available to micro and small businesses, many of which are owned by women, and the PMJDY, a nationwide initiative to make financial services accessible to everyone (Mishra & Naik, 2020). Significant obstacles still exist despite these efforts, disproportionately affecting women's financial assistance accessibility and effectiveness. Among these challenges is a lack of financial knowledge, sociocultural barriers, and inadequate infrastructure in remote and rural areas (Kour & Abrol, 2018; Nanda et al., 2016). The government and financial institutions in Jammu and Kashmir have launched several initiatives to close these disparities and encourage women's FI. These include the Mudra Yojana, which makes financing available to micro and small businesses, many of which are owned by women, and the PMJDY, a nationwide initiative to make financial services accessible to everyone (Chafa et al., 2023; Kour & Abrol, 2018). Significant obstacles still exist despite these efforts, disproportionately affecting women's financial assistance accessibility and effectiveness. Among these challenges are low financial literacy, sociocultural barriers, and inadequate infrastructure in remote and rural areas (Nanda et al., 2016). Addressing these challenges and promoting women's financial inclusion and economic empowerment is crucial for Jammu and Kashmir to reduce poverty, achieve sustainable development goals, and promote inclusive economic growth (Rather & Lone, 2014). We need specific interventions and policies that demand a thorough understanding of the possibilities, problems, and lived experiences of women in the region to properly handle the many problems they face (Demirgüç-Kunt et al., 2022).

1.18 The need for financial inclusion of women in Jammu and Kashmir

Unfortunately, “women's financial inclusion” has not gotten nearly as much attention as it should. Despite the widespread agreement that women can elevate themselves and their families out of poverty, lower risk, stop their labour being exploited in the unorganised sector, and increase their capacity for engaging in profitable economic endeavours, women still lack sufficient control over their financial lives (Cabeza et al., 2019). Financial exclusion may also exacerbate gender inequalities (Govindapuram et al., 2023). Women with access to bank accounts, savings options, and other financial services are often better positioned to manage their income effectively and make both personal and business-related purchases, as several studies have clearly shown (Ozili, 2024; Pinto & Arora, 2021; Arnold & Gammage, 2019; Swamy, 2019; Nautiyal, 2017; Sorsa, 2015; Manta, 2015). When institutional savings, credit, and insurance products are in place, women are better able to manage risks and reduce their vulnerability to health or economic shocks (Islam & Maitra, 2012). Women who are in charge of their income sources and financial decision-making are less financially dependent on their spouses or other family members, which boosts their self-esteem and gives them more negotiating leverage within the home (Rahman et al., 2019).

Women cannot be considered a single, homogeneous group due to the substantial limitations imposed by their social and economic situations (Hakim, 2016). According to formal financial institutions, they are nearly unbankable because they frequently lack access to formal credit, have no safe ways to save money, and do not have insurance or pension safety nets (Biyase & Fisher, 2017). Policies that improve women's access to formal financial goods and services increase their utilisation and customise offers to meet their unique requirements are critical to ending this cycle for them. The first stage is to develop a clear strategy for financial inclusion, pinpoint its primary drivers, and remove any obstacles related to gender that stand in the way of advancement (Karlan & Morduch, 2010).

1.19 Aim of the study

The purpose of this study is to examine the connection between financial inclusion and women's economic empowerment in Jammu and Kashmir (J&K). Specifically, it seeks to understand how women's access to and utilisation of financial services contribute to their economic autonomy and decision-making capabilities. The study further intends to propose actionable recommendations to improve policy frameworks that encourage financial inclusion, thereby supporting the economic advancement of women in the region. The research focuses on empowering women by examining their ability to access financial resources and exercise control over their economic activities, leading to enhanced participation in both domestic and market spheres. By addressing these issues, the study will highlight how fostering financial inclusion can help bridge gender gaps, ultimately enabling women to achieve greater control over their financial outcomes and economic wellbeing. The findings will support initiatives aimed at reducing gender disparities at both the local and national levels.

1.20 Significance and scope of study

The importance of this study stems from its relevance to the socio-economic landscape of Jammu and Kashmir, a region facing distinct challenges due to its historical context, conflict, and geographical isolation. This research fills a critical gap by providing insights into the financial and economic conditions of women in the region, where disparities in financial access persist despite national efforts. The study's primary goal is to analyse the "obstacles that hinder women's involvement in the economy and evaluate the efficiency of current financial inclusion initiatives. By concentrating on the nexus of gender, financial inclusion, and economic empowerment, this research will produce actionable insights for stakeholders, particularly policymakers and financial institutions, who are working to improve economic opportunities for women. The scope covers a thorough evaluation of current financial inclusion strategies, their implementation, and their "real-world" impacts on women's ability to gain economic independence in J&K. Additionally; the study aims to identify innovative, context-specific solutions that address the unique obstacles women face in this region. The findings are expected to inform targeted interventions and policies that promote women's financial inclusion and economic empowerment, contributing to the broader goal of socio-economic development in Jammu and Kashmir.

1.21 Summary

Despite significant government efforts at the legislative and practical levels, the goal of universal financial inclusion, i.e., providing formal financial services to everyone without prejudice, remains unattainable. Nonetheless, notable differences persist in the ways that men and women use and receive these services. Similarly, despite their designation as target beneficiaries, government efforts do not entirely benefit disadvantaged social groups. We must immediately address these gaps in gender equity and socioeconomic parity in financial inclusion to pave the way for economic empowerment and progress. Providing women with equal access to financial services can significantly enhance their economic empowerment, allowing them to engage more actively in economic activities, launch and grow businesses, and elevate their overall quality of life.

1.22 Organization of the chapters:

The thesis is structured into the following chapters, aligned with the natural progression of the topic.

Chapter 1: Introduction

This chapter serves as the foundation for the research, offering insight into the key aspects of the study. This chapter provides an overview of financial inclusion and women's economic empowerment, including methods for achieving it in India, financial inclusion policies, gender disparities, background, scope, and significance. Additionally, the chapter scheme is presented as follows:

Chapter 2: Review of literature and hypothesis development

This chapter presents a critical summary of several studies on financial inclusion and the economic empowerment of women, organized into relevant subheadings for ease of reading. The key topics covered in this chapter include the conceptualization and assessment of financial inclusion, the obstacles to financial inclusion, the gender-related challenges faced by women, and the objectives and hypotheses of the study.

Chapter 3: Methodology

This chapter outlines the objectives of the study, detailing both the primary and specific goals. It presents the hypotheses guiding the research and identifies research gaps that justify these objectives. The study area and target population are defined, along with the research design, sampling methods, and data collection techniques employed. Key variables and the theoretical framework supporting the study are discussed. The chapter also describes the data analysis tools and techniques, alongside the testing of the interview schedule, including pilot testing and adjustments made. Finally, it reflects on fieldwork experiences, highlighting challenges encountered and insights gained during data collection.

Chapter 4: Current Financial Inclusion Status

This chapter focuses on the first objective of the study, offering an in-depth overview of the demographic, socio-economic, and occupational profiles of the respondents. It includes a detailed analysis of the responses from the sampled women regarding the key indicators of financial inclusion, highlighting patterns and insights that emerge from their experiences.

Chapter 5: Digital Financial Services and Female Financial Autonomy

This chapter addresses the second objective of the study by examining how digital financial services contribute to promoting female financial autonomy. It provides a detailed analysis of the results and offers a comprehensive discussion on the findings, exploring the ways in which access to and use of digital financial services enhances women's ability to manage and control their own finances. The chapter also highlights key insights from the data analysis and contextualizes the findings within the broader framework of financial inclusion and empowerment of women in the region.

Chapter 6: Financial inclusion and economic empowerment of women

This chapter aims to address the study's third objective by investigating the relationship between financial inclusion and women's economic empowerment in Jammu and Kashmir. It focuses on how financial inclusion impacts women's economic advancement, analysing the connections between access to financial services, women's earnings, savings, and asset accumulation. The chapter also presents data analysis and highlights key findings from the results, offering insights into the broader implications for women's economic empowerment in the region.

Chapter 7: Govt policies and schemes

This chapter provides a comprehensive overview of policies and schemes aimed at women's economic empowerment, evaluating their impact and effectiveness in enhancing women's financial autonomy, economic engagement, and overall empowerment. The chapter presents the survey results from women in Jammu and Kashmir, along with an activity mapping of the Pradhan Mantri Jan Dhan Yojana (PMJDY) that aligns with principles of finance and accountability. The findings highlight the successes and challenges of these initiatives in promoting women's empowerment in the region.

Chapter 8: Conclusion and Suggestions

This chapter serves as the concluding section of the study, summarising the key points discussed in the previous chapters. It offers practical and clear recommendations aimed at facilitating women's access to formal financial inclusion, economic empowerment, growth and development, and promoting gender equality across the country. Additionally, the chapter provides insights and implications for stakeholders, along with guidelines for future research, highlighting areas that warrant further exploration and attention.

Chapter -2

Review of Literature and Hypotheses Development

2.1 Introduction

A thorough literature review serves as the foundation upon which the study is built. Randolph, 2019 and Knopf, 2006 describe it as a systematic method of gathering and synthesising previous research. According to Fink (2019), it is a survey of books, scholarly articles, and other relevant sources that offers the researcher a critical assessment of these works. Snyder (2019) regards literature reviews as valuable tools that provide an overview of research in areas that are interdisciplinary and diverse.

This section explores existing literature on financial inclusion and economic empowerment. It synthesises key findings from prior studies, identifies gaps in the current understanding, and establishes the theoretical framework guiding this research. By examining the interplay between financial access and women's empowerment, this review sets the stage for formulating hypotheses.

2.2 Global perspectives on financial inclusion

Over the past few decades, this concept has emerged as a crucial aspect of global financial development. Falaiye et al. (2024) explain the role of major institutional players in providing the weaker section with appropriate financial tools and resources at a reasonable cost and in an appropriate manner. Over the years, financial inclusion (FI) has evolved drastically; its early meaning was fairly simple: it referred to the availability of banking services, but as the years went by, the concept expanded to mean almost all forms of financial services, along with aspects of consumption and quality (Ololade, 2024). This evolution is therefore due to the realization that FI has an impact on people's economic development (Arshad, 2023). It acknowledges that having access to these services is insufficient; they also have to be of excellent quality, not very expensive, and relevant to improving people's financial health (Demirgüç-Kunt et al., 2023). The more FI grows, the more it aims to respond to structural factors inhibiting equal access to funds and seek to establish how people, especially the marginalised, can engage with the financial system effectively (Jejeniwa et al., 2024).

The OECD report (2018) exploring the current state in the ASEAN countries in terms of financial inclusion (FI) and literacy presents a working definition of the concept. It is defined as a process of ensuring that people have access to the necessary, essential, inexpensive, and on-time financial tools and resources regulated by the government. This involves adapting new and current techniques to meet user requirements and increase the utilisation of financial goods. International sources, such as the OECD, stress the activities to increase financial literacy (FI), which include the social and economic integration of vulnerable segments. The Asian Development Bank Institute (2016) supports this view, advocating for everyone to have access to useful and affordable financial tools and resources. We should conduct all these offerings responsibly, appropriately, and in a manner that meets the needs of the users. As stated by the institute, these needs may include savings and credit, insurance, and many more.

FI is defined as the increased use of formal financial accounts (Allen et al., 2016). This paper posits a remedy for the absence of market solutions that exclude the poor and vulnerable in the financial industry. Similarly, the World Bank (2014) defined FI as a setting in which people and enterprises may reliably access beneficial financial goods and services, including transactions, payments, savings, loans, and insurance, while adhering to sustainable and responsible norms. Sarma and Pais (2011) introduced the term "financial inclusion" (FI), a multi-dimensional concept that facilitates the seamless access of economic participants to formal “financial services”. According to Atkinson and Messy (2013), the G20 nations' collaboration on financial inclusion culminated in the 2010 ratification of the FI Action Plan and the creation of the GPFI as its implementation body. The fundamental notion of the G20's financial inclusion (FI) originates from the ATISG (Access through Innovation Subgroup) and FIEG (Financial Inclusion Experts Group) as an analytical instrument known as the “G20 Principles for Innovative Financial Inclusion.” The G20 Summit in Toronto in May 2010 accepted the principles, but the Korea Summit in November 2010, which backed the Financial Inclusion Action Plan, gave the G20 its most significant push. The G20 evaluated this action plan in 2014, 2017, and most recently in 2020. Since its inception, the G20 has adhered to a meaning of FI that encompasses access to appropriate financial instruments within the formal framework.

Globally, people acknowledge FI as a vital catalyst for alleviating poverty and promoting prosperity. Klapper et al. (2016) discovered that the World Bank Group identifies FI as an essential element of all Sustainable Development Goals, emphasising seven specific goals. To further the implementation of the G20 FI Action Plan, the G20 established a new structure known as the “Global Partnership for Financial Inclusion (GPFI, 2020).” Despite advancements, obstacles persist, with almost 1.4 billion individuals still unbanked as of 2021, according to the “Global Findex Database” (2021). The analysis of cross-sectional data comparing men and women in the emerging economy revealed that 72% of men and 67% of women had bank accounts, indicating persistent segregation in account ownership (Demirguc-Kunt et al., 2022).

Hannig and Jansen (2010) characterise financial inclusion (FI) as a mechanism to include the "unbanked" demographic into the financial system by offering accessible services like current and savings accounts, cash-in/cash-out options, payments, remittances, credit, and insurance. The research highlights that financial inclusion (FI) has the capacity to improve financial stability while also warning against overstating its advantages. It also recognises that not every person will inherently seek these services, nor should service providers disregard the associated risks and expenses. In 2012, Hariharan and Marktanner identified financial inclusion as a critical catalyst for future expansion. It is defined as the capacity of people to access a wide range of financial services, encompassing credit, savings, and insurance. Their worldwide analysis highlights the societal benefits of financial inclusion, such as improved access to savings, superior financial intermediation, and encouragement of entrepreneurial activity.

The World Bank (2013) differentiates between the potential availability of financial services and their actual use. Exclusion may be voluntary, whereby people choose not to use accessible services, or involuntary, wherein access is obstructed, notably impacting the impoverished or micro and small firms that may lack collateral, credit histories, or networks. The discourse would be deficient without referencing the United Nations (2006) and its significant study entitled ‘Building Inclusive Financial Sectors for Development,’ often known as the Blue Book. The Blue Book promotes an inclusive financial sector that guarantees credit access for all "bankable" organizations, insurance for all "insurable" individuals and enterprises, and savings and payment services for everyone (Murphy, 2006). Financial inclusion (FI) has become a worldwide issue, crucial for all countries irrespective of their level of development. The establishment of an inclusive financial sector has attracted heightened global focus, underscoring the significance of development methods that benefit the whole population rather than a limited segment.

2.3 Conceptualizing financial inclusion in India

In India, the notion of FI ranges from limited to wide interpretations, embracing several aspects and addressing obstacles. On one hand, it is seen as universal access to financial services; on the other, it emphasises the elimination of barriers to such access. Crisil (2018) defines financial inclusion (FI) as the extent to which all societal sectors may access formal financial services, including loans, deposits, insurance, and pension services. The word 'formal' especially denotes service providers that maintain official accounts. Sarma (2008) characterises FI as a mechanism that guarantees accessibility, availability, and utilisation of the formal financial system accessible to all constituents of an economy. An inclusive “financial system” is anticipated to diminish the proliferation of predatory informal lending sources, consequently improving efficiency and welfare via the promotion of secure and safe saving behaviours. Thorat (2006) shares a similar perspective, characterising inclusion as the provision of affordable and sufficient financial services to those marginalised by the traditional banking system and linking it to the Millennium Development Goals, particularly on poverty reduction. According to Dev (2006), financial inclusion encompasses the delivery of banking services at an equitable cost for marginalised and low-income individuals, which includes savings, payments, insurance, remittances, and extends beyond just credit. In 2008, the Rangrajan Committee emphasized that financial inclusion is best characterized as the provision of access to essential services and timely, sufficient credit for marginalized and low-income populations at affordable pricing. In this definition, banking services and credits are provided at the lowest cost, due process is not delayed, and the money received is enough to meet needs. In this context, financial services relate to payment and remittance services, saving and depositing places, loans, and insurance services available in the formal financial sector, with accessibility and cost being two principal criteria.

Chattopadhyay (2011) defines FI, emphasizing the importance of not only providing a range of appropriate financial services, but also enabling individuals to understand and access these services. The author suggests a comprehensive list of products and services, which includes no-frills accounts, savings products tailored to the cash flow cycles of the poor, small loans, and insurance products. They view banking services as a public good that should be accessible to all. Financial exclusion, as per this definition, is the absence of access to suitable, affordable, equitable, and secure products and services from mainstream financial institutions. In a study of rural Gujarat, Tejani (2011) notes that India often restricts its focus on Financial Inclusion (FI) to providing a basic savings account. The study argues that this narrow definition is incomplete, as merely having an account does not accurately indicate FI. Providing access to a comprehensive range of financial services such as credit, pension, insurance, transfers, and mortgage should be a minimum requirement, in addition to savings. Khan (2011) asserts that FI, particularly regarding comprehensive economic inclusion in

India, has the capacity to enhance the financial condition and living standards of underprivileged and vulnerable populations. Access to fundamental financial services will enhance economic activity and job prospects, generating a multiplier impact on the economy by augmenting disposable income for rural people, resulting in higher savings and a strong deposit base for banks and other financial institutions. Chakraborty (2009) asserts that “financial inclusion” (FI) is crucial for equitable “economic development” since it establishes uniform possibilities and provides equal access to financial services. According to this definition, financial inclusion (FI) is the “process of making sure that everyone in society has access to the right financial tools and resources,” especially underprivileged and low-income people, at a fair price, and that this is done in an open and honest way by mainstream institutions. Subbarao (2009) characterizes financial inclusion (FI) as "a thousand flowers blooming," seeing it as a mechanism for unlocking potential at the base of the economic pyramid via access to financial services which is crucial for sustainable and equitable development. Both the impoverished and the banking sector emphasise the advantages of financial inclusion (FI), which integrates the savings of the underprivileged into the formal financial system, directs these savings towards investment, and diminishes banks' reliance on large deposits, thereby enhancing their ability to manage liquidity risk and asset-liability discrepancies more effectively. Mishra (2014) associates financial inclusion (FI) with initiatives that broaden financial access and contextualizes it within economic development and financial deepening. The research compares the goals of central banks in other emerging nations, which typically emphasise inflation management, with India's predominant emphasis on economic development. Financial inclusion is crucial for both citizen welfare and inclusive economic development, as excluding significant portions of the population from the formal financial sector deprives them of income and opportunities.

Krishnan (2011) examines Kerala's Kudumbashree initiative, highlighting the positive impact of microfinance (FI) and women's empowerment, despite the paradox of high education levels and low employment rates. Alam et al. (2013) assess financial inclusion and inclusive growth through microfinance, finding widespread financial exclusion but significant empowerment and poverty reduction among women.Shetty & Hans (2018) emphasize the crucial role of women in economic development, advocating for their FI to improve income, market access, decision-making, and insurance, ultimately leading to empowerment. Gattoo (2018) conducts an evaluation of FI in the Kashmir Valley, revealing that households with independent contractors have a higher likelihood of being associated with the banking sector and incurring debt from formal credit institutions. Goel (2020) reports that only 40% of Indian states have made long-term progress in FI, with 30% still facing last-mile connectivity issues. Panwar et al. (2022) highlight persistent barriers to FI, negatively impacting social and economic progress. Iqbal and Sami (2016) identify financial institutions as key to economic growth, noting a significant relationship between bank branches and credit deposit ratio to GDP, but an insignificant link between ATM growth and GDP. Kumari (2017) analyses the impact of FI on rural households in Himachal Pradesh, concluding that media is the primary channel for disseminating financial information, significantly improving social and economic conditions. Sundaram and Sriram (2016) stress the importance of FI, education for the poor, and the role of digitisation in improving financial access. Recommendations include removing barriers such as poor product quality, illiteracy, and flawed channel design. Singh (2021) observes significant advances in (FI) between 2009 and 2018 but stresses the need for further development to ensure the participation of low-income and vulnerable groups.

The studies reviewed underscore the importance of access, affordability, adequacy, and timeliness in defining FI, especially in the Indian context. This approach facilitates a two-way interaction: vulnerable groups benefit from equity and welfare improvements, while the formal financial system gains by reducing its reliance on bulk deposits and tapping into a large pool of small savings for productive use. However, it is critical to ensure that vulnerable groups FI do not compromise the financial stability of mainstream institutions. Financial exclusion, characterized by the absence of access to appropriate, affordable, secure, and equitable financial products from mainstream institutions, represents the opposite of FI. Therefore, there is an intrinsic link between inclusion and exclusion. Furthermore, FI goes beyond mere availability and accessibility; it is crucial to evaluate the effective use of these services by underprivileged groups. This research redefines FI as a process that goes beyond increasing accessibility and usage, focusing also on enhancing the quality of basic financial products and services for all segments of society.

2.4 Financial inclusion for women

According to Demirguc-Kunt et al. (2018), having access to financial services is a crucial and necessary factor in the advancement of financial inclusion (FI), especially for women. Research shows that credit, insurance, and deposit facilities are still more available to male clients than female clients. Globally, women are 7% less likely than men to have a bank account, according to the Global Findex Database (2017). In this regard, Suri & Jack (2016) identified women as facing several challenges in their efforts to access financial services. There are so many barriers that inhibit women from accessing financial services. These are some of the socially embedded cultures that hamper the ability of women to seek financial services. In addition, there are still many barriers that remain legal; for example, a spouse's consent is required to open a bank account. According to Klapper et al. (2013), another key constraint is financial literacy, which suggests that women relative to men are less financially literate, a factor that impacts their capacity to make use of financial services that are available efficiently. Demirguc-Kunt et al. (2022) say women can have digital financial services, but the percentage ownership is low if they cannot access smartphones or the internet.

Ashraf et al. (2010) underscore the crucial role that financial service availability plays in empowering women financially. Women who can access services are more likely to invest in their enterprises and efficiently handle their finances. Research has demonstrated the impact of microfinance on women's empowerment, especially in rural areas. According to Banerjee et al. (2015), access to microfinance enhances the chances of women starting and growing their businesses, leading to increased household income and improved economic status. In the same regard as the argument made by Dupas & Robinson (2013) in their research, (FI) helps women to participate in decision-making and expenditures within most households. For female heads of families, the major expenses include spending on children's needs and educational expenses. When women control the money, the spending is usually directed toward the needs of the children. According to practice thus counts towards overall progression in society as established by Chamboko et al. (2018). Suri & Jack (2016) have highlighted that different governments and international organisations must implement policies to increase the participation of women. Some strategies implemented to achieve this goal include service delivery, rule and regulation changes, and financial literacy education programs (Kabeer, 2005). Mobile banking and online fee systems have been of significant importance in the improvement of women's access to finance (Doss et al. 2019). Several regulatory changes are critical enabling factors for women (FI), and these include barrier removals and women's participation in programs. Various financial education programs tailored to women's needs and situations contribute to the partial removal of knowledge barriers. They enable women to make decisions on how to improve financial service utilization (World Bank Group 2013).

2.5 Importance of financial inclusion for women

Financial inclusion (FI) is critically important for women's economic empowerment, household well-being, and overall socio-economic development. Some key reasons include:

- **Economic opportunities and poverty reduction:** The simple provision of credit, savings, and insurance enables women to undertake worthwhile economic activities such as starting a business, purchasing productive assets, or expanding existing businesses. This may increase their income and employment effects (Sahay et al., 2015). One research example indicates that increasing women's access to credit directly impacts employment and the supply of labour (Buvinic & O'Donnell, 2019). According to Demirgüç-Kunt et al. (2017), women who actively participate in the economy are better spenders, more resilient to economic shocks, and less likely to perpetuate poverty across generations. Some research conducted in India also suggests that access to bank accounts facilitated women’s agency and enhanced participation in the workforce (Ghosh & Vinod, 2017).
- **Household decision-making power:** Having control over any assets or finances improves women's bargaining power inside homes. This may lead to enhanced decision-making power over some of the most crucial expenditures in a household, such as food, health, and children’s education, among others (Deere & Doss 2013). Stylised facts from several countries suggest a positive association between women’s asset ownership and their decision-making power in households (Doss et al., 2019). Researchers have discovered that mobile money services empower women to make more financial decisions, particularly regarding household expenditures, given their widespread access in most societies (Munyegera & Matsumoto, 2018).
- **Financial security and resilience:** formal savings, credit, and especially insurance products make women more capable of taking risks, reducing the possibility of being adversely affected by health or economic events. In Bangladesh, access to health micro insurance has shielded women's non-medical consumption expenditure (Islam & Maitra, 2012). Field et al. (2021) identified that women heads of households in India had increased their emergency savings through the government's cash transfer programs. However, during their early pregnancies, these financial constraints compel them to adopt unhealthy lifestyles, like selling their assets or consuming less food (Kumar et al., 2020).
- **Financial empowerment and independence:** Women who have control over their income sources and financial decision-making are less financially dependent on their

spouses or other family members. This increases their confidence and intra-household bargaining power (Rahman et al., 2017). Research indicates that women who have more financial autonomy have lower tolerance for violence and are more mobile (Vyas & Watts, 2009). According to Duvendack and Jones (2017), mobile money services have given women greater financial control and privacy, free from the influence of their families. Therefore, FI is essential to the legal, economic, and social empowerment of women.

- **Multiple development impacts:** Research shows that, in comparison to males, women invest more in the education of their kids, health, and nutrition as their income rises (Duflo, 2012). FI invests women's income in high-social return ventures. The availability of mobile money to women improved food security and diversified diets (Munyegera & Matsumoto, 2018). These multiplier effects accelerate the advancement of development goals.

Addressing women's (FI) issues can reveal numerous beneficial effects at the individual, household, and societal levels. To achieve economic power, women must have equal representation in today's markets, authority over and access to productive resources, find fulfilling work, and enjoy time, life, and body autonomy. Additionally, they must have more agency, voice, and significant involvement in economic decision-making (UN Women, 2022).

2.6 Measurement of financial inclusion

The assessment of financial inclusion (FI) is intrinsically complex. An effective strategy must account for regional disparities in FI by analysing both the demand and supply aspects of financial services. Several studies have sought to develop a financial inclusion index (IFI) to examine the variations in financial inclusion (FI) between nations, subnational regions, and districts (Beck et al., 2006; Sarma, 2008; Mehrotra et al., 2009; Kumar and Mishra, 2011). Gupte et al. (2012) observed that a literature study on FI underscores the continuous endeavours of scholars to formulate a complete metric. An optimal financial inclusion (FI) metric must have three essential characteristics: it should consider diverse variables affecting FI, be easily calculable using accessible data, and allow for cross-country comparability.

Similarly, Beck (2016) has noted the significant shift in the financial inclusion (FI) debate over recent years from simply having an account to actively using it. He emphasises that FI is not inherently valuable; its importance lies in enabling the financially included to participate more effectively in modern market economies. Consequently, full inclusion in terms of account ownership alone does not equate to true (FI); "Improving (FI) requires measuring it."

The International Finance Corporation (IFC) (2015) has noted that we can measure FI along several key dimensions, such as accessibility, usage, quality, trust, influence on economic agents' decisions, and impact on well-being. Demand-side and supply-side metrics often categorize the available data, regardless of the dimension. No preliminary discussion of the measurement of FI can be considered complete without referencing the Sasana statement on Financial Inclusion Indicators (2012). This statement underscores the importance of developing composite indicators or indices of (FI) at both national and global levels to advance the cause of (FI). It also emphasises the need to standardise these dashboards to facilitate easier cross-country comparisons. In light of this discussion, the following subsections will address the various efforts made to measure financial inclusion (FI) at the inter-country and inter-state levels.

2.6.1 Measuring financial Inclusion across countries

Joarder and Mazumdar (2024) conducted a study focussing on measuring the extent of financial integration across 21 Asian countries, with special reference to the case of India. To compare and analyse the various economies' levels of financial inclusion (FI), they constructed an aggregate index for (FI) through a two-stage PCA. The survey results showed that China and Japan outperformed the others significantly in terms of FI, while India performed comparatively poorly. Tram et al. (2023) evaluate FI in developing countries using three main factors: access, uptake, and utilization of financial services. However, to accurately capture the degree of financial inclusion in these economies, the research develops the composite Financial Inclusion Index (FI Index), which has the "mobile money" indicators incorporated in the four pillars in addition to the three commonly used factors. The study used endogenous two-stage principal component analysis (PCA) to give weights to the variables that respond to the main research question. The data for the analysis were collected from secondary sources using published data for the years 2012–2018 from the WB and the IMF. Khandare (2019) utilised a financial inclusion (FI) measure, which included the value of FI from 2005 to 2014, to assess the level of FI in the BRICS nations. The research employed a dimensional approach, evaluating the presence and access to financial services using six indicators, and assessing the usage of these services based on four factors. It is evident, therefore, that out of the entire countries, South Africa, Brazil, Russia, India, and China need to enhance their FI index, where China tops the list.

In another study, Park and Mercado (2018) estimated an index of financial access to 151 global economies. The study also used principal component analysis to derive weights that combined nine variables into three categories: access, availability, and usage. Having analysed how (FI) impacts poverty and income distribution, the study concluded that, most often, the high- and middle-income countries that demonstrated better results in terms of their level of (FI) have lower poverty rates. In terms of methodology, Camara and Tuesta (2017) made a very important step forward in measuring FI by creating a new two-stage principal component analysis index that can capture a multidimensional idea of FI. This study captures the global prevalence of smoking between 2011 and 2014, encompassing 138 nations. An efficient financial structure that prevents individuals from being financially excluded while simultaneously enhancing their use of the financial structure and service accessibility is considered inclusive. To create the index, data from 20 indicators are combined along three dimensions: concerns including accessibility, utilisation, and impediments. Both demand and supply sides are employed, and both banked and unbanked populations are considered. They emphasized that maximizing access to and utilization of formal financial services, as well as removing barriers that lead to involuntary exclusion, defines the extent of FI. Zins and Weill (2016) used information from the Global Findex Database to perform research on 37 African nations. Their approach involved employing a probit model to analyse the obstacles and causes of FI rather than directly measuring it. However, because FI is their study's dependent variable, they measure it using three metrics: formal account ownership, formal savings, and formal credit. The study's results indicate a positive correlation between FI and age, income, and education, but a negative correlation with gender (being a woman).

Arora (2010) uses information from the World Bank and CGAP databases to investigate the degree of financial access in both developed and developing nations. This study interchanges 'access' and 'inclusion' to create a financial access index, while acknowledging the lack of a universal financial inclusion (FI) metric across all nations. It distinguishes three aspects of inclusivity: cost, which is assessed by four, twelve, and six factors, respectively; physical access or outreach; and ease of accessibility. Sarma (2008) conducted a study that represented a breakthrough in measuring FI, particularly in India. Adding to the two aspects found in the author's 2004 work, this study presents three dimensions of FI. Sarma emphasizes the importance of combining several FI factors, or what her study called "dimensions," into a single score. This strategy seeks to enable more thorough comparisons between various situations. According to Sarma (2008), there are three essential components of an inclusive financial system: bank penetration, access to banking services, and system utilization. The index she suggests is simple to calculate and allows for cross-economic comparisons. Using her methods, the study covers 55 countries and concludes that just five—Austria, Spain, Belgium, Switzerland, and Denmark—fit into the category of very financially inclusive nations. However, much of Asia remains in the lowest category of Financial Inclusion (FI), except for Singapore and Malaysia. Beck et al. (2006) evaluated the availability of physical bank branches and the use of banking services (particularly credit and deposit services) in 99 countries between 2003 and 2004 using what they refer to as "new indicators." The study does a great job of comparing FI across countries, but it does acknowledge the limitations of this method, such as leaving out non-bank financial service providers and financial services other than deposit-taking and lending. The study's selection of outreach indicators for gauging financial access, such as the number of bank branches per 1,000 square kilometres or the number of bank branches per 100,000 people, is a noteworthy addition.

2.6.2 Measurement of financial inclusion at the state level in India

In the context of measuring financial inclusion (FI) in India, most studies propose a multidimensional index as the most effective method. These studies typically employ methodologies like those used in cross-country comparisons, focussing on various dimensions of I t to provide a comprehensive assessment.

Kandpal's (2024) research gathered information through interviews with thirty-two bankers from various regions of India, including the North, South, West, and East. Officials from the public and commercial banking sectors were among the attendees. To comprehend the bankers' comments, a theme analysis was carried out till saturation. The report highlights numerous banking-related difficulties that influence customers' trust in formal banking, including frequent computer and network connectivity issues, high fees, a lack of bank branches, restricted ATM operations, and a lack of banking staff. Govindapuram et al. (2023) examine the variables affecting women's availability of financial services using information from the National Family Health Survey (NFHS-4), which was carried out in India in 2015-16. The study concludes that although various variables at various levels determine (FI), micro-level factors have a particularly big impact. Significant factors include the economic circumstances of the home, such as wealth, the gender of the household head, and whether the household is in an urban or rural location. Still, the study's multilevel regression analysis shows that personal factors are the main ones that affect financial accessibility, explaining about 83% of the variation. This shows how important these factors are. The number of bank workers per client and the number of small borrowing accounts per 1,000 individuals are two additional aspects that Yadav et al. (2020) have added to the current technique for evaluating (FI). They created a financial inclusion index (FII) for each of the

27 states, and between 2004 and 2017, there was a small increase in FI levels in each state. States with stronger FI also tended to have higher rates of literacy and better Human Development Index (HDI) rankings, according to the study. However, it did point out that problems like inactive accounts, low HDI, and high illiteracy rates prevented the Pradhan Mantri Jan Dhan Yojana (PMJDY) from considerably improving (FI) across states.

CRISIL (2018) created a relative index known as the Crisil Inclusix to combine several types of fundamental financial services into a single statistic. CRISIL (2018) created this index at both the district and national levels in India. The inclusive encompasses four aspects of financial inclusion (FI): the penetration of bank branches, credit penetration, deposit penetration, and insurance penetration. Notably, the index only included the insurance dimension in 2018. According to CRISIL, there was a notable variation in the degree of (FI) between the states. Kerala had the highest index score of 90.9, while Manipur had the lowest rating of 32.0. Sethy and Goyari (2018) used information from three dimensions—banking penetration, banking service availability, and system usage—to create a composite measure of financial inclusion (FI). The calculation of this ranking between 2006 and 2014 included 22 Indian states. In line with earlier research, the survey revealed that Kerala led the way in (FI), followed by Goa, Delhi, Punjab, Tamil Nadu, and West Bengal. The researchers discovered three key factors that positively influence FI: household per capita income, the literacy rate, and the number of self-help groups (SHGs).

2.7 General barriers to financial inclusion

It's often acknowledged that the impoverished face several obstacles in their quest for financial inclusion (FI). Even though challenges and causes may differ throughout nations and areas, several universal barriers emerge that often reflect a combination of supply-driven and demand-driven issues. To provide a comprehensive comprehension, this subsection is split into two sections: impediments identified on an international scale and those discovered at the national level through much research.

2.7.1 General barriers to financial inclusion: international scenario

In several developing nations throughout the globe, financial inclusion has been acknowledged as a critical factor propelling economic expansion. Achieving complete financial inclusion (FI) is a difficult task, though. Several obstacles prevent comprehensive (FI) from becoming a reality, even with the combined efforts of governments and development organisations.

Ololade (2024) investigates how fintech innovations are transforming (FI) in the United States and Africa. Fintech has a lot of promise to promote equality, but the study points out common problems, such as infrastructural limitations, regulatory hurdles, and gaps in digital literacy. These issues provide readers with a complete picture of the fintech scene. In order to help legislators, financial institutions, and fintech companies create an atmosphere that promotes FI, the paper makes policy proposals. It draws attention to the crucial role that cutting-edge technologies play in reducing financial inequalities and makes recommendations for future study topics to further the discussion on fintech and FI. Bekele (2023) found that Kenya had a greater degree of FI than Ethiopia in a comparison of the two countries. Several macro-level variables, such as variations in financial liberalisation policies, GDP, the proportion of the population residing in rural areas, and the growth of mobile money services, can be blamed for this discrepancy. Government transfers, literacy rates, and payment systems influence variations at the micro level. Other significant factors that positively influence financial access and usage include possession of a cell phone, age, gender, and work status. However, obstacles such as insufficient evidence, insufficient trust, and insufficient funding impede the advancement of financial inclusion. Studying Nigeria Country Experience, Ediagbonya and Tioluwani (2023) analyse to what extent fintech innovations contribute to FI in developing and emerging economies. The study reveals that the government, regulators, and financial institutions have not succeeded in closing the gap in any sector, despite their efforts to use digital platforms and promote smartphone payments, ATMs, and mobile money. Some of the causes include high levels of illiteracy, poor infrastructure, frequent power outages, poor signal strength for mobile networks, especially in rural areas, frequent breakdowns of financial networks, very high costs, an information gap, and a lack of privacy. These factors have contributed to the ongoing transition.

As stated by Lyons and Kass (2021), there are valuable disparities in the level of (FI) connected with economically vulnerable persons. The study also found that the increase in financial literacy means that families in the MENA region are less inclined to borrow, especially from unofficial sources, and more inclined towards appropriate savings. Ulwodi and Muriu (2017) pointed out that lack of funds is one of the barriers to gaining access to financial services, and the cost of using financial services and the geographical distance to the nearest financial service provider is one more obstacle to FI in Sub-Saharan Africa. They noted that since the rich are highly mobile, the distance factor is arbitrary most of the time. Regarding the obstacles, they highlighted that individuals with lower incomes or limited educational attainment are disproportionately affected. Similarly, Rao and Baza's (2017) analysis of the Ethiopian case yielded similar results. It was discovered that they were constrained by low funds, long distances to financial service providers, large, fixed expenses, and a lack of paperwork. Zulfiqar and his team published their research on Pakistan's level of financial access in 2016. Therefore, the likelihood of financial inclusion rises with age, wealth, education, and gender; if these attributes are absent, the situation reverses. They also discovered that factors such as paperwork, location, and the cost of financial services significantly influenced the specific domain of financial exclusion they studied. Hussen (2015) investigates the main challenges of extending banking products and other financial services in Ethiopia. Hussen (2015) heavily relies on supply-side challenges such as high transaction costs, which hinder the application of IT, and poor regulation.

2.7.2 General barriers to financial inclusion: national scenario

The purpose of this part is to evaluate if India's experience is unique or not by giving a quick summary of research done in India to identify the barriers to financial inclusion (FI). It is important to note that while most of this research concentrates on the rural population, the urban poor can equally benefit from many of the findings.

Solanki and Chhikara (2024) found many barriers impeding the advancement of FI across multiple domains, including management, infrastructure, politics, finance, and technology. The research also emphasised the correlation between explanatory factors, including gender, age, educational qualifications, geography, and the experience of officers, and the observed restrictions. Kumar et al. (2020) take a new approach by dividing the driving and dependence power of barriers to FI into four distinct groups. These are autonomous barriers (which have low dependence and high driving force), dependent barriers (which have high dependence), linkage barriers (which have strong dependence and high driving power, where even small changes can have a big effect on other barriers), and those with weak dependence but high driving power. This study makes a substantial contribution to the continuing conversation on FI by departing from the conventional method of classifying obstacles into supply-side and demand-side categories. Choudhary (2017) focusses on people living in rural areas and looks at the structural issues of financial inclusion (FI), such as population density. He does this using a classical approach that includes "supply-side and demand-side constraints. Demand-side barriers, which include low-income levels, bad saving practices, a lack of financial awareness, and reliance on unofficial financial services," have also been explained. In the following, some formal constraints are listed that limit the ability of rural inhabitants to gain access to financial institutions: There are few nearby branches of banks and other financial organizations; the population lacks adequate banking tools to fully meet their needs; the volume of transactions through simple bank accounts is low, and the correspondent banking outlets are inactive. The area lacks a strong physical connection and sophisticated technology, encounters intricate and bureaucratic processes, and faces challenges with language.

However, Choudhury and Bagchi's (2016) study only covered a few districts in West Bengal, but the study's findings are easily applicable to the rest of India's states. They concluded that low family savings, irregular income, residence in a rural area, and low education levels are the main drivers of financial exclusion. Based on this, their work suggests that, especially in rural areas, income stability is likely to significantly enhance financial access. Babu (2015) contends that despite initiatives like the banking correspondent model, simple KYC requirements, and no-frills accounts, informal financial institutions still have a significant market share among rural residents. The rural populace itself is somewhat to blame for its persistence. The rural population remains outside the purview of formal financial institutions due to several factors, including low earnings that make saving practically impossible, long distances between homes and bank branches, financial illiteracy, a lack of basic education, and a lack of proper identity documentation.

2.8 Gender specific barriers to financial inclusion

Based on their gender, women experience exacerbated exclusion from the official financial industry. The hurdles that typically limit women's access to formal financial institutions are much more severe since they face additional impediments unique to their gender.

According to Razzaq et al. (2024), there are significant gender differences in financial inclusion (FI), with just 13% of Pakistani women and 34% of males having financial accounts, respectively. Digital finance also exhibits these differences. The study reveals that socioeconomic criteria such as job, income, and education have different impacts on FI for men and women. Arshad (2023) indicates that gender discrimination adversely affects women's empowerment, whereas financial development, the gender development index, and women's employment contribute positively. The study stresses the need for governments in developing countries and policymakers to periodically review the types and kinds of FI programs that best empower women. Manta (2019) argued that the gender gap in economic activity proportions has a strong impact on women's economic participation. Among these factors are a lack of control over financial resources, low and irregular savings, and limited credit arrangements. The physical barriers that may impact women include no account status, restricted or no access to financial facilities, distant branches, inadequate or no necessary documents, document identification, and low financial enfranchisement. Psychosocial barriers encompass self-assertion issues, such as low self-esteem and a reluctance to take risks. Additionally, some individuals face technological barriers, such as not using the internet or mobile phones. Other reasons for financial exclusion include unremunerated care work, especially by women, high transport costs, discrimination, and other social and cultural barriers that women experience in their societies. According to Le Quo (2024), digital financial inclusion aids in the elimination of gender inequality as well as improving the flow of economic development in nations with advanced financial sectors. However, in developing countries where financial structures are still in their infancy, digital financial inclusion exacerbates gender disparities while simultaneously boosting economic growth. In addition, variance decomposition analysis confirms that there is a common effect of gender, development, and digital finance linkages in countries with less developed financial systems than those advanced nations with well-developed financial systems.

World Bank (2019) reported that only 48% of women’s PMJDY accounts were used, and this raises doubt on the assertion that women in India had accessible financial services. Women's lack of adequate participation in society is a result of their ignorance. Moreover, many companies in the financial sector adhere to 'gender-agnostic' rules, implying that they are unaware of the significant number of female clients they serve and are unresponsive to their aggressive marketing efforts. Nautiyal and Tanushree (2017) noted that women subject themselves to several constraints when it comes to financial services; these include low income, poor labour force participation rate, and inadequate security in the form of collateral because of property rights. Fanta and Mutsonziwa (2016) also propose that income level, work status, place of residence, and education level in the SADC effectively explain the gender disparity in financial service use. By doing this, they can offer information that reconciles the gender divide in the country's financial industry. Demirguc-Kunt et al. (2013) conducted another quantitative study using cross-sectional data, revealing that legal restrictions on females and traditional women's roles significantly influence clients' access to banking services globally. Therefore, in countries where legislation restricts women's employment, residence, property, and household management, females do not save, use credit, or have a bank account. Furthermore, early marriage and the escalation of violence in contradiction of females are the issues that contribute to the decline in their access to financial services. This is why it is easier for women to be locked out of financial services, as these restrictions are sensitive to gender.

2.9 Financial inclusion and empowerment of women in Jammu and Kashmir: A comprehensive overview

A complex interplay of socioeconomic, cultural, and geographical factors influences the financial inclusion (FI) of women in Jammu and Kashmir (J&K). Despite progress, significant gender gaps persist, with women in J&K facing more barriers to formal financial services matched to their male counterparts and the national average. Jyoti (2011) highlighted that J&K's female population is less financially developed than both the national and regional averages. This issue is particularly prevalent in rural areas due to dominant cultural beliefs and inadequate health facilities. Gul (2015) identifies several key obstacles: the effects of conflict on women's employability, poor financial literacy, restriction in movement because of security issues, and the influence of cultural norms that subordinate women's financial authority. Katoch and Ahemad (2022) investigate the impact of J&K's self-help groups (SHGs) on improving financial services and find success in increasing women's access to financial services in rural areas. However, they also note that the program's impact is not constant across the districts that call for program differentiation. Dar (2017) notes that women are as important in society's structure and significantly influence the formation of Jammu and Kashmir's socioeconomic conditions. The support for microfinance activities stems from their ability to empower women and their economic health. In India, the Self-Help Groups (SHG) bank lending product most clearly demonstrates this. Microfinance assists the needy by offering basic savings and credit, as well as other financial services, to improve their quality of life and increase their incomes. It is today considered one of the best tools for eradicating poverty. Microfinance has made significant progress in improving the socioeconomic status of developing nations, especially in rural areas. Gupta et al. (2023) investigated the possibility of digital financial services eradicating cultural and geographical barriers in mobile banking and found that even though adoption is growing, concerns related to digital literacy and security hinder the use of mobile banking. Some argue that increasing technology usage and increasing confidence and acceptance of digital artifacts are critical to increasing access to financial services.

India has worked very hard in women's economic development with all its policies, such as the National Rural Livelihoods Mission to support female entrepreneurs and employment opportunities (Duflo, 2012; Ghosh, 2023). Bank-linked schemes such as the “Pradhan Mantri Jan Dhan Yojana (PMJDY 2022)” are launching programs, including micro-financial ones, to enhance women's financial literacy (Khan et al., 2022). However, J&K still has a long way to go as it sails in different waters owing to many years of conflict and political upturn (Khan, 2018). The state government's Women Development Corporation has been implementing steps to enhance the skills of women and promote self-employment, but the lack of infrastructure facilities, security measures, and traditional norms have resulted in significant constraints on the outcome (Khurshid, 2018; Suri, 2013). Studies also show that women in J&K are worse off in terms of their economic opportunities and rights than in many other regions of India. Inadequate access to financial services, competing education standards, and mobility limitations are among the challenges they face (Khan & Kirmani, 2018; Khaki & Sangmi, 2016). There is an evident strength in mobilising small-scale approaches, including grassroots movements and self-help organisations, in the economic empowerment of women, especially those involved in handcraft industries that seek to reinvent traditions (Shrivastava et al., 2023; Mir, 2022). Several initiatives have been implemented to increase women's engagement in agriculture in the realms of horticulture and floriculture, but cultural aspects such as patriarchy and land ownership rights still limit women’s access to and control over resources (Dar et al., 2018, Siddiqui & Jan 2019). In the service industry, there are programs such as the 'Women Entrepreneurship Programme' facilitated by the J&K Entrepreneurship Development Institute to assist women who want to venture into business but due to security challenges and shutdown in the tourism sector (J&K EDI, 2022; Parihar et al., 2013). Recent initiatives, such as the 'Digital Saksharta Abhiyan,' aim to close the gender gap in digital literacy and provide new job opportunities in the IT sector (Ministry of Electronics and Information Technology, 2023). However, challenges related to internet access and digital device availability remains, particularly in rural areas (Dar, 2023). Researchers are still studying the effects of political shifts, like the 2019 removal of J&K's special status, on women's economic empowerment. Some view these changes as potential sources of increased investment and economic opportunities, while others express concerns about potential disruptions to regional economic frameworks and women's roles in the informal sector (Malik, 2022; Zia, 2021).

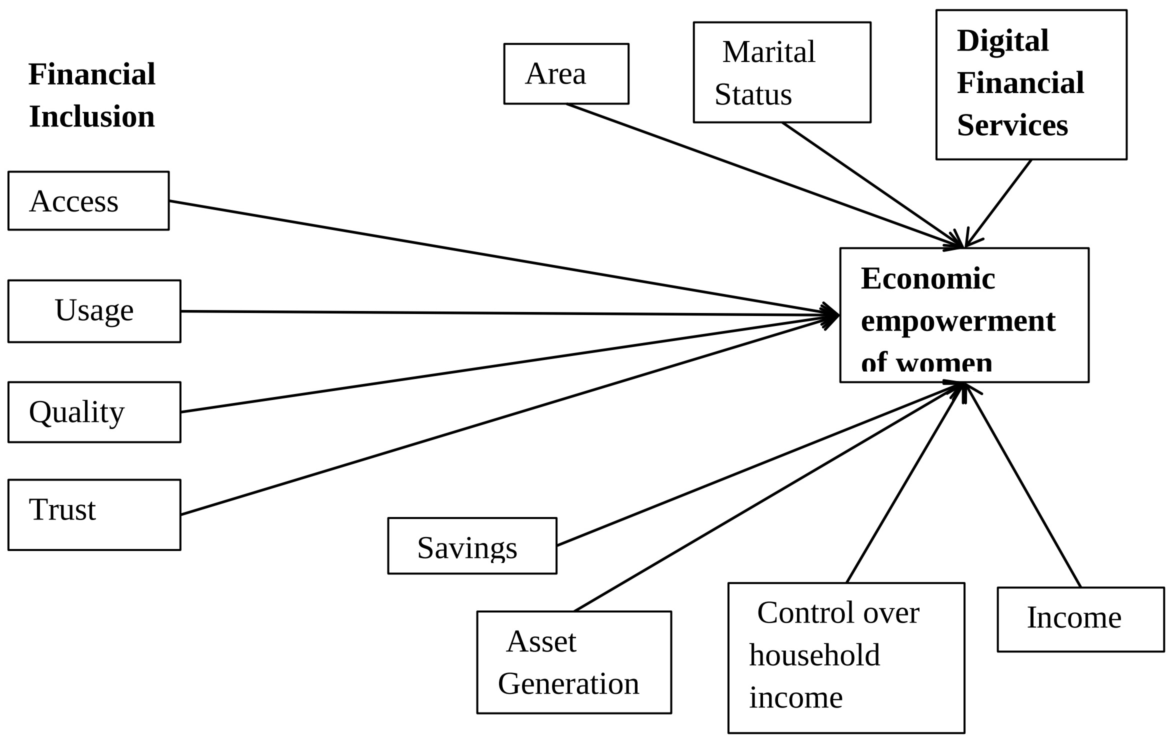
Research gaps

1. **Status of financial inclusion**: While there is a growing body of literature on financial inclusion in India, there needs to be more region-specific studies assessing the current status of financial inclusion among women in J&K, particularly in the context of its unique socio-political environment.

   According to Jyoti (2011), women in J&K have less access to financial services than both the national average and the average for men in the area. Due to insufficient infrastructure and cultural norms, this problem is particularly noticeable in rural places. The gender gap is especially noticeable in J&K, where women have lower rates of employment, education, entrepreneurship, and less economic participation compared to men (Ghosh & Chaudhury, 2019; Sharma & Suri, 2024).
2. **Digital financial services:** While the impact of digital financial services on financial inclusion has been widely studied, there is limited research on how these services specifically promote female financial autonomy (Kulkarni & Ghosh, 2021). Dubey and Jyoti (2011) identified a digital divide in Jammu and Kashmir, with women being less likely than men to use digital services. This is particularly significant, given that women are less likely to access financial institutions or hold bank accounts compared to men (Sharma & Suri, 2024).
3. **Mechanisms of economic empowerment:** While the link between financial inclusion and economic empowerment is well-established, the specific mechanisms through which this operates for women in Jammu and Kashmir require further investigation, as women constitute 47% of the region's total population (Anjum, 2011). According to Gul (2015), women in Jammu and Kashmir encounter numerous issues and challenges related to health, education, the economy, politics, domestic violence, a declining sex ratio, female feticide and infanticide, state violence, dowry harassment, unequal wages, eve teasing, and child labor. Furthermore, women in J&K own fewer enterprises and are increasingly becoming economically dependent due to difficulties in accessing financing (Ahmed, 2018).
4. **Government policies and programs**: An evaluation of the efficacy of government policies and programs intended to further women's economic empowerment in Jammu and Kashmir is noticeably lacking. This is a particularly important problem since, in comparison to respondents from neighbouring states. J&K respondents showed lower levels of satisfaction with cooperative banks' efforts to promote financial inclusion

(Lal, 2019). According to Bargotra and Bhardwaj (2017), a comprehensive examination is necessary to determine the extent to which women in J&K are aware of and make use of government policies and schemes. It is crucial to comprehend how women are utilising these initiatives to attain financial independence.

5. **Regional Focus**: Research on financial inclusion and economic empowerment of women in J&K is negligible compared to other states and UTs in India (Dhingra & Bala, 2020). Proposals for further research have been made to addition in deeper understanding of women's economic empowerment in this region (Suri, 2013).



Conceptual Model

2.10 Objectives of the Study

The **Primary Objective** of this research is to explore Financial Inclusion and Economic Empowerment of Women in J&K. To facilitate an in-depth study, the following specific objectives have been framed:

1. To assess the current status of financial inclusion among women in J&K.
2. To examine how digital financial services promote female financial autonomy.

3. To determine how financial inclusion helps in achieving economic empowerment of women.
4. To evaluate the role of Government policies and schemes in economic empowerment of women in J&K.

2.11 Hypothesis development

The study's objectives have led to the formulation of a set of hypotheses testing the relationships between financial inclusion, digital financial services, and women's economic empowerment. The hypotheses developed herein aim to provide insights into how targeted financial interventions can foster greater economic participation and control over financial resources among women.

2.12 Financial inclusion and economic empowerment among women

Financial inclusion (FI) is defined as the chronological and sustainable provision of basic and essential financial instruments to the citizens of a particular country (Ozili, 2024). Especially for women, who face significant problems in accessing official financial services, FI has become one of the key conceptual platforms for social change and economic growth (Duvendack & Mader 2020). Women are less financially included than men around the world; according to the Global Findex Database (2017), 1.7 billion women globally do not have access to formal banking services. Not only did it diminish women's opportunities to join the workforce, but it was also equal to the lost opportunities for social and economic progress of the whole world (Adera & Abdisa, 2023). There is no doubt that it is extremely urgent to start to close this gap. FI, therefore, encompasses the provision and availability of the financial products and services demanded by all people, especially those scarcely served through conventional financial systems (Khan et al., 2022). The universal banking concept underpins it, stating that every individual should have access to affordable products and services, regardless of their financial situation, gender, or geographical location (Mohammed et al. 2020). FI is regarded as one of the most important enablers of growth towards the enhancement of the global economy, as the world economy begins to realise the importance of its impact on the inclusiveness of the economy (Demirguc & Klapper, 2013). This element also reinforces the connection between FI and women's economic wealth. Such women create a socially and economically productive force, contributing to declining poverty, community upliftment, and economic growth (Field et al., 2021). However, because women have been under-represented more than men in areas such as banking, credit, and possibilities for saving, men have experienced higher barriers than women while looking for FI (Were et al., 2021). This not only affects women's capacity to gain economic self-sufficiency but also has implications for societal advancement (Carli, 2020). Employed women can transform their family standards by using earnings for a better living standard, such as better housing, healthcare facilities, education, and other aspects of family needs (Pal et al., 2021). Moreover, having their own source of income allows women to have the final say in most family decisions, thereby enhancing their confidence and self-esteem (Sell & Minot, 2018). It empowers women in various ways, facilitates improvements in their circumstances, and significantly boosts the welfare and growth of families, communities, and societies (Ghosh & Vinod, 2017; Arshad, 2023).

Many studies have shown that FI is a key factor in economic empowerment, particularly for women. Financial inclusion, in addition to providing women with necessary and suitable financial affairs and products, enables them to achieve financial success and prosperity, thereby improving their lives and their families' living standards (Pereznieto & Taylor, 2014; Demirgüç-Kunt et al., 2017). According to Siddik (2017), this empowerment is commendable because it aligns with international developmental objectives, such as the Sustainable Development Goals, thereby promoting the development of society at large. "Studies also demonstrate that the interventions on FI improve women's financial literacy and decision-making, leading to better financial choices and heightened economic influence (Ojediran & Anderson, 2020). Studies clearly demonstrate the benefits of FI, particularly for women entrepreneurs seeking funding assistance and resources for business development and innovation (Kabeer, 2018). Other financial services, such as digital payments and mobile money, have also emerged as efficient tools for facilitating women's financial access and inclusion, for example, in rural and remote areas of India (Fareed et al., 2017)." Globally, India exhibits a high level of FI and WEE; however, this trend comes with both socio-economic benefits and drawbacks (Nanda & Kaur, 2016). Low employment and education rates among women in India further compound this shortfall in financial inclusion (FI), underscoring the need to eliminate gender-based exclusions (Ghosh & Chaudhury, 2019). Microfinance organisations and SHGs have provided loans and savings products to women in rural areas, thus creating awareness and enabling them to participate in economic activities and decision-making (Sharma et al., 2021). However, a big percentage of women cannot access financial services, which may raise their SES and help them make independent decisions to enhance their livelihood; the situation is even worse in rural areas (Bharti, 2020). Following liberalisation, the banking system in India's urban and semi-urban sectors expanded, thereby enhancing financial inclusion. However, the development of this structure alone is insufficient, as a substantial segment of the population remains outside the formal financial system (Lenka & Barik, 2018). From the perspective of roles and responsibilities within the family framework, married women often face specific opportunities and challenges related to economic autonomy (Ghosh & Vinod, 2017). Such resources, including who is responsible for making decisions in the home, married women’s involvement in income-generating activities, etc., can all influence married women’s economic empowerment (Rahman et al., 2017). Social and/or cultural norms may also influence women's ability to gain control over financial programs (Suri and Jack, 2016). Government programs such as the Pradhan Mantri Jan Dhan Yojana (PMJDY), primarily targeting women to improve (FI), have provided bank accounts to millions of unbanked people (Chakrabarty, 2009). The World Bank also reported that digital financial services in India had reached 57% of adults by 2021, up from 35% in 2014, indicating significant progress but also highlighting the need for continued efforts (World Bank, 2021). Further contributing to the cause of (FI) is the adoption of the Aadhaar system for biometric identification, which has streamlined the process of creating bank accounts and accessing financial services (Gelb & Clark, 2013). Research has consistently shown that FI results in greater financial stability, control over income and savings, and less susceptibility to gender-based violence (Mulili, 2020). Additionally, better access to financial services encourages greater economic activity and has a favourable influence on women's health outcomes in India (Gyasi et al., 2019). Kandpal (2022) hypothesises that FI alters the dynamics of traditional families by empowering women to actively engage in household decision-making and question conventional gender. The literature supports the following hypothesis:

Hypothesis: There is a positive and significant relationship between financial inclusion and economic empowerment among women.

2.13 Financial inclusion and income

According to studies, women have increased their engagement in income-generating activities and earn more money when they have access to financial products like credit facilities, insurance, and savings facilities (Bruhn & Love, 2014). Studies conducted in rural areas of India revealed that women with access to microloans significantly increased their household income, enabling them to cover their families' healthcare and education expenses (Sinha & Kapoor, 2018). Since this increase in income impacts women’s ability to contribute towards the economic stability of their homes and society, this is a crucial facet of economic enfranchisement (Pal et al., 2021). According to Laszlo et al. (2020), FI programs for urban slum women have increased their monthly income, hence better standards of living and economic autonomy. Furthermore, the literature reveals that financial liberalization improves women's ability to make prudent use of financial resources, make financial decisions, and generate revenues (Duflo, 2020). Digital payments, mobile banking, and other innovations in the financial sector have ensured that many people get to access financial services, and the women who live in remote and disadvantaged regions benefit from the same (Fareed et al., 2017). New sources of income have opened because of their relative ease of access, such as online business and economic markets (Kumar & Singh, 2023). These studies support the following hypothesis:

Hypothesis: There is a positive and significant relationship between financial inclusion and income.

2.14 Financial inclusion and savings

Among the components of FI, the ability to gain access to ‘proper’ saving structures is strongly influential in empowering women economically (Bhatia & Singh, 2019). The financial literacy and innovations program in India has significantly increased the demand and usage of proper financial resources by women, enabling them to create individual money-saving plans and meet their needs. The PMJDY program, for example, has opened millions of accounts for women with the bonus of making them save more often (Chakrabarty, 2013). This emphasizes the importance of savings, especially for women, to enable them to prepare for future contingencies or financial needs and thus create pecuniary security (Campo & Steinert, 2020). Savings enable women to also fund future investments and shield their finances from future adverse shocks, besides acting as a buffer to women’s financial vulnerability (Dupas & Robinson, 2013). Ahmed et al. (2018) demonstrated that through the savings clubs, the women had access to finance to start their businesses, which created income and economic assets. This is a clear indication of the transformative nature of savings, particularly in terms of women's financial independence throughout their lives. Cabeza et al. (2019) also pointed out that savings can affect women’s outcomes on the household bargaining power owing to gender differences in negotiation. These studies suggest the following hypothesis:

Hypothesis: There is a positive and significant relationship exists between financial inclusion and savings.

2.15 Financial inclusion and asset generation

As stated in the research by Ghosh and Vinod (2017), assets offer stability and opportunities to generate income, whether fixed or in the form of investments, properties, herds, or crops. This also empowers them financially, resulting in their leadership on most decisions affecting the household and the community at large, as postulated by Rahman et al. (2017). Moreover, Lopez and Mehta's (2019) findings suggest that one crucial decision is the ability to generate and own assets such as real estate, homes, and financial investments. These assets not only provide women with control over resources, but also enable them to participate in the economy and decision-making processes. In Self-Help Groups (SHGs) operating in rural areas of Assam, India, women reported significant improvements in their asset development and management capabilities, resulting in improved economic status and empowerment (Islam & Sarmah, 2014). Doss (2013) underscores the importance of assets in enhancing women's economic empowerment." Assets also enable the provision of loans and serve as collateral in emergencies, as well as the expansion of funds to health and education, which improves people's socioeconomic status and well-being (Oladokun et al., 2018). The literature suggests the following hypothesis:

Hypothesis: There is a positive and significant relationship between financial inclusion and asset generation.

2.16 Financial inclusion and control over household income

Financial access is important for shifting the balance of power in control of household finances, as well as for women (Garikipati, 2008). Literature suggests that access to financial services improves income and financial security for women, as established by B (Bruhn & Love, 2014; Sinha & Kapoor, 2018; Laszlo et al., 2020), but its impact goes beyond just generating revenue. The study also found that access to financial services leads to women having more control over managing and spending the household's financial resources; financially empowered women are better positioned to plan and invest in the welfare of their families (Morsy and Youssef, 2017). When female manage their financial resources, they typically allocate household funds proportionately and efficiently towards health and education (Ngo & Wahhaj, 2012). This increased control entails regulating and distributing resources in the household rather than earning an income (Garcia & Martínez, 2015). Micro-loans and savings accounts increase women's ability to participate in and control the direction of household financial transactions, which leads to better decision-making abilities in controlling expenditures (Field et al., 2021). Decision-making power in relation to family income is a significant aspect of earning capacity, whether it is the ability to earn or the authority to manage and fully utilize financial prospects (Rahman et al., 2017). The literature suggests the following hypothesis: The literature supports the following hypothesis:

Hypothesis: There is a positive and significant relationship between financial inclusion and control over household income.

2.17 Digital financial services

Digital Financial Services (DFS) is the way through which people get and use traditional financial services such as credit, savings, insurance, and money transfers through digital methods, including smartphones, the internet, cards, and other conduits (Ozili 2018). In this regard, the advent of DFS has been innovative because it eliminated barriers associated with physical banking, such as long distances, high-cost charges, and other paperwork that would lock out the nobility groups from accessing financial services (Manyika et al., 2016). DFS increases the accessibility of banking services for individuals in rural and distant areas because people can do banking at anytime and anywhere with simple, easy-to-use technologies (Bull & Klapper, 2023). Aron (2018) argues that the use of technology in DFS significantly reduces transaction costs compared to conventional banking channels. Fintech's, with the help of DFS, innovate crowdsourcing platforms, mobile money, and low-incidence customer-based solutions (GPFI, 2016). Authentication and encryption enhance security, while transaction records promote transparency (Lauer & Lyman, 2015). Digital financial services, or DFS, are enhancing the financial services sector. Hence, using technology, DFS provides affordable, cheap, and sustainable solutions to the financial requirements of individuals and enterprises, especially the marginalised in the economy (David et al., 2008). DFS and the ability to conduct financial transactions and obtain transfers, payments, savings, credit, and insurance through digital channels are due to the rapid adoption of mobile phones, internet connections, and technology (Ebong & George, 2021). Several factors have converged to propel the digital transformation of the financial industry: firstly, consumer preferences; secondly, regulatory changes; thirdly, technological advancements; and fourthly, the growing recognition of the role of financial inclusion in economic development and poverty alleviation (Debnath and Paul, 2024). DFS includes mobile money, digital banking, and fintech, such as mobile wallets, crowd funding, and P2P financing, among other services and channels (Lyons & Kass, 2022). These services are very useful for a large population of clients in developing and emerging economies where a significant number of people do not have full access to the facilities of the mainstream formal financial industry (Allen et al., 2016). Furthermore, it can empower marginalised groups such as women, create financial independence, and spur economic development possibilities in the case of DFS. Despite the constraints of traditional challenges limiting women from accessing FI, including immobility, absence of ID, cultural restraints, and the like, there are ways to access FI by using mobile phones and/or digital platforms (Aker et al., 2016).

2.18 Digital financial services and female financial autonomy

Recent research has underscored the possibility of using “digital financial services” to increase women’s economic agency. Rohatgi and Gera, (2024) as well as Rahman et al. (2017), explain that DFS empowers women with more control over their spending and enables them to have formal financial services, thus empowering their female consumers economically. In addition to providing timely, efficient, and secure modes of saving, payment, and investment, DFS empowers women to engage more vigorously in economic activities such as business and income-generating activities (Adams et al., 2017). By analyzing the literature by Sharma et al. (2019), we can emphasize the significance of DFS in enhancing women's financial literacy and decision-making power, leading to improved economic performance and financial security. Additionally, mobile banking and e-commerce provide financial assistance to citizens, particularly females from rural and remote areas (World Bank, 2020). Banks that offer digital solutions are powerful enablers for women since they allow them to make decisions regarding spending, savings, and even financial planning (Suri & Jack, 2016). Mobile money use, such as M-PESA in Kenya, is a good example of how digital money can strengthen financial household resilience and support women in poverty eradication (Aker et al., 2016). These services have played a significant role in reducing transaction costs, enhancing negotiation abilities, and reducing household expenditure. Additionally, digital power can serve as a tool to eliminate the gender gap in financial product usage (Chamboko et al., 2018). However, factors such as reduced internet and computer usage among females, high costs, and cultural and cultural barriers continue to exist (World Wide Web Foundation 2015; Mariscal et al. 2019). Improving women's ability to use the Internet and provide technology devices will be useful in ensuring their involvement in economic and social activities (Krieger & Sorgner, 2018; Herbert, 2017).

Not only are digital financial services enablers for women's financial inclusion (FI), but they are also important drivers for women's entrepreneurship (Arora, 2020). Digital banking and financial tools enable women entrepreneurs to circumvent gender-related issues in banking, such as the rejection of credit facilities due to gender bias and the lack of physical security required for collateral security, which is typically absent among women (Kofman & Payne, 2021). This access is necessary for funding women-driven entrepreneurship and start-ups that will enhance economic inclusion and diversification (Demirgüç-Kunt et al., 2018). Furthermore, research has shown that digital financial products contribute to saving and investment among women, thereby enhancing financial protection (Patel & Sengupta, 2018). Various studies reveal that women with ICT-enabled savings accounts tend to save more for emergencies, their children's education, and to improve the family's standard of living (Manyika et al., 2016).

Nevertheless, India has greatly improved the level of digital finance inclusion, but women are still constrained in accessing and choosing digital services (Malhotra and Ranjan, 2020). These barriers include socioeconomic, cultural, and technological barriers that adversely affect women (Singh, 2019). Women's use of mobile money is still low because they own fewer mobile phones and have less internet access than men, which compromises their chances of using FINESS innovations (GSMA, 2020). In addition, women's literacy rate and digital literacy rates are low, which affects their knowledge and ability to use digital financial services (Jensen & Oster, 2009; World Bank, 2020). Matrimony and social-cultural factors clearly limit women's access to financial credit and their ability to use digital services. Women must obtain permission from their male partners, sons, fathers, or brothers to access digital finance services or mobile phones, thereby impeding their ability to reap the benefits of these emerging assets (Singh, 2019; Patel & Sengupta, 2018). Furthermore, the design and delivery of digital Fintech services fail to consider women's needs and limitations, resulting in an increased financial access gap (Chen & Rutherford, 2020). By identifying the potential of enhancing financial independence and improving female entrepreneurship through digital financial services and products, it is possible to conclude that digital financial technology platforms are not just instruments for solving problems or promoting economic processes but powerful tools for changing societies. This literature review delves into the following hypothesis: This literature review transitions into exploring the hypothesis that:

Hypothesis: There is a positive and significant relationship between digital financial services and female financial autonomy.

2.19 Need for the study

Previous studies highlight how important financial inclusion (FI) is for promoting economic expansion (Adera & Abdisa, 2023). However, further research is required on certain areas that previous studies might have missed, particularly women's FI relative to men (Were et al., 2022). The purpose of this study is to close these disparities by investigating the relationship between financial services, women's incomes, savings, and asset accumulation, as well as the junction of FI and WEE. Our objectives are to advance gender equivalence in financial access and economic opportunity while adding to the body of knowledge already available on FI. This study is especially important because, according to the Global Findex Database (2017), 1.7 billion women globally do not have access to formal financial services, which impedes their ability to become economically empowered and achieve gender equality. We seek to promote the UN Sustainable Development Goals, which set larger goals of supporting sustainable development and reducing inequality, by looking into effective ways to improve women's access to financial services and economic empowerment (Ghosh & Vinod, 2017; Arshad, 2023).

The novelty of this study lies in its comprehensive approach to examining these interconnected aspects within the unique socio-economic and cultural context of J&K. This study will specifically explore FI and WEE in J&K, addressing a significant gap in the literature. By addressing these research gaps, this study holds significant importance in informing policymaking and interventions aimed at enhancing women's financial participation and economic empowerment in the region. It contributes to a more nuanced understanding of the socioeconomic dynamics of J&K by shedding light on the unique opportunities and constraints for financial inclusion and women's economic empowerment. Moreover, the findings could provide valuable insights for other regions facing similar challenges in promoting women's financial inclusion and economic empowerment, thus contributing to the broader goal of achieving gender equality and women's empowerment as outlined in SDG 5.

2.20 Summary

Financial inclusion (FI) is a multifaceted concept, and its measurement involves numerous challenges. Over the years, several indicators have gained popularity for assessing financial inclusion, including the number of bank accounts, geographical spread of branches, ATM penetration, and uptake of formal credit. However, the focus on savings and credit has largely overshadowed important aspects like insurance, pensions, and digital financial services. In the past, little the government could do to address these hidden niches, but the advent of technology has significantly changed the landscape. Bankable poor are becoming as important to financial institutions as they are to the poor. Consequently, it is expected that the financial divide can be bridged shortly, if not entirely, then at least to a substantial extent.

This comprehensive literature review has explored the complex relationship between FI and WEE. The review emphasises the critical role of financial inclusion in enhancing women's economic participation, income generation, savings, asset accumulation, and control over household finances. It also highlights the transformative prospective of digital financial services in promoting female financial autonomy. India faces significant challenges in achieving 11 of the 17 Sustainable Development Goals (SDGs), with Goal 5 (gender equality) being particularly difficult to accomplish by 2030 (Sustainable Development Report, 2022). Despite progress over the past two decades, the country still grapples with blatant sexism, misogyny, and inequality. This situation is even more pronounced in Jammu and Kashmir (J&K), where gender inequality persists across political, social, and economic sectors, leaving achieving SDG 5 (Gender Equality) particularly challenging (NITI Aayog, 2020-21).

Chapter -3

Methodology

3.1 Introduction

The technique that researchers use to carry out their investigations is described in the research methodology. It directs students as they formulate their research objectives, set goals, gather and evaluate the relevant data, and finally draw conclusions. It acts as the foundation of every research effort. The numerous facets and subtleties of the approach used for this investigation are thoroughly described in this chapter.

3.2 Objectives of the study: This research explores the current state of financial inclusion and its contribution to women's economic empowerment in Jammu and Kashmir. By examining the role of financial inclusion, digital financial services, government policies, and schemes, the study seeks to understand how these factors enhance women’s financial autonomy and economic opportunities in the region. Through this analysis, the research will identify key enablers and barriers to financial inclusion, providing insights that can inform strategies for empowering women in J&K. The following objectives have been set to guide the study:

1. **To assess the current status of financial inclusion among women in J&K.**
2. **To examine how digital financial services promote female financial autonomy.**
3. **To determine how financial inclusion helps in achieving economic empowerment of women.**
4. **To evaluate the role of Government policies and schemes in economic empowerment of women in J&K.**

3.3 Hypotheses: Based on the study's objectives, a set of hypotheses has been formulated to test the relationships between financial inclusion, digital financial services, and women's economic empowerment in Jammu and Kashmir. These hypotheses will guide the empirical analysis, focussing on various aspects such as income, savings, asset generation, and financial autonomy. The study seeks to establish how financial inclusion, and digital financial services contribute to these dimensions of women's economic empowerment. The hypotheses are as follows:

- ***Hypothesis 1: Digital financial services positively influence female financial autonomy***
- ***Hypothesis 2: There is a positive and significant relationship between financial inclusion and economic empowerment among women.***
- ***Hypothesis 2a: There is a positive and significant relationship between financial inclusion and income.***
- ***Hypothesis 2b: There is a positive and significant relationship exists between financial inclusion and savings.***
- ***Hypothesis 2c: There is a positive and significant relationship between financial inclusion and asset generation.***
- ***Hypothesis 2d: There is a positive and significant relationship between financial inclusion and control over household income.***

3.4 Several research gaps emerge that justify the objectives of this study

Status of financial inclusion: While there is a growing body of literature on financial inclusion in India, there needs to be more region-specific studies assessing the current status of financial inclusion among women in J&K, particularly in the context of its unique socio-political environment.

According to Jyoti (2011), women in J&K have less access to financial services than both the national average and the average for men in the area. Due to insufficient infrastructure and cultural norms, this problem is particularly noticeable in rural places. The gender gap is especially noticeable in J&K, where women have lower rates of employment, education, entrepreneurship, and less economic participation compared to men (Ghosh & Chaudhury, 2019; Sharma & Suri, 2024).

Digital financial services: While the impact of digital financial services on financial inclusion has been widely studied, there is limited research on how these services specifically promote female financial autonomy (Kulkarni & Ghosh, 2021). Dubey and Jyoti (2011) identified a digital divide in Jammu and Kashmir, with women being less likely than men to use digital services. This is particularly significant, given that women are less likely to access financial institutions or hold bank accounts compared to men (Sharma & Suri, 2024).

Mechanisms of economic empowerment: While the link between financial inclusion and economic empowerment is well-established, the specific mechanisms through which this operates for women in Jammu and Kashmir require further investigation, as women constitute 47% of the region's total population (Anjum, 2011). According to Gul (2015), women in Jammu and Kashmir encounter numerous issues and challenges related to health, education, the economy, politics, domestic violence, a declining sex ratio, female feticide and infanticide, state violence, dowry harassment, unequal wages, eve teasing, and child labor. Furthermore, women in J&K own fewer enterprises and are increasingly becoming economically dependent due to difficulties in accessing financing (Ahmed, 2018).

Government policies and programs: An evaluation of the efficacy of government policies and programs intended to further women's economic empowerment in Jammu and Kashmir is noticeably lacking. This is a particularly important problem since, in comparison to respondents from neighbouring states. J&K respondents showed lower levels of satisfaction with cooperative banks' efforts to promote financial inclusion (Lal, 2019). According to Bargotra and Bhardwaj (2017), a comprehensive examination is necessary to determine the extent to which women in J&K are aware of and make use of government policies and schemes. It is crucial to comprehend how women are utilising these initiatives to attain financial independence.

Regional Focus: Research on financial inclusion and economic empowerment of women in J&K is negligible compared to other states and UTs in India (Dhingra & Bala, 2020). Proposals for further research have been made to addition in deeper understanding of women's economic empowerment in this region (Suri, 2013).

3.5 Study Area

The Union Territory of Jammu and Kashmir is chosen for this study due to its distinctive socioeconomic background, regulatory environment concerning women's empowerment and banking, insightful demographic data, and significant cultural factors. Notable urban-rural disparities and unique historical influences on economic activities and women's roles mark the region's socioeconomic context (Bhat & Manzoor, 2012). Specifically, Jammu and

Kashmir exhibit a pronounced gender gap, with women having lower rates of employment, education, and entrepreneurship compared to men. The region presents a compelling case for targeted research, as outlined below:

3.5.1 Participation in economy

The workforce participation rate for females stands low compared to the national average. The 2011 Census found that only 19.11% of women in J&K were in the workforce participation, significantly lower than the national average of 25.5%. The literacy rates are 76.75% for males and 56.43% for females" (Census of India, 2011) reflecting a significant gender gap in employment. This disparity highlights the need for studies on financial inclusion and women's empowerment to address structural barriers, promote economic participation, and ensure equitable growth in the region.

3.5.2 Regions economic transition

The region's ongoing economic transitions, along with government initiatives such as the Pradhan Mantri Jan Dhan Yojana (PMJDY, 2022) and targeted programs like microfinance schemes, play a pivotal role in enhancing women's financial empowerment (Khan et al., 2022). As of December 2024, J&K has 2,410,536 PMJDY accounts, with a substantial number belonging to women. However, as Khaki (2018) notes, India's diverse landscape has hindered regional consistency in the provision of financial inclusion, despite increased efforts to ensure efficient access to financial services for all. Jammu and Kashmir remains one of the least financially penetrated regions in Northern India, even as the North-Eastern states also appear underserved in this regard. These disparities create a valuable context for exploring how women in Jammu and Kashmir navigate financial systems in an environment that is both economically dynamic and complex.

3.5.3 Recent trends in employment landscape

The Workforce Participation Rate (WPR) in Jammu & Kashmir has shown a gradual improvement, increasing by 5.4 percentage points over the past five years (Kumar et al., 2023). Despite this progress, the region continues to face significant employment challenges, particularly among women, where participation rates remain low compared to national averages. This underscores the need for a focused study to identify gaps, design targeted interventions, and promote equitable economic participation, aligning with regional and national development goals (Baba, 2020).

3.5.4 Regional dynamics and policy relevance

India has made notable development in advancing WEE through policies like the National Rural Livelihoods Mission, which promotes entrepreneurship and employment among women (Duflo, 2012; Ghosh, 2023). However, Jammu and Kashmir face unique challenges due to prolonged conflict and political instability (Baba, 2020). While the state government's Women Development Corporation has implemented initiatives aimed at improving women's skills and promoting self-employment, these programs have been hindered by infrastructure issues, security concerns, and entrenched traditional gender roles, limiting their overall effectiveness (Singh & Paliwal, 2020; Suri, 2013). Cultural features too play a critical part in influencing female’s financial participation. Societal norms often compel women to prioritise household responsibilities over career development, and many women require male consent to make financial decisions (Gul, 2015). Additionally, women frequently lack the autonomy to independently support their children's financial and material needs (Dar, 2018).

3.5.5 Economic empowerment

The Deendayal Antyodaya Yojana - National Rural Livelihoods Mission (DAY-NRLM) has significantly contributed to empowering women in Jammu and Kashmir (J&K) by promoting Self-Help Groups (SHGs). As of 2023, over 1.5 million women in the region have benefited from these initiatives, with more than 80,000 SHGs established. These groups serve as critical platforms for women to access financial resources, foster entrepreneurship, and enhance their economic independence. This underscores the importance of evaluating the effectiveness and scalability of SHGs in driving sustainable economic empowerment among women in J&K (Ministry of Rural Development). Similarly, the Pradhan Mantri Jan Dhan Yojana (PMJDY) has been instrumental in advancing financial inclusion in the region. Under this initiative, 1,321,285 women in J&K have opened bank accounts, thereby gaining access to essential financial services. While the program has significantly improved financial inclusion, barriers such as limited digital literacy, inadequate access to banking infrastructure, and cultural constraints still hinder some women from fully utilizing these services. Further research is essential to address these challenges and ensure that the benefits of PMJDY reach all segments of the female population in J&K (PMJDY, 2021).

3.5.6 Financial literacy initiatives

According to the Reserve Bank of India's financial literacy surveys, financial literacy among women in J&K is still low, with only 23% of women having a basic understanding of financial products and services. Financial literacy is crucial for women's empowerment as it enables better financial decision-making and access to financial services. Programs aimed at improving financial literacy could drive significant improvements in women's financial inclusion and independence (RBI Financial Literacy Report, 2017).

3.5.7 Digital financial inclusion

The Digital India initiative, launched by the Indian government, aims to make digital financial services more accessible to underserved populations. In J&K, as of 2024, women's participation in digital financial transactions remains low, with only 12% of women utilizing digital banking services compared to 38% of men. This highlights the need for research into how digital platforms can be made more accessible and user-friendly for women to bridge the digital divide and promote economic participation (Meity 2022-23).

3.5.8 Alignment with sustainable development goals (SDGs)

Jammu and Kashmir is among the top-performing Union Territories in India, with a composite score of 74, second only to Chandigarh, which has a score of 77. Additionally, J&K is recognized as a performer in SDG 5 (Gender Equality), achieving a score of 53, which places it ahead of several other Union Territories on the list. Researching financial inclusion and women's empowerment in J&K aligns directly with India's commitment to Sustainable Development Goals (SDGs), particularly SDG 5 (Gender Equality) and SDG 8 (Decent Work and Economic Growth). Despite notable progress, J&K continues to lag in key indicators of women's economic participation. Addressing these gaps through targeted studies can provide valuable insights for designing policies that promote gender equality, enhance women's economic opportunities, and drive sustainable economic growth in alignment with the SDGs.

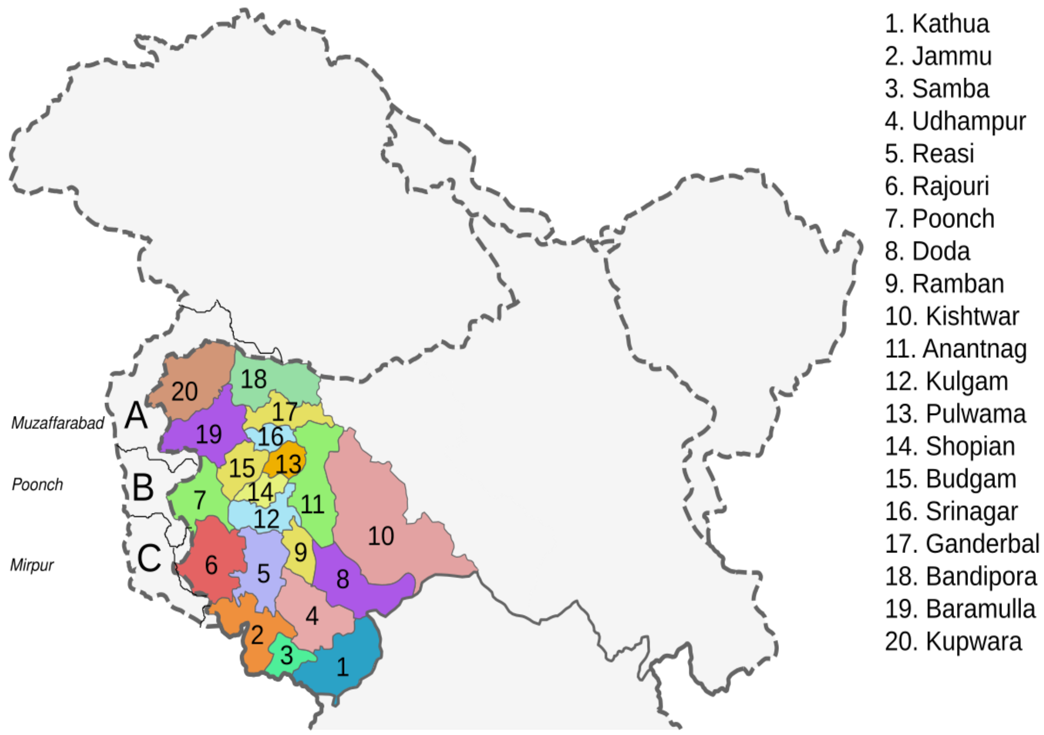
These facts emphasize the pressing need to study financial inclusion and women's empowerment in J&K, as they directly impact the economic opportunities available to women and the region's overall growth.

3.6 General characteristics of the study area

Jammu and Kashmir, a union territory in India, spans a geographic area of 101,387 square kilometres. It lies between latitudes 32°17' and 37°05' North and longitudes 72°31' and 80°20' east. The territory is divided into two main geographic regions: the Kashmir Valley and Jammu. Jammu and Kashmir has a total population of 12,267,013. The sex ratio is 889 females per 1000 males (Census of India, 2011).

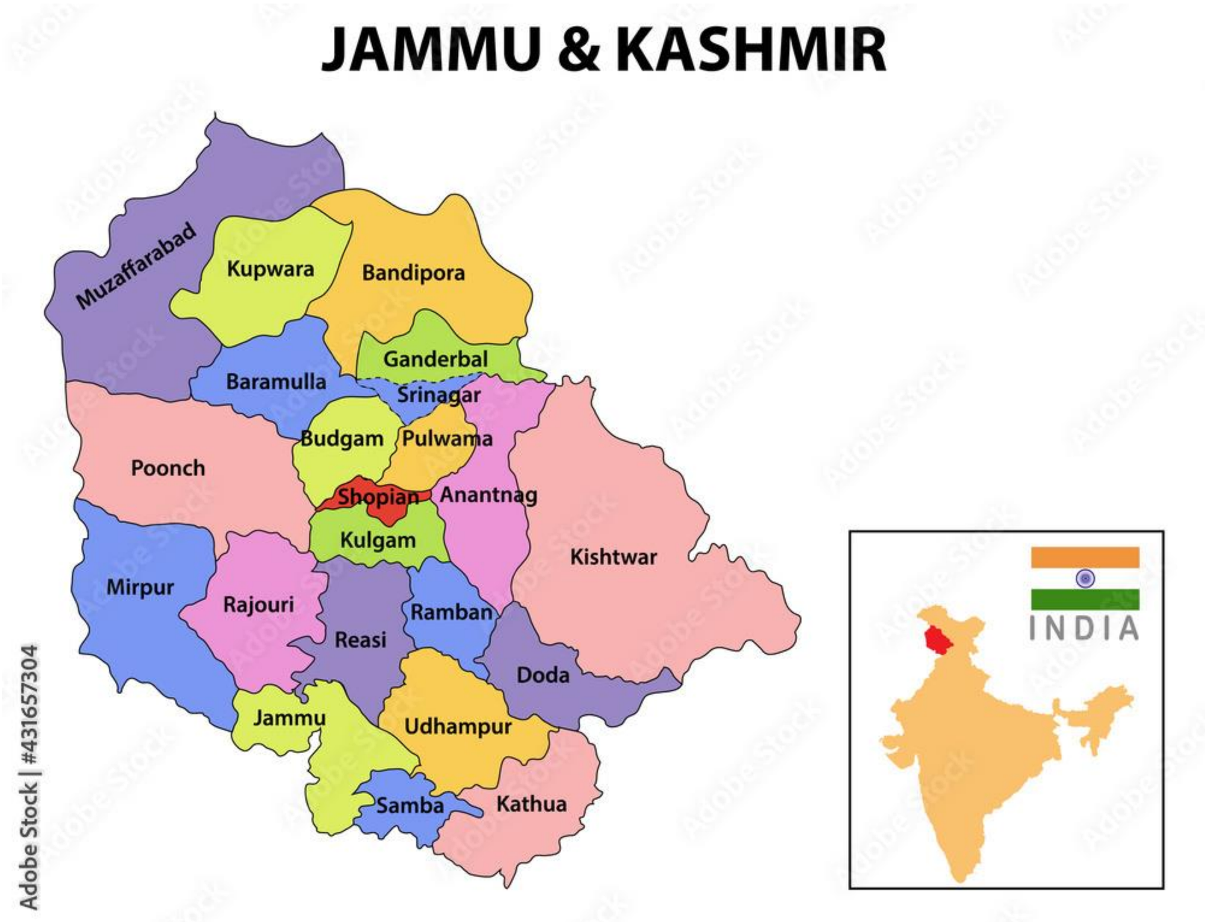
Jammu and Kashmir is the northernmost union territory of India, sharing international borders with many countries. Its southern borders are formed by the Indian states of Punjab and Himachal Pradesh. The region is characterised by high and rugged mountainous terrain. The climate varies significantly, ranging from the scorching heat of the plains in the Jammu division to the snow-capped heights of Gulmarg in Kashmir. Jammu and Kashmir is home to several Himalayan glaciers, with major rivers such as the Jhelum, Indus, Tawi, Ravi, and Chenab flowing through the state.

Agriculture is the primary occupation for over 80% of the population. The state's agro-climatic conditions are conducive to horticulture, involving about 500,000 families in related activities. The traditional handicraft industry, which includes wood carving, paper-mâché, carpets, shawls, and embroidery, is prioritised for its employment potential and demand, particularly for carpets that earn substantial foreign exchange (Dixit et al., 2014). Currently, the railway network extends up to Jammu, with ongoing construction of the Jammu to Udhampur line. The Kashmir Valley, often described as a paradise on earth, is a major tourist destination, many people around the world visits the cool and scenic Kashmir Valley.



Source: https://stock.adobe.com/search?k=jammu+and+kashmir+map

Figure 03: Study area overview



Source: https://stock.adobe.com/search?k=jammu+and+kashmir+map

Figure 04: Districts of the study area

3.7 Research design

This study is descriptive in nature. It sheds light on women's financial inclusion in Jammu and Kashmir. This research attempts to provide a comprehensive picture of the present situation by looking at many aspects of financial inclusion, such as consumption of financial products, availability of credit, and access to banking services. This descriptive methodology ensures a thorough understanding of financial inclusion and its influence on women's economic empowerment in Jammu and Kashmir's rural and urban regions.

3.8 Sampling frame

Women with bank accounts who live in Jammu and Kashmir's rural and urban regions make up the sample frame. This encompasses a wide variety of women with respect to age, place of residence, marital status, degree of education, work status, monthly income, kind of family, number of family members, head of household, and type of ration card. Respondents are first asked if they have a bank account, and only those who do are included in the study. The study ensures a representative sample that reflects the varied socioeconomic situations of the region by comprising women from different income levels and occupational backgrounds (employed homemakers, self-employed, students, and unemployed).

3.9 Sample size

The technique for calculating sample size using a sampling model was created by Krejcie and Morgan in 1970. This technique is employed in several studies (Adnan & Tasir, 2014; Davoudi & Allahyari, 2013; Uakarn et al., 2021; Muthetia, 2024; Sari et al., 2022). According to "Krejcie and Morgan's calculation", a minimum sample size of 384 is sufficient for a population of 4,158,909. Additionally, Rao Software, which recommends a minimum sample size of 384, is used to verify this calculation (www.raosoft.com). The following is the sampling model formula:

$$S = \frac{X^2 Np (1 - p)}{d^2 (N-1) + X^2 P (1 - P)}$$

- S = required sample size
- N = Population Size
- E = Acceptable Sampling Error
- X^2 = the table value of chi-square for one degree of freedom at the desired confidence level.
- 95% = 3.841
- P = the population proportion (assumed to be .50 since this would provide the maximum sample size)
- d = the degree of accuracy expressed as a proportion (.05)
- S= (3.841) (4158909) (0.5) (1-0.5) ÷ (0.05^2) (4158909 -1) + (3.841) (0.5) (1-0.5)
- = 15974,369.46 (0.5) (0.5) ÷ 0.0025 (4158908) + (3.841) (0.5) (0.5)
- = 15974,369.46 (0.25) ÷ 10397.27 + 0.96
- =3993592.25 ÷ 10398.23 = 384

3.10 Data collection

The door knocking approach was chosen to facilitate direct engagement with women participants in Jammu and Kashmir, ensuring access to a diverse population, particularly in areas with limited digital connectivity. The researcher, acting as an enumerator and familiar with the local language, conducted in-person visits to households, which improved response rates by making respondents feel more confident and comfortable. This method is effective in capturing rich data, as it encourages participants to share detailed insights into their experiences. Despite being time-intensive, it fosters trust and ensures a more representative sample. According to Schultze and Avital (2011) and Rubin & Rubin (2011), schedules produce rich, comprehensive data that offer profound insights into respondents' experiences. The investigator discovered that sustaining continuous face-to-face communication with participants was essential to gathering comprehensive and precise data.

Conducted from August 2023 to March 2024, the research focuses on female adults with bank accounts in the Union Territory of Jammu & Kashmir, India. Krejcie and Morgan's

(1970) sampling model determines the sample size, calculating a minimum required sample size of 386 respondents from a population of 4,158,909 (Census of India, 2011). According to this formula, 450 participants were approached, of whom 426 agreed to complete the study, yielding a 94.6% response rate and meeting the required sample size. The study includes all 426 relevant responses, ensuring a robust dataset and enhancing the reliability of the findings.

3.11 Data collection specifics

1. All 426 respondents were included for the first and third objectives because female respondents with bank accounts were included.
2. Female respondents with access to smartphones or online banking were taken into consideration for the second objective, which focuses on digital financial services. According to the formula, the minimum required sample size was 384. As 388 women respondents who had access to smartphones were taken into consideration for this objective, thereby surpassing the minimum threshold
3. For the fourth objective, which is based on both primary and secondary data, 426 respondents were considered to assess their awareness about government schemes and programs. Secondary data were collected through various published sources, including the NITI Aayog Sustainable Development Report, the Census of India, the J&K Women Development Corporation, the Planning Development and Monitoring Department of the Jammu & Kashmir Government, the PMJDY, and various entrepreneurship development schemes and policy documents from commercial banks, publication, articles.
   (https://www.niti.gov.in/ https://www.jkwdc.com/ , https://www.censusindia.gov.in/ https://www.jkwdc.com/ , https://www.jkplanning.gov.in/ , https://pmjdy.gov.in/).

3.12 Sampling technique

Using purposive sampling, data were collected from 10 districts of Jammu and Kashmir, which were selected based on the demographic features (highest female population) among all districts according to the last 2011 census. The decision to use Census 2011 data as the population base was primarily due to the unavailability of more recent official data. Various uncertainties and delays have hindered the conduct of scheduled censuses in India, leading researcher to rely on the most recent and comprehensive data available as shown in Table

(08). Following the selection of districts, a purposive sampling approach was employed to identify and gather data from respondents, ensuring the selection aligned with the study's objectives, as shown in Table (08). The rationale for employing purposive sampling lies in its ability to align the sample more closely with the research aims and objectives, thereby enhancing the study's rigor and ensuring the reliability and credibility of the data and findings (Campbell et al., 2020).“Studies such as those by Lal, T. (2018), Thulani et al., (2014), Wardhono et al., (2016), Kartawinata et al., (2021) utilize this methodology.”

Table 08: Sample selection

District	Total population	%of female population	Female	proportion	Total sample
Jammu	15,29,958	46.80	7,16,137	17	72
Srinagar	12,36,829	47.35	5,85,705	14	60
Anantnag	10,78,692	48.10	5,18,925	12	51
Baramulla	10,08,039	46.95	4,73,306	11	47
Kupwara	8,70,354	45.51	3,96,164	10	43
Badgam	7,53,745	47.19	3,55,704	10	43
Rajouri	6,42,415	46.24	2,97,064	7	30
Kathua	6,16,435	47.09	2,90,326	7	30
Pulwama	560,440	47.70	2,67,376	6	25
Udhampur	5,54985	46.52	2,58,201	6	25
Total			**4158909**	**100**	**426**

Source: Census of India 2011

3.13 Consent

Informed consent was carefully obtained from all participants during data collection to maintain ethical standards and participant autonomy. This process adheres to voluntary participation and confidentiality rules. A clear written consent form is attached to the questionnaire, informing participants that their data will only be used for research on financial inclusion and economic empowerment. For non-readers, the enumerator verbally communicates the content of the consent form to ensure that everyone is informed about the research objectives, data privacy, and how their participation contributes to the study's goals.

3.14 Construction and validity testing of schedule

To ensure the relevance and applicability of the current investigation, the schedule instrument was adapted from earlier studies (Tables 11 and 12). A thorough literature review was conducted to identify the indicators and items/questions for each dimension.

A stringent validation procedure was put in place before data collection, comprising consultations with 10 experts in the pertinent subject. Of these specialists, four were practitioners with direct experience working in banks and financial institutions, and six were professors at universities with specialisations in related fields. Their recommendations for the schedule were carefully taken into consideration.

Lawshe's (1975) Content Validity Ratio (CVR) was used to evaluate the content validity of the items; a value of 0.62 indicated acceptability (Table 10). Ten experts verified the questionnaire used in this investigation. Items having a CVR of less than 0.62 were not accepted, according to the CVR table. In addition to adding to the general robustness of the research instrument, this rigorous validation procedure is essential for improving the validity and reliability of the questionnaire. Other researchers (Baghestani et al., 2019; Shrotryia & Dhanda, 2019; Burhaein et al., 2020; Pezeshki et al., 2017; Gupta et al., 2019) have also used this strategy. To choose which assertions on the questionnaire to "KEEP," "MODIFY," or "DELETE," the researcher used the Content Validity Ratio.

In order to test the respondent's understanding level of the questionnaire, a pilot study was carried out with 50 respondents. In, J (2017), Lowe (2019) and Van and Hundley (2002). Some changes were made depending on the received feedback, such as the changes to some questions and the exclusion of others, as they culminated in the final schedule. More specifically, a Likert scale was adopted in which a score of 1 represent "strongly agree" while the scores of 5 represent "strongly disagree."

3.15 Reliability

Following the assessment of the items' validity, the constructs' reliability was assessed in order to determine the extent of bias and distortion that the questionnaire's design included. Measurement consistency is referred to as reliability. Cronbach's alpha is computed for this purpose using alpha value ranges of 0 to 1. The items have a high degree of dependability and are tightly connected to one another, as indicated by the coefficient value that is close to 1. To guarantee the internal consistency of the variables, an alpha score of 0.7 or above is typically advised (Nunnally & Bernstein, 1994; Hair et al., 2019).

Table 09: Reliability Scores

Construct	**Indicators**	**Cronbach's alpha**
Digital Financial Services	13	0.994
Female Financial Autonomy	12	0.975
Financial Inclusion **Access**	4	0.895
Usage	3	0.779
Quality	7	0.841
Trust	5	0.865
Economic Empowerment of Women **Income**	5	0.872
Savings	6	0.897
Asset Generation	4	0.959
Control over Household Income	6	0.903

Source: Authors work

Table (09) demonstrates the reliability of the items used in this research edition to measure the study's constructs. The Cronbach's alpha for each study construct is above 0.77, indicating the reliability of the constructs, further the validity and reliability measure are taken place in the analysis part of the research for each item under study.

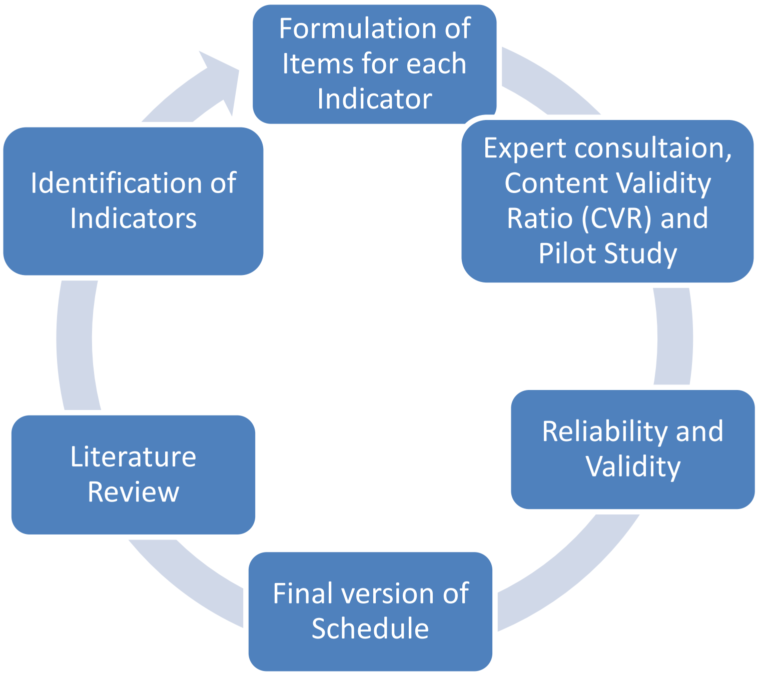


Figure 05: Process of Preparing the Schedule

Source: Authors work

Table 10: Minimum Values of CVR and CVR_t One Tailed Test, p= .05

No. of Panellists	Min Value *
5	.99
6	.99
7	.99
8	.75
9	.78
10	.62
11	.59
12	.56
13	.54
14	.51
15	.49
20	.42
25	.37
30	.33

35	.31
40	.29

Source: Lawshe's (1975)

3.16 Dimensions to measure financial inclusion: The multidimensional nature of financial inclusion must be fully captured by identifying and focussing on certain variables to quantify financial inclusion among women in an effective manner. The World Bank (2018) asserts that financial inclusion encompasses not only the availability of financial services, but also the utilization of these services, their quality, and the level of trust users have in financial institutions. These factors are especially important to include when evaluating women's financial inclusion because they frequently encounter extra difficulties and obstacles when trying to obtain financial services (Agarwal & Hauswald, 2010). Sarma's (2008) research and the World Bank's Global Findex Database (2017) highlight the importance of looking at these factors to develop a comprehensive picture of financial inclusion. Furthermore, studies like those by Demirgüç-Kunt and Klapper (2013) and Goel and Sharma (2017) show that concentrating on these characteristics enables a more precise evaluation of how financial services affect women's economic empowerment. This study can better identify and solve the unique demands and challenges faced by women in Jammu and Kashmir (J&K) by examining access, usage, quality, and trust. This will help to promote more successful financial inclusion programs.

Financial Inclusion Dimensions			
Access	**Usage**	**Quality**	**Trust**
It primarily focuses on the respondents' ability to adopt and utilize the “financial services and products offered by formal financial institutions.”	It extends beyond the basic adoption of formal “financial services and products” emphasizing the permanence and depth of use. In other words, it focuses on the actual usage by the respondents.	It pertains to how well the products or services offered by formal financial institutions meet the respondents' needs. This is reflected in the respondents' opinions about these products or services.	It involves the confidence and reliability; respondents place in formal financial institutions. This is crucial as it affects their willingness to engage with and rely on these institutions for their financial needs.

Source: Authors work

Figure 06: Financial inclusion dimensions

Access: Financial inclusion depends on access, which is defined as having financial services available to users at an acceptable distance from them. Sarma (2008) and the “World Bank's Global Findex Database (2017)” both highlight the importance of access as the first step towards achieving “financial inclusion”. According to Raghunathan et al. (2023), access ensures that prospective customers may acquire financial services both physically and online.

Usage: In addition to granting access, usage takes into account the frequency and effectiveness with which financial services are utilized (Goel & Sharma, 2017). Demirgüç-Kunt & Klapper (2018) contend that understanding actual usage is crucial to understanding the effects of financial inclusion.

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Quality: The appropriateness and dependability of the products directly influence the usefulness and user pleasure of financial services (Chipunza & Fanta, 2021). Sharma and

Changkakati (2022) emphasize how quality may affect people's long-term interactions with financial institutions, thereby affecting the effectiveness of financial inclusion as a whole.

Trust: For financial inclusion to continue, people must have faith in financial institutions and the services they provide (Nagańska & Cichocki, 2022). Tram et al. (2023) noted that potential users' reluctance to obtain or use financial services in the absence of trust may hinder financial inclusion initiatives.

3.17 Dimensions to measure economic empowerment of women

Income: Income, which reflects women's capacity to work and make financial contributions, is a clear measure of economic empowerment (Kabeer, 2021). Income plays a significant role in improving women's economic independence and status, according to Daga (2021).

Savings: Savings indicate the ability to plan and invest for the future in addition to providing financial security (Despard et al., 2020). According to Malhotra and Schuler (2005), savings are essential for women to become economically empowered since they allow them to invest in business opportunities and handle financial risks.

Asset Generation: Asset generation is a symbol of long-term economic stability and growth that transcends short-term financial requirements (Oladokun et al., 2018). According to Rahman et al. (2017), asset ownership is crucial for giving women financial security and leverage.

Control over Household Income: A crucial component of women's economic empowerment, this dimension represents the decision-making authority they possess about household finances (Roy et al., 2017). Moyle et al. (2006) talk about how women are standing in the home and their capacity to affect more general economic results are affected by their authority over financial decisions.

These four dimensions income, savings, asset generation, and control over household income have been selected because they comprehensively capture different aspects of women's economic empowerment. They represent not only the ability to generate and accumulate financial resources (income and savings) but also the long-term stability and decision-making power that come with economic empowerment (asset generation and control over household income). Together, these dimensions provide a holistic view of women's economic status, autonomy, and influence, both within the household and in the broader economic context. By examining these dimensions, the study gains a nuanced understanding of how financial inclusion impacts various facets of women's economic lives and overall empowerment.

Women Economic Empowerment Dimensions			
Income	**Savings**	**Asset Generation**	**Control over Household Income**
Income is a critical dimension of “women's economic empowerment” as it represents their ability to generate earnings through various economic activities.	Savings reflect the ability of women to set aside a portion of their income for future use. This dimension is vital as it indicates financial security and the potential for investment in personal or family needs.	This dimension highlights the capacity of women to build wealth and secure their economic future. Ownership of assets provides women with leverage in financial decisions and a safety net in times of economic hardship.	Measures the extent to which women have a say in how the household's financial resources are allocated and spent. This dimension underscores the importance of women's involvement in financial decision-making within the family.

Source: Authors own work

Figure 07: Women economic empowerment dimensions

Although the above representation aims to provide an overview of the dimensions, researcher has endeavoured to develop a clear and concise set of indicators for measuring each dimension in alignment with the conceptualization of financial inclusion and economic empowerment of women in this study. These indicators and their associated dimensions, sources, item codes used in the study are summarized in the following tables:

Table 11: Instrument financial inclusion and economic empowerment of women

Construct	Source	Item
1. Financial Inclusion **Access**	Kumar et al., (2020). World Bank Global Findex Questionnaire, (2021)	FIA1
		FIA2
		FIA3
		FIA4
Usage	Kumar et al., (2020). World Bank Global Findex Questionnaire, (2021)	FIU1
		FIU2
		FIU3
Quality	Kumar et al., (2020). World Bank Global Findex Questionnaire, (2021)	FIQ1
		FIQ2
		FIQ3
		FIQ4
		FIQ5
		FIQ6
		FIQ7
Trust	Kumar et al., (2020). World Bank Global Findex Questionnaire, (2021)	FIT1
		FIT2
		FIT3
		FIT4
		FIT5
2. Women Economic Empowerment	Daga, N. M. (2021).	WEI1

Income		
		WEI2
		WEI3
		WEI4
		WEI5
Savings	Jain, D., & Jain, B. (2012).	WES1
		WES2
		WES3
		WES4
		WES5
		WES6
		WEA1
Asset Generation	Doss et al., (2019).	WEA2
		WEA3
		WEA4
Control over household income	Malhotra, A., & Schuler, S. R. (2005).	WEH1
		WEH2
		WEH3
		WEH4
		WEH5
		WEH6

Source: Authors work

Table 12: Instrument Digital Financial Services and Female Financial Autonomy

Construct	Source	Item
1. Digital Financial Services	Demirgüç-Kunt et al. (2015). Doe, (2020).	DFS1

		Venkatesh et al. (2005). Ozili, P. K. (2018).	
			DFS2
			DFS3
			DFS4
			DFS5
			DFS6
			DFS7
			DFS8
			DFS9
			DFS10
			DFS11
			DFS12
			DFS13
2.	Female Financial Autonomy	(Agarwal & Zhou 2016). Kabeer (2001). (Doss, 2013). Smith & Roe (2019). Malhotra et al. (2002). Stewart and Doss (2018).	
			FFA1
			FFA2
			FFA3
			FFA4
			FFA5
			FFA6
			FFA7
			FFA8
			FFA9
			FFA10

FFA11

Source: Authors work

3.18 Research tools and software packages used

This study employs specific software programs and analytical techniques to generate meaningful results from the provided raw data. The statistical software's, namely SMART PLS 4 and SPSS v25. The data is examined utilizing

1) Descriptive Statistics

2) Chi-squared test

3) SEM (structural equation modeling)

- Confirmatory factor analysis,
- Path Analysis

4) Activity mapping

3.19 Data analysis

For the first objective of the study, which is to assess the current status of financial inclusion among women, the data collected from the schedule are coded and entered into the statistical software SPSS v25 and descriptive statistics are obtained. Further analysis is conducted using appropriate tools to generate meaningful results as shown in next chapter 4.

For the analysis of the second and third objectives, which focus on the relationship between the variables, the study employs partial least squares structural equation modelling (PLS-SEM) using SmartPLS 4.0. The study acknowledges the multidimensional complexity inherent in the constructs under investigation, particularly in line with the framework put forth by Ringle et al. (2015).

The choice of PLS-SEM is justified by its robustness against various statistical assumption violations, including potential non-normality, non-parametric distributed data, and a small sample size, as emphasised by Hair et al. (2019). PLS-SEM is particularly suitable for accurately representing the complex and multi-layered relationships between the constructs being studied. It enables the modelling of hierarchical component models, also known as second-order constructs (Hair et al., 2017). Other techniques, such as covariance-based SEM (CB-SEM), are less capable of managing intricate models with a high degree of multicollinearity (Hair et al., 2022).

When the main goals of the research are theory creation and prediction rather than theory testing, PLS-SEM is frequently chosen in exploratory studies. The analysis commences by examining the first- and second-order measurement models. It then performs 10,000 bootstrapping subsamples using a bias-corrected percentile method (two-tailed test) to measure the structural model (Hair et al., 2022).

For the fourth objective, the study involves Activity Mapping. A cornerstone of well-designed multi-level governance is the assignment of clearly defined activities to each level of government. Assigning precise tasks and responsibilities to each level of government clarifies their accountability to the people for the performance of their functions (Towards Holistic Panchayat Raj, 2013; Pritchett and Varad, 2006).

3.20 Activity mapping

An Activity Mapping approach is provided to assist us in making the best decisions on different activities carried out at different levels following the application of different principles in order to analyse a policy. Essentially, it is a scientific, principle-based approach to policy research that aids in the assessment of public policies by a variety of policy assessors and social science students. Funds and officials have a special role in any policy's operations. Depending on the wide responsibilities, functions might vary from micro to macro level actions. Functionaries are the authorities or individuals who carry out different duties and obligations under general or specific tasks. Finally, fund refers to the total amount of money allocated by the federal government or each state government to carry out any given job. It also draws from the decentralised approach outlined in the 73rd and 74th amendments to the village panchayat (Pritchett and Varad, 2006), which emphasises giving the village panchayat a role or responsibilities in making decisions. In general, this is a step towards the "bottom-up" planning approach. Policy is therefore based on the ideas of public finance and accountability, taking a bottom-up approach. Activity mapping is the process of breaking down larger activities or functions into smaller ones, based on which responsible officials will be allocated roles and duties for the activity's implementation and completion. It is beneficial because it gets rid of any ambiguity and activity duplication, which improves services and prevents resource waste.

Make a list of all activities related to the scheme or any programs by doing unbundling up to possible tasks.

1. Classifying all the activities in five major ‘Broad Categories’.
2. Then, put all the unbundled categories within the above-mentioned category.
3. Apply Principles of Public Finance and Principles of Subsidiary to devolve the activities to the appropriate level of government.
4. One standardised map needs to be made to find which tier of the government will be assigned with what role and responsibilities.
5. After all five steps make a matrix to compare the policy already made and what should be as per the applied principles of activity mapping.

3.21 Unbundling of activities

The most important initial step is to separate each functional component of the relevant scheme. For example, if it is decided who will provide the Covid-19 vaccine, the sub-activities include what vaccine, to what age group, is it available at the district or village level, who will implement the vaccination program, time-gap, communication channel for raising awareness of vaccination, etc. Similar to the Covid-19 vaccine, not many activities have been planned. These days, unbundling may be carried out using Free-Mind or Mind-mapping software, which is free software for brainstorming. Thus, these unbundled groups can also be categorised in the following ways:

a. Setting standards: In this area, general rules for design and formulation will be created based on the activity in question. In order to be extremely clear about the tasks and obligations of the relevant authorities. All will be configured in the norms of the setting standards
b. Planning: Following the formulation of guidelines for schemes, decisions on how to carry out specific tasks must be made while keeping the rules in mind.
c. Asset creation: As determined by planning, standards, and contexts, real construction which might involve the creation of social or physical capital—will take place during this activity.

d. Implementation and Management: In this category, the intended beneficiaries have made use of the asset-generation capabilities that have been implemented. Furthermore, to profit from the targeted activity, appropriate arrangements must be established. For things to run smoothly, monitoring and training are also important.
e. Monitoring and Evaluation: At this point, all of the actions have been put into action and are running. It became crucial to promptly keep an eye on the activities and assess them using a range of standard parameters to make any necessary corrections or modifications.

Once activities have been separated into discrete categories, the next stage is to use the Principles of Accountability and Basic Public Finance to comprehend the nature of the activity. These are the guiding ideas.

3.22 Principal of activity mapping

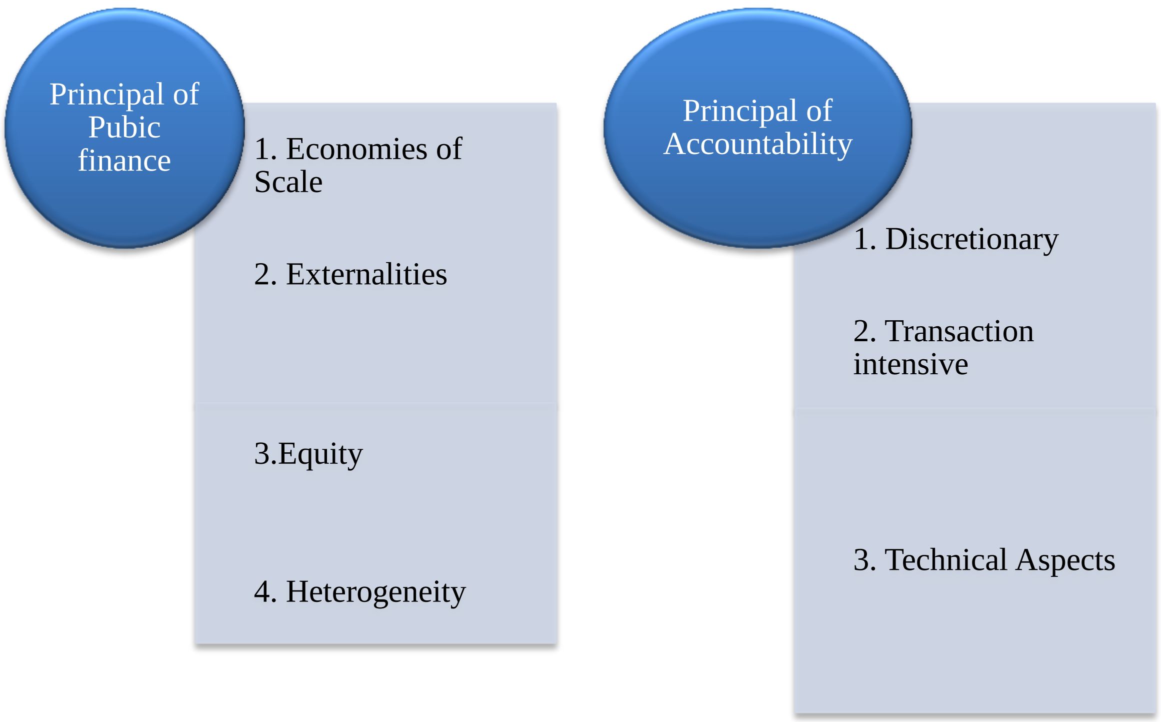


Figure 08: Principals of activity mapping

Source: Pritchett & Varad, 2006

3.23 Description of public finance

1. Economies of Scale: It suggests that a substantial sum of money is needed to complete an activity and that this amount often lowers as more are produced. It will work to elevate the status of government.
2. Externalities: These are any activity's favourable or unfavourable effects. Higher authorities must make judgements when a certain action has a wide variety of external repercussions.
3. Equity is the idea that each person has an equal chance at success. Generally speaking, the local government might carry out an activity that takes equity into account based only on their region, which may lack uniformity in the growth process. Therefore, an action has to be handled at a higher level for such a purpose.
4. Heterogeneity: The nation is generally quite diverse, which makes it very challenging to create a standard policy. Nonetheless, it is crucial to look out for everyone's interests. In other words, a decentralised approach is necessary for an activity to reach a wider audience the more diverse it is.

Table 13: Rule of Thumb on Public Finance

Rule Matrix – I		
Principle of Public Finance	**High or Low**	**Activities performed by**
Externality	High	Lower level of government
Equity	High	Lower level of government
Heterogeneity	High	Lower level of government
Economies of Scale	High	Higher level of government

Source: Pritchett & Varad, 2006

3.24 Description of accountability

1. Discretionary: A choice that is made at the individual level by judgement makers. If the task is optional, it is better completed at a lower skill level.
2. Transaction heavy: An activity must operate at the local level if it entails frequent transactions.
3. Technical Aspects: Higher levels of government should be in charge of handling any technical expertise needed for the planning, carrying out, or assessing of any activity.

Table14: Rule of Thumb on Accountability

Rule Matrix – II		
Principles of Accountability	**Yes or no**	**Activities performed by**
Discretionary	Yes	Lower level of government
Transaction intensive	Yes	Lower level of government
Technical	Yes	Higher level of government

Source: Pritchett & Varad, 2006

At last, a standard matrix has to be made depending upon above Principles so as to decide to whom the activity will be assigned.

3.25 Field experiences

The field experience was personally enriching for the researcher and would touch anyone's heart. Initially, there were many challenges in identifying women with bank accounts, largely due to the conservative culture. The researcher's local residency facilitated the process of building rapport through informal meetings and persuading them to participate in the schedule. The researcher expresses gratitude to J&K's women for their invaluable insights and participation in this study.

Every effort was made to ensure all questions were answered by the respondents. They were assured that their personal details and the information shared would be kept strictly confidential. Despite this, some women refused to participate in the study. Reasons for non-participation ranged from time constraints to needing permission from male family members. The nonresponse rate was estimated to be around 5.4%, which is typical for this type of study.

3.26 Summary:

This chapter provides a detailed explanation of the research methodology. It covers every aspect of the study design, from the research approach and choice of sampling method to the construction and testing of the schedule and details of the data analysis. As this forms the foundation supporting the entire research structure, every methodological issue has been discussed comprehensively and in detail.

Chapter -4

Assessment of financial inclusion among women in Jammu and Kashmir

Objective 1: To assess the current status of financial inclusion among women in Jammu and Kashmir

4.1 Introduction

The concept of financial inclusion is complex and multifaceted, making it challenging to capture its entirety. Therefore, this study purposefully gathers data across three critical dimensions: quality, utilisation, and access. By deconstructing the responses, we can derive valuable insights into the state of financial inclusion among women in Jammu and Kashmir (J&K). The researcher designed a structured schedule to collect data on the current status of financial inclusion, ensuring comprehensive coverage of all relevant indicators.

This chapter not only provides an overview of the sampled women's responses on the key aspects of financial inclusion but also offers a summary of the major findings from the analysis of the supply-side data. The analysis of 426 responses is conducted using SPSS software, focussing on descriptive statistics and chi-square.

The chapter begins with a detailed exploration of the demographic, social, and occupational profiles of the respondents. A comprehensive understanding of the sample's various attributes is crucial for robust research. The characteristics of the sample are categorised based on the type of information they provide:

Demographic profile: Offers insights into demographic processes and their outcomes.

Socio-economic profile: Reflects economic progress and social change, portraying the respondents' well-being and quality of life.

This detailed analysis sets the stage for a deeper examination of financial inclusion among women in J&K, allowing for a nuanced understanding of the challenges and opportunities present in the region.

Table 15: Demographic profile

Age	Frequency	Percent	**Locality/Area**	Frequency	Percent	**Marital Status**	Frequency	Percent
18-24	83	19.5	Rural	204	47.9	Married	293	68.8
25-34	85	20.0	Semi Urban	45	10.6	Single	133	31.2
35-44	86	20.2	Urban	177	41.3			
45-54	85	20.0						
55-Above	87	20.4						
Total	426	100.0	Total	426	100.0	Total	426	100.0

Source: Authors work

4.2 Age distribution:

In this study, the sample consisted exclusively of respondents who were verified to be over the age of eighteen. In many instances, particularly among the older generation, it is likely that the age recorded was an estimate provided for obtaining an Aadhar card or opening a bank account.

Every age group is evenly distributed throughout the sample, with 20% of the total falling into each category. The age distribution is as follows: 18–24 (19.5%) to 55–above (20.4%), with almost (20%) each going to the 25–34, 35–44, and 45–54 age groups. This equitable representation of all age groups ensures a thorough understanding of financial inclusion at all phases of life (Table 12).

4.3 Locality/area

47.9% of respondents reside in rural areas, making up the majority of respondents. Closely behind, with (41.3%) of the sample, are urban areas. At (10.6%), semi-urban areas have the lowest representation. The varied geographic terrain of J&K, encompassing both rural and urban viewpoints, is reflected in this distribution.

4.4 Status of marriage:

Married respondents make up a sizable majority (68.8%). Single women make up (31.2%) of the sample. The straightforward division of the population into married and single gives a distinct analytical dichotomy.

The study's validity is reinforced by the even distribution among age groups, which guarantees that women's financial inclusion status is evaluated at all phases of life. This captures the experiences of young individuals with the elderly, allowing for a comprehensive understanding of how age could influence financial inclusion in J&K. The substantial representation of the populations in rural areas (47.1%) and urban areas (41.3%) enables a thorough comparison of financial inclusion in these two settings. This is especially crucial in J&K, where access to financial services can be greatly impacted by geographic variables. Another level of analysis is added for places where features are shifting from rural to urban, thanks to the creation of a semi-urban group (10.6%). Analysing the relationship between marital status and financial inclusion is made simple by the obvious split of women into married (68.8%) and unmarried (31.2%) categories. This simplification makes it possible to compare these two groups clearly, which may highlight disparities in independence, financial access, and decision-making. This demographic profile provides a solid basis for examining the relationships between financial inclusion indicators and variables including age, geography, and marital status. It makes segment analysis possible, which aids in determining which demographic groups are likely to be more or less financially included.

Table 16: Education background

Education Level	**Frequency**	**Percent**
No formal education	90	21.1
Primary School	91	21.4
Diploma/certificate	34	8.0
Bachelor’s degree	153	35.9
Master’s degree or higher	58	13.6
Total	426	100

Source: Authors work

The educational background of the respondents to the study on women’s financial inclusion in Jammu and Kashmir (J&K) are displayed in Table (13). Understanding the relationship between education and financial inclusion in the region requires an understanding of the various educational landscapes among the participants, which is revealed by the data. There is a noticeable polarization in the respondents' educational profiles. On the end of the scale, the largest single group of participants, (35.9%), have a bachelor's degree. In addition, (13.6%) of respondents hold a master's degree or above, increasing the percentage of highly educated women in the sample to (49.5%) overall. Conversely, a sizable fraction of the sample has received little or no formal schooling. In particular, (21.4%) of respondents have only completed elementary school, and (21.1%) have never attended any kind of formal schooling. When combined, these two groups make up (42.5%) of the sample, which is almost equal to the percentage of people with higher education. There is a tiny middle group that lies between these two extremes: (8.0%) of respondents hold a diploma or certificate, indicating an intermediate level of education. Given the strong representation of women with varying education degrees, we can compare financial inclusion at all educational levels in detail. This will allow us to understand the extent to which education influences financial participation and access in J&K. The educational background data will play a significant role in enabling the investigation of the relationships between education and other markers of financial inclusion, such as bank account ownership, use of digital financial services, and ability to make financial decisions.

Table 17: Occupation

Designation	Frequency	Percent
Employed	98	23.0
Homemaker	155	36.4
Self-Employed	38	8.9
Student	93	21.8
Unemployed	42	9.9
Total	426	100.0

Source: Authors work

The distribution of the respondents' occupations in this study is shown in Table 14. This table provides vital information about women's economic roles and activities in the region, with potentially significant implications for women's financial inclusion.

Homemakers make up (36.4%) of the sample, making it the largest category. This substantial percentage is indicative of the traditional role that many women in J&K culture continue to occupy. Employed women make up the second-largest group, with a rate of (23.0%), suggesting a significant representation of women in the official labor force. Of the respondents, (21.8%) are students, representing a sizable percentage of women currently enrolled in school. Women make up (9.9%) of the sample who are unemployed, indicating a group that can have unique difficulties with financial inclusion. (8.9%) of the respondents are women who work for themselves, which represents entrepreneurship.

In summary, occupational distribution offers a thorough understanding of women's economic involvement in J&K. This data heavily influences the current state of women's financial inclusion in the area. It enables us to examine the relationships between several facets of financial inclusion, including account ownership, credit availability, usage of digital financial services, and distinct kinds of economic involvement. In addition, the above occupational segmentation will help find specific barriers to financial inclusion that affect each cohort. It will also give specific suggestions for increasing financial participation among different groups of women in J&K.

Table 18: Income status

Monthly income in (INR)	Frequency	Percent
Below 3000	218	51.2
3000-5000	42	9.9
5000-7000	41	9.6
7000-9000	33	7.7
10000-Above	92	21.6
Total	426	100

Source: Authors work

The monthly income distribution of the participants in this study on women's financial inclusion in Jammu and Kashmir (J&K) is displayed in Table 15. This data provides important information on the region's women's economic situation.

Less than 3000 INR: (51.2%) of responses fall under this category, which makes up the largest group. According to this high proportion, more than half of the women in the sample are in the lowest income category. 10000 INR and above: Women in the highest income bracket make up the second-largest group in the sample, accounting for (21.6%) of the total. 3000-5000 INR: (9.9%) of the respondents belong to this bracket. 5000–7000 INR: This group, which makes up (9.6%) of the sample, is slightly smaller than the previous group. (7.7%) of respondents fall into the lowest income bracket, which is between 7000 and 9000 INR. Income status information provides a comprehensive picture of J&K's economic environment for women. This data heavily influences the current state of women's financial inclusion in the area. It enables us to examine the relationships between different facets of financial inclusion and income levels and assists in locating potential obstacles to financial participation that may be connected to income.

Table 19: Family background

Type of family	Frequency	Percent	Number of family member	Frequency	Percent	Head of Household	Frequency	Percent
Joint Family	223	52.3	1-2	2	0.5	Female	14	3.3
Nuclear Family	190	44.6	3-4	126	29.6	Male	408	95.8

Single-Parent Family	13	3	5-6	249	58.5	Prefer not to say	4	0.9
			7-8	33	7.7			
			9 or more	16	3.8			
Total	**426**	**100**		**426**	**100**		**426**	**100**

Source: Authors work

The primary familial characteristics of the participants in the research are displayed in this Table (16). Three key areas are covered by the data: head of household, number of family members, and kind of family.

Family Type: Joint Family: The majority of respondents, (52.3%), reside in joint families. Nuclear Family: (44.6%) of those surveyed are part of a nuclear family.

Single-Parent Family: (3%) of participants came from homes with just one parent. The frequency of conventional family configurations in J&K is reflected in this distribution, where joint families are somewhat more prevalent than nuclear families. The tiny number of households headed by a single parent suggests a minority.

4.5 Number of family members:

- 5-6 members: This is the most common family size, accounting for 58.5% of respondents.
- 3-4 members: 29.6% of respondents belong to this category.
- 7-8 members: 7.7% of families fall into this larger family size.
- 9 or more members: 3.8% of respondents come from very large families.
- 1-2 members: Only 0.5% of respondents live in very small family units.

The data shows a clear preference for medium to large family sizes, with over (88%) of respondents living in families of 3-6 members.

4.6 Head of the family:

Male: Men lead 95.8% of homes, which is a staggering percentage.
Female: The leader of a home is only 3.3% female.
0.9% of respondents said that they would prefer not to share this information.

This distribution clearly shows that conventional patriarchal family systems are common in J&K.

Table 20: Ration Card Type

Ration card type	Frequency	Percent
Above Poverty Line (APL)	196	46
Antyodaya Anna Yojana (AAY)	12	2.81
Below Poverty Line (BPL)	218	51.17
	426	**100**

Source: Authors work

Table 17 displays the distribution of ration card types among the research participants. In India, ration cards serve as a significant indicator of socioeconomic level, delivering subsidized food and fuel. The distribution of ration card types may reveal important information about the financial circumstances of the women in the sample.

The respondents' ration card categories are distributed below.

Below the Poverty Line (BPL): This category is the largest, accounting for (51.17%) of the responses. Since they are considered economically disadvantaged, BPL cards qualify for several government assistance programs.

Above Poverty Line (APL): Women from households deemed to be above the poverty line make up the second-largest group in the sample, accounting for (46%) of the total.

Anna Yojana Antyodaya (AAY): A total of (2.81%) of the responses fall into this group. The poorest of the poor, who comprise the demographic segment most at risk from economic hardship, receive AAY cards.

4.7 Data analysis and results:

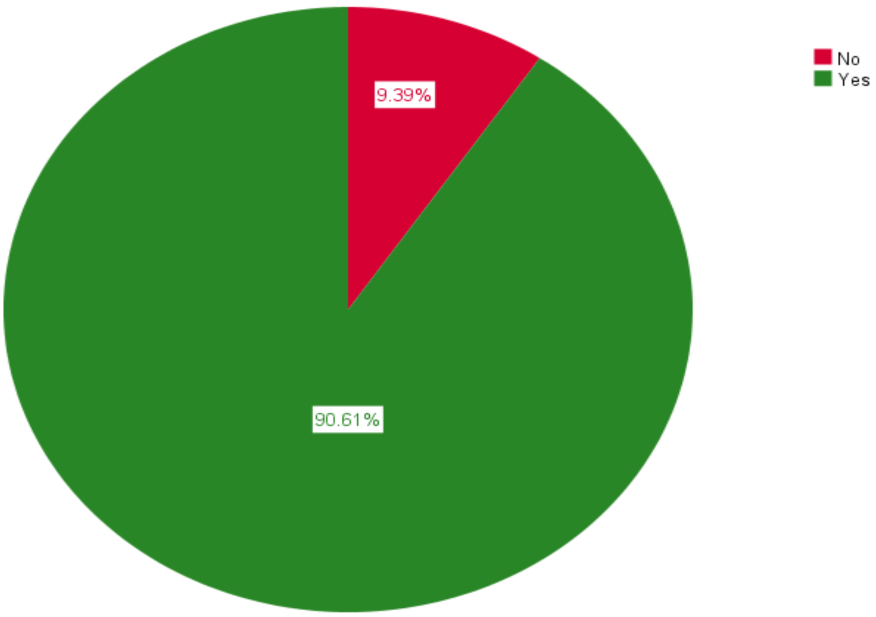
For this study, which aims to assess the current status of financial inclusion among women, survey data were coded and analysed using SPSS. Descriptive statistics were generated for each question to provide an overview of the responses. A chi-square test and cross-tabulation were also performed to examine the relationships between different variables, ensuring a comprehensive analysis of the data and offering deeper insights into the patterns and associations related to financial inclusion.

To proceed with the study in accordance with the stated objective, the following research questions have been formulated:

1. What is the current scenario of financial inclusion among women in Jammu and Kashmir?
2. What are the demographic determinants of financial inclusion for women?
3. What is the impact of a woman's designation on her credit utilisation?
4. What is the impact of a woman's designation on her participation in a pension scheme?
5. What is the impact of a woman's education level on her ownership of a smartphone?
6. What is the impact of education level among women on the frequency of ATM/debit card usage?
7. What is the impact of monthly income on insurance linked to bank accounts?
8. What is the impact of monthly income on money saved or set aside for old age?
9. What is the impact of monthly income on investment in financial instruments?

1. Is there any Bank/ Financial intuition in your area?

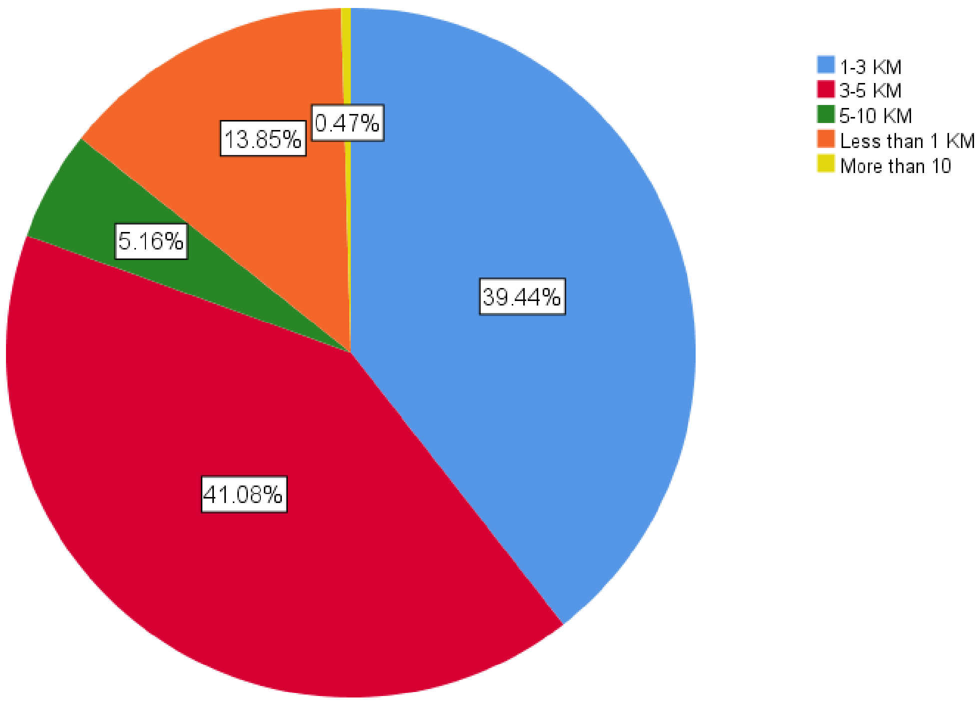
	Frequency	Percent
Yes	386	9.4
No	40	90.6
Total	426	100.0



The information shows that a sizable majority of respondents (90.6%) say there is a bank or other financial institution in their community, while only (9.4%) indicate the absence of such facilities. The high frequency of financial institutions in Jammu and Kashmir shows that women have typically decent physical access to banking services. Still, the existence of a small population without financial institutions in the vicinity draws attention to possible regional differences in access. Understanding the fundamental framework that underpins financial inclusion in the area requires knowledge of this information.

2. What is the distance of bank from your place?

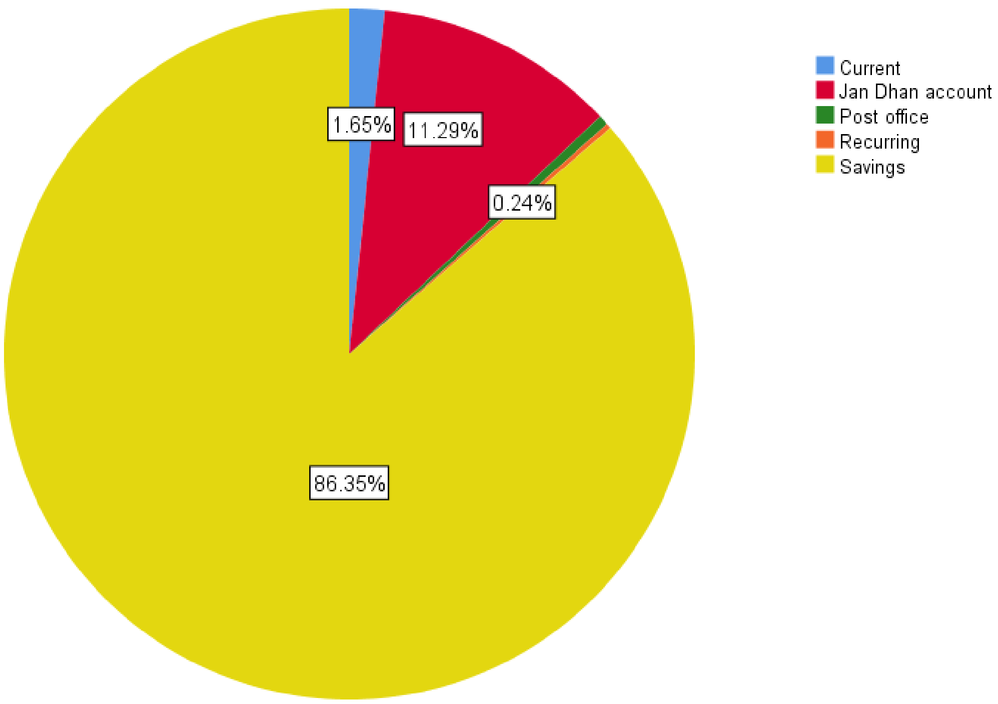
Distance	Frequency	Percent
Less than 1 KM	59	13.8
1-3 KM	168	39.4
3-5 KM	175	41.1
5-10 KM	22	5.2
More than 10	2	.5
Total	426	100.0



Different women in Jammu and Kashmir have different levels of access, according to statistics on bank proximity. A considerable proportion of participants (41.1%) state that banks are located 3-5 kilometres away, with (39.4%) reporting that banks are located within 1-3 km. This implies that banks are generally accessible. Banks are less than one kilometre away for a smaller fraction (13.8%). However, (5.2%) of them must travel over 10 km, and a smaller percentage (0.5%) must travel over more difficult 5–10 km distances. Although the majority of women live manageably close to their banks, the data suggests that a minority may have accessibility concerns.

3. Which type of bank account do you have?

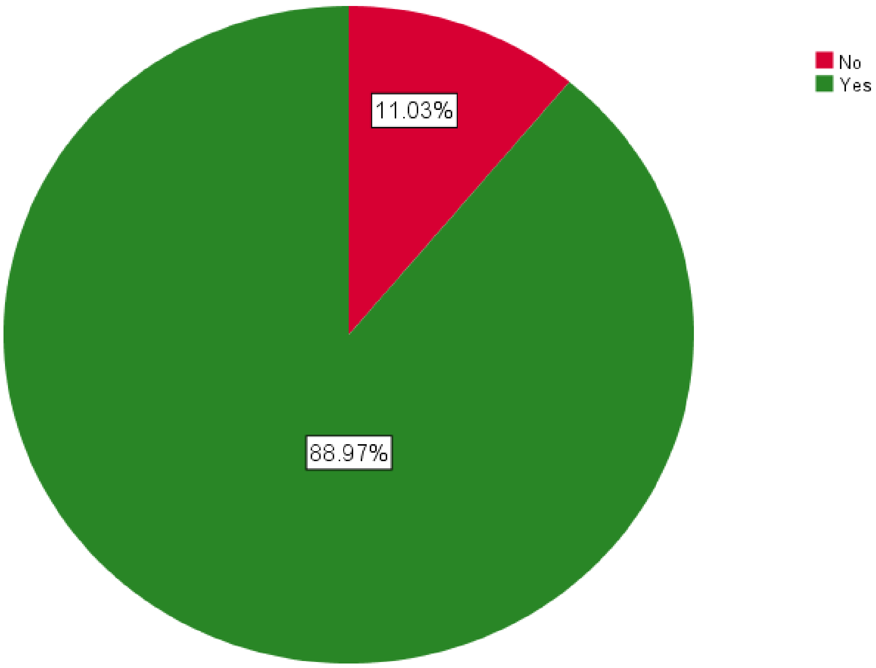
Account	Frequency	Percent
Current	7	1.6
Jan Dhan account	48	11.3
Post office	2	.5
Recurring	1	.2
Savings	367	86.2
Total	426	100.0



Women in Jammu and Kashmir have a distinct preference, according to data on bank account types. Savings accounts are held by the vast majority (86.2%), suggesting a high preference for basic banking services and perhaps a concentration on personal money management. The significance of government attempts to promote financial inclusion is suggested by the fact that Jan Dhan accounts, at (11.3%), are the second most prevalent account type. Only (1.6%) of respondents had current accounts, which may indicate that they have little business demands or high transaction volume requirements. The low prevalence of post office accounts (0.5%) and recurring accounts (0.2%) suggests that these specialised services are not used very often. This distribution demonstrates the success of focused financial inclusion initiatives like the Jan Dhan Yojana and the dominance of savings-orientated banking activity among women in the area.

4. Do you frequently use formal financial services/Bank for savings?

	Frequency	Percent
Yes	379	89.0
No	47	11.0
Total	426	100.0

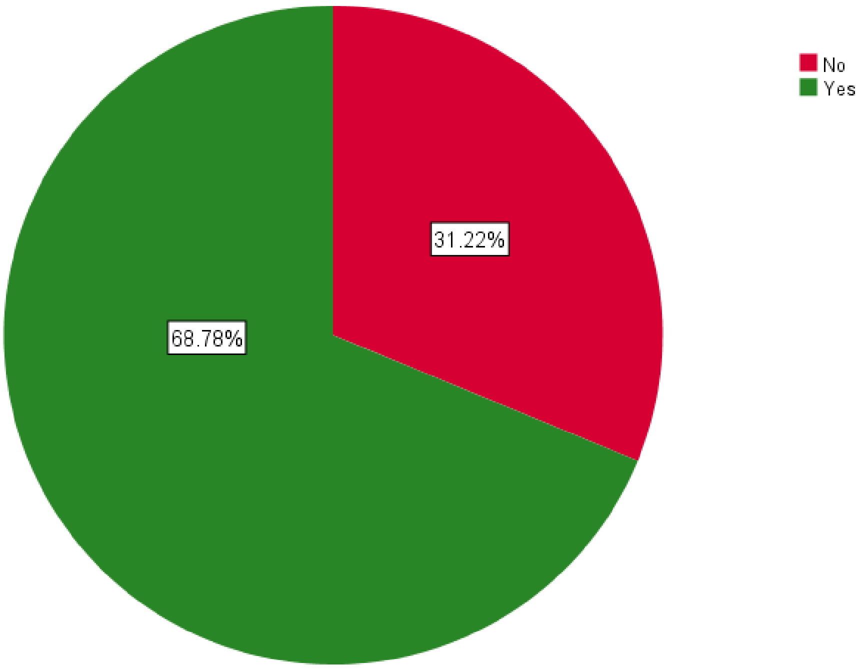


The information on how often women in Jammu and Kashmir use banks or official financial institutions for savings paints a favourable image of their financial involvement.

There is a high degree of integration between these services and the official banking system, as evidenced by the significant majority (89%) who report using them frequently for savings. This implies that the majority of the sample's female participants are making use of banking services to meet their savings needs and actively engaging in formal financial activities. A minority (11%) do not, however, often utilise these services for savings, which may indicate the existence of obstacles. In general, the high percentage of savings participation with formal financial institutions is a sign of greater financial inclusion in the region.

5. In a typical month, is money DEPOSITED into your personal account(s) two or more times per month?

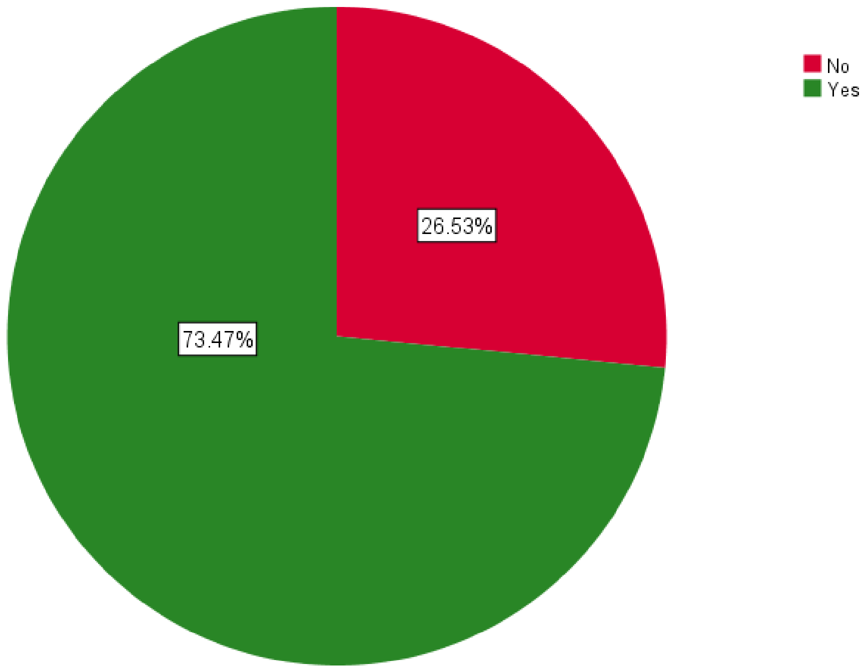
	Frequency	Percent
Yes	293	68.8
No	133	31.2
Total	426	100.0



The monthly deposit frequency data sheds light on how frequently women in Jammu and Kashmir transact financially. A sizable majority (68.8%) say they make at least two monthly deposits into their accounts, demonstrating regular and active use of the banking system. This implies that bank accounts are actively employed financial instruments rather than just inactive possessions for the majority of respondents. But almost one-third (31.2%) don't deposit money that frequently. The large proportion of repeat deposits indicates that many women are incorporating banking into their daily financial habits, which is encouraging for financial inclusion. However, the sizeable proportion of people who don't make frequent deposits points to a place where financial inclusion initiatives should be strengthened.

6. In a typical month, is money TAKEN OUT of your personal account(s) two or more times per month?

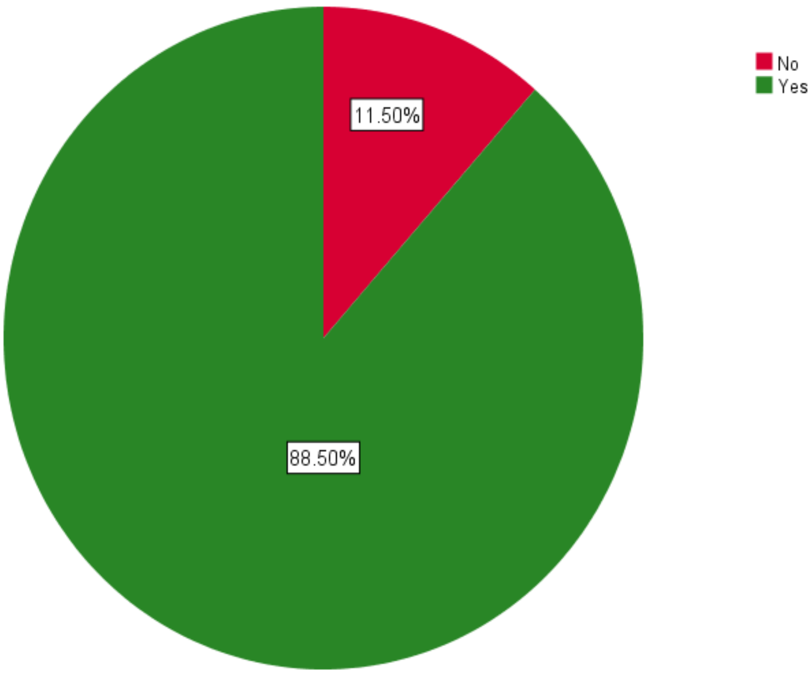
	Frequency	Percent
Yes	313	73.5
No	113	26.5
Total	426	100.0



The information on the frequency of monthly withdrawals offers important new perspectives on how actively women in Jammu and Kashmir use their bank accounts. A significant proportion (73.5%) of the respondent's state that they take money out of their accounts two or more times a month, which suggests that they use their money resources rather frequently. This indicates that the majority of respondents saw bank accounts as actively used instruments for managing their daily financial requirements rather than merely as places to save money. The regularity of withdrawals indicates that formal banking has been incorporated into everyday financial practices. The large rate of frequent withdrawals is a good measure of financial inclusion, indicating that many women are actively using their accounts. However, over a quarter (26.5%) does not make such regular withdrawals.

7. Do you typically keep any money in your personal account(s)?

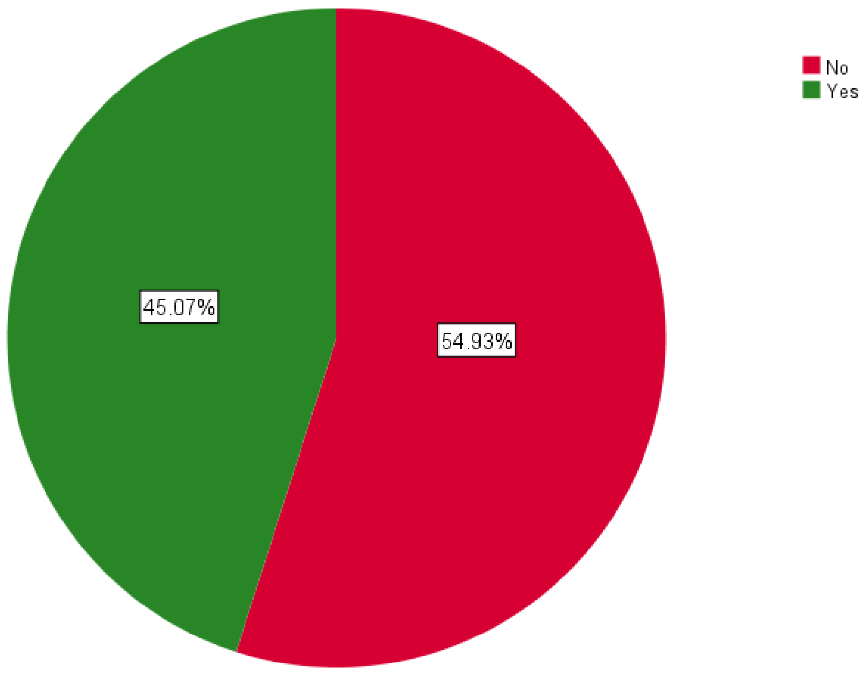
	Frequency	Percent
Yes	377	88.5
No	49	11.5
Total	426	100.0



The information about money retention in personal accounts shows that women in Jammu and Kashmir are financially engaged. The vast majority (88.5%) said they usually retain money in their accounts, indicating a propensity for formal savings methods and a high degree of faith in the financial industry. This high proportion suggests that most women are using their accounts for value storage as well as transactions, which is an important component of financial inclusion. A smaller but significant minority (11.5%), on the other hand, usually do not hold money in their accounts. A good indicator of financial inclusion is the high percentage of women who keep balances in their accounts, which shows that formal banking is well-integrated into their financial lives.

8. In the past 12 Months, have you, personally, saved or set aside any money FOR your OLD AGE?

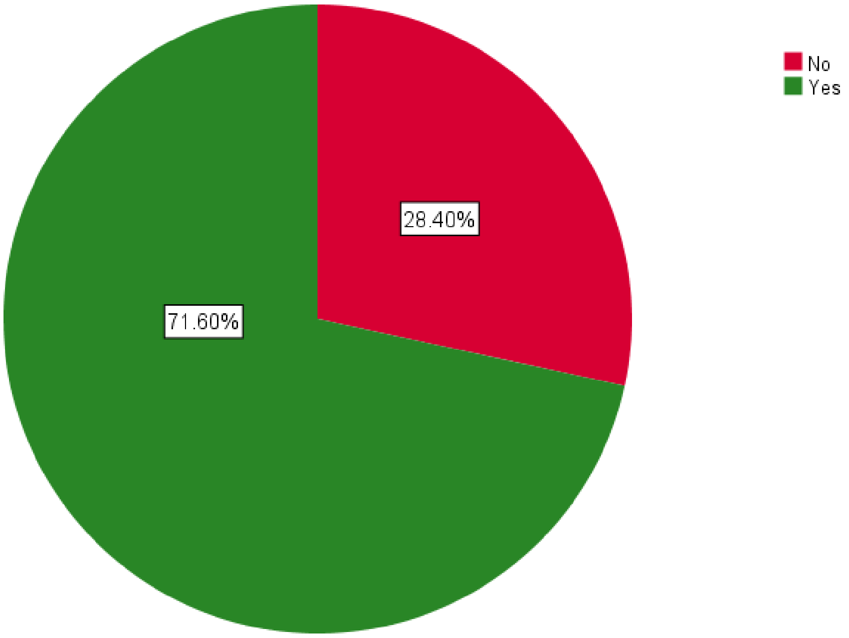
	Frequency	Percent
Yes	192	45.1
No	234	54.9
Total	426	100.0



A notable disparity in long-term financial planning exists among women in Jammu and Kashmir, according to data on personal savings for old age. A majority of respondents (54.9%) have not participated in long-term saving, while less than half (45.1%) report having saved or put money aside for their retirement in the last 12 months. This division draws attention to a crucial aspect of financial behaviour that affects one's ability to secure a financial future. The significant percentage of savings for retirement points to a degree of proactive financial planning among many women. A possible weakness in financial inclusion initiatives, particularly in terms of fostering long-term financial stability, is highlighted by the bigger group's failure to save for this goal. It implies that to support and encourage long-term financial planning among women in the area, there is a need for more public awareness and education on the significance of old age savings, in addition to possible legislative initiatives.

9. In the PAST 12 MONTHS, have you, personally, saved or set aside any money for any reason?

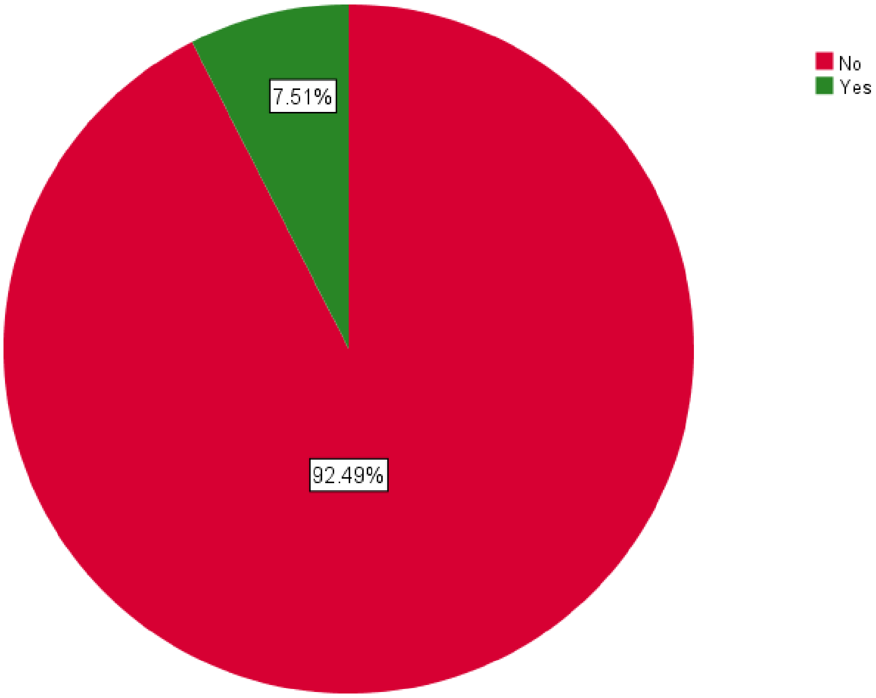
	Frequency	Percent
Yes	305	71.6
No	121	28.4
Total	426	100.0



The information pertaining to the overall savings patterns of women in Jammu and Kashmir during the previous year paints a favourable image of their sound financial management. A sizable majority (71.6%) said they have saved or put money away for any purpose throughout this time, suggesting that resource management and financial planning are common practices. Given this high number, it appears that the majority of women actively save money for long-term plans, emergencies, or short-term objectives. Over a quarter (28.4%) hasn't saved any money in the previous year, though. The high percentage of saves shows that most women are moving in the direction of goal-orientated financial behaviour and financial stability, which is positive for financial inclusion.

10. Have you linked insurance to your bank account?

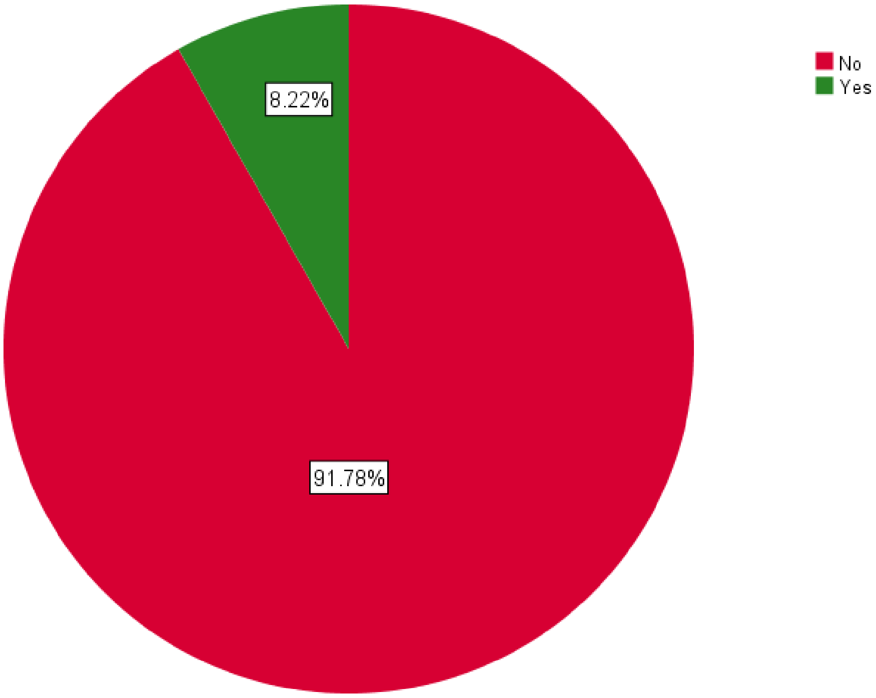
	Frequency	Percent
Yes	32	7.5
No	394	92.5
Total	426	100.0



The information about respondents' bank accounts linked to insurance shows a notable deficiency in women in Jammu and Kashmir's financial services integration. The practice of merging these financial instruments is not common, as seen by the modest percentage of respondents (7.5%) who have connected insurance to their bank accounts. (92.5%) of people have not taken this action. Given the low proportion of insurance linkage, there is a significant chance to increase financial inclusion by raising consumer knowledge of and accessibility to insurance products that are connected to banking services. Women can have more alternatives for risk management and financial security if these services are well integrated.

11. I frequently use formal financial services for borrowing or credit needs.

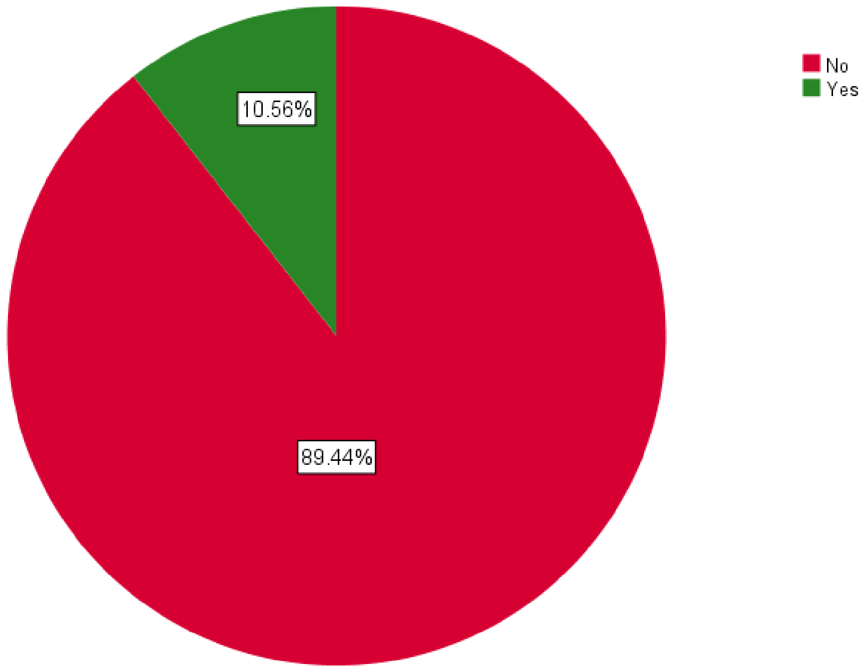
	Frequency	Percent
Yes	35	8.2
No	391	91.8
Total	426	100.0



From the statistics, it is evident that the respondents' engagement in the borrowing or credit segment of the more formal and conventional financial services are rather limited. Only (8.2%) of women reported engaging in the use of "formal financial services" for these purposes. In contrast, (91.8%) of the respondents responded that they do not often use these services. This low proportion of frequent users results in several issues, which include limited access to credit facilities, low familiarity with or trust in government-endorsed institutions, and other challenges like stringent qualifying measures and extremely high interest rates. The low proportion of credit holders cannot risk approaching the official loans, as there are all possibilities they may take higher costs and more unsafe informal credit resources. Therefore, it is crucial to overcome such a challenge to enhance the availability of financial services. Better safe and more structured lending options can also assist women in Jammu and Kashmir by educating them more on the various official financial services available to them.

12. In the past 12 months, have you, by yourself or together with someone else, borrowed money for health or medical purposes?

	Frequency	Percent
Yes	45	10.6
No	381	89.4
Total	426	100.0

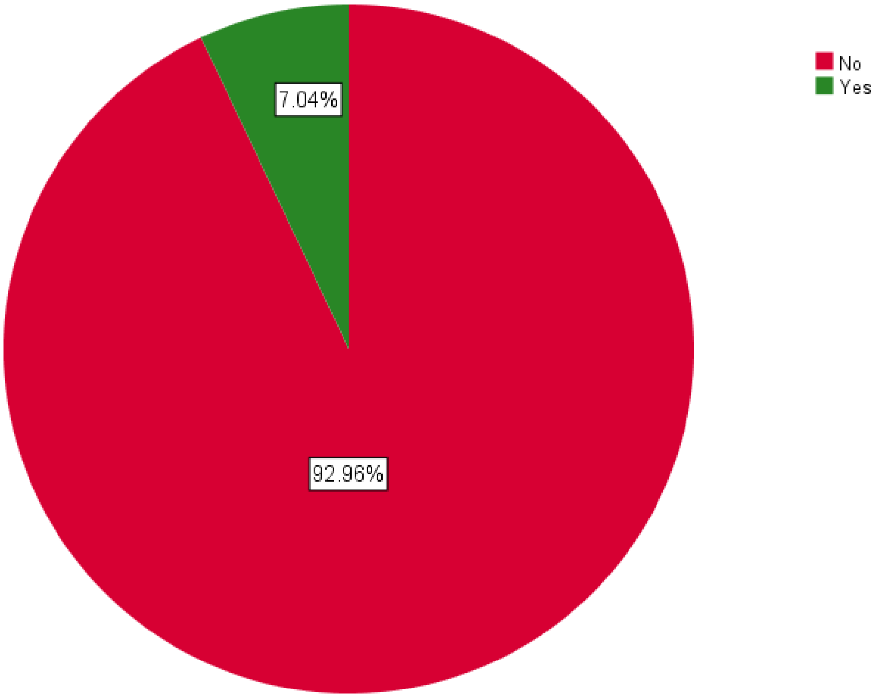


The data show that just (10.6%) of respondents said they had borrowed money in the last year to cover medical or health-related costs. Nonetheless, a sizable majority (89.4%) did not take out loans for health-related purposes because some female respondents did not have access to lending facilities, had sufficient funds to cover their medical expenses, or had no significant health issues that would have required a sizable cash outlay. The requirement to take out a loan in order to pay for medical expenses highlights how important it is to have readily available health insurance and to save aside money for unanticipated medical emergencies. Women in Jammu and Kashmir will have less financial hardship if health insurance products are made more easily accessible and understood and if savings for unforeseen medical costs are encouraged.

13. Have you ever taken a loan specifically for starting or expanding a business?

	Frequency	Percent

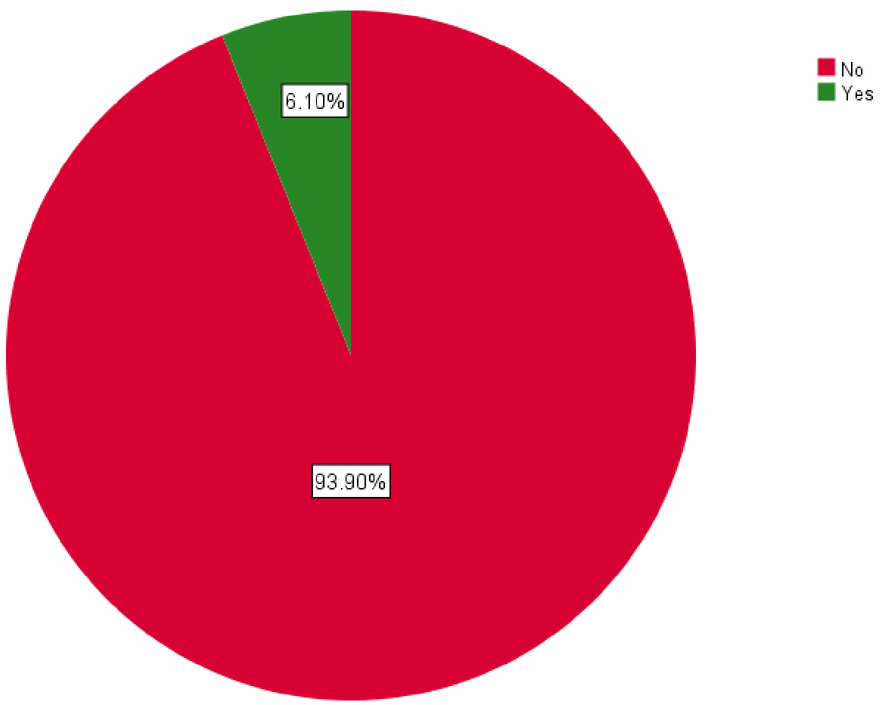
Yes	30	7.0
No	396	93.0
Total	426	100.0



According to the survey, just (7.0%) of respondents had taken out a loan expressly to launch or grow a business. This suggests that just 30 of the 426 people have used official financial services to support their business endeavours. (93%) of those surveyed said they had never taken out one of these loans. The low proportion of loans for business purposes points to a possible avenue for enhancing “financial inclusion and economic empowerment. Incentives for women” to start their businesses and easily available, reasonably priced, and helpful financial products might boost economic expansion and improve women's financial autonomy. This might entail customised financing options, courses on entrepreneurship, and increased outreach to make sure women know about and have access to the tools they need to launch or expand their enterprises.

14. Have you ever utilized an overdraft facility on your bank account?

	Frequency	Percent
Yes	26	6.1
No	400	93.9
Total	426	100.0

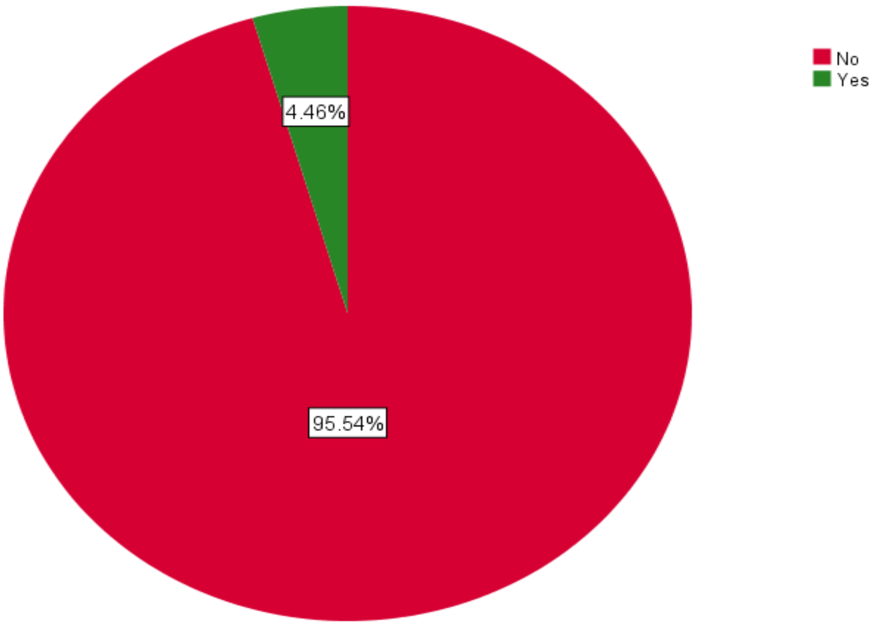


According to the report, just (6.1%) of respondents said they have used their bank accounts' overdraft option. With this financial service, account users can withdraw more money than they have in their accounts, usually up to a pre-approved limit. This means that 26 out of 426 people have used it. The vast majority of respondents (93.9%) indicated that they have never used an overdraft facility, indicating that for the majority of women in “Jammu and Kashmir” the low utilisation rate suggests that people are handling their money carefully, potentially because of worries about the hefty costs and interest rates that come with using an overdraft. Given the low rate of overdraft utilisation, banks and other financial institutions have a great chance to inform women about the advantages and disadvantages of utilising overdraft facilities as a tool for managing their finances. Improving financial literacy and giving more visible and flexible overdraft choices might promote responsible use, provide a helpful safety net for handling unforeseen cash flow problems, and promote improved financial inclusion and management.

15. Have you ever invested in Mutual Funds or other financial instruments (stocks, bonds, etc.)

	Frequency	Percent
Yes	19	4.5

No	407	95.5
Total	426	100.0

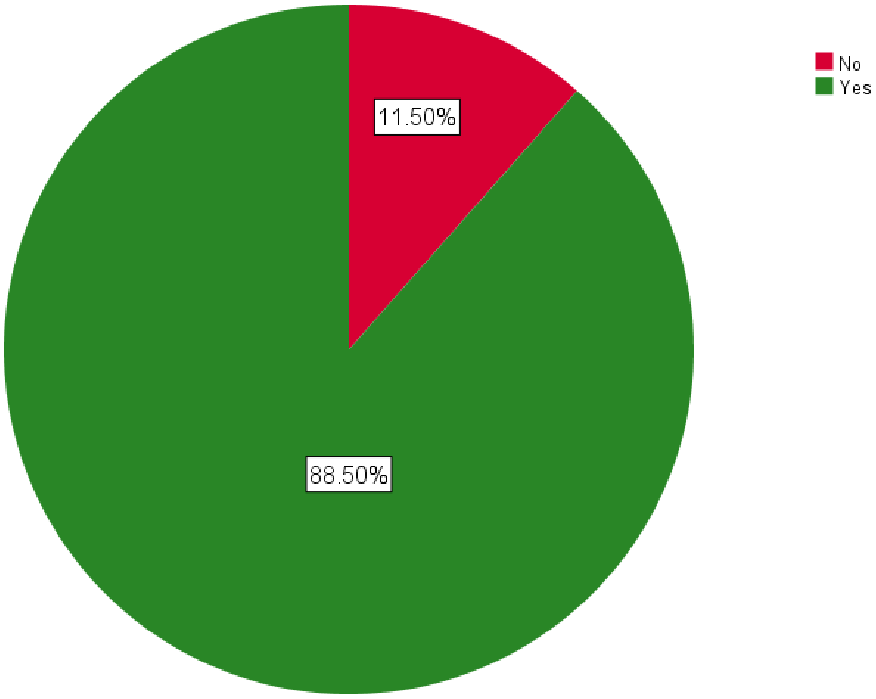


According to the statistics, just (4.5%) of the respondents have made “investments in stocks, bonds, mutual funds, or other financial products.” This suggests that just 19 out of 426 people have made these kinds of investments. Due to many obstacles, including low financial literacy, restricted access to investment products, risk aversion, and a lack of excess money to devote to investments, the majority of respondents (95.5%) have not made any investments in these financial instruments. This low level of investment activity suggests that there is room for considerable advancement in financial empowerment and inclusion. Financial institutions may assist women in Jammu and Kashmir in diversifying their financial portfolios, accumulating wealth, and achieving long-term financial stability by improving financial literacy and offering easily accessible investment opportunities. In addition to promoting economic development and stability, encouraging investment in mutual funds and other instruments may also help create a more stable and diverse financial environment.

16. Is there any ATM in your area?

	Frequency	Percent
Yes	377	88.5

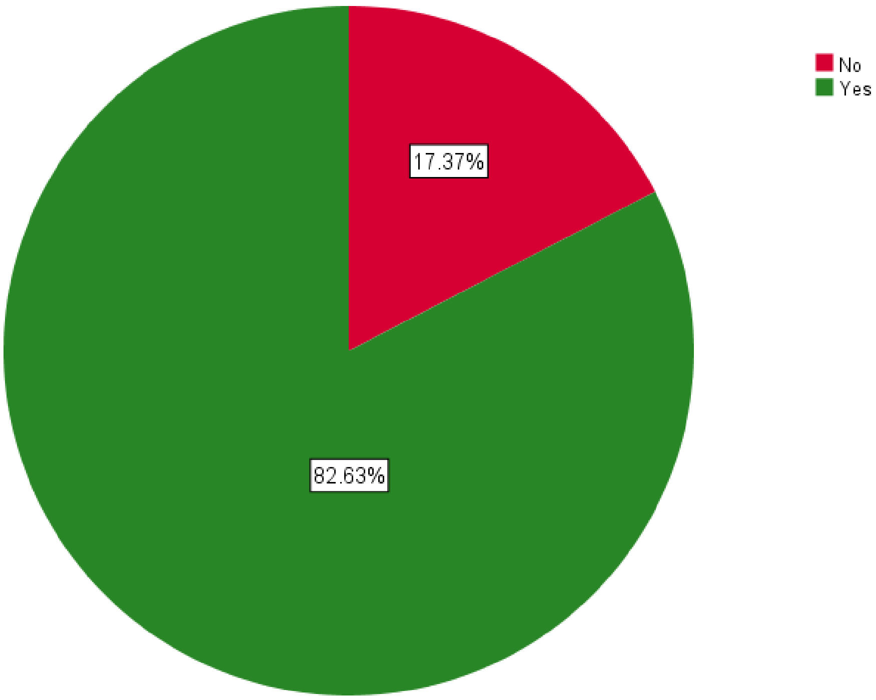
No	49	11.5
Total	426	100.0



A substantial majority of respondents, or (88.5%), said they had access to an ATM nearby, according to the poll. This indicates that 377 out of 426 individuals have access to ATM services, which are required to perform common banking tasks including cash withdrawals, fund transfers, and balance enquiries. However, (11.5%) of the participants stated that there was not an ATM in the vicinity. The high percentage of ATM availability in the area is a positive indicator of the penetration of the financial infrastructure. Nonetheless, there is a need to close the (11.5%) ATM coverage gap. By expanding ATM networks to underserved areas, it may be possible to increase financial accessibility, convenience, and general inclusion. As a result, more women will be able to participate in the official financial system and handle their money well.

17. Do you have an ATM card?

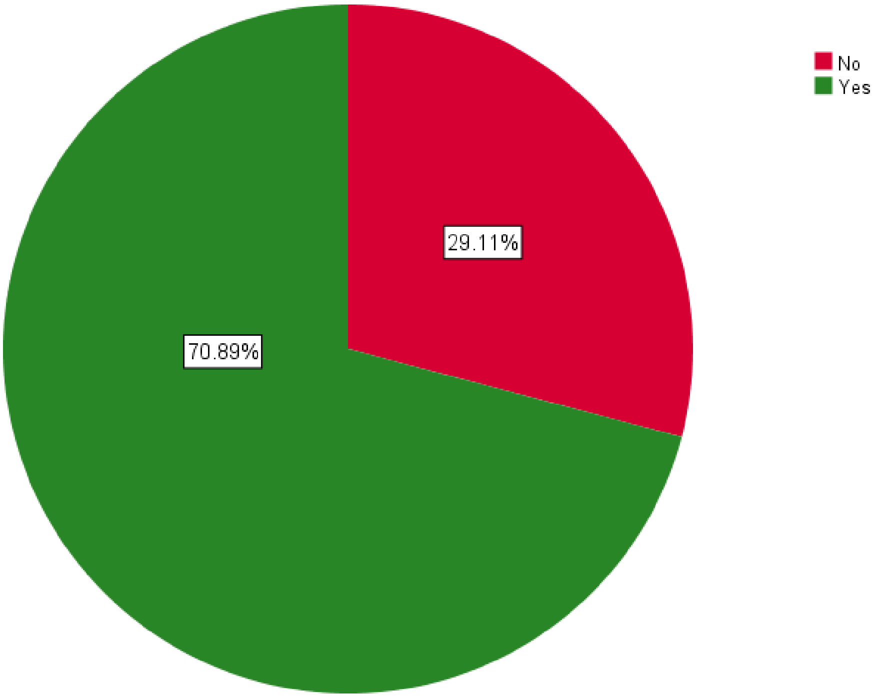
	Frequency	Percent
Yes	352	82.6
No	74	17.4
Total	426	100.0



According to data on ATM card ownership, women in Jammu and Kashmir have high access to contemporary financial resources. (82.6 %) of respondents say they own an ATM card, which suggests that ATMs are widely used in conjunction with modern financial services. This high proportion implies that the majority of women are able to readily access their cash and carry out simple banking tasks on their own. Possession of an ATM card is a crucial sign of financial inclusion as it allows for flexible fund management and lessens the need for in-person bank visits. Nonetheless, a sizeable minority (17.4%) do not own ATM cards because they prefer traditional banking methods, are unaware of ATM services, or have restricted access to the bank's own ATM facilities.

18. Do you frequently use ATM/Debit card to withdraw cash?

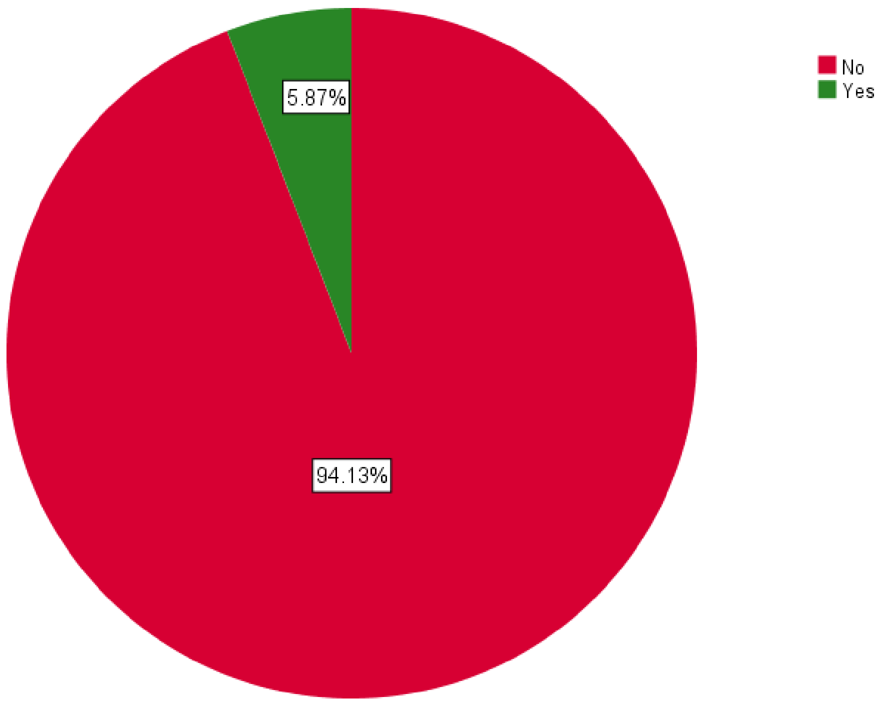
	Frequency	Percent
Yes	302	70.9
No	124	29.1
Total	426	100.0



The data about the frequency of cash withdrawals from ATMs and debit cards provides insights into how actively women in Jammu and Kashmir use modern banking technology. A significant portion (70.9%) claim to often take cash out of ATMs or debit cards, indicating that they are reliant on and used to contemporary financial technologies. This demonstrates that the majority of women actively utilise ATMs' accessibility and convenience, including these services into their regular financial routines. Regular use suggests some financial independence and convenient access to personal cash. On the other hand, over a third (29.1%) seldom makes withdrawals using ATM/Debit cards. The high percentage of frequent users is a positive indicator of financial inclusion, suggesting that many women are benefiting from the flexibility and convenience of modern banking services.

19. Do you have a credit card?

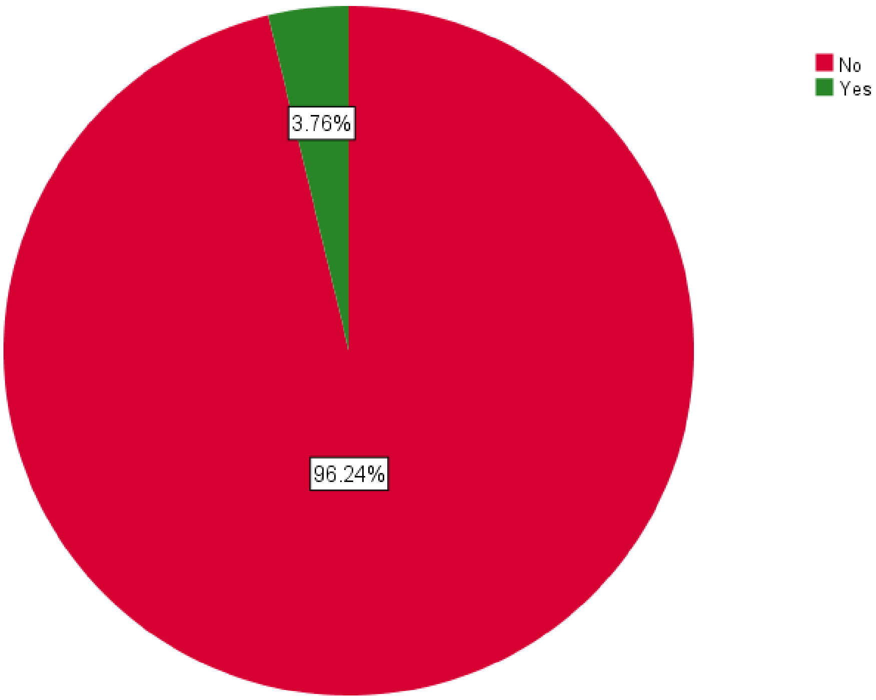
	Frequency	Percent
Yes	25	5.9
No	401	94.1
Total	426	100.0



According to credit card ownership data, women in Jammu and Kashmir have an incredibly low adoption rate. Just (5.9%) of respondents claim to have a credit card, compared to the vast majority (94.1%) who do not. This glaring discrepancy suggests that this specific financial instrument is not being used to its full potential. Due to strict qualifying requirements imposed by financial institutions, restricted access to credit facilities, conservative views towards debt, and a lack of knowledge about credit card benefits, the extremely low credit card ownership rate is caused. This information points to a possible area for improvement in the fight for financial inclusion, especially when it comes to teaching women about appropriate credit use and how it may help them establish credit and become more financially flexible.

20. Do you use your credit card to make payments?

	Frequency	Percent
Yes	16	3.8
No	410	96.2
Total	426	100.0

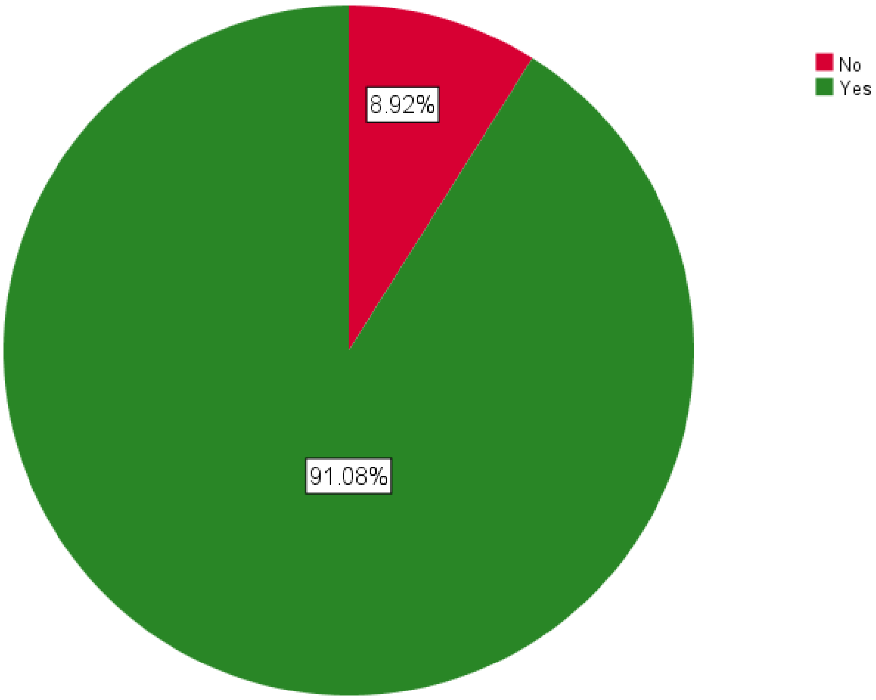


The credit card payment data for women in Jammu and Kashmir indicates a very low degree of participation with this financial tool. Only a tiny percentage (3.8%) report using credit cards for payments, compared to the vast majority (96.2%) who do not. This information highlights the low uptake of credit card services in this group and is in close agreement with the earlier conclusion about credit card ownership. Due to a strong preference for cash or debt-based transactions, limited credit card acceptance in local markets, and discomfort with credit-based payments, only a small percentage of credit card owners appear to be actively using their cards, as indicated by their negligible usage. The incredibly low usage rate draws attention to a big difference. The remarkably low rate of utilisation indicates a notable deficiency in the uptake of more sophisticated financial services and products. The aforementioned discovery highlights the necessity of focused financial literacy initiatives that not only clarify the possible advantages of credit cards but also tackle apprehensions and false beliefs around their utilisation. To avoid future debt problems, any campaigns to encourage credit card use should be counterbalanced by instructions on how to manage credit responsibly.

21. Do you have a smartphone?

	Frequency	Percent
Yes	388	91.1
No	38	8.9

Total	426	100.0

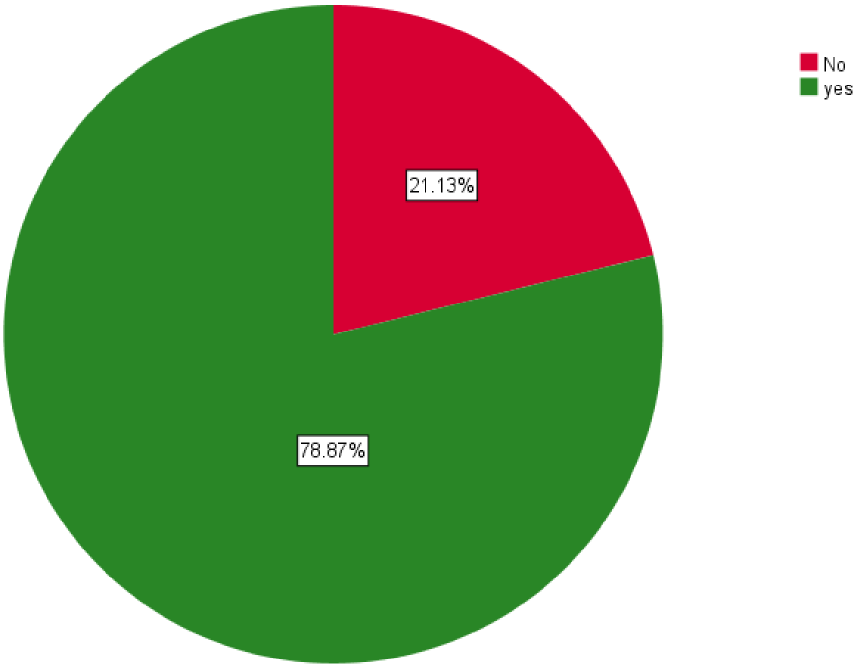


According to data on smartphone ownership, women in Jammu and Kashmir have an exceptionally high adoption rate. Just (8.9%) of respondents say they do not own a smartphone, compared to the vast majority (91.1%) who claim to be smartphone owners. The high rate of smartphone ownership is a sign of increasing digital accessibility and technological integration. It implies that the majority of women in the area are likely to have access to online financial information, mobile banking apps, and digital financial services. The broad use of smartphones offers prospects for growing mobile banking, laying a solid platform for programs aimed at promoting digital financial inclusion. It's important to keep in mind, too, that the tiny portion of people who do not own cell phones might become digitally excluded in an increasingly technologically advanced financial landscape.

22. In the past 12 months, have you personally used a mobile phone to make payments, buy things, or to send or receive money using a service such as (mobile money, M pay, UPI)?

	Frequency	Percent
Yes	306	79.0
No	82	21.0

Total	388	100.0

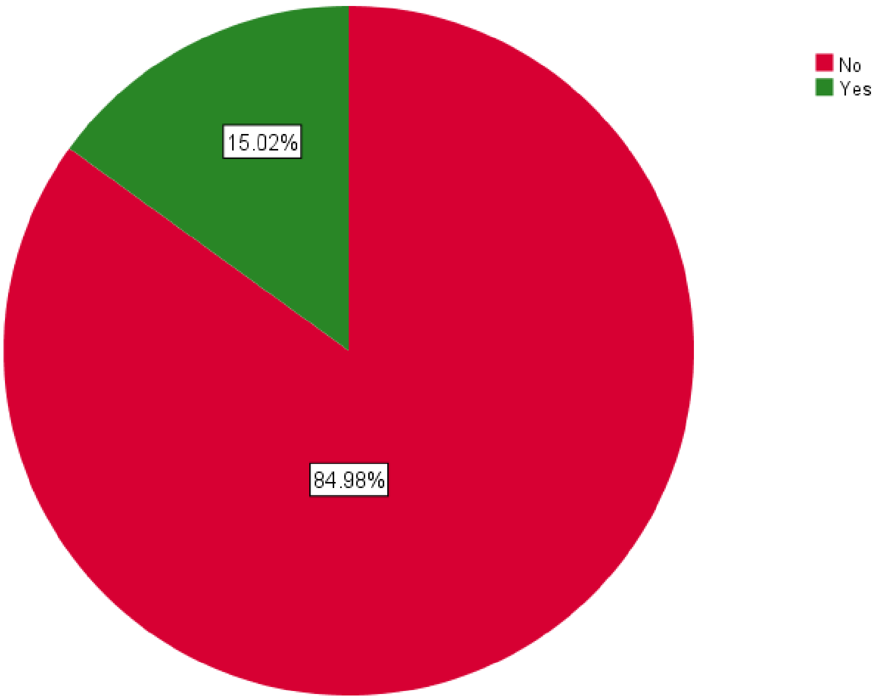


Data on the use of mobile phones for financial transactions shows that women in Jammu and Kashmir who have access to mobile phones have adopted digital financial services at a substantial rate. The vast majority (79%) said they have used services like mobile money, MPay, or UPI to make payments, purchases, or money transfers on their phones over the last 12 months. This high proportion suggests that women are using mobile-based financial services because of their accessibility and ease, indicating a substantial acceptance of digital financial instruments. The extensive usage of these services indicates a move towards more contemporary financial practices and an increasing comfort level with digital transactions. Nevertheless, (21%) have not utilised these services because of things like a preference for conventional banking techniques, ignorance of digital financial services, and worries about privacy and security. The noteworthy rate of adoption suggests that mobile technology is playing a pivotal role in augmenting the accessibility of financial services, which is encouraging for digital financial inclusion.

23. Have you ever availed or part of any pension scheme?

	Frequency	Percent

Yes	64	15.0
No	362	85.0
Total	426	100.0

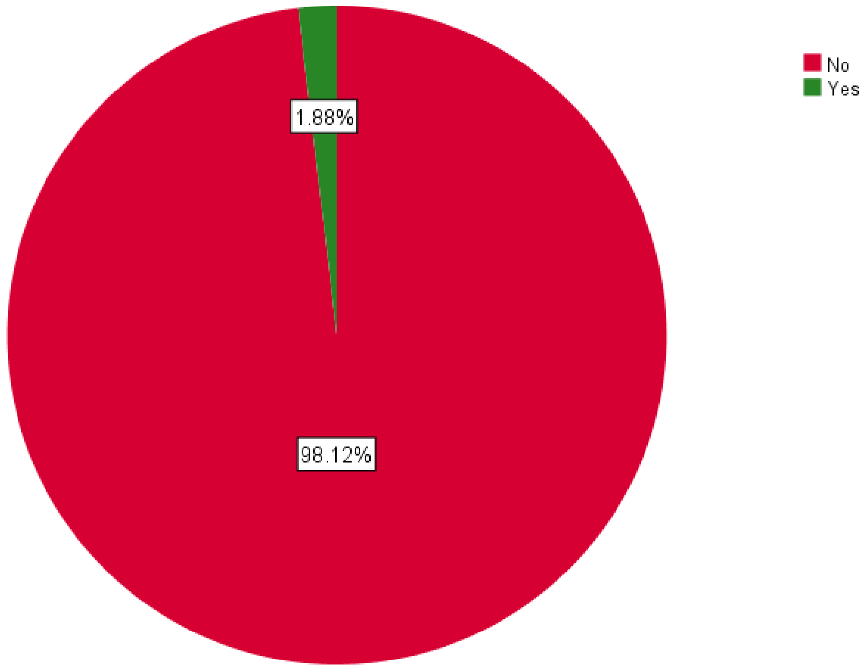


The data about participation in pension plans shows that women in Jammu and Kashmir are notably less involved in long-term financial planning. The bulk of respondents (85%) said they are not a part of any pension plan, with only (15%) claiming to have utilised one. This startling disparity points to a significant weakness in retirement planning and long-term financial security plans. This study highlights an important area in which efforts to promote financial inclusion still require improvement, particularly with regard to educating women about the benefits of pension systems and the importance of saving money for retirement. It emphasises the need for focused efforts to support long-term financial stability, such as awareness campaigns, simpler enrolment processes for pension plans, or the launch of more adaptable and easily available pension solutions catered to the requirements of women in the area.

24. Are you currently receiving direct benefit transfers (DBT) from the government or any other organization?

	Frequency	Percent

Yes	8	1.88
No	418	98.1
Total	426	100.0

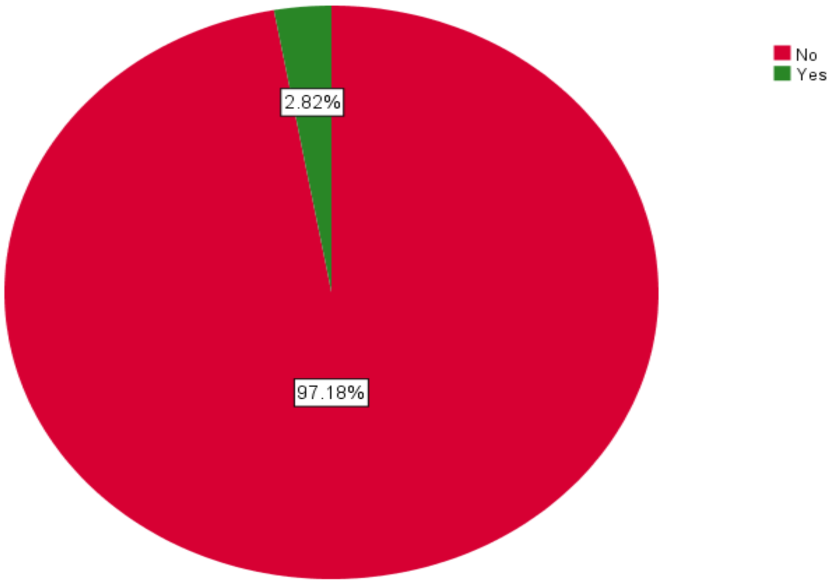


Based on data on Direct Benefit Transfer (DBT) recipients, women's involvement rates in Jammu and Kashmir are extremely low. A very small proportion (1.88%) says they get DBT, while the great majority (98.1%) say they receive none from the government or other agencies. This stark disparity implies that not enough residents in the region are being served by government welfare programs and targeted financial help initiatives. The exceptionally low DBT reception rate is attributed to many factors, such as limited eligibility for existing programs, lack of knowledge about relevant programs, challenges implementing DBT mechanisms, and potential issues with last-mile benefit distribution. It also emphasises the necessity of additional specific welfare programs that address the particular needs of women residing in the area. This data point identifies a crucial area where financial inclusion initiatives need to be strengthened, especially in ensuring that welfare and government assistance programs benefit the people who are supposed to receive them.

25. Have you ever been part of a self-help group (SHG) for financial or social purposes?

	Frequency	Percent

Yes	12	2.8
No	414	97.2
Total	426	100.0



Data about women's participation in self-help groups (SHGs) in Jammu and Kashmir, whether for economic or social reasons, reveals an astonishingly low rate. The majority of respondents (97.2%) state they have never participated in a SHG, while just (2.8%) of them claim to have done so. The region appears to be far behind in adopting community-based financial and social support systems, based on this stark disparity. The incredibly low rate of SHG participation is attributed to a number of factors, such as limited local efforts to create and promote these groups, little awareness of the concept and benefits of SHGs, and social and cultural barriers to participation. It could also indicate a more widespread pattern of inadequate use of collective financial empowerment strategies. In the battle for financial inclusion, this data point highlights an important area that needs development, particularly when it comes to assisting community-based financial help networks. SHGs have the potential to play a significant role in advancing the social empowerment of women, enhancing their financial literacy, and providing them with access to microcredit. The findings emphasise the need for concentrated efforts to introduce and promote the SHG model throughout the region, notably through legislative support for the formation and sustainability of SHGs as well as capacity-building initiatives and awareness campaigns.

4.8 Chi- square and cross tabulation:

In statistical analysis, chi-square tests and cross-tabulation are essential techniques, especially when examining correlations between categorical variables (White & Korotayev, 2004). This study used chi-square tests to identify significant connections between variables following the descriptive statistical analysis of each item, specifically focusing on regions where the response rate among female respondents was lower. According to Momeni et al. (2018), cross-tabulation facilitates the analysis of the distribution of variables among several categories, offering valuable insights into the underlying reasons or linkages that might impact financial inclusion. When evaluating whether observed frequencies deviate considerably from predicted frequencies, chi-square tests play a crucial role in uncovering correlations that may not be immediately obvious. Since social science research frequently uses categorical data, this approach is very helpful in this context (Franke et al. 2012). The study uses chi-square testing to find possible correlations that might account for differences in women's financial inclusion.

Cross-tabulation enhances this by dividing the data into digestible groups and allowing for a more thorough analysis of the relationships between various factors. When working with big datasets, this method works exceptionally well for finding patterns or trends in the data (Momeni et al., 2018). Through cross-tabulating factors that showed reduced response rates among women, the research aims to identify particular areas requiring more scrutiny. In conclusion, the use of chi-square tests and cross-tabulation in this study not only deepens the understanding of financial inclusion among women, but also helps identify key factors that may contribute to disparities in financial access and usage.

4.9 Chi-Square Test and cross-tabulation results

Table 21: Chi-square test for designation and overdraft facility utilization

Statistic	**Value**	**Degrees of Freedom (Df)**	**Asymptotic Significance (2-sided)**
Pearson Chi-Square	111.286	4	.000
Likelihood Ratio	67.174	4	.000
Linear-by-Linear Association	2.939	1	.000

Number of Valid Cases	426		

The Pearson Chi-Square test result is statistically significant with a value of 111.286 and a p-value of.000, indicating a significant association between a woman's designation and her utilisation of an overdraft facility. The likelihood ratio test also supports this finding. However, the linear-by-linear association has a p-value of.000, suggesting that the linear trend across the categories of designation is strong.

Table 22: Cross-tabulation of designation and overdraft facility utilization

Designation	**Overdraft Facility Utilization (Yes)**	**Overdraft Facility Utilization (No)**	**Total**
Employed	0 (0.0%)	98 (100.0%)	98 (100.0%)
Self-employed	17 (44.7%)	21 (55.3%)	38 (100.0%)
Unemployed	0 (0.0%)	42 (100.0%)	42 (100.0%)
Homemaker	7 (4.5%)	148 (95.5%)	155 (100.0%)
Student	2 (2.2%)	91 (97.8%)	93 (100.0%)
Total	**26 (6.1%)**	**400 (93.9%)**	**426 (100.0%)**

The cross-tabulation reveals significant differences in the utilisation of overdraft facilities among women with different designations. Self-employed women have the highest utilisation rate at 44.7%, while employed, unemployed, and homemaker women show no or minimal utilization. The overall low utilisation rate of 6.1% across the sample highlights the limited access or awareness of overdraft facilities among these women.

Conclusion: The significant chi-square result indicates that a woman's employment status is strongly associated with her likelihood of utilising an overdraft facility. The findings suggest that self-employed women are more likely to use overdraft facilities, potentially due to the nature of their financial needs, whereas women in other categories either lack access or are not utilising these financial services.

Table23: Chi-square test for designation and pension scheme participation

Statistic	**Value**	**Degrees of Freedom (Df)**	**Asymptotic Significance (2-sided)**
Pearson Chi-Square	252.074	4	.000
Likelihood Ratio	233.971	4	.000

Linear-by-Linear Association	174.400	1	.000
Number of Valid Cases	426		

The Pearson Chi-Square test result is statistically significant with a value of 252.074 and a p-value of.000, indicating a strong association between a woman's designation and her participation in a pension scheme. The likelihood ratio and the linear-by-linear association also show significant results, reinforcing the relationship between these variables.

Table24: Cross-tabulation of designation and pension scheme participation

Designation	Pension Scheme Participation (Yes)	Pension Scheme Participation (No)	Total
Employed	64 (65.3%)	34 (34.7%)	98 (100.0%)
Self-employed	0 (0.0%)	38 (100.0%)	38 (100.0%)
Unemployed	0 (0.0%)	42 (100.0%)	42 (100.0%)
Homemaker	0 (0.0%)	155 (100.0%)	155 (100.0%)
Student	0 (0.0%)	93 (100.0%)	93 (100.0%)
Total	**64 (15.0%)**	**362 (85.0%)**	**426 (100.0%)**

The cross-tabulation indicates a significant disparity in pension scheme participation across different designations. Employed women have the highest participation rate at 65.3%, while no women in the self-employed, unemployed, homemaker, or student categories reported participating in any pension scheme. Overall, only 15.0% of the women in the sample are part of a pension scheme, highlighting a gap in financial security planning among women in J&K.

Conclusion: The significant chi-square result suggests that a woman's employment status is a major factor influencing her likelihood of participating in a pension scheme. Employed women are significantly more likely to be part of such schemes, whereas those who are self-employed, unemployed, homemakers or students show no participation, which could indicate a lack of access, awareness, or financial capacity to contribute to pension schemes.

Table 25: Chi-square test for education level and smartphone ownership

Statistic	Value	Degrees of Freedom (Df)	Asymptotic

			Significance (2-sided)
Pearson Chi-Square	159.524[a]	4	.000
Likelihood Ratio	145.169	4	.000
Linear-by-Linear Association	107.718	1	.000
Number of Valid Cases	426		

The Pearson Chi-Square test value of 159.524 with a p-value of.000 indicates a statistically significant association between a woman's education level and her ownership of a smartphone. This significance is supported by the likelihood ratio and linear-by-linear association, both of which also show strong evidence of this relationship.

Table 26: Cross-tabulation of education level and smartphone ownership

Education Level	Smartphone Ownership (Yes)	Smartphone Ownership (No)	Total
No Formal Education	55 (61%)	35 (39%)	90(100%)
Primary School	88 (97%)	3 (3%)	91(100%)
Diploma / Certificate	34 (100%)	0(0.0%)	34(100%)
Bachelor's Degree	153(100%)	0(0.0%)	153(100%)
Master's Degree or Higher	58(100%)	0(0.0%)	58(100%)
Total	388 (91%)	38 (9%)	426(100%)

The cross-tabulation reveals a significant disparity in smartphone ownership based on education level. Individuals with no formal education have a smartphone ownership rate of (61%), indicating a notable gap, as (39%) do not own a smartphone. In contrast, smartphone ownership is 100 percent among those with diplomas, bachelor's degrees, and master's degrees, suggesting that higher educational attainment are closely associated with increased smartphone accessibility. Overall, (91%) of the total sample owns smartphones, pointing to a strong trend of smartphone penetration across different educational backgrounds. However, the data underscores a potential digital divide, particularly for those with lower education levels, who may still face challenges in achieving full digital inclusion despite relatively high ownership rates.

Conclusion: The table shows a strong positive relationship between smartphone ownership and education level. Higher educated people exhibit 100% smartphone ownership, especially those with diplomas or bachelor's degrees or above. Conversely, 61% of people without a formal education own a smartphone, making them the group with the lowest ownership percentage. Given that those with higher educational attainment are more likely to own cell phones, it appears that education plays a major role in determining access to technology. To close the technological divide, initiatives to increase digital inclusion might need to concentrate more on those with less education.

Table 27: Chi-square test for education level and frequent use of ATM/Debit card

Statistic	Value	Degrees of Freedom (Df)	Asymptotic Significance (2-sided)
Pearson Chi-Square	114.275	4	.000
Likelihood Ratio	112.826	4	.000
Linear-by-Linear Association	67.507	1	.000
Number of Valid Cases	426		

The Pearson Chi-Square value of 114.275 with a p-value of.000 indicates a statistically significant relationship between education level and the frequency of ATM/Debit card usage for cash withdrawals. This significance is corroborated by the likelihood ratio and linear-by-linear association values, both of which suggest a strong association.

Table 28: Cross-tabulation of education level and frequent use of ATM/Debit card

Education Level	Frequent ATM/Debit Card Usage (Yes)	Infrequent ATM/Debit Card Usage (No)	Total
No Formal Education	24 (26.7%)	66 (73.3%)	90 (100.0%)
Primary School	65 (71.4%)	26 (28.6%)	91 (100.0%)
Diploma / Certificate	31 (91.2%)	3 (8.8%)	34 (100.0%)

Bachelor's Degree	140 (91.5%)	13 (8.5%)	153 (100.0%)
Master's Degree or Higher	42 (72.4%)	16 (27.6%)	58 (100.0%)
Total	302 (70.9%)	124 (29.1%)	426

The cross-tabulation reveals a clear relationship between education level and the frequency of ATM/Debit card usage. Women with higher education levels are more likely to frequently use ATM/Debit cards for cash withdrawals. Specifically: No Formal Education: Only 26.7% use ATM/Debit cards frequently, while 73.3% use them infrequently. Primary School: 71.4% use them frequently, compared to 28.6% who do not. Diploma/Certificate: A high percentage of 91.2% use ATM/Debit cards frequently. Bachelor's Degree: 91.5% frequently use ATM/Debit cards. Master's Degree or Higher: 72.4% use them frequently.

Conclusion: The significant chi-square result demonstrates that education level influences the frequency of ATM/Debit card usage. Higher levels of education are associated with more frequent use of these cards. This pattern suggests that education may enhance financial literacy and access to banking services, thus influencing the frequency of digital transactions. This finding is crucial for understanding how educational attainment impacts financial behaviours and could inform targeted financial inclusion strategies.

Table 29: Chi-square test for monthly income (INR) and insurance linked to bank account.

Statistic	Value	Degrees of Freedom (Df)	Asymptotic Significance (2-sided)
Pearson Chi-Square	28.736	4	.000
Likelihood Ratio	27.820	4	.000
Linear-by-Linear Association	20.498	1	.000
Number of Valid Cases	426		

The Chi-Square tests indicate a significant relationship between monthly income and whether respondents have linked insurance to their bank accounts. The Pearson Chi-Square value of 28.736 with a p-value of.000 suggests that the observed differences in the distribution of responses across income levels are statistically significant. The linear-by-linear association test also shows a strong linear trend, indicating that as income increases, the likelihood of linking insurance to a bank account increase.

Table 30: Cross tabulation for monthly income (INR) and insurance linked to bank account.

Monthly Income (INR)	Linked Insurance to Bank account (Yes)	Linked Insurance to Bank account (No)	Total
Below-3000	7 3.2%	211 96.8%	218 100%
3000-5000	4 9.5%	38 90.5%	42 100%
5000-7000	0 0%	41 100%	41 100%
7000-9000	3 9.1%	30 90.9%	33 100%
10000-Above	18 19.6%	74 80.4%	92 100%
Total	**32** **7.5%**	**394** **92.5%**	**426** **100.0%**

The monthly income levels of the respondents and whether or not they have connected insurance to their bank accounts are cross tabulated in this table. The percentage of respondents having linked insurance is shown by the percentages within each income level. The vast majority of respondents (96.8%) whose annual income was less than INR 3000 did not have insurance connected to their bank accounts. A greater proportion of respondents have connected insurance as income levels rise; 19.6% of those making INR 10,000 or more reported having done so.

Conclusion

The analysis reveals a significant relationship between income levels and the likelihood of linking insurance to a bank account among women in Jammu and Kashmir. Lower-income respondents are less likely to link insurance to their bank accounts, while higher-income respondents are more inclined to do so. This may indicate a financial barrier or lack of awareness among lower-income groups regarding the benefits of linking insurance with bank accounts. Efforts to promote financial literacy and accessibility of financial products like insurance in lower-income brackets could enhance financial inclusion in the region.

Table 31: Chi-square test for monthly income (INR) and money saved or set aside for your old age.

Statistic	Value	Degrees of Freedom (Df)	Asymptotic Significance (2-sided)
Pearson Chi-Square	30.253	4	.000
Likelihood Ratio	30.619	4	.000
Linear-by-Linear Association	19.957	1	.000
Number of Valid Cases	426		

The Chi-Square tests demonstrate a significant relationship between monthly income and whether respondents have saved for old age. The Pearson Chi-Square value of 30.253 with a p-value of.000 indicates that the distribution of saving behaviour across different income levels is statistically significant. The linear-by-linear association also indicates a strong linear trend, suggesting that as income increases, the likelihood of saving for old age increases.

Table 32: Cross tabulation for monthly income (INR) and money saved or set aside for your old age.

Monthly Income (INR)	Money saved or set aside for your old age (Yes)	Money saved or set aside for your old age (No)	Total
Below-3000	73 33.5%	145 66.5%	218 100%
3000-5000	19 45.2%	23 54.8%	42 100%
5000-7000	27 65.9%	14 34.1%	41 100%
7000-9000	23 69.7%	10 30.7%	33 100%
10000-Above	50 54.3%	42 45.7%	92 100%

Total	**191** **45.1%**	**234** **54.9%**	**426** **100.0%**

This table illustrates the relationship between monthly income levels and whether respondents have saved or set aside money for their old age in the past 12 months. The percentages within each income category reveal the proportion of respondents who have saved: for those earning below INR 3000, only 33.5% have saved for old age, whereas 66.5% have not. As income increases, the percentage of respondents who save for old age generally increases, with 69.7% of those earning INR 7000-9000 and 54.3% of those earning INR 10,000 and above having saved.

Conclusion

The analysis reveals a significant relationship between income levels and the likelihood of saving for old age among women in Jammu and Kashmir. Lower-income respondents are less likely to save for old age, while higher-income respondents show a greater propensity to do so. This pattern may reflect the financial constraints faced by lower-income groups, who may prioritise immediate needs over long-term savings. Efforts to encourage and facilitate savings among lower-income groups could help enhance their financial security in old age.

Table 33: Chi-square for monthly income (INR) and investment in mutual funds or other financial instruments.

Statistic	**Value**	**Degrees of Freedom (Df)**	**Asymptotic Significance (2-sided)**
Pearson Chi-Square	72.198	4	.000
Likelihood Ratio	61.606	4	.000
Linear-by-Linear Association	49.947	1	.000
Number of Valid Cases	426		

The Chi-Square tests indicate a highly significant relationship between monthly income and the likelihood of having invested in mutual funds or other financial instruments. The Pearson Chi-Square value of 72.198 with a p-value of.000 suggests that the differences in investment behaviour across income levels are statistically significant. The Linear-by-Linear Association further supports the existence of a strong linear trend, indicating that as income increases, the likelihood of investing in financial instruments increases.

Table 34: Cross tabulation for monthly income (INR) and investment in mutual funds or other financial instruments.

Monthly Income (INR)	Investment in mutual funds or other financial instruments (Yes)	Investment in mutual funds or other financial instruments (No)	Total
Below-3000	0 0.0%	218 100%	218 100%
3000-5000	0 0.0%	42 100%	42 100%
5000-7000	0 0.0%	41 100%	41 100%
7000-9000	0 0.0%	33 100%	33 100%
10000-Above	19 20.7%	73 79.3%	92 100%
Total	**19 4.5%**	**407 95.5%**	**426 100.0%**

This table presents a cross-tabulation of respondents' monthly income levels and whether they have ever invested in mutual funds or other financial instruments: Income below INR 10,000: No respondents in these categories have invested in mutual funds or other financial instruments, with 100% of each group indicating they have not made such investments. Income above INR 10,000: In contrast, 20.7% of respondents earning INR 10,000 and above have invested in financial instruments, while 79.3% have not.

Conclusion

According to the research, women in Jammu and Kashmir who participate in mutual funds or other financial instruments do so mostly because of their income levels. While a significant majority of people earning above INR 10,000 have made such investments, those earning less than INR 10,000 have not. It appears from this that those with higher incomes have greater “financial knowledge” are more willing to take on risk, or have more money than they need.

To encourage financial inclusion and wealth creation, it may be helpful to improve financial education and lower-income groups' exposure to investment options.

4.10 Summary

In this chapter, an attempt has been made to portray the general financial inclusion scenario in the research region from the perspective of women . When compiling their extensive comments, three primary variables were considered: access, utilization, and quality of financial services. The study's findings, which examine how women are now a part of Jammu and Kashmir's financial system, present a complicated picture marked by both consistent progress and ongoing challenges. There are still significant disparities in more sophisticated financial activity, even though a significant proportion of women have access to basic financial services like bank accounts and ATM cards. Although many women frequently use formal financial institutions to save money, relatively few of them engage in long-term investment planning activities such as utilizing credit, saving for retirement, or making contributions to pension plans. This suggests a difference in financial involvement that extends beyond ease of access.

The study continues by demonstrating the importance of income and education in influencing people's financial behavior. Women who have greater incomes and “levels of education” are also more likely to engage in complex financial activities, such as investing in financial instruments, saving for retirement, and using smartphones. However, women from lower-class and less educated backgrounds tend to use just basic banking services, which limit their access to stable financial situations and long-term planning options. Additional data points to a low level of participation in neighborhood financial initiatives like self-help groups and government assistance programs, particularly those that entail direct benefit transfers. These differences highlight the need for targeted programs that would increase credit availability, promote long-term financial planning, and boost digital financial literacy, especially for the area's lower-income and less-educated women. In conclusion, even though women in Jammu and Kashmir have benefited from basic financial inclusion, there are still significant barriers preventing them from becoming more financially involved. Closing these gaps will need a sophisticated approach that considers socioeconomic disparities, with a focus on government aid programs, financial literacy, and credit accessibility in particular. By doing this, the region may move closer to a more accepting financial environment where all women can achieve security and financial independence.

Chapter -5

The Role of Digital Financial Services in Promoting Female Financial Autonomy

Objective 2: To examine how digital financial services promote female financial autonomy

5.1 Introduction

In this chapter, an in-depth analysis is undertaken to identify and examine the impact of digital financial services (DFS) on female financial autonomy (FFA). Digital financial services are considered the independent variable, while female financial autonomy serves as the dependent variable. Drawing from a qualitative study and existing literature on the topic, 25 items have been selected to measure these constructs.

The scale for digital financial services includes 13 items, adapted from the studies of Demirgüç-Kunt et al. (2015), Doe (2020), Venkatesh et al. (2005), and Ozili (2018). The scale for female financial autonomy comprises 12 items, adapted from research by Agarwal and Zhou (2016), Kabeer (2001), Doss (2013), Smith and Roe (2019), Malhotra et al. (2002) and Stewart and Doss (2018). This chapter begins with a detailed exploration of the demographic profile of the respondents. The primary aim is to investigate the influence of digital financial services on female financial autonomy. To achieve this, the research utilizes Smart PLS 4.0, effective software for structural equation modeling (SEM), ensuring a robust analysis of the relationships between the variables (Hair & Alamer, 2022).

5.2 Demographic profile of respondents

Female respondents with access to cell phones are taken into consideration for this objective, which focuses on digital financial services. The minimal necessary sample size is 386, as per the Krejcie & Morgan (1970) calculation that is previously discussed in the methods section (Chapter 3). 388 of the 426 female respondents in this study who have access to smartphones are taken into consideration for this objective, thereby exceeding the minimum requirement.

Table 35: Demographic features

Age	Frequency	Percent	**Locality/Area**	Frequency	Percent	**Marital Status**	Frequency	Percent
18-24	82	21.13	Rural	185	47.68	Married	258	66.49
25-34	85	21.90	Semi Urban	37	9.53	Single	130	33.50
35-44	78	20.10	Urban	166	42.78			
45-54	74	19.07						
55-Above	69	17.78						
Total	388	100.0	Total	388	100.0	Total	388	100.0

Source: Authors work

The sample reveals a fairly distributed age range of respondents, with (17.78%) to (21.90%) falling into each of the five age groups, which span from 18 to 55 years and beyond. The distribution of locations shows that semi-urban areas have a lower proportion (9.53%) than rural areas, which are nearly evenly distributed between them (47.68%) and urban areas (42.78%). Of the respondents, one third (33.50%) said they are single, and around two thirds (66.49%) said they are married. This wide demographic profile provides a comprehensive foundation for investigating the use of digital financial services by women across a range of age groups, residences, and marital statuses.

Table 36: Education and designation of respondents

Education Level	**Frequency**	**Percent**	**Designation**	**Frequency**	**Percent**
No formal education	55	14.17	Employed	98	25.25
Primary School	88	22.68	Homemaker	119	30.67
Diploma/certificate	34	8.76	Self-Employed	38	9.79
Bachelor’s degree	153	39.43	Student	92	23.71
Master’s degree or higher	58	14.94	Unemployed	41	10.56
Total	388	100	Total	388	100

Source: Authors work

The demographic profile of the female respondents reveals a wide variety of educational backgrounds and professional levels. The high percentage of individuals holding a bachelor's degree suggests a reasonably educated sample, influencing their ease of access and utilization of digital financial services. Nonetheless, the substantial presence of those with only a primary education or no formal education provides insights into the perceptions and usage of these services across a range of educational levels. Given their respective designations, the prevalence of employed persons and homemakers presents a comparative opportunity for their interactions with digital financial services. Students and jobless women further enhance the dataset, enabling a thorough comprehension of how various life situations may impact the use of digital financial services.

5.3 Theoretical framework

The theoretical framework, meticulously structured around a comprehensive literature review, aims to dissect the nuanced dynamics between digital financial services (DFS) and female financial autonomy (FFA). This framework, as illustrated in Figure (09), employs a sophisticated approach to analyze the transformative impact of DFS on enhancing women's financial independence. Two primary theoretical frameworks guide this study: the "Technology Acceptance Model (TAM)" and "Gender and Technology Theory." These frameworks are instrumental in examining the factors influencing women's adoption of digital financial services and their subsequent effects on financial independence and empowerment (Assaker, 2020; Teo et al., 2015).

5.4 Technology acceptance model (TAM)

This study is based on Davis's (1989) Technology Acceptance Model (TAM). It asserts that perceived utility and ease of use are key factors in determining the acceptance of new technology. TAM offers a strong framework for investigating women's adoption and use of digital financial services, providing insights on strategies to improve women's financial independence and autonomy over their own decisions in emerging countries such as India. Researchers have extensively studied the adoption of new technologies, particularly digital financial services, using this paradigm in a variety of scenarios (Venkatesh & Davis, 2000). This study incorporates TAM to validate the variables under examination and to establish a theoretical framework for assessing the impact of digital financial services on gender parity. This adaptation draws from foundational TAM literature and its diverse applications (Davis, 1989; Venkatesh & Davis, 2000; Venkatesh et al., 2003; Bagozzi, Davis, & Warshaw, 1992; Venkatesh & Bala, 2008; Venkatesh et al., 2012; Tarhini, Hone, & Liu, 2014).

5.5 Gender and technology theory

Gender and technology theory offers a more detailed perspective of "how gender drives the development and use of technologies" (Bray, 2007). The theory posits that the design, evolution, and use of technology either mirror and maintain existing gender relations or have the potential to alter them (Wajcman 1991; 2007). The theory is based on the belief that gender and technology are inextricable; talking about technology, especially digital services meant for adoption by everyone, should involve a special consideration of gender. This theory investigates the gendered norms and roles of women that affect their interventions in a digital economy, and then suggests ways through which we can design, develop, and deploy processes for equal rights for women as well as empowerment (Wajcman, 2006).By combining the Gender and Technology Theory with the Technology Acceptance Model, this study adds a fresh viewpoint to the body of research on women's financial independence and DFS. This dual theoretical framework makes it possible to analyze both the sociocultural elements that influence women's interactions with technology (as indicated by Gender and Technology Theory 1991; 2007) and the cognitive variables driving technology adoption (as described by TAM). When considered collectively, these ideas provide a robust framework for investigating how digital financial services can help close the gender gap in financial inclusion and promote women's empowerment. The practical, globally applicable policy proposals that are gender-sensitive and aim to enhance women's access to and understanding of digital finance further distinguish this approach (Zhang et al., 2014; Crittenden et al., 2019). Based on the literature review, we propose the following hypothesis to achieve the chapter's objective:

- **Hypothesis 1**: Digital financial services positively influence female financial autonomy.

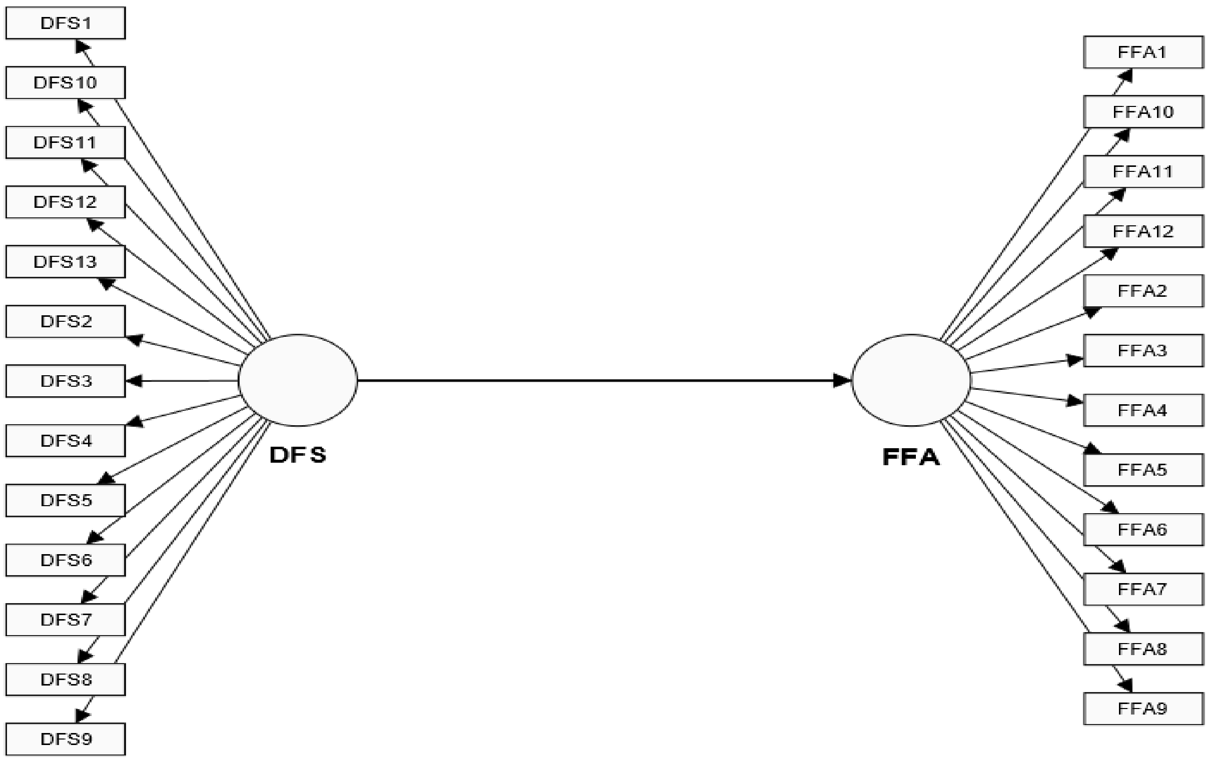


Figure 09: Conceptual Model

Source: Authors work

5.6 Data analysis

The main aim of this study is to investigate the influence of digital financial services (DFS) on female financial autonomy (FFA). To accomplish this, the research utilizes Smart PLS 4.0, effective software for structural equation modelling (SEM). This tool is particularly appropriate for analysing the model in question and the specific characteristics of the data, as noted by Ringle et al. (2022). Hair et al. (2019; 2022) say that the reason to use PLS-SEM is that it can handle a number of statistical assumptions, such as data that is not normally distributed, data that is not distributed in a parametric way, and small sample sizes. The study commences by thoroughly cleaning and preparing the dataset, a crucial step for precise analysis (Wong, 2013; Kline, 2015). The study checked the measurement models for both convergent and discriminant validity, as shown in Tables 38 and 39. These are important steps for making sure that the PLS-SEM is accurate (Hair et al., 2019; 2022). Sarstedt et al. (2021) assess convergent validity to verify the relationship between items meant to measure the same construct. The study then confirms that constructs are distinct from each other with the help of discriminant validity, a necessary condition for meaningful analysis (Henseler et al., 2015).

The analytical process begins with an evaluation of both first order and structural measurement models. This step guarantees the accurate measurement of the study's constructs and their representation of the intended theoretical concepts (Saari et al., 2021). Once the measurement models have been established, the study proceeds to evaluate the structural model. The study executes 10,000 bootstrapping subsamples, "using a bias-corrected percentile method for a two-tailed test, as recommended by Hair et al. (2022)." This method allows for a robust examination of the relationships between variables and helps in determining the significance and strength of the hypothesized paths in the structural model.

Table 37: Descriptive statistics

Construct	Item	Mean	Standard Deviation	CVR
1. Digital Financial Services	DFS1	2.016	1.001	1
	DFS2	2.173	1.028	1
	DFS3	2.154	1.006	1
	DFS4	2.094	0.991	1
	DFS5	2.056	1.004	1
	DFS6	2.061	1.020	1
	DFS7	2.061	1.002	1
	DFS8	2.040	1.007	1
	DFS9	2.066	0.987	1
	DFS10	2.019	1.007	1
	DFS11	2.028	1.005	1
	DFS12	2.066	0.972	1
	DFS13	2.087	0.963	1
2. Female Financial Autonomy	FFA1	2.099	0.957	1
	FFA2			
	FFA3	2.116	0.952	1
	FFA4	2.084	0.920	1
	FFA5	2.046	0.905	1
	FFA6	2.140	0.964	1
	FFA7	2.474	0.985	1

	FFA8	2.320	0.977	1
	FFA9	2.142	0.954	1
	FFA10	2.460	0.922	1
	FFA11	2.466	0.965	1
	FFA12	2.013	0.952	1

Source: Authors work

The study employed a "5-point Likert scale, ranging from 1 (strongly agree) to 5 (strongly disagree)." Ten field experts participate in a rigorous validation process, applying Lawshe's (1975) Content Validity Ratio (CVR) with a threshold of 0.62. This demonstrates a strong commitment to ensuring the validity of the measurement items. Notably, all items achieved a CVR of 1, indicating perfect agreement among the experts on their relevance, far exceeding the 0.62 threshold and suggesting high content validity, as shown in Table (37). The mean values for Digital Financial Services (DFS) items range from 2.019 to 2.173, indicating a general tendency toward agreement with the statements, as these values are below the midpoint of 3. The standard deviations, all close to 1 (ranging from 0.963 to 1.028); suggest a consistent spread of responses across the items. Similarly, Financial Female Autonomy (FFA) items show slightly varied responses. The mean values range from 2.046 to 2.474, still indicating overall agreement with the statements. The standard deviations for FFA items ranging from 0.905 to 0.985 indicate a relatively uniform spread of responses.

Table 38: Assessment of first-order constructs (reliability and validity)

Construct	**Item code**	**Outer loadings**	**Cronbach's alpha**	**Composite reliability (rho_a)**	**Composite reliability (rho_c)**	**Average variance extracted (AVE)**
Digital Financial Services	DFS1	0.962	0.994	0.994	0.994	0.929
	DFS2	0.959				
	DFS3	0.972				
	DFS4	0.956				
	DFS5	0.978				
	DFS6	0.948				
	DFS7	0.941				

	DFS8	0.969				
	DFS9	0.978				
	DFS10	0.98				
	DFS11	0.963				
	DFS12	0.969				
	DFS13	0.952				
Female Financial Autonomy	FFA1	0.894	0.975	0.976	0.978	0.788
	FFA2	0.894				
	FFA3	0.908				
	FFA4	0.872				
	FFA5	0.911				
	FFA6	0.888				
	FFA7	0.836				
	FFA8	0.916				
	FFA9	0.876				
	FFA10	0.822				
	FFA11	0.9				
	FFA12	0.931				

Source: Authors work

Table 39: Discriminant validity HTMT

	Construct	**Heterotrait-monotrait ratio (HTMT)**
	FFA <-> DFS	0.875

Source: Authors work

5.7 Assessing first-order constructs in measurement models

According to Hair et al. (2019, 2022), the assessment of a measurement model should prioritize confirming the model's reliability and validity. This study's analysis supports the validity of the indicators, establishing both convergent and discriminant validity for the constructs involved. To make sure that each construct was reliable, the outer loadings of items related to those constructs were checked to ensure they met or went above the 0.70 loading value suggested by Hair et al. (2019). The constructs' reliability is also shown by the Cronbach's alpha (α) and composite reliability (CR) scores in Table (38). All these scores are above the acceptable level of 0.70, which according to Henseler et al. (2015) means the constructs are reliable. The model's convergent validity is also supported by the average variance extracted (AVE) method, which showed that all reflective constructs were higher than the 0.50 level. This means that the model's convergent validity is pretty good (Sarstedt et al., 2021). This clause guarantees the measurement model's validity and reliability in the event of subsequent research analysis.

Henseler et al. (2015) and Hair et al. (2022) recommend the HTMT criteria as a stringent approach for testing discriminant validity. This approach offers advantages, particularly when the traditional Fornell-Larcker criterion fails to adequately detect discriminant problems. The study investigated discriminant validity by determining the HTMT (heterotrait-monotrait) ratio of correlations between digital financial services and women's ability to handle their own money (Table 39). The HTMT value below 0.90 shows acceptable discriminant validity (Hair et al., 2022). The constructs meet the HTMT critical benchmark of 0.90 (Gold and Malhotra, 2001) (Henseler et al., 2015), as evidenced by their HTMT value of 0.875.

5.8 Evaluating the structural model

The study evaluated the structural model using the methods advised by Hair et al. (2019, 2022). The first step in the procedure is to establish the coefficient of determination (R2) of the dependent construct first, following Hair et al. (2019, 2022). The construct on women's financial independence yields an R-value of 0.744, providing a satisfactory explanation for the model (Chin, 1998). Therefore, the adoption of digital financial services accounts for 74.4% of women's financial autonomy, supporting the women empowerment perspective of increased financial independence. Next, we analyze the inner value of the variance inflation factor (VIF), finding that the largest value is 1.011, below the maximum limit of 3.33, indicating no concerns regarding multicollinearity (Hair et al., 2019). Following this, the hypotheses are tested using the bootstrap method, in which 10,000 subsamples are drawn (Hair et al., 2022), with a beta (β) of 0.862 with a p-value of 0.00 and a 95% confidence interval ranging from 0.816 to 0.899. This constitutes ample evidence to favour the hypothesis. In addition to this, the analysis also included the result's effect size (f2) and T-statistics. Its effect sizes of 2.895 and 41.374 indicate that the impact is significant. Figure (10) represents the structural model evaluation, while Table 40 provides details on the relationship between these three variables, which include independent, dependent, and control variables. The study included "area" as a control variable, represented as a dummy, with 0 denoting an urban area and 1 denoting a rural one. The study revealed a higher level of financial control among urban women. The standardized root mean square residual (SRMR) determines the goodness of fit for the model, which stands at 0.029. This value is well below the recommended cut-off of 0.08 (Henseler et al. (2015); Hair et al. (2019), indicating that the model is indeed suitable for the research goals framed. These results validate the model's ability to replicate the collected data, underscoring the significance of digital financial services in enhancing women's financial control and highlighting the urgency of accelerating digital financial inclusion for women's economic participation.

5.9 Q2 predict: measurement of predictive relevance

Using the PLS Predict technique, the study investigated the predictive capacity of female financial autonomy in digital financial services in line with the Danks and Ray (2018) framework and Shmueli et al. (2019). A Q2 score greater than zero denotes a significant level of predictive utility, which is the basis for evaluating predictive significance. We specifically use this approach to measure the predictive accuracy for the assessment of female financial independence, conducting assessments of the RMSE and the measure of error magnitude. The distribution shows that the prediction errors are spread out evenly. To see this, the RMSE of the PLS model based on the theorized model and the non-theorized linear regression model in this study is compared, as shown in Table (41) according to Shmueli et al. (2019). This comparison underscored a high predictive efficacy concerning female autonomy, as highlighted by Hair et al. (2019).

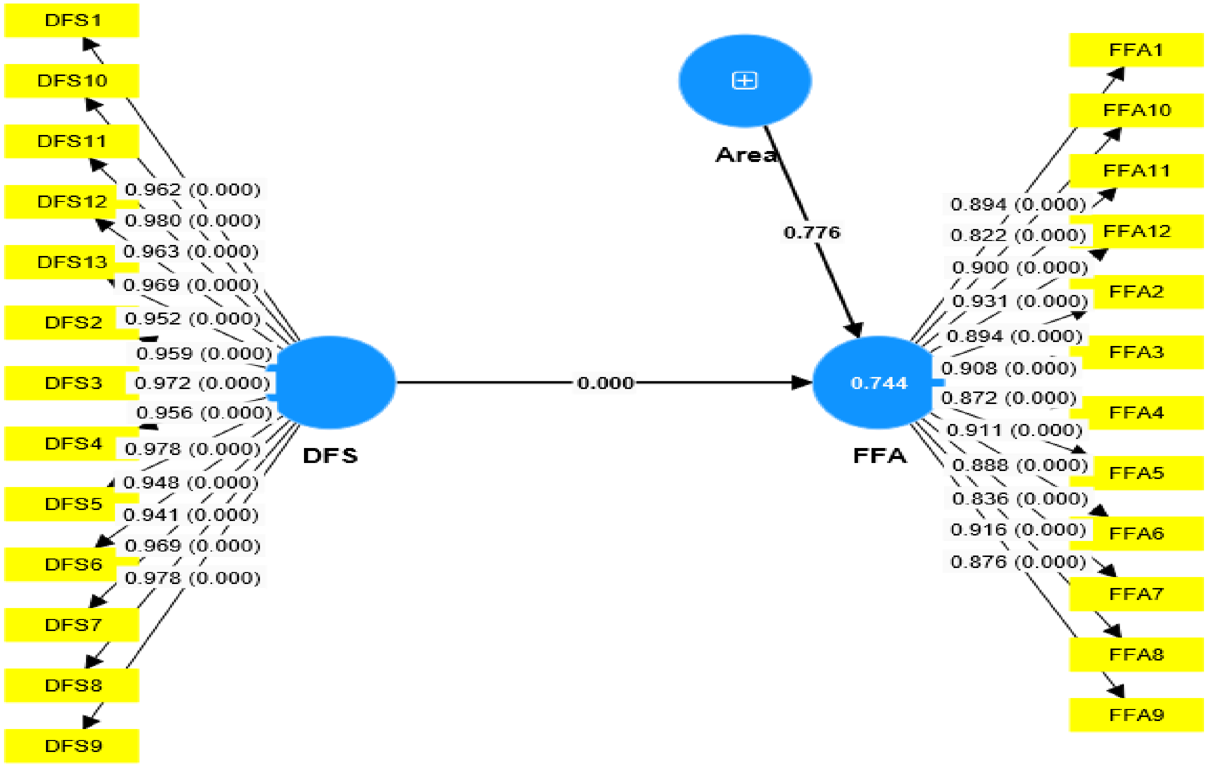


Figure 10: Structural Model DFS & FFA

Source: Authors work

Table 40: Structural Model Assessment DFS & FFA

Hypothesis	**path relation**	**(β)**	**T Statistics**	**CI0.95**	**VIF**	**f2**	**R2**	**P value**	**Significance**
H1	DFS -> FFA	0.862	41.374	(0.816;0.899)	1.002	2.895	0.744	0	Yes
control variable	Area -> FFA	-0.014	0.284	(-0.11;0.082)	1.002	0			

Source: Authors work

Note(s): DFS=Digital Financial Services, FFA=Female Financial Autonomy, CI=Confidence Interval at 95 percent, β= Standardized Beta, H1= Hypothesis 1.

Table 41: Predictive relevance

Item	Q²predict	PLS-SEM_RMSE	LM_RMSE	PLS LM	Predictive Power
FFA1	0.554	0.638	0.660	-0.022	High Predictive power
FFA10	0.446	0.646	0.653	-0.007	
FFA11	0.607	0.615	0.702	-0.087	
FFA12	0.634	0.579	0.590	-0.011	
FFA2	0.601	0.582	0.605	-0.023	
FFA3	0.640	0.544	0.573	-0.029	
FFA4	0.525	0.659	0.658	0.001	
FFA5	0.626	0.591	0.611	-0.020	
FFA6	0.643	0.553	0.578	-0.025	
FFA7	0.538	0.679	0.704	-0.025	
FFA8	0.585	0.623	0.623	0.000	
FFA9	0.592	0.632	0.675	-0.043	

Source: Authors work

Note(s): LM- Linear Model Benchmarks; PLS- Partial Least Squares; RMSE- Root Mean Squared Error.

5.10 Discussion of results

This study aims to investigate the impact of digital financial services (DFS) on female financial autonomy (FFA) in northern India, specifically within the Jammu and Kashmir union territory. The results confirm the validity of the hypothesis and support the literature's assertion of a positive association between DFS and FFA. The findings suggest that the share of mobile financial services is 74%. The change was significant; it accounted for 74% of the variation in women’s financial autonomy. Therefore, this research aligns with the studies by Suri and Jack (2016), Malhotra and Ranjan (2020), and Rahman et al. (2023), which demonstrate the significant role of DFS in enhancing women's financial freedom, formal banking service uptake, and economic independence. The study goes further to point out that, apart from offering easy, safe, and effective financial platforms, DFS improves women’s financial literacy, buying power, and financial independence. This demonstrates the desire of digital platforms to address the current gender imbalance and overall economic inequality.

Furthermore, the research findings validate the concepts of the Gender and Technology Theory, which originated from Wajcman's work in 2004. This is because technology has the potential to exacerbate the current gender gaps. In this context, the Digital Financial Services (DFS) positively impacts women's financial management and showcases the potential of digital technologies as effective tools for empowering women economically and achieving Sustainable Development Goal 5, which aims to guarantee women's complete access to financial services. The study's findings confirm the benefits of women's financial access, as discussed in the literature, in terms of both economic and welfare gains. Ozili et al. (2023) noted that women's emancipation grants them greater decision-making power over resources, children's health, and educational benefits. The study suggests that promoting DFS for women could potentially lead to additional social consequences, such as women being exploited more than individuals. However, it's important to remember that while this research has identified a statistically significant and highly positive impact of DFS on FFA, it still faces substantial barriers. The control variable of the “area” (urban vs. rural) is also inclined towards the higher financial freedom of women living in urban regions as compared to rural areas. This aligns with what the World Wide Web Foundation (2015) and Mariscal et al. (2019) have demonstrated, and this includes limited internet usage by women in rural areas and traditional cultural practices. The findings also have implications for policymakers and financial service providers. This aligns with the arguments presented by Kulkarni & Ghosh (2021) and Bala & Singhal (2022), highlighting the need for increased efforts to close the gaps and enable women to access and utilize digital services. These findings serve as an empirical foundation for the formulation of policies and financial products sensitive to women’s needs in different development settings. The present research contributes to the literature on digital financial inclusion and women’s economic empowerment and presents the statistical results of the relationship between DFS and women’s financial independence in the Jammu and Kashmir region. The study also explores the potential role of digital technologies in bridging gaps and promoting women's adoption of digital financial services, which could lead to improved gender equality and economic advancement.

5.11 Summary

The results of this study strongly support the hypothesis that the adoption of DFS improves women's ability to exercise control and effectively manage family and personal finances. DFS eliminates traditional barriers to financial inclusion, enabling women in socially and culturally marginalized gendered contexts to access finance. Thus, they serve as powerful change agents. As DFS empowers women with savings, investments, and financial transactions, it promotes women's financial literacy and independence while also improving their decision-making skills. This study demonstrates that achieving fiscal self-sufficiency is not solely about having financial resources at your disposal, but also about understanding the strategies to effectively utilize the available resources. People often emphasize the importance of empowering women to manage their own finances. DFS clearly supports women's financial independence, enhancing their ability to allocate funds for their personal and family welfare, health, and education.

Chapter -6

Financial inclusion and women economic empowerment

Objective 3: To determine how financial inclusion helps in achieving economic empowerment of women

6.1 Introduction

This chapter examines the relationship between financial inclusion (FI) and women's economic empowerment (WEE) in Jammu and Kashmir. In addition to being an issue of justice and equity, empowering women is vital to sustainable development. According to earlier research, FI has a major impact on promoting economic growth (Adera & Abdisa, 2023). Focusing on the connection between FI and the WEE, this chapter looks at the relationships between financial services, women's earnings, savings, and asset accumulation. In this context, FI serves as an independent variable, while the economic empowerment of women is the dependent variable. It is essential to capture the multidimensional nature of FI by identifying specific variables that effectively measure it among women (Demirgüç-Kunt & Klapper, 2013). The World Bank (2018) asserts that FI encompasses not only access to financial services, but also the utilization of these services, their quality, and the level of trust users have in financial institutions. These factors are particularly important when evaluating women's financial inclusion, as they often face additional challenges in accessing financial services (Agarwal & Hauswald, 2010).

6.2 To measure financial inclusion in this study, we focus on four key dimensions:

Access: Defined as the availability of financial services within a reasonable distance for users is fundamental to achieving financial inclusion (FI). Sarma (2008) and the World Bank's Global Findex Database (2017) underscore the critical role of access as the foundational step towards FI. Ensuring access means that potential consumers can physically and digitally obtain financial services, as highlighted by Raghunathan et al. (2023). This accessibility is crucial not only in urban centers but also in remote and rural areas where financial services are often scarce. Improving infrastructure, such as increasing the number of ATMs and bank branches and enhancing digital connectivity, plays a significant role in broadening access.

Usage: According to Goel & Sharma (2017), usage extends beyond simple access, encompassing the frequency and efficiency of financial service utilization. According to

Demirgüç-Kunt and Klapper (2013), comprehending the true impact of Financial Inclusion (FI) requires consistent and meaningful engagement with financial services to realize its potential benefits. Usage includes a range of activities, from basic transactions and savings to more complex services like loans and insurance.

Quality: The quality of financial services significantly influences their usefulness and user satisfaction, encompassing the appropriateness, reliability, and efficiency of the products offered (Roa, 2015). Sharma and Changkakati (2022) emphasize that the quality of financial services affects people's long-term relationships with financial institutions, thereby impacting the overall success of financial access initiatives. We should tailor high-quality services to meet the diverse needs of users, which include personalized customer support, transparent terms and conditions, and products tailored to different income levels and financial goals.

Trust: A cornerstone for women's FI sustainability, requiring individuals to have confidence in financial institutions and the services they provide (Nagaska & Cichocki, 2022). Without trust, potential users may be hesitant to access or utilize financial services, which can severely hinder FI efforts (Singh, 2021; Tram et al., 2023). Building trust involves ensuring security, transparency, and fairness in financial transactions. Financial institutions must work diligently to protect user data, provide clear and honest communication, and uphold high standards of service. Regulatory frameworks that protect consumers and ensure accountability within the financial sector can also enhance trust.

Mulema (2018) asserts that women's empowerment is a prerequisite for fair and sustainable economic growth. According to ICRW (2011), economic empowerment increases productivity, diversifies the economy, and improves income equality. Sahay et al. (2022) underscore its significance in attaining gender parity, endorsing food and financial stability for households, enhancing human capital development in domains like healthcare and education, and mitigating intergenerational poverty. This study outlines four critical dimensions—income, savings, asset generation, and control over household income—that are necessary to quantify women's economic empowerment. These dimensions encompass a wide range of factors related to economic empowerment. They represent the capacity to create and amass financial resources (income and savings), as well as the stability and authority to make decisions that come with economic empowerment (creation of assets and control over household income). When taken as a whole, these factors provide a comprehensive understanding of women's economic standing, independence, and influence at home and in the larger economic environment (Cameron & Tedds, 2021) and UN Women (2019).

Through an analysis of these characteristics, the research gains a more nuanced understanding of how FI influences many aspects of women's economic lives and overall empowerment.

6.3 To measure economic empowerment of women in this study, we focus on four key dimensions

Income: A tangible measure of "women's economic empowerment" reflecting their ability to work and contribute financially (Kabeer, 2018). According to Jain & Jain (2012) and Daga (2021), income is pivotal in enhancing women's economic independence and societal status. Earning an income allows women to support themselves and their families, leading to improved living standards and greater participation in economic activities. Additionally, income provides women with the financial means to invest in education, healthcare, and other essential services, thereby fostering long-term economic stability and growth.

Savings: Represent more than just financial security; they indicate a woman's ability to plan and invest for the future (Despard et al., 2020). Malhotra and Schuler (2005) emphasize that savings are crucial for economic empowerment, enabling women to invest in business ventures and manage financial risks. Having savings allows women to navigate economic uncertainties, support entrepreneurial endeavors, and achieve long-term financial goals. Furthermore, the habit of saving can enhance financial literacy and discipline, promoting a culture of economic self-reliance and empowerment.

Asset Generation: Signifies long-term economic stability and growth, extending beyond immediate financial needs (Oladokun et al., 2018). Rahman et al. (2017) highlight the importance of asset ownership in providing women with financial security and bargaining power. Owning assets such as property, land, or business equipment not only improves a woman's economic standing, but it also serves as collateral for obtaining credit and other financial services. Asset generation empowers women to create wealth, achieve economic independence, and secure a better future for themselves and their families.

Control over Household Income: A crucial component of women's economic empowerment, as it signifies their decision-making power over family finances (Roy et al., 2017). Moyle et al. (2006) discuss how women's ability to influence financial decisions within the household affects their status and broader economic outcomes. When women control the household income, they can allocate resources more effectively towards education, healthcare, and nutrition, benefiting the entire family. This authority not only enhances women's self-esteem and autonomy but also contributes to more equitable and efficient management of household finances, promoting overall economic well-being.

By investigating these dimensions, this chapter aims to elucidate how FI contributes to the WEE in Jammu and Kashmir, ultimately promoting broader economic development. The chapter opens with a thorough examination of the respondents' social and demographic traits. Conducting rigorous research requires an understanding of the sample's varied features. This survey includes all 426 female participants with bank accounts. The chapter then goes on to offer the theoretical framework, data, analysis, results, and discussion.

Table 42: Demographic profile of respondents

Age	Frequency	Percent	**Locality/Area**	Frequency	Percent	**Marital Status**	Frequency	Percent
18-24	83	19.5	Rural	204	47.9	Married	293	68.8
25-34	85	20.0	Semi Urban	45	10.6	Single	133	31.2
35-44	86	20.2	Urban	177	41.3			
45-54	85	20.0						
55-Above	87	20.4						
Total	426	100.0	Total	426	100.0	Total	426	100.0

Source: Authors work

Table 43: Social Features of Respondents

Education Level	Frequency	Percent	**Designation**	Frequency	Percent	**Monthly income in (INR)**	Frequency	Percent
No formal education	90	21.1	Employed	98	23.0	Below 3000	218	51.2
Primary School	91	21.4	Homemaker	155	36.4	3000-5000	42	9.9
Diploma/certificate	34	8.0	Self-Employed	38	8.9	5000-7000	41	9.6
Bachelor’s degree	153	35.9	Student	93	21.8	7000-9000	33	7.7
Master’s degree or higher	58	13.6	Unemployed	42	9.9	10000-Above	92	21.6
Total	426	100	Total	426	100.0	Total	426	100

Source: Authors work

Tables 42 and 43 present the demographic statistics of the women included in this study. The participants in the study were diverse in age, ranging from 18 years to 55 years and above. It is worth noting that 20% of the respondents were in each group. The survey revealed a higher response rate from married participants, with 293 out of the total 426 respondents. The area of residence data shows a balanced representation of rural and urban participants, with a smaller fraction coming from semi-urban areas. This diversity provides varied insights into the study's focal areas, potentially reflecting a wide range of experiences and perspectives related to the research.

Education levels vary widely, with the largest group holding bachelor's degrees (35.9%), followed by those with no formal education (21.1%) and primary schooling (21.4%). Occupation-wise, homemakers form the largest group (36.4%), followed by employed (23.0%) and students (21.8%). Income distribution reveals that over half of the respondents (51.2%) earn below 3000 INR monthly, while 21.6% earn 10000 INR or above, indicating a significant income disparity. This diverse sample allows for a comprehensive analysis of how FI impacts WEE across various socio-economic backgrounds, providing insights into the interplay between banking access, education, income levels, and occupational status.

6.4 Theoretical framework

This study employs "Economic Empowerment" Theory to explore how financial inclusion enhances women's economic empowerment in India (Pal et al., 2022). The theory asserts that marginalized groups, including women, cannot fully achieve economic agency without access to essential resources such as financial services, employment opportunities, and property rights (Adera & Abdisa, 2023; Kabeer, 2021; Malhotra & Schuler, 2005). It provides a lens for understanding how financial inclusion enables women's financial autonomy and broader economic participation (Oladokun et al., 2018). This study investigates how financial inclusion impacts women's economic empowerment, focusing on income, savings, asset generation, and control over household income. These questions align with the Economic Empowerment Theory's emphasis on the role of financial resources in empowering women to make independent decisions and enhance their economic well-being (Arshad, 2023; Lal, 2019; Laszlo et al., 2020). Economic empowerment includes not only access to financial services but also its transformative effects on women's control over their financial lives (Adera & Abdisa, 2023). The theory highlights that mechanisms like microcredit, savings accounts, and insurance strengthen women's decision-making power, influencing household and community-level economic outcomes (Tshishonga, 2023). This aligns with global evidence showing that increased financial access significantly improves women's income, savings, and asset-building capacity (Ansong et al., 2023). This study explores the connection between financial inclusion and women's empowerment in India, using Economic Empowerment Theory to provide a comprehensive understanding of how access to financial resources fosters long-term economic independence and agency for women (see Figure 11). We propose the following hypotheses to achieve the objectives of this chapter:

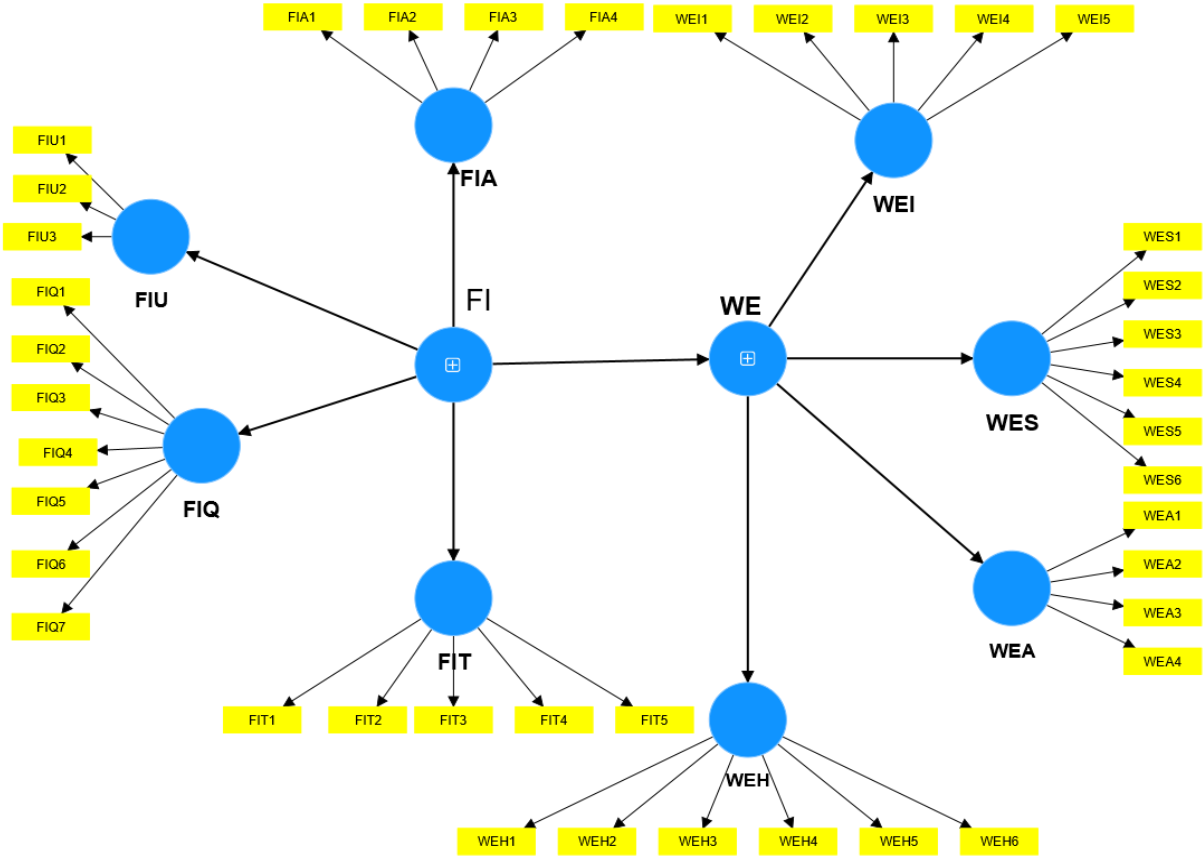
Hypothesis 2: There is a positive and significant relationship between financial inclusion and economic empowerment among women.

Hypothesis 2a: There is a positive and significant relationship between financial inclusion and income.

Hypothesis 2b: There is a positive and significant relationship between financial inclusion and savings.

Hypothesis 2c: There is a positive and significant relationship between financial inclusion and asset generation.

Hypothesis 2d: There is a positive and significant relationship between financial inclusion and control over household income.



Source: Authors work

Figure 11: Conceptual Model FI & WE

6.5 Data analysis

This study investigated the connection between women's economic empowerment and financial inclusion using a quantitative research design and survey methodology. We adapted the survey instrument from earlier studies, as mentioned in methodology part (3) in Table 11, to ensure its relevance and applicability to the current investigation. This study utilizes a Likert scale, where 1 signifies "strongly agree" and 5 indicates "strongly disagree." The primary objective of this study is to examine the impact of financial inclusion (FI) on women's economic empowerment. To achieve this, the study employs partial least squares structural equation modeling using Smart-PLS 4.0. The study acknowledges the multidimensional complexity inherent in the constructs under investigation, particularly in line with the framework put forth by Ringle et al. (2015). PLS-SEM enables the modeling of hierarchical component models, also known as second-order constructs, to accurately represent the complex and multi-layered relationships between the constructs under study

(Hair et al., 2017). Exploratory studies frequently choose PLS-SEM when the main goals of the research are theory creation and prediction, rather than theory testing.

The analysis commences by examining the first- and second-order measurement models. It then performs 10,000 bootstrapping subsamples using a bias-corrected percentile method (two-tailed test) to measure the structural model (Hair et al., 2022).

Table 44: Descriptive statistics financial inclusion and women economic empowerment

Construct	Item	Mean	Standard Deviation
1. Financial Inclusion Access	FIA1	2.136	0.617
	FIA2	2.15	0.669
	FIA3	2.46	0.914
	FIA4	2.237	0.771
Usage	FIU1	2.12	0.575
	FIU2	2.094	0.513
	FIU3	2.469	0.942
Quality	FIQ1	2.101	0.519
	FIQ2	2.073	0.481
	FIQ3	2.082	0.485
	FIQ4	2.042	0.426
	FIQ5	2.103	0.568
	FIQ6	2.014	0.428
	FIQ7	2.131	0.587
Trust	FIT1	1.981	0.342
	FIT2	1.995	0.299
	FIT3	2.021	0.365
	FIT4	1.995	0.343
	FIT5	1.984	0.294
2. Women Economic Empowerment Income	WEI1	2.148	0.593
	WEI2	2.181	0.637
	WEI3	2.131	0.575
	WEI4	2.042	0.458
	WEI5	2.075	0.479

Savings	WES1	2.117	0.553
	WES2	2.11	0.56
	WES3	2.108	0.537
	WES4	2.155	0.609
	WES5	2.082	0.527
	WES6	2.124	0.558
	WEA1	2.038	0.041
Asset Generation	WEA2	2.009	0.048
	WEA3	2.046	0.037
	WEA4	2.015	0.038
Control over household income	WEH1	2.15	0.614
	WEH2	2.131	0.599
	WEH3	2.296	0.776
	WEH4	2.131	0.587
	WEH5	2.146	0.583
	WEH6	2.099	0.548

Source: Authors work

The descriptive statistics for the constructs of “Financial Inclusion (FI)” and “Women Economic Empowerment (WEE)” Table (44) reveal insightful patterns across various items. For Financial Inclusion, the mean scores for Access (FIA1-FIA4) range from 2.136 to 2.46, with standard deviations indicating moderate variability. Usage (FIU1-FIU3) exhibits similar mean values, with slightly higher variability in FIU3 (mean = 2.469, SD = 0.942). Quality (FIQ1-FIQ7) shows consistent mean scores around 2.0, Trust (FIT1-FIT5) scores with means just below 2.0.

For Women Economic Empowerment, the Income dimension (WEI1-WEI5) displays mean scores ranging from 2.042 to 2.181, with moderate variability. Savings (WES1-WES6) show consistent mean scores of around 2.1. Asset Generation (WEA1-WEA4) has the lowest mean scores, indicating potential areas for improvement, with minimal variability. Control over household income (WEH1-WEH6) presents slightly higher mean scores, particularly WEH3 (mean = 2.296, SD = 0.776), suggesting a moderate level of decision-making authority among women in household finances.

Table 45: Validity and Reliability FI & WE

Construct	**Item Code**	**Outer loadings**	**Cronbach's alpha**	**Composite reliability (rho_a)**	**Composite reliability (rho_c)**	**Average variance extracted (AVE)**
Access	FIA1	0.735	0.895	0.73	0.814	0.529
	FIA2	0.818				
	FIA3	0.518				
	FIA4	0.8				
Quality	FIQ1	0.719	0.841	0.843	0.88	0.514
	FIQ2	0.739				
	FIQ3	0.789				
	FIQ4	0.778				
	FIQ5	0.741				
	FIQ6	0.779				
	FIQ7	0.737				
Trust	FIT1	0.841	0.865	0.866	0.902	0.65
	FIT2	0.798				
	FIT3	0.78				
	FIT4	0.754				
	FIT5	0.853				
Usage	FIU1	0.854	0.779	0.732	0.783	0.556
	FIU2	0.814				
	FIU3	0.526				
Asset Generation	WEA1	0.917	0.959	0.96	0.97	0.891
	WEA2	0.95				
	WEA3	0.966				
	WEA4	0.942				
Control over household income	WEH1	0.734	0.903	0.916	0.926	0.68
	WEH2	0.834				
	WEH3	0.748				
	WEH4	0.916				

	WEH5	0.892				
	WEH6	0.891				
Income	WEI1	0.792	0.872	0.873	0.907	0.663
	WEI2	0.83				
	WEI3	0.845				
	WEI4	0.803				
	WEI5	0.799				
Savings	WES1	0.783	0.897	0.899	0.921	0.661
	WES2	0.795				
	WES3	0.849				
	WES4	0.744				
	WES5	0.866				
	WES6	0.834				

Source: Authors work

6.6 Measurement model assessment of first-order constructs: Table (44) gives descriptive statistics for each item, whereas Table (45) gives a summary of the validity and reliability of the instrument. The measurement model assessment revealed excellent reliability and validity for the first-order constructs. The majority of the items had outer loadings greater than 0.7, indicating a strong representation of each construct (Henseler et al., 2015). According to Hair et al. (2019), factor loadings exceeded 0.50 and composite reliability ratings exceeded 0.70, fulfilling predetermined standards. Positive readings of Cronbach's alpha, which ranged from 0.719 to 0.959, showed excellent internal consistency. The composite reliability scores were higher than the 0.60 threshold, ranging from 0.725 to 0.971 (Hair et al., 2019). With a range of 0.514 to 0.891, average variance extracted (AVE) values were greater than 0.50, indicating sufficient convergent validity (Hair et al., 2019). All things considered, these results validate how well the models capture the aspects of financial inclusion and women's economic empowerment as outlined in the research model.

Table 46: Discriminant validity HTMT

Construct	**FIA**	**FIQ**	**FIT**	**FIU**	**WEA**	**WEH**	**WEI**	**WES**
FIA								
FIQ	0.701							
FIT	0.267	0.587						

FIU	0.862	0.636	0.334					
WEA	0.215	0.182	0.212	0.167				
WEH	0.521	0.474	0.327	0.466	0.291			
WEI	0.441	0.456	0.378	0.505	0.256	0.878		
WES	0.487	0.543	0.461	0.50	0.28	0.836	0.879	

Source: Authors work

All the study's constructs are separate but connected, according to Table 46 of the heterotrait-monotrait (HTMT) ratio's discriminant validity. Henseler et al. (2015) established a criterion that HTMT values less than 0.90 indicate appropriate discriminant validity, which this study meets. The low HTMT ratios show that the constructs regarding financial inclusion and the economic empowerment of women are clearly distinct from one another. These results show that each construct uniquely measures different aspects of financial inclusion and economic empowerment (Henseler et al., 2015).

Table 47: Higher order constructs assessments FI & WE

Higher order construct	**Indicators**	**Outer Loadings**	**Cronbach's alpha**	**Composite reliability (rho_a)**	**Composite reliability (rho_c)**	**Average variance extracted (AVE)**
Financial Inclusion	FIA	0.768	0.739	0.75	0.837	0.565
	FIQ	0.855				
	FIT	0.749				
	FIU	0.721				
Women Economic Empowerment	WEA	0.794	0.827	0.922	0.853	0.694
	WEH	0.924				
	WEI	0.924				
	WES	0.956				

Source: Authors work

Note(s): FI=Financial Inclusion, WE=Women's economic empowerment, CI=Confidence Interval at 95 percent, β= Standardized Beta, Hypo= Hypothesis.

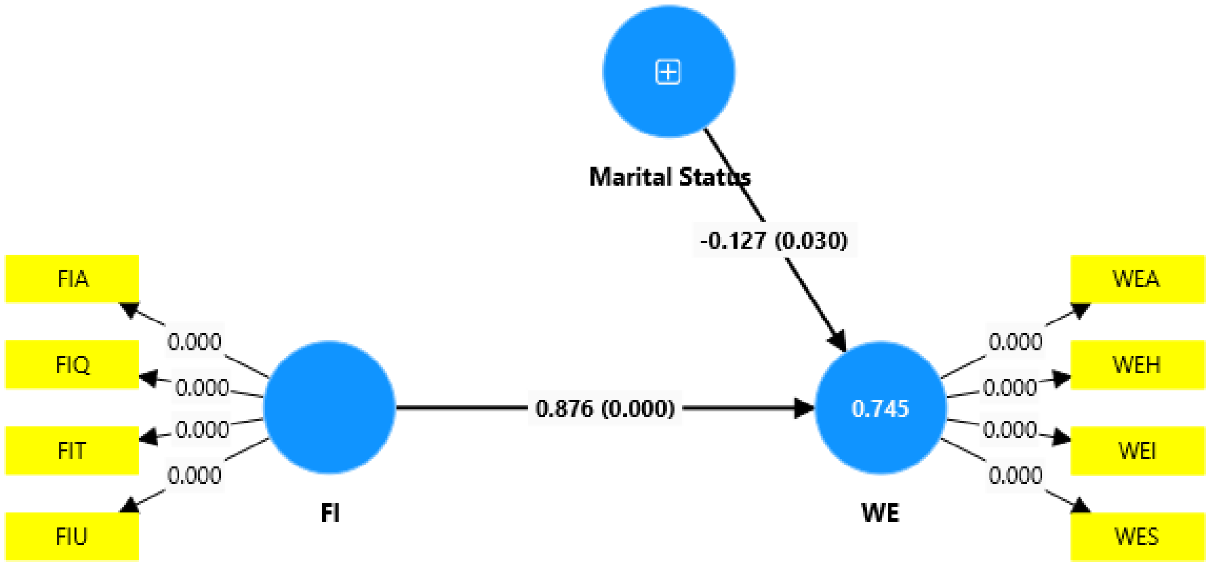
6.7 Higher order assessment

Reflective-reflective analysis is used in this study to examine higher-level constructs. To assess these second-order constructs, we used the latent variables (LV) scores from the primary Financial Inclusion (FI) and Women's Empowerment (WE) constructs. Table (47) demonstrates the effectiveness of this higher-order constructs in terms of indicator loadings, composite reliability (CR), rho_A, and average variance extracted (AVE) (Hair et al., 2019). Each indicator's dependability measures are higher than the required standards, and according to recent publications by Hair et al. (2019, 2022), both Cronbach's alpha and CR values fall within the ideal range of 0.70 to 0.85. In addition, the AVE values for these constructs are greater than 0.60, which is higher than the theoretical framework's minimal requirement of 0.5 (Hair et al., 2017). We also evaluated discriminant validity using the HTMT ratio of correlations, finding a HTMT ratio of 0.670 between the FI and WE construct. This is significantly less than the 0.90 cut-off, indicating that there is enough discriminant validity between the constructs (Henseler et al., 2015).

Table 48: Structural model assessment FI & WE

Hypothesis	**Path relation**	**(β) Beta**	**T Statistics**	**CI0.95**	**VIF**	**R2**	**R2 adjusted**	**P value**	**Significance**
H2	FI -> WE	0.876	43.149	(0.834; 0.914)	2.800	0.745	0.743	0.000	Yes
Control variable	Marital Status -> WE	-0.127	2.166	(-0.244; -0.014)	1.074			0.030	Yes

Source: Authors work



Source: Authors work

Figure 12 Structural Model: Direct effect of FI & WE

6.8 Evaluating the structural framework

As suggested by Hair et al. (2019, 2022), Figure (12) and Table (48) show the assessment of the structural model and how the independent, dependent, and control variables interact with each other. We also assess the adjusted R-squared value, indicating strong explanatory capacity at 74.3%, as well as the coefficient of determination (R2). The effect size (F factor) of 2.800 demonstrated the modest-to-significant influence of financial inclusion on women's economic empowerment. The variance inflation factor (VIF) analysis, which had the highest VIF at 1.074, allayed multicollinearity worries. A bootstrap hypothesis test with 10,000 subsamples showed that financial inclusion has a statistically significant positive effect on women's economic empowerment ($\beta = 0.876$, $p = 0.00$, 95% CI: 0.843; 0.914), which means that Hypothesis 2 is true.

The HTMT criterion for discriminant validity yielded an acceptable result of 0.670. Furthermore, we included marital status (0 for single women and 1 for married women) as a control variable. The investigation's results demonstrated a significant negative impact of women's marital status on their economic empowerment, with married women generally displaying lower levels than single women. Based on the rules set by Hair et al. (2019) and Henseler et al. (2015), the SRMR model fit test produced a value of 0.062, which is less than the 0.08 threshold. This means that the model fit well.

6.9 Measurement of predictive relevance (Q2 Predict)

Using the Partial Least Squares (PLS) prediction approach, the study evaluated the predictive influence of women's economic empowerment (WE) on financial inclusion (FI) in Table (49), adhering to the recommendations put forward by Shmueli et al. (2019). Examined were the Q2 prediction values; predictive importance was shown by values larger than zero. To explicitly calculate the root mean squared error (RMSE) and prediction error for the endogenous construct of women's economic empowerment, the Q2 metric was utilised. The results of Hair et al. (2019) were corroborated when the RMSE values from the PLS model were compared with those from the linear regression model, which demonstrated the PLS model's higher predictive performance for women's economic empowerment.

Table 49: PLS predict evaluations

Construct	Q^2predict	PLS-SEM_RMSE	LM_RMSE	PLS LM	Predictive Power
WEA	0.036	1.11	1.102	0.008	High Predictive power
WEH	0.222	0.997	1.014	-0.017	
WEI	0.204	1.008	1.026	-0.018	
WES	0.268	0.967	0.977	-0.01	

Source: Authors work

Note(s): LM- Linear Model Benchmarks; PLS- Partial Least Squares; RMSE- Root Mean Squared Error.

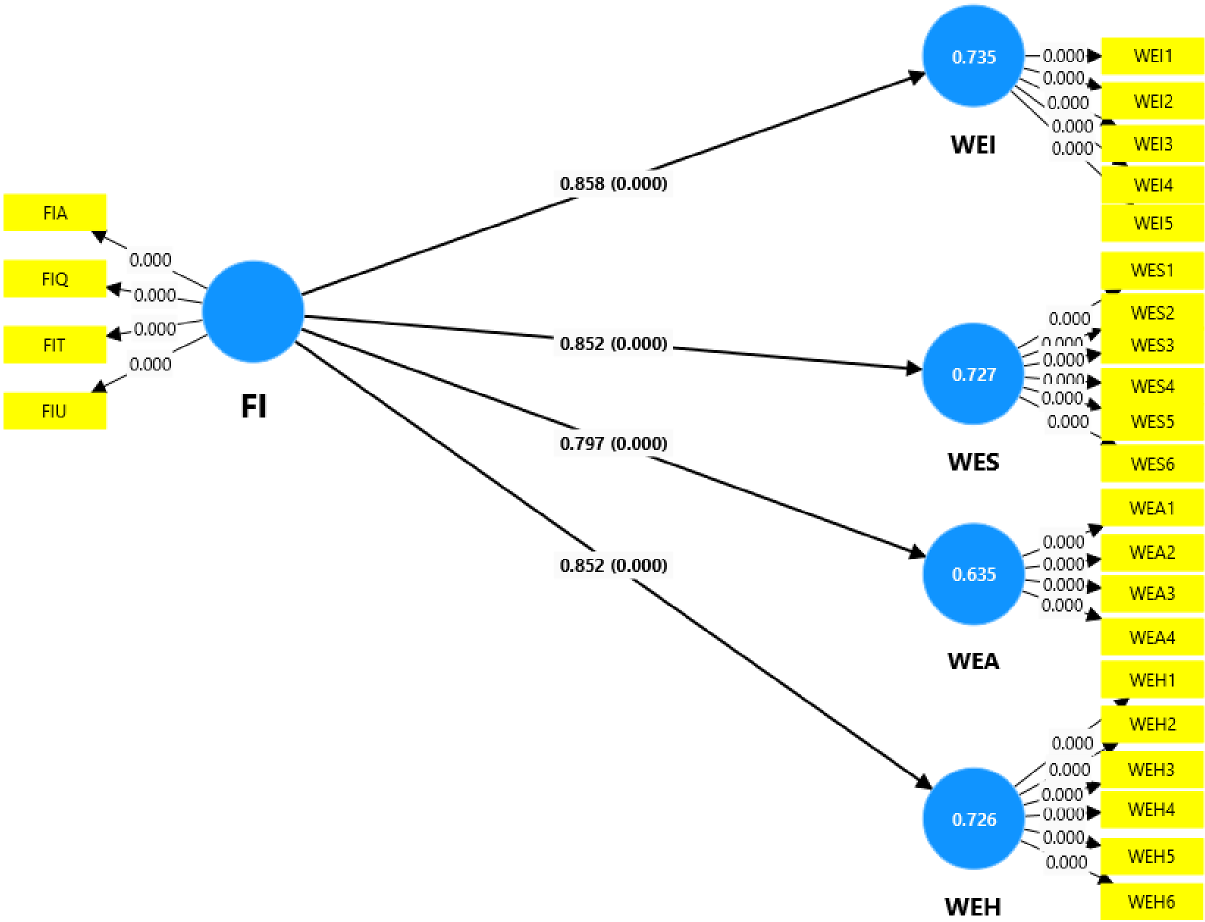


Figure 13 Structural model: Direct effect of financial inclusion on income, savings, asset Generation and control over household income.

Source: Authors work

Table 50: Sub-Hypotheses testing structural model

Hypothesis	Path relation	(β) Beta	T Statistics	CI0.95	VIF	R2	R2 adjusted	P value	Significance
H1a	FI -> WEI	0.858	38.901	(0.812; 0.898)	1	0.735	0.734	0	Yes
H1b	FI -> WES	0.852	38.917	(0.808; 0.893)	1	0.727	0.726	0	Yes
H1c	FI -> WEA	0.797	30.679	(0.742; 0.844)	1	0.635	0.634	0	Yes
H1d	FI -> WEH	0.852	49.178	(0.816; 0.885)	1	0.726	0.725	0	Yes

Source: Authors own work

Note(s): FI=Financial Inclusion, WEI=Women’s economic empowerment (income), WES=Savings, WEA= Asset Generation. WEH= Control over household income CI=Confidence Interval at 95 per cent, β= Standardized Beta, Hypo= Hypothesis.

6.10 Interpretation of sub-hypotheses: structural model assessment

Figure 13 and Table 50 illustrate how financial inclusion, the independent variable, influences different aspects of women's economic empowerment, which are considered dependent variables. According to Hair et al. (2019; 2022), the study's methodology began with evaluating the coefficient of determination (R2) for endogenous variables, which is in line with Hair et al.'s (2019) suggestion. This study next looked at the VIF values for each dimension, and as stated by Hair et al. (2019), all of them were below the critical threshold of 3.33. Following the methods of Hair et al. (2022), the study proceeded to the hypothesis testing step by utilizing a bootstrap approach with 10,000 subsamples. During this stage, the study concentrated on p-values, beta (β) coefficients, and 95% confidence intervals (CI). All the presented hypotheses received consistent support from the results of these statistical metrics. This analysis revealed a statistically significant influence of FI on various aspects of women’s economic status, including income, savings, asset generation, and control over household income, thus confirming all related sub-hypotheses.

6.11 Discussion of the results

Financial inclusion and economic empowerment among women: There is general agreement that financial inclusion is a key factor in women's economic empowerment (Demirgüç-Kunt et al., 2017; Pereznieto & Taylor, 2014). The purpose of the study was to investigate this relationship, and the results strongly supported the hypothesis, showing that financial inclusion has a favourable and significant impact on women's economic empowerment. In line with earlier studies (Ojediran & Anderson, 2020; Kabeer, 2019), results demonstrate how women's access to financial goods and services enables them to manage their money wisely, make wise financial decisions, and increase their economic liberty.

Financial inclusion and income: Women's income dynamics are greatly influenced by financial inclusion, which gives them the chance to participate in revenue-generating activities and enhance their financial prospects. Expanding upon previous research (Bruhn & Love, 2014; Khan et al., 2020), the investigation explored this correlation and found strong proof in favour of the beneficial influence of financial inclusion on women's income levels. Our results are in good agreement with earlier studies, showing that women who had access to financial inclusion programmes had a notable rise in their income levels. Women now have more opportunities to invest in important fields like healthcare, education, and start-up businesses because of their increased income.

Financial inclusion and savings: Building on the body of research that emphasises the significance of formal savings systems, our study examined the complex relationship between women's savings behaviour and financial inclusion (Bhatia & Singh, 2019; Chakrabarty, 2013). This thorough study of the data revealed a noteworthy effect of financial inclusion programmes on women's saving behaviours and financial resilience. \

Financial Inclusion and asset generation: The complex relationship that exists between women's financial inclusion and asset formation is consistent with the body of research that highlights the critical role that credit availability plays in enabling asset building (Ghosh & Vinod, 2017; Singh & Roy, 2021). This study's investigation revealed that financial inclusion efforts had a revolutionary effect on women's capacity to invest in productive assets, ultimately leading to increased production, income, and autonomy.

Financial inclusion and household decision making: In line with earlier research that highlights how financial inclusion gives women the ability to manage their income and make wise financial decisions, this study examined the intricate dynamics of financial inclusion and its effects on women's control over household income (Garikipati, 2008; Khanna & Thomas, 2016). Our results provide important new understandings of how financial inclusion programmes empower women to influence household income and encourage better investments in family welfare, healthcare, education, and general well-being.

6.12 Summary

The study discovered a robust and positive correlation between women's economic empowerment and financial inclusion in the Jammu and Kashmir region of India. Financial inclusion significantly enhances women's economic status in various aspects such as income, savings, asset creation, and control over household finances. The study's model demonstrated a high level of explanatory power, implying that financial inclusion significantly contributes to the advancement of women's economic empowerment. The results showed consistency across several aspects of economic empowerment, indicating that widespread improvements in women's economic circumstances can result from greater access to and utilization of financial services. The study also revealed that the marital status of women somewhat influenced their economic empowerment, with married women often demonstrating lower levels of empowerment than unmarried ones. Overall, the study provides strong evidence supporting the importance of financial inclusion initiatives in enhancing women's economic empowerment in India.

Chapter-7

Government Initiatives on Women's Economic Empowerment

Objective 4: To evaluate the role of government policies and schemes in the economic empowerment of women in J&K

7.1 Introduction

In India, men comprise 51.96% of the population, and women 48.04%. In Jammu and Kashmir, women make up 47 percent of the population. If this sizeable segment of the population helps India grow, it can become a developed country (Suri & Sharma, 2024). Government programs and policies are essential in fostering women's economic empowerment, which is a critical component of gender equality and sustainable development. This is especially true in areas with significant socioeconomic and political issues (Biswas & Banu, 2023). This chapter aims to evaluate the impact and efficacy of these initiatives in increasing women's financial autonomy, economic engagement, and general empowerment in Jammu and Kashmir. Political instability, economic underdevelopment, and gender inequality are just a few of the issues the Union Territory has had to deal with. Notwithstanding these challenges, there is a growing recognition of the value of women's economic empowerment in promoting inclusive growth and social development (Bhat & Rather, 2013).

Traditionally, women in J&K have played significant roles in agriculture, handicrafts, and household economies, but their contributions have often been undervalued and overlooked in formal economic assessments (Bhat, 2015). The region's history of conflict and political instability has further complicated women's economic participation and empowerment. Qazi (2014) notes that the prolonged conflict in J&K has had a disproportionate impact on women, affecting their mobility, access to education, and economic opportunities. Despite these challenges, women have shown resilience and have been actively involved in both formal and informal economic activities. However, their participation in the formal labor force remains low compared to national averages (Malik & Khaliq, 2017). This chapter assesses the numerous programs that are accessible to women at the national and Union Territory levels, as well as the understanding and perspectives of women about these initiatives. The chapter also contains an activity map of the Pradhan

Mantri Jan Dhan Yojana, a recent financial and empowerment program of the Indian government.

7.2 Government policies and schemes for women's economic empowerment

Over the years, both central and state governments have introduced various policies and schemes aimed at promoting women's economic empowerment these initiatives can be broadly categorized into policies at national level and at UT level that is in Jammu and Kashmir:

Table 51: Policies at national and UT level

S.NO	Policies at National Level	Area	Objectives	Applicability
1.	Bharathiya Mahila Bank Business Loan	Woman entrepreneurs: Retail Trader, Service Enterprises Manufacturing Enterprises.	•The female entrepreneurs provided a reduction of 0.25% on interest rates. • A combination of term loans and working capital. • The payback period is adjustable, with a maximum duration of seven years. • Collateral is not required for loans up to Rs 1,00,00,000 in total amount. Encouraging women to pursue careers in the workforce and laying the groundwork for their financial emancipation.	•Sole Proprietor •Partnership Firms •Public and Private Limited Companies •Co-operative Society •Minimum 2 years of work experience; in case of self-employed, minimum of 2 years of business continuity •Minimum age of 21 years and maximum age for 60 years (loan completion age) •Minimum take home income of Rs. 25000/- per month
2.	Mudra Yojana Scheme	Sectors: Manufacturing, Trading, and Services. Perfect for opening small businesses, beauty shops, or home-based enterprises, Artisans, • "Agribusiness-	The Pradhan Mantri Mudra Yojana was introduced in 2015 with the goal of regulating microfinance institutions (MFIs) and giving small business owners access to loans of up to Rs 10 lakh. Mudra focuses on female businesses as well as young, educated or talented people.	Any Indian national with a business plan for an income-generating venture outside of agriculture, such as manufacturing, processing, commerce, or services, and with a credit need under Rs. 10 lakh, may apply for a Mudra loan via a bank or microfinance institution.

		related activities," such as beekeeping, raising poultry and cattle, rearing them, grading, sorting, and aggregating the agricultural industries, keeping a diary, fishing, agriclinics and agribusiness centers, food and agro-processing, etc. (apart from crop loans and land improvement projects like canals, irrigation systems, and wells).		
3.	Dena Shakti Scheme	Agriculture and related pursuits Small Businesses (Finance, Both Direct and Indirect) Micro and small businesses that manufacture goods Micro and small (service) businesses, such as independent contractors, small company professionals, small road and water transport providers, and all other service businesses Housing for Retail Trade Microcredit Education.	The goal of the Dena Shakti Scheme is to provide reasonably priced funding to female business owners engaged in a variety of ventures. Both MSME and agriculture-based businesses are included in these operations.	A woman entrepreneur may apply for the Dena Shakti Scheme if she owns more than 50% of a firm.
4.	Udyogini scheme	A program called Udyogini offers subsidized loans to prospective female business owners in rural and impoverished regions. Through providing the required financial assistance, the program seeks to encourage women's	The main goal of the Karnataka state is to use this program to help women become self-sufficient by starting their own companies and microenterprises and to stop them from taking out high-interest loans from moneylenders for the same purpose. In addition, it plans to provide financial aid together with training in skill development.	• Business loans only offered to female entrepreneurs • The candidate should have a solid credit score and be able to repay the loan; they should not have defaulted on any previous loans from any financial institution.

		self-reliance, financial empowerment, and entrepreneurship.		
5.	Cent Kalyani Scheme	Women working in small, medium-sized and micro enterprises (MSME), retail trade, self-employment, small and related businesses, rural employment, cottage industries, and government-sponsored programs may all use it.	The Cent Kalyani scheme's goal is to provide female entrepreneurs steady, long-term job prospects.	Female entrepreneurs who are at least eighteen years old; no upper income limit for support
6.	Mahila Udyam Nidhi Scheme	The “Mahila Udyam Nidhi Scheme” was introduced by the Small Industrial Development Bank of India (SIDBI) to aid female entrepreneurs in the industrial, manufacturing, and service sectors by offering loan facilities and financial support.	Mahila Udyam Nidhi's goal is to assist female entrepreneurs in obtaining the equity funding they need to launch a new company.	All newly created and current MSME or Tiny Units that are solely endorsed by female entrepreneurs The proportion of ownership and financial stake held by female entrepreneurs must not fall below 51% of the total firm value. Only the following business activities are eligible for the loan: expanding the firm, improving it, diversifying it, upgrading machinery and equipment, improving services, or starting a new venture that meets the eligibility requirements listed above for one of the approved business models.
7.	Pradhan Mantri Jan Dhan Yojana	For the unbanked, a single basic savings bank account is established. PMJDY accounts do not need to have a minimum balance maintained. On deposits made into PMJDY accounts, interest is accrued. PMJDY account holders get a Rupay Debit card.	The "Pradhan Mantri Jan-Dhan Yojana (PMJDY)" aims to provide excluded groups, such as low-income and weaker sectors, with access to a range of financial services, including basic savings bank accounts, need-based credit, remittance facilities, insurance, and pensions. Only with the efficient use of technology is this extensive penetration at a reasonable cost feasible.	The applicant must fall between the age ranges of 18 to 59 in order to be eligible for the Pradhan Mantri Jan Dhan Yojana Account.

		With a RuPay card that is supplied to PMJDY account holders, accident insurance coverage of up to Rs. 1 lakh (upgraded to Rs. 2 lakh for new accounts created from 28.8.2018) is available. For qualified account holders, an overdraft (OD) option of up to Rs. 10,000 is offered. The Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY), Pradhan Mantri Suraksha Bima Yojana (PMSBY), Atal Pension Yojana (APY), Direct Benefit Transfer (DBT), and Micro Units Development & Refinance Agency Bank (MUDRA) schemes are all applicable to PMJDY accounts.		
S.NO	**Policies at UT/State level**	**Area**	**Objectives**	**Applicability**
1.	National Minorities Development & Finance Corporation (NMDFC) Term loan scheme	Individual beneficiary for Jute Accessories, Jute Fancy Bags, General Store, Embroidery, D.T.P, Beauty Parlour, Bakery Shop, Paper Machine, Milk Products, Pashmina Spinning, Carpet Weaving, Artificial Flowers, Dori Work, Block Printing, Cutting Tailoring/Fabric Art etc. or any other activity which beneficiary can find viable.	Offers long-term loans with discounted interest rates to help low-income women from minority communities establish their own sources of income.	Muslims, Buddhists, Sikhs, Christians, and Parsis are among the minorities. The beneficiary must be an individual from a minority community, be a permanent resident of J&K, be between the ages of 18 and 45, and not be in default with any other financial institution. The annual family income in metropolitan regions is Rs. 1,20,000, whereas in rural areas it is Rs. 98,000.

2.	Virasat Scheme	Beneficiaries from underrepresented groups have to possess an Artisan Card.	Established to satisfy artisans' credit needs for working capital and fixed capital for acquiring machinery, equipment, and tools. it was	Beneficiaries from underrepresented communities who own an Artisan Card should be between the ages of 18 and 45, permanent residents of J&K, and free from debt from other financial institutions.Family income per year: Rs. 1,20,000 in cities and Rs. 98,000 in rural regions.
3.	Micro Finance Loan Scheme	Organizations/SHG for Jute Fancy Bags, Jute Accessories, Embroidery, Milk Products, Carpet Weaving, Artificial Flowers, Dori Work, Block Printing, Cutting Tailoring/Fabric Art, etc., or any other activity that the organization/SHG deems feasible.	To provide Micro Finance to women entrepreneurs belonging to the target group.	A group of five to twenty recipients who are members of a minority population and who range in age from 18 to 45. They must be J&K permanent residents and not be in arrears with any other financial institution. The annual family income in metropolitan regions is Rs. 1,20,000, whereas in rural areas it is Rs. 98,000.
4.	Education Loan Scheme	Any graduate-level and postgraduate professional and technical courses that have been authorized by the relevant body, such as the AICTE, UGC, Medical Council of India, etc.	Cover the costs of pursuing postgraduate education in India or outside the country.	A recipient from the minority community who falls within the age range of 16 to 32 must be a permanent resident of J&K and cannot be in arrears with any other financial institution. The recipient must have been accepted into a government or semi-government institution or have earned 80% or above in order to be admitted to a private institution.
5.	National Backward Classes Finance & Development Corporation (NBCFDC). Term Loan/New Swarnima Scheme	Individual beneficiary for Jute Accessories, Jute Fancy Bags, General Store, Embroidery, D.T.P, Beauty Parlour, Bakery Shop, Papier Machine, Milk Products, Pashmina Spinning, Carpet Weaving, Artificial Flowers, Dori Work, Block Printing, Cutting	Under this arrangement, the Corporation lends money to the recipients at a very low interest rate so they may establish their income-generating units.	Beneficiaries from the underprivileged classes who are between the ages of 18 and 45 must be permanent residents of J&K and cannot be in arrears with any other financial institution. The annual family income in both urban and rural regions is Rs. 3.00 lakhs.

		Tailoring/Fabric Art etc. or any other activity which beneficiary can find viable.		
6.	Micro Finance Loan Scheme	NGO/SHG for Jute Accessories, Jute Fancy Bags, Embroidery, Milk Products, Carpet Weaving, Artificial Flowers, Dori Work, Block Printing, Cutting Tailoring/Fabric Art etc. or any other activity which NGO/SHG can find viable.	To provide Micro Finance to women entrepreneurs belonging to the target group	A group of five to twenty recipients from the lower classes who are between the ages of eighteen and forty-five; they must be permanent residents of J&K and not be in arrears with any other financial institution.
7.	National Handicapped Finance & Development Corporation (NHFDC). Term loan scheme	Individual beneficiary for Jute Accessories, Jute Fancy Bags, General Store, Embroidery, D.T.P, Beauty Parlour, Bakery Shop, Papier Machine, Milk Products, Pashmina Spinning, Carpet Weaving, Artificial Flowers, Dori Work, Block Printing, Cutting Tailoring/Fabric Art etc. or any other activity which beneficiary can find viable.	Regardless of caste, creed, religion, or financial level, the target populations for this initiative are differently abled women with a 40% handicap as defined by the PwD Act, 2016 or its revisions. Under this strategy, the Corporation offers loans to the recipients at very cheap interest rates so they may establish their income-generating enterprises.	Beneficiaries who meet the eligibility requirements should be permanent residents of J&K, have a disability rate of at least 40% (a certificate from the Chief Medical Officer or Medical Board is required), and be between the ages of 18 and 58. In the case of those who have mental retardation, the eligibility age would be over 14.
8.	Women Entrepreneurship Programme (WEP) Term Loan Scheme	Individual beneficiary for Jute Accessories, Jute Fancy Bags, General Store, Embroidery, D.T.P, Beauty Parlour, Bakery Shop, Papier Machine, Milk Products, Pashmina Spinning, Carpet Weaving, Artificial Flowers, Dori Work, Block Printing, Cutting	Young women who meet the eligibility requirements may apply for loans under this program, regardless of their caste, creed, religion, or financial level. Under this strategy, the Corporation offers loans to the recipients at very cheap interest rates so they may establish their income-generating enterprises.	A single general category recipient must be matriculated or older, fall between the 18–60 age range, be a permanent resident of J&K, and not be in arrears with any other financial institution.

		Tailoring/Fabric Art, Horticulture, Agriculture, Aquaculture, Cut Flowers, Aromatic Plants, Food Products etc. or any other activity which beneficiary can find viable.		
9.	Tejaswani scheme under mission youth	Women of J&K	Strengthening Women Entrepreneurs Ecosystem	To provide ladies between the ages of 18 and 35 financial support of Rs 5 lakhs so they may launch their businesses.
10.	Indira Gandhi Maternity Support Scheme (I.G.M.S.Y)	RURAL & URBAN women population in india	Encouraging the use of institutional services, acceptable practices, and care throughout pregnancy, birth, and breastfeeding. encouraging the mothers to adhere to (optimal) feeding and nutrition habits, such as starting breastfeeding at a young age and continuing it exclusively for the first six months. Offering financial rewards to expectant and nursing moms in exchange for better health and nutrition. The program aims to partially make up for the wages that expectant and nursing mothers lose both before and after giving birth.	Benefits under the IGMSY are available to pregnant mothers who are above 19 for their first two live deliveries. Since they are entitled to pay maternity leave, all workers in the organized sector are not included in the program. .
11.	RASHTRIYA MAHILA KOSH LOAN	RMK extends loans to registered non-government organizations (NGOs), Intermediary Organizations (IMOs) and Voluntary Organisation (VOs) who onlend to group of individual beneficiaries (SHGs& JLGs) of poor women.	To encourage or carry out initiatives aimed at advancing credit as a tool for socioeconomic growth and transformation by providing women with a range of financial and social infrastructure development services.	The nation's women, whether rural and urban, are the focus of RMK's operations. Credit is provided by RMK via a number of lending programs, including the lending Promotion Program, Main Loan Program, Gold Credit Program, Housing Loan Program, Working Capital Loan Program, Repeat Loan Program, and Loan to SHGs through Federations.”

7.3 Impact and effectiveness of government interventions

Several studies have examined the impact of government policies and schemes on women's economic empowerment in J&K:

After conducting a thorough investigation, Hassan and Yaseen (2016) discovered that government measures had helped boost the number of women in Jammu and Kashmir who were working, especially in rural regions. However, the authors also observed significant regional differences in the utilization and outcomes of these initiatives. Because certain areas profited more than others, there is a need for more fair policy implementation as well as an unequal allocation of resources.

Malik (2018) examined the efficacy of microfinance programs at J&K and discovered that, although these endeavors have increased women's credit availability, their overall influence on sustained economic empowerment is still very small. Sociocultural obstacles and a deficiency of robust support systems have limited the potential advantages of microfinance in promoting long-term transformation for women. These difficulties imply that, in the absence of resolutions to more significant structural problems impeding women's economic advancement, loan availability alone is insufficient.

Shah and Butt (2020) evaluated a number of skill-building initiatives targeting women's empowerment and found encouraging results in terms of skill development. They did, however, also see challenges in converting these recently acquired abilities into real-world chances for secure work or entrepreneurship. The disconnect between training and the creation of jobs is a reflection of the need for more encompassing strategies that link skill development to the demands of the market and entrepreneurial ecosystems.

Bhat and Misri (2019) examined how self-help groups (SHGs) affected rural women's empowerment in J&K. They discovered notable gains in women's financial independence and participation in family decision-making. While it is evident that participants in these programs have benefited, the researchers also highlighted the small size and limited reach of SHGs, arguing that expanding the scope of these efforts is necessary to have a more significant and long-lasting influence on women's empowerment.

7.4 Notwithstanding the benefits, a number of obstacles and restrictions have been found in the execution and efficiency of government programmes and policies

According to Qazi (2014), the region's prolonged war has made it extremely difficult to carry out initiatives that promote economic development. Many efforts fail to produce meaningful results due to the volatility and ongoing turmoil, which makes it difficult to maintain continuity and concentration. The unpredictable climate makes it difficult to consistently pursue and achieve long-term economic goals aimed at empowering local residents, thereby sabotaging efforts.

Bhat (2015) emphasizes that social and cultural impediments, such as deeply rooted patriarchal norms and cultural constraints, still prevent women from actively participating in the economy. Gender norms and cultural expectations frequently hinder women from fully pursuing economic prospects, especially in conservative or rural areas, even in the face of a plethora of legislation and initiatives aimed at empowering women. This unwillingness to adapt highlights how slowly women's economic involvement is progressing.

According to Ganai and Mir (2020), one of the biggest obstacles to participating in government programs and realizing their potential advantages for many women—particularly those residing in rural areas—is a lack of information. The fact that many women remain unaware of the existence of programs aimed at their economic growth greatly diminishes their efficacy. Poor information transmission and restricted access to resources in rural areas aggravate this problem.

Hassan and Yaseen (2016) highlight how important accessibility and infrastructure are to the effectiveness of government initiatives in rural regions. Economic empowerment programs face major obstacles in their efforts to reach a wider audience and be more successful due to inadequate infrastructure, which includes inadequate transportation networks and restricted access to financial institutions. Women residing in remote or underprivileged areas sometimes face logistical and accessibility challenges that prevent them from fully benefiting from these programs, further widening the disparity between urban and rural recipients.

Shah and Butt (2020) talk about how there is often a mismatch between the skills taught in government-run programs and what employers really need. The mismatch between the skills offered and the employment prospects in the area diminishes the efficacy of these programs. This also restricts the economic empowerment of women taught via these programs by making it harder for them to obtain employment or business possibilities that fit with their newly acquired abilities. This disparity emphasizes the need for more specialized training that meets the demands of the market in order to promote genuine economic engagement.

7.5 Survey

In order to determine the respondents' understanding of the many government programs and initiatives targeted at economic empowerment, we included targeted questions in our extensive survey of women in Jammu and Kashmir. The Pradhan Mantri Jan Dhan Yojana (PMJDY), India's most recent flagship financial inclusion strategy, was given special consideration in terms of awareness and use. For several reasons, we decided to concentrate on the PMJDY. Firstly, the PMJDY is a nationally recognized program that has the potential to significantly impact women's financial inclusion and economic empowerment. Second, the program's diverse approach, which covers lending, insurance, and banking services, is in line with our research's dual goals of studying financial inclusion and economic empowerment. Third, the 2014 introduction of the PMJDY, a relatively new policy, presents an opportunity to assess the effectiveness of modern government programs in reaching and assisting women in challenging situations such as J&K. We hope to learn more about the penetration of the program, its perceived advantages, and any obstacles to its use in the area by assessing the respondents' awareness and involvement with the PMJDY. The present research aims to enhance our comprehension of the intricate relationship between national policies and their local implementation, with a specific focus on women's economic empowerment in places devastated by conflict. For this objective, all 426 respondents were assessed on their awareness of government schemes and programs. We employed a Likert scale, with 1 denoting "strongly agree" and 5 denoting" "strongly disagree."

Table 52: Level of Perception results (in %)

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
I am aware of government policies and schemes targeted at women economic empowerment.	1.9%	3.1%	4.5%	68.3%	22.3%
I am benefitted from Govt schemes, policies	1.6%	9.6%	3.8%	82.2%	2.8%

related to the economic empowerment of women or entrepreneurship					
I am aware of Pradhan Mantri Jan Dhan Yojana scheme for financial inclusion.	2.6%	66.4%	3.3%	25.4%	2.3%
I am benefitted from Pradhan Mantri Jan Dhan Yojana scheme for financial inclusion.	1.9%	41.1%	4.5%	50.5%	2.1%
PMJDY has increased access to banking services for women.	2.3%	62.7%	5.4%	27.7%	1.9%
In your opinion, has PMJDY contributed to a reduction in financial gender disparities.	1.6%	61.7%	6.6%	27.9%	2.1%
Financial literacy initiatives associated with PMJDY in increasing women's awareness about banking services and financial management have been effective.	1.9%	28.4%	6.1%	61.3%	2.3%

Source: Authors work

7.6 Interpretation of survey results

Respondents' perceptions of "government programs and policies aimed at women's economic empowerment" reveal a notably low level of knowledge and benefit. Significantly, 68.3% of participants deny knowing about these programs, and a resounding 82.2% claim they have benefited nothing from government activities in this area. This suggests that, although there are programs aimed at empowering women, their influence and reach seem limited, indicating a lack of accessibility or distribution. Notably, 66.4% of respondents said they were aware of the “Pradhan Mantri Jan Dhan Yojana (PMJDY),” which promotes financial inclusion. However, only 41.1% of respondents said they have directly benefited from the program. Even though 62.7% of respondents think that the PMJDY has improved women's access to banking services, only 61.7% agree that the program has significantly reduced financial gender inequities or resulted in substantial personal gains as a result of this increase in access. Additionally, 61.3% of respondents disagreed that financial literacy programs associated with PMJDY have enhanced women's financial management abilities or raised their awareness of banking services, suggesting that these programs have been unsuccessful. Considering everything, the results highlight the urgent need for increased financial literacy training, improved outreach, and improved execution to ensure government efforts reach and benefit women, especially in advancing their economic empowerment.

7.7 Chosen policy for activity mapping: Pradhan Mantri Jan Dhan Yojana (PMJDY)

Given these challenges, it is crucial to critically examine specific government initiatives that aim to address both financial inclusion and economic empowerment for women. In this segment, we will focus our analysis on the Pradhan Mantri Jan Dhan Yojana (PMJDY), a comprehensive financial inclusion scheme launched in 2014 with nationwide applicability and special emphasis on women beneficiaries. The PMJDY is particularly relevant to our study as it encompasses both key aspects of our research: financial inclusion and economic empowerment of women. By providing access to banking services, insurance, and credit facilities, the PMJDY aims to bridge the gender gap in financial inclusion while simultaneously fostering economic independence among women (Ministry of Finance, 2021).

Pradhan Mantri Jan Dhan Yojana (PMJDY): Prime Minister Narendra Modi introduced the Pradhan Mantri Jan-Dhan Yojana (PMJDY) on August 28, 2014, to give every family access to banking services by giving them a basic savings bank deposit (BSBD) account. These accounts provide benefits, including a RuPay debit card and an overdraft facility of up to ₹10,000 for qualified account users, and they feature no minimum balance requirements. To inform the public about financial services, the program also prioritizes financial literacy initiatives. PMJDY also includes microinsurance, pension plans for the unorganized sector such as Swavalamban, and the establishment of a Credit Guarantee Fund to ensure financial stability and credit availability. The goal is to overcome technology challenges for seamless transactions, integrate government benefit transfers, and advance financial inclusion.

The scheme mentioned above encompasses various aspects of financial inclusion and empowerment. It will be really interesting to evaluate the policy on various parameters so as to know how well a policy will help the state in covering the financial inclusion and economic empowerment of women. Through an in-depth activity mapping of the PMJDY, the study has evaluated its implementation, reach, and impact specifically in the context of Jammu and Kashmir. This analysis provides valuable insights into the effectiveness of large-scale national policies in addressing region-specific challenges and their potential to drive women's economic empowerment in areas like J&K. In the next part, we discuss the methodology and the process of evaluating the policies using the activity mapping method.

7.8 Process followed for Activity mapping: The following process has been followed for developing activity mapping for the functions of the Pradhan Mantri Jan Dhan Yojana.

Step 1: List all the functions connected to the plan or programme by gradually unbundling potential duties connected to the scheme or programme.

Step2: Classifying all the functions listed within five Broad Categories.

These five broad categories are:

- Setting Standards which decide the threshold for the program
- Planning where the roadmap is developed for the program
- Asset Creation is done in the due course of the implementation of the program
- Implementation & Management of the program
- Monitoring and Evaluation by the concerned authorities

Step 3: Further the functions are categorized within each broad category.

Step 4: Applying the accountability/subsidiarity and public finance principles to devolve the activities to a level of governance that is more appropriate.

7.8.1 Principles of Public Finance: These are the Principles of Public Finance which are followed in this work: 1) Economies of Scale 2) Externalities 3) Equity 4) Heterogeneity.

Principle of Accountability: These are the Principles of Accountability which are followed in this work: 1) Discretionary 2) Transaction Intensive 3) Technical Aspects.

7.8.2 Description of the Principles of Public Finance:

• **Economies of scale**: This idea highlights the fact that it costs a lot of money to carry out an activity, but as the scale grows, the cost drops. The idea of economies of scale encourages activity at a higher level of government.
• **Externalities:** This term refers to the activity's spill over effect, or external effects.

• **Equity:** The idea of equity refers to giving everyone the same opportunity. The classification of the tasks is done in a way that upholds the equity principle, which states that those tasks must be carried out at a higher standard.

• **Heterogeneity:** This refers to the fact that each individual's activity varies. The level at which an activity is to be conducted must be lower the more heterogeneous it is.

Table 53: Rule Matrix – I		
Principle of Public Finance	**High or Low**	**Activities performed by**
Externality	High	Lower level of government
Equity	High	Lower level of government
Heterogeneity	High	Lower level of government
Economies of Scale	High	Higher level of government

7.8.3 Description of the Principles of Accountability:

• **Discretionary:** This denotes the need for local discretion at the individual level. It is advisable to do discretionary activities at lower levels.

• **Transaction-intensive:** This describes an activity that requires recurrent local execution. It is advisable to carry out transaction-intensive tasks at lower levels.

• **Technical:** This refers to the best level at which the activity can be carried out. The top echelons of government keep an eye on operations requiring a greater level of technical expertise. However, if the activity is straightforward and local, it can be moved to lower levels.

Table 54:Rule Matrix – II		
Principles of Accountability	**Yes or no**	**Activities performed by**
Discretionary	Yes	Lower level of government
Transaction intensive	Yes	Lower level of government
Technical	Yes	Higher level of government

Step5: To construct a standard map to fit into a generalized format from which one can easily find out which tier of government has been assigned which responsibility.

Following the above-mentioned steps, the process of activity mapping has been followed for functions of Pradhan Mantri Jan Dhan Yojana

TABLE 55: UNBUNDLING OF THE FUNCTIONS INTO ACTIVITES OF PMJDY PRADHAN MANTRI JAN DHAN YOJANA AS PER PRINCIPLES OF FINANCE AND ACCOUNTABILITY

Broad activity	Major activity	Sub activity	Economies of scale	Externalities	Equity	Heterogeneity	Discretionary	Transaction intensive	Technical /Local	Central	State	District	Intermediate /village
Setting Standards	**Universal access to banking facilities**	Guidelines for identifying the areas in need of expansion of branch and branchless banking	HIGH	HIGH	HIGH	HIGH	NO	NO	Technical	YES			
		Guidelines for the coverage of identified areas	NA	NA	HIGH	HIGH	NO	NO	Technical		YES	YES	
		Guidelines for the working of branch banking	LOW	NA	HIGH	HIGH	NO	YES	Technical			YES	
		Guidelines for the working of branchless banking with business correspondent model	LOW	NA	HIGH	HIGH	NO	YES	Technical			YES	

		Guidelines for beneficiaries to avail the basic banking facilities	NA	HIGH	HIGH	LOW	NO	NO	Local		YES	YES	
	Providing Basic Banking Accounts with overdraft facility and RuPay Debit card to all households	Guidelines for opening of basic saving bank account, without any duplication	NA	NA	HIGH	NA	NO	YES	Technical			YES	
		Norms for the account holders to keep the accounts alive	NA	NA	HIGH	NA	NO	NO	Local		YES	YES	
		Norms for providing debit cards by banks for ease of accessibility/funds	NA	NA	NA	NA	NO	NO	Technical		YES	YES	

		Guidelines for providing overdraft facility to account holders	NA	NA	NA	NA	NO	NO	Technical		YES	YES	
	Financial Literacy Programme	Guidelines for the banks and business correspondents to impart financial literacy to unbanked households	HIGH	LOW	LOW	LOW	NO	NO	Technical		YES	YES	
	Credit Guarantee Fund	Guidelines for banks in identifying account holders to provide credit	NA	NA	LOW	LOW	NO	NO	Technical			YES	
		Norms for account holders in availing credit facilities	NA	LOW	NA	NA	NO	NO	Local		YES	YES	
	Micro insurance	Guidelines to promote Micro insurance products	NA	NA	HIGH	NA	NO	NO	Local	YES	YES		
		Guidelines for insurance companies\ intermediaries	NA	HIGH		NA	NO	NO	Technical	YES			
		Norms for households on availing insurance products	NA	NA	HIGH	NA	NO	NO	Local		YES	YES	
	Unorganized sector Pension schemes	Guidelines for identification of households/areas in unorganized sector	LOW	HIGH	HIGH	HIGH	NO	NO	Local	YES	YES		

		Guidelines for coverage of these households	NA	NA	NA	HIGH	NO	YES	Local		YES	YES	
		Norms for pension scheme holders/ beneficiaries	NA	LOW	HIGH	NA	NO	NO	Technical	YES	YES		
Planning	**Universal access to banking facilities**	Identify the regions with the help of a survey	LOW	NA	NA	HIGH	NO	NO	Local			YES	
		Plan awareness, education programmes or any other campaign in a way that is culturally appropriate.	LOW	NA	NA	LOW	YES	YES	Local			YES	
		Targets for the banks that every household has access to banking services.	NA	HIGH	HIGH	NA	NO	NO	Technical		YES	YES	
		a. Developing a Strategic Plan The objective is to establish a mapping system wherein each district is divided into sub-service areas, with the aim of providing banking services to a range of 500-1500 homes. This approach ensures that every habitation is within a reasonable proximity to accessible banking facilities. b. The implementation of appointing online fixed-point Bank Mitrs (Business Correspondents) in large numbers to provide essential banking services.	HIGH	HIGH	NA	HIGH	NO	NO	Local				YES
		Make this mandatory to have at least one account in a household	HIGH	NA	HIGH	NA	NO	NO	Technical	YES	YES		
	Providing Basic Banking Accounts with overdraft facility and RuPay Debit card to all households	a.Banks and business correspondents to make use of the e-KYC approach. B. b. Offline/ Manual account opening in the areas of no internet connectivity with KYC approach.	NA	NA	NA	NA	NO	YES	Local		YES	YES	

		Budgetary provisions to be made by the government for poverty eradication	HIGH	NA	NA	NA	NO	NO	Technical	YES			
		RuPay debit cards to be provided for the account holders	HIGH	NA	HIGH	NA	NO	NO	Local	YES			
		Planning proper Regulations on the implementation of the overdraft facilities.	NA	NA	NA	NA	NO	NO	Technical		YES		
	Financial Literacy Programme	Formulate a plan for the effective use of mass communication/awareness programmes to reach people at a mass level considering their demographic features	LOW	HIGH	NA	HIGH	NO	YES	Local	YES	YES		
	Credit Guarantee Fund	Plan a meeting with block samiti or village panchayat to provide awareness on Credit guarantee funds	NA	LOW	NA	HIGH	YES	NO	Local			YES	YES
		Proper mechanism/Guidelines for operating the account without any default	NA	NA	LOW	NA	NO	NO	Technical			YES	
	Micro insurance	Develop methods to enhance awareness and facilitate the promotion of insurance coverage within socioeconomically disadvantaged segments of the population	LOW	LOW	NA	LOW	NO	NO	Local		YES	YES	
		Workshops and seminars are to be held for insurance intermediaries to reach every household.	HIGH	NA	NA	NA	NO	NO	Technical	YES	YES		
		Plan/Make a norm for households to avail benefits of insurance products.	NA	NA	NA	NA	NO	NO	Local		YES		
	Unorganized sector Pension schemes	Plans to reach out to every person who is working in the unorganized sector with the help of a survey	LOW	HIGH	LOW	HIGH	YES	NO	Local		YES	YES	
		Plan to aware people of the unorganized sector through Nukad Natak, seminars, programmes, mass communication	LOW	NA	NA	HIGH	YES	NO	Local				YES

		Budgetary provisions to be made by the Government for the unorganized sector.	HIGH	NA	NA	NA	NO	NO	Technical	YES			
Asset creation	**Universal access to banking facilities**	Constructing Infrastructure for the Branch	HIGH	NA	NA	NA	NO	NO	Technical	YES	YES		
		a. Provide infrastructure for branchless banking. B. establishment of common service centres in these areas.	HIGH	NA	NA	NA	NO	NO	Technical		YES		
	Providing Basic Banking Accounts with overdraft facility and RuPay Debit card to all households	Purchase of required machinery and tools, Installation for online and offline mode facility of account opening.	HIGH	NA	NA	NA	NO	NO	Local		YES		
		Availability of ATM outlets/Mobile Van ATMs in rural/urban areas	HIGH	NA	NA	NA	NO	NO	Local		YES		
	Financial Literacy Programme	The implementation of a sufficient quantity of Financial Literacy Centres (FLC) and the development of a mechanism to enhance financial literacy among economically marginalized groups of households.	HIGH	NA	NA	NA	NO	NO	Local			YES	
	Unorganized sector Pension schemes	Approve the budget for the project	HIGH	NA	NA	NA	NO	NO	Technical	YES			
Operation	**Universal access to banking facilities**	Develop the Questionnaire for the Survey	LOW	NA	NA	LOW	NO	NO				YES	
		Beneficiary Selection, Choice of households for targeted program	NA	NA	LOW	HIGH	NO	NO	Local			YES	
		Hiring of employees/business correspondents, Assignment of targets Training Salary Supervision/ Performance Dismissal.	HIGH	NA	NA	NA	NO	NO	Local	YES			

		Working facilities are to be provided in common service centres for execution.	HIGH	NA	LOW	NA	NO	NO	Local		YES	YES	
		Start the procedure of account opening with immediate effect	NA	NA	LOW	NA	NO	NO	Local			YES	
	Providing Basic Banking Accounts with overdraft facility and RuPay Debit card to all households	Maintenance of machinery, tools and all facilities.	LOW	NA	NA	NA	NO	NO	Technical			YES	
		Direct benefits, grants, and all other amounts from Govt to be transferred to these accounts	HIGH	NA	HIGH	NA	NO	NO	Technical	YES			
		Proper working and Security of operations of ATMs	NA	NA	NA	NA	NO	NO	Local			YES	
		A specific team for overdraft facility that will keep a proper check on defaulters/account holders.	LOW	NA	LOW	NA	NO	NO	Local		YES		
	Financial Literacy Programme	Organize conferences, seminars, and programs to educate the households/public	LOW	NA	LOW	LOW	YES	NO	Local		YES	YES	
	Credit Guarantee Fund	Appointing a respective designator body for channelizing the credit.	LOW	NA	LOW	LOW	NO	NO	Local		YES		
		Minimum EMIs with a low rate of interest as compared to other credit options.	NA	NA	HIGH	NA	NO	NO	Technical	YES			
	Micro insurance	Minimum premium and maximum benefits under insurance policies	NA	NA	HIGH	NA	NO	NO	Technical	YES			
		Reach every household /account holder to provide the policy	NA	LOW	LOW	HIGH	NO	NO	Local			YES	

		Fix a nominal premium to cover the risk of the account holders	NA	NA	HIGH	NA	NO	NO	Technical	YES			
	Unorganized sector Pension schemes	Develop the questionnaire and start the survey.	LOW	NA	NA	NA	NO	NO	Local			YES	
		Specific regulatory body for taking the operations under this.	NA	NA	LOW	NA	NO	NO	Local		YES		
		Provide benefits that are under the scheme to account holders	NA	NA	HIGH	NA	NO	NO	Local	YES			
Evaluation and monitoring	**Universal access to banking facilities**	Monitoring identified areas covered under the policy.	LOW	HIGH	LOW	HIGH	NO	NO	Local	YES	YES		
		Feedback from the targeted audience.	NA	LOW	LOW	HIGH	YES	NO	Local			YES	
		Monitoring the branches whether they are working as per the objectives of the policy.	NA	NA	NA	NA	NO	NO	Technical		YES	YES	
		Evaluating the records of common service centres.	NA	NA	NA	NA	NO	NO	Local		YES	YES	
		Closely Monitor all the beneficiaries either in rural or urban areas.	NA	HIGH	LOW	HIGH	NO	NO	Local	YES			
	Providing Basic Banking Accounts with overdraft facility and RuPay Debit card to all households	Assessment of results on the basis of targets given to branch and branchless banking	NA	HIGH	HIGH	HIGH	NO	NO	Technical		YES		
		Evaluating the account usage of holders quarterly	NA	NA	NA	NA	NO	NO	Local			YES	

		Evaluating the process of each ATM with the help of transactions made.	NA	NA	NA	NA	NO	NO	Local			YES	
		Monitoring overdraft accounts regularly.	NA	NA	NA	NA	NO	NO	Local			YES	
	Financial Literacy Programme	Monitoring individual progress of each centre with the help of feedback.	NA	LOW	LOW	HIGH	NO	NO	Technical			YES	
	Credit Guarantee Fund	Quarterly Evaluation of credit account holders in order to avoid default.	NA	NA	LOW	NA	NO	NO	Local			YES	
		Proper Check on credit accounts.	NA	NA	NA	NA	NO	NO	Local			YES	
	Micro Insurance	Evaluating all products/policies provided under the scheme	NA	HIGH	HIGH	NA	NO	NO	Technical	YES			
		Assessment of learning achievements with the help of beneficiaries covered.	NA	LOW	NA	NA	YES	NO	Technical		YES		
		Monitoring each policy under the scheme with respect to premiums received from policyholders and benefits provided by companies/insurance products	NA	HIGH	HIGH	MEDIUM	NO	NO	Technical	YES			
	Unorganized sector Pension schemes	Evaluating the survey process with the help of data collected/ areas covered.	NA	HGH	LOW	HIGH	YES	NO	Technical		YES		
		Evaluating results on the basis of feedback from awareness programs.	NA	LOW	LOW	HIGH	NO	NO	Technical			YES	
		Fund allocation evaluation	NA	HIGH	NA	NA	NO	NO	Technical	YES			

Source: Authors work

7.9 Discussion

The literature has highlighted the importance of the Pradhan Mantri Jan Dhan Yojana (PMJDY) in advancing financial inclusion in India. According to Nimbrayan et al. (2018), on February 7, 2018, over 31.07 crore accounts had been opened in both rural and urban areas, including almost all households in the North Zone (Jammu & Kashmir excluded). According to Borah (2022), the goal of this program is to promote sustainable economic growth and alleviate poverty, with a focus on marginalized populations. The overall efficacy of the program is threatened by enduring issues such as account inactivity, financial illiteracy, duplication, and inadequate banking infrastructure (Singh, 2019). Financial inclusion has improved under the Pradhan Mantri Jan-Dhan Yojana (PMJDY), yet there are still issues with PMJDY account transactions of responsibilities, resulting in execution inefficiencies (Reddy, 2016). The major six pillars of this policy are: universal access to banking facilities; providing basic banking accounts with an overdraft facility and a RuPay debit card to all households; a financial literacy program; the creation of credit guarantee funds; micro-insurance; and unorganized sector pension schemes.

Using an activity mapping methodology, these six components were divided into sub-activities according to finance and accountability principles in order to assess the PMJDY policy. This mapping method not only makes roles and responsibilities at various levels of government clear, but it also pinpoints particular policy sections that need to be modified in order to improve the policy's efficacy. Activity mapping can play a crucial role in achieving financial inclusion and empowerment by clearly outlining responsibilities—the areas that were not well addressed during the initial design of policy. For instance, this mapping emphasizes the need for the central government to provide clear guidelines for identifying underserved regions and establishing branchless banking solutions. This focus on localized banking services can mitigate issues related to access and infrastructure, thereby addressing one of the key barriers to financial inclusion. Additionally, the provision of financial literacy programs must be tailored to community demographics, ensuring that citizens are not only aware of available services but also equipped to utilize them effectively. This activity mapping recommends that basic banking account opening, and overdraft services be handled by state governments, freeing up local government resources to address urgent community needs. More responsiveness to local settings is made possible by this decentralized strategy, which also improves accountability at the state and district levels. The strategy can more effectively address the issues of account inactivity and financial illiteracy by placing an emphasis on operational tasks for lower levels of government while maintaining technical oversight at the central level.

The activity mapping concludes that major activities, such as setting standards and asset creation, should be managed at the central government level, ensuring a cohesive framework for financial services across the country. In contrast, planning activities should be undertaken by state governments, which are better positioned to understand regional needs and contexts. Operational responsibilities, evaluation, and monitoring must be delegated to district-level governments, facilitating a more localized approach to implementation. This clear unbundling of tasks is essential, as the existing policy lacks a proper allocation. The mapping identifies crucial segments that require adaptation to get around current obstacles and increase the overall efficacy of the policy. These segments include creating budgetary provisions for infrastructure development, improving mass communication tactics to increase public awareness of available banking services, and putting in place strong monitoring frameworks to guarantee adherence to guidelines. This mapping offers a structured framework that matches roles with regional requirements, enabling a more successful PMJDY implementation and furthering the objective of universal financial inclusion and empowerment for all, especially the most disadvantaged groups in society.

7.10 Summary

The analysis began with a review of various government policies and programs at both the national and Union Territory levels, specifically focusing on those related to women’s economic empowerment. Through this assessment, we identified PMJDY as a key initiative for evaluation via activity mapping. As its essential to the country's overall development and economic expansion, especially when it comes to helping impoverished communities become more financially integrated. This innovative methodology allowed us to categorize the program's components into distinct roles and responsibilities, revealing the necessity for a well-structured framework. The findings recommended assigning planning and operational responsibilities to state and local governments and administering large initiatives requiring technical know-how at the national level. This precise division of duties improves accountability and empowers local government to successfully handle issues unique to a community. The study also made clear the necessity of some modifications to the PMJDY in order to overcome current obstacles, such as account inactivity and a lack of financial awareness. Strong financial allocations and enhanced mass marketing tactics to increase public knowledge of banking services were among the recommendations. All things considered, the knowledge acquired from this chapter emphasises how important the PMJDY is to attaining financial inclusion and strengthening the weaker facets of society. Policymakers can improve the efficacy of the project by refining it using a structured activity mapping technique, which would support the wider objectives of inclusive growth and economic development throughout India.

Chapter -8

Conclusion and Suggestions

Financial inclusion and women's economic empowerment are pivotal for India's journey towards sustainable growth and social progress. Numerous studies have highlighted that when empowered economically, women channel a substantial portion of their income into health and education, directly improving family welfare (World Bank, 2012). Research suggests that a mere 10% increase in women’s labor force participation could potentially raise India’s GDP by 1.2% (McKinsey Global Institute, 2015). Access to financial services not only reduces individual vulnerability but also enhances livelihoods, contributing to family well-being and poverty alleviation (UN Women, 2019). Despite these advantages, women in India continue to face significant barriers to financial inclusion, such as limited access to credit, insufficient financial literacy, and deep-rooted socio-cultural norms that restrict their financial autonomy (NITI Aayog, 2020).

Empowering women economically is not just a matter of gender equality but a crucial driver of national economic growth. It paves the way for sustainable development and aligns with global goals, including “Sustainable Development Goal 5” which seeks to achieve gender equality and empower all women and girls (Mulili, 2020). Women, comprising 48.4% of India's population, can significantly contribute to the nation's progress if their financial potential is unlocked. Moreover, evidence suggests that when women control financial resources, they are more likely to invest in the health, education, and overall well-being of their families (Nanda & Kaur, 2016).

However, the persistent lack of control over financial assets continues to hold women back. Financial exclusion exacerbates gender inequalities, trapping women in cycles of poverty and vulnerability (Cabeza et al., 2019; Govindapuram et al., 2023). Several studies have shown that access to financial services such as bank accounts, savings tools, and credit facilities enhances women’s ability to manage income, make personal and business purchases, and pursue economic opportunities (Ozili, 2024; Pinto & Arora, 2021; Arnold & Gammage, 2019).

This research, therefore, focuses on the status of financial inclusion and its impact on women’s economic empowerment in Jammu and Kashmir, a region where women constitute 47% of the population. The unique socio-economic conditions of Jammu and Kashmir, marked by significant urban-rural disparities and distinct cultural norms, make it a critical case for studying financial inclusion. The region has a well-documented gender gap in employment, education, and entrepreneurship, with female workforce participation at 25.51% compared to 53.26% for males, and literacy rates standing at 56.43% for females versus 76.75% for males (Census of India, 2011). Cultural norms in Jammu and Kashmir also play a crucial role in shaping women's economic participation. Societal expectations often compel women to prioritize household responsibilities over economic endeavors, and financial decisions frequently require male consent (Gul, 2015). This lack of autonomy further diminishes women’s ability to independently support their families (Dar, 2018).

The study explored several key areas related to financial inclusion, digital financial services, and government initiatives, with the following specific objectives:

1. To assess the current status of financial inclusion among women in Jammu and Kashmir.
2. To examine the role of digital financial services in promoting female financial autonomy.
3. To determine the contribution of financial inclusion to women's economic empowerment.
4. To evaluate the impact of government policies and schemes on women’s economic empowerment in Jammu and Kashmir.

Through this investigation, several critical findings emerged, offering a comprehensive understanding of the barriers and opportunities within financial inclusion for women in the region. The subsequent sections will provide a summary of the key findings and offer actionable recommendations to address the gaps identified on the part of service providers, government bodies, and respondents themselves.

8.1 Major findings objective wise:

The first objective's findings revealing the current financial status of women show both advancements and difficulties in women's financial inclusion in Jammu and Kashmir.

Descriptive statistics and chi-square analysis are used in the study to provide important insights into the access, use, and quality of financial services.

8.1.1 Access to basic financial services: The results show that although a sizable percentage of women in Jammu and Kashmir have access to financial instruments including ATMs, savings bank accounts, and debit cards, greater financial involvement is still challenging. These accounts are regularly used by many women for routine financial activities, including deposits and withdrawals, demonstrating broad access to fundamental financial services. However, there are still significant differences when it comes to more sophisticated financial activity. The absence of involvement in long-term financial planning is among the main causes of concern. Fewer women are making pension plan contributions or putting money down for their future. Furthermore, there is minimal use of financial services, with women not demonstrating much desire for loans to launch or grow enterprises. There is a noticeable gap in their financial involvement, as seen by the sparse usage of overdraft facilities and investment in financial instruments. In addition, the data emphasises how few women in the area possess credit cards and how few of them participate in Self-Help Groups (SHGs) and Direct Benefit Transfer (DBT) programs run by the government. These results highlight important areas that need focused attention in order to increase the breadth and quality of financial inclusion for women in Jammu & Kashmir. Closing these discrepancies might greatly increase women's economic independence and financial empowerment.

8.1.2 Impact of income on financial behaviours: The study demonstrates a strong correlation between financial behaviour and income levels. Women with higher incomes are more likely to engage in long-term financial planning, such as setting aside money for retirement and integrating bank accounts with insurance. Higher earners, on the other hand, tend to give priority to their present financial demands, which limits their capacity to participate in financial activities that are focused on the future. This is a reflection of the region's lower-class residents' financial limitations.

8.1.3 Impact of education on financial inclusion: Access to and use of financial services is significantly influenced by education. Educated women are more likely to possess smartphones and utilise ATMs/Debit cards, giving them better access to digital financial services. On the other hand, women who do not possess a formal education have a smaller percentage of smartphones and engage with financial services less frequently, indicating the significance of education/financial literacy in increasing financial accessibility.

8.1.4 Economic situation and financial participation: Women's involvement in financial schemes is strongly influenced by their employment situation. Women in the workforce are more likely to join in mutual funds and pension plan, especially if they have formal employment. On the other hand, there is minimal involvement in these programs from students, homemakers, self-employed, and the jobless, which suggests a lack of knowledge, resources, or capacity to pay.

8.1.5 Usage of financial instruments: Self-employed women are more likely to utilize overdraft facilities. Women in other categories (homemakers, students, etc.) either do not have access to these services or are unaware of their benefits, further highlighting the gaps in financial education and access.

Overall, these results show that although there has been improvement in giving women access to basic financial services, there are still major differences in terms of deeper financial participation, which are mostly impacted by socioeconomic characteristics including income, education, and work status. Women's financial habits and access to sophisticated financial products are significantly influenced by these characteristics. For women in Jammu & Kashmir to experience complete financial inclusion and empowerment, these inequities must be addressed.

Suggestions

1. **Enhanced Access to Financial Services:** Financial institutions should prioritize extending access to basic financial tools, such as savings accounts, debit cards, and ATMs, particularly for women in rural and underserved regions of Jammu and Kashmir. Mobile banking units and community outreach initiatives can help bridge this gap. Creating inclusive financial programs tailored to women's unique needs and socio-economic conditions will further improve their participation.
2. **Encourage Advanced Financial Engagement:**Efforts must focus on integrating women into sophisticated financial activities, including pension schemes, investment plans, and long-term savings. Awareness campaigns should highlight the benefits of these tools, while simplifying processes and reducing entry barriers, such as requiring minimal documentation or providing advisory services, to encourage participation.
3. **Targeted Financial Products:**Developing customized financial products for women, such as collateral-free loans, low-interest credit for small businesses, and simplified savings plans, will address barriers like lack of awareness and fear of debt.

Partnerships with community organizations can facilitate the delivery of these products.

4. **Strengthening Self-Help Groups (SHGs):** SHGs must be revitalized as platforms for collective financial growth. Providing training, incentivizing participation, and improving credit access through SHGs will empower women socially and economically. Policies encouraging SHG formation and sustainability should be implemented.

These actions will address the persistent disparities in financial access and participation by ensuring women have both the means and knowledge to utilize financial services effectively. Enhanced access to advanced financial instruments and tailored products will contribute to economic independence and long-term financial stability.

8.1.6 The role of digital financial services in promoting female financial autonomy

The Second objective's findings revealing the role of digital financial services in promoting the female financial independence. Descriptive statistics and partial least squares structural equation modelling (PLS-SEM) are used in the study to provide important insights into the relationship.

According to Duflo (2012), digital financial services (DFS) have been acknowledged as a game-changer for improving women's economic empowerment by giving them more financial resources and autonomy. According to Malhotra and Ranjan (2020), the DFS plays a crucial role in giving women easy access to safe financial management channels, which can have a big influence on their engagement in the economy. According to Adams et al. (2017), DFS helps women to start their own businesses, which helps them become financially independent and more powerful. The increase of women's financial capacities through DFS, which results in better economic outcomes and decision-making authority, is another point Sharma et al. (2019) emphasise. Interestingly, urban women in Jammu and Kashmir are more likely than their rural counterparts to use digital financial services, and this is positively correlated with more financial autonomy. The share of mobile financial services is 74%, indicating that DFS accounted for a significant variation in women’s financial autonomy. This study is in line with research by Suri and Jack (2016), Malhotra and Ranjan (2020), and Rahman et al. (2023), which elucidate the critical role that DFS plays in promoting women's independence in economic activities, formal banking service uptake, and financial freedom.

Moreover, the research highlights that DFS enhances women's purchasing power, financial independence, and financial literacy in addition to providing simple, secure, and efficient financial platforms. This underscores the potential of digital platforms to address the existing gender imbalance and reduce overall economic inequality. The findings demonstrate that the adoption of DFS positively affects women’s ability to exercise control and effectively manage both family and personal finances. By circumventing conventional pitfalls related to financial inclusion, DFS empowers women who are socially and culturally marginalised to access financial resources, serving as significant change agents As DFS enhances women’s capabilities in savings, investment, and financial transactions, it also promotes their financial literacy and independence while improving decision-making skills. Ultimately, these results illustrate that financial self-sufficiency is not solely about the availability of financial resources, but also the knowledge and strategies necessary to manage those resources effectively. Empowering women to handle their own money through DFS remains a pivotal factor in bolstering their financial independence, increasing the likelihood of allocating funds for personal and family welfare, health, and education.

Suggestions:

1. **Infrastructure Development:** Expanding internet connectivity and mobile network coverage in remote areas is essential. Collaborating with telecom providers to ensure affordable and widespread digital access can remove physical barriers to financial inclusion.
2. **Women-Centric Digital Platforms:** Financial institutions must develop digital platforms that cater specifically to women’s needs, including regional language support, user-friendly interfaces, and simple onboarding processes. Applications bundling financial tools with educational resources can also increase adoption.
3. **Comprehensive Digital Literacy Programs:** Training women in digital banking services and their benefits will help reduce apprehensions about technology use. Community-led initiatives involving female trainers can build trust and ensure effective knowledge transfer.
4. **Promote Digital Payment Systems:** Encouraging the use of digital payment solutions for personal and business transactions can enhance financial autonomy. Reward-based programs for adopting digital payments can motivate users.

Digital financial services can be a game-changer in empowering women. By promoting awareness and access to digital tools, women can achieve greater financial independence, manage family finances efficiently, and actively participate in economic activities, thus reducing gender gaps in financial engagement.

8.1.7 Financial inclusion and economic empowerment among women: The third objective of the study is to determine how financial inclusion contributes to achieving economic empowerment for women. The findings reveal several key insights regarding the relationship between financial inclusion and women's economic empowerment. There is general agreement that financial inclusion is a key factor in women's economic empowerment (Demirgüç-Kunt et al., 2022; Pereznieto & Taylor, 2014). The purpose of this study was to investigate this relationship, and the results strongly supported the hypothesis, showing that financial inclusion has a favourable and significant impact on women's economic empowerment. In line with earlier studies (Ojediran & Anderson, 2020; Kabeer, 2021), the results of this demonstrate how women's access to financial goods and services enables them to manage their money wisely, make wise financial decisions, and increase their economic liberty. According to the results, women in Jammu and Kashmir who had access to financial inclusion programmes expressed greater levels of economic empowerment, which was demonstrated by improved financial stability, more control over income, and decreased susceptibility to shocks. Financial inclusion efforts help close economic gaps and foster inclusive growth by providing women with the tools they need to understand financial systems and obtain necessary services. Financial inclusion efforts pave the path for a more inclusive and fair society where women may thrive economically and contribute to sustainable development by fostering financial stability, improving decision-making abilities, and lowering economic vulnerability.

8.1.8 Financial inclusion and income: Women's income dynamics are greatly influenced by financial inclusion, which gives them the chance to participate in revenue-generating activities and enhance their financial prospects. Expanding upon previous research (Bruhn & Love, 2014; Pal et al., 2022), this investigation explored this correlation and found strong proof in favour of the beneficial influence of financial inclusion on women's income levels. The results are in good agreement with earlier studies, showing that women who had access to financial inclusion programmes had a notable rise in their income levels. Women now have more opportunities to invest in important fields like healthcare, education, and start-up businesses because of their increased income. Financial inclusion enables women to increase their earning potential, diversify their sources of income, and develop economic resilience by giving them access to financial resources and instruments. Furthermore, this study showed that the advantages of financial inclusion go beyond personal financial gains. Women who saw a rise in income were better able to make contributions to community development and household welfare. This demonstrates how financial inclusion has a knock-on impact and how empowered women are essential to advancing both society and the economy.

8.1.9 Financial inclusion and savings: Building on the body of research that emphasises the significance of formal savings systems (Bhatia & Singh, 2019; Chakrabarty, 2013), the study examined the complex relationship between women's savings behaviour and financial inclusion. The thorough study of the data revealed a noteworthy effect of financial inclusion programmes on women's saving behaviours and financial resilience. A significant finding of this research is that women's savings accumulation is positively correlated with formal savings account access or membership in savings clubs. Over time, women who had access to these financial inclusion programmes showed a greater inclination to save. Their increased savings boost their agency and decision-making power concerning financial security as well as financial matters.

8.1.10 Financial inclusion and asset generation: The complex relationship that exists between women's financial inclusion and asset formation is consistent with the body of research that highlights the critical role that credit availability plays in enabling asset building (Ghosh & Vinod, 2017). Analysis of this revealed that financial inclusion efforts had a revolutionary effect on women's capacity to invest in productive assets, ultimately leading to increased production, income, and autonomy (Rahman et al., 2017). This study sheds light on the many advantages of asset ownership made possible by financial inclusion programmes. In addition to offering financial stability, asset ownership raises women's social standing and gives them more influence over decisions made in their families and communities. Possessing productive assets puts women in a stronger position to influence others, take part in economic decision-making, and make significant contributions to community development and household welfare.

8.1.11 Financial inclusion and control over household decision making: “In line with earlier research that highlights how financial inclusion gives women the ability to manage their income and make wise financial decisions (Garikipati, 2008; Morsy & Youssef, 2017); this study examined the intricate dynamics of financial inclusion and its effects on women's control over household income. Results of the study provide important new understandings of how financial inclusion programmes empower women to influence household income and encourage better investments in family welfare, healthcare, education, and general well-being. Women with access to financial services and resources demonstrated an enhanced ability to manage household income, enabling them to strategically allocate finances and give priority to expenses that have a positive influence on the welfare of their families. This increased control over financial resources leads to better nutrition, increased access to healthcare and education for kids, and an all-around higher standard of living in households. Furthermore, women's capacity for sound financial decision-making supports long-term savings and financial planning, which promotes resilience and stability in the economy.

8.1.12 Impact of marital status and location on women's economic empowerment: The findings of this investigation highlight the complex interplay between marital status, geographic location, and women's economic empowerment. Notably, the analysis revealed that women in urban areas enjoy more financial freedom compared to their rural counterparts. This observation aligns with the work of the World Wide Web Foundation (2015) and Mariscal et al. (2019), which emphasize that limited internet access and traditional cultural practices significantly restrict economic opportunities for women in rural settings. These barriers not only hinder access to essential resources but also perpetuate existing inequalities in economic participation. Furthermore, the study indicates a significant negative impact of marital status on women's economic empowerment, with married women generally exhibiting lower levels of financial independence than single women. This finding resonates with existing literature, which suggests that societal expectations and familial responsibilities often constrain the economic choices available to married women. This trend underscores the need to address the systemic barriers that limit married women's economic participation and independence. To mitigate these issues, it is essential to develop targeted programs that support married women in enhancing their economic skills and access to resources. Initiatives could include financial literacy workshops, entrepreneurship training, and flexible work arrangements that accommodate familial responsibilities. Furthermore, policies aimed at improving economic infrastructure in rural areas, such as access to markets and financial services, could help bridge the gap in empowerment between urban and rural women. By implementing these strategies, we can foster a more equitable economic landscape for all women, regardless of marital status or location.

Suggestions:

1. **Incentivizing Financial Participation:** Financial inclusion programs like the Pradhan Mantri Jan Dhan Yojana (PMJDY) should focus on incentivizing active participation through rewards for account usage, such as interest benefits or additional services for maintaining minimum activity thresholds.
2. **Focus on Income Diversification:** Encourage women to diversify income streams by linking financial inclusion programs with skill development initiatives and micro-entrepreneurship opportunities. Tailored credit schemes and financial planning support can enable this.
3. **Asset Ownership Programs:** Promote policies that support women in owning productive assets, such as property, agricultural equipment, or small businesses. Partnerships with NGOs and financial institutions can facilitate access to credit and training for asset acquisition.

Empowering women through financial inclusion can significantly enhance their economic stability, resilience, and decision-making capabilities. Addressing barriers to active financial participation will foster economic equity and sustainability.

8.2 Role of Govt policies

The fourth objective's findings revealing the role of Govt policies in promoting the economic empowerment of women. Descriptive statistics and Activity mapping are used in the study to evaluate the role and progress.

The literature underscores the importance of the Pradhan Mantri Jan Dhan Yojana (PMJDY) in promoting financial inclusion in India. Borah (2022) states that the program is designed to foster sustainable economic growth and reduce poverty, with a specific emphasis on marginalized communities. Nonetheless, the program's overall effectiveness is compromised by ongoing challenges such as account inactivity, financial illiteracy, duplication, and insufficient banking infrastructure (Singh, 2019). Although financial inclusion has seen improvements due to the PMJDY, issues concerning account transactions and responsibilities remain, resulting in execution inefficiencies (Reddy, 2016).

The final objective of this study is to assess the impact of government policies and initiatives on the economic empowerment of women in Jammu and Kashmir (J&K). This study recognizes PMJDY as a crucial initiative for evaluation through activity mapping, highlighting its vital role in the nation's overall development and economic growth, especially in aiding impoverished communities to achieve greater financial integration. An activity mapping technique is used to analyse the Pradhan Mantri Jan Dhan Yojana (PMJDY) and finds that it plays a significant role in promoting financial inclusion, especially for underprivileged people in India. By encouraging access to financial services, this effort is essential to attaining economic empowerment for women and underprivileged areas. Even though PMJDY has established millions of accounts with success, problems including inactive accounts, a lack of financial literacy and inadequate banking infrastructure still exist. The results underline how important it is to have a well-organised framework in place in order to execute PMJDY successfully. The activity mapping technique determines that while the central government should maintain control over key programs, state and local governments should be tasked with planning and operational duties. This is achieved by clearly defining roles and responsibilities across various levels of government. This decentralised approach improves accountability and makes it possible for local governments to more successfully handle issues unique to their communities. In addition, suggestions for bettering the program include creating localised banking solutions, making sufficient budgetary resources for infrastructure development, and strengthening financial literacy campaigns based on community demographics. It's also critical to fortify communication tactics to increase knowledge of the financial services that are offered. Policymakers can greatly improve the PMJDY's efficacy in empowering women and boosting financial inclusion by addressing these deficiencies and customising the program to better suit local settings. This would promote inclusive growth and sustainable economic development across the nation of India.

Suggestions:

1. **Decentralized Implementation:** Empowering state and local governments to implement financial inclusion programs will enable tailored solutions that address regional disparities. Central authorities should provide oversight while allowing flexibility at the local level.
2. **Strengthen PMJDY and Similar Programs:** Address inefficiencies in government-led financial inclusion programs, such as inactive accounts and limited infrastructure.

Regular audits and community feedback mechanisms can improve accountability and effectiveness.

3. **Local Financial Literacy Campaigns:** Develop localized financial education programs that emphasize the benefits of government initiatives and financial tools. Collaborating with community leaders can improve outreach and trust.

Government policies are pivotal in fostering women's financial empowerment. By addressing implementation challenges and adopting localized approaches, these programs can have a transformative impact on reducing economic inequalities and enhancing women's financial independence.

8.3 Overall Suggestions of the study

8.3.1 Tailored financial products and services

Banks/financial institutions must provide services and products specifically for women, considering their particular financial requirements and limitations. Products like flexible savings accounts, low-interest lending choices for women, or microloans for female entrepreneurs can largely boost involvement. The results of this study show that women in Jammu and Kashmir are less likely to use credit cards and credit facilities; many of them provide reasons such as lack of access, fear of debt, or ignorance of these financial instruments. This emphasises how critical it is to create programs and policies that will motivate women to use these financial tools. Reducing interest rates, streamlining application procedures, and offering financial literacy courses to help consumers understand credit products are some ways to customise credit products to ease these worries. Smaller, more manageable loan amounts and loans without collateral can also aid in lowering women's perceived risk, especially in rural regions. This would immediately boost women's economic empowerment by encouraging more involvement in the credit market and fostering financial autonomy and entrepreneurship. These gender-responsive financial policies would close the gap in the region's financial inclusion by enhancing access and giving women the confidence to actively participate in credit systems.

8.3.2 Localized and culturally relevant financial education

Programs for financial literacy should be created with the sociocultural circumstances of the area in mind, with an emphasis on rural and less educated women in particular. Programs for community-based training might be useful, particularly when led by female leaders. According to the report, the biggest issue impeding women's economic empowerment and financial inclusion in Jammu & Kashmir is financial illiteracy. In contrast to women who only use savings accounts for basic deposits and withdrawals, the findings show that women with higher levels of education or better financial literacy are more likely to interact with a wider range of financial products, including insurance, pensions, digital banking services, and credit cards. One of the first steps towards removing the obstacles to complete financial inclusion is to address financial illiteracy. Women's involvement in the financial system will not increase until they receive sufficient education on financial goods and services, including credit cards, insurance policies, pension plans, Direct Benefit Transfer (DBT) schemes, insurance policies, digital financial services, and government empowerment initiatives. The study reveals that respondents often don't know about these important financial tools and initiatives. Thus, there is an urgent need for financial education programs that highlight the features and advantages of these services, especially in rural areas. These programs will become more real and approachable by incorporating community leaders or skilled female facilitators, using local languages, and employing culturally relevant communication techniques. By placing a high priority on financial literacy, the gender gap in the financial system may be closed, resulting in increased financial stability, female emancipation, and sustained inclusion.

8.3.3 Strengthen digital financial infrastructure

Encouraging financial inclusion in rural and isolated parts of Jammu and Kashmir (J&K) requires increasing internet connectivity and enhancing digital infrastructure. To encourage the use of digital financial services (DFS), government collaborations with the business sector can be essential in easing the distribution of smartphones, reasonably priced internet access, and digital literacy training. According to this research, digital financial services (DFS) have a significant influence on the financial independence of women. When it comes to personal spending, family welfare, or the education and healthcare of their children, women who utilise digital financial services (DFS), such as online payment platforms and mobile banking, report having far more influence over their money. These women have more control over their finances since they no longer feel the need to physically visit banks and other financial institutions or rely on others. According to the report, women who have access to digital services use them for their regular financial requirements. This change highlights how digital solutions may help women manage their finances more conveniently and with flexibility by reducing their reliance on traditional banking services. These results highlight the pressing need for governments to increase internet and cell coverage, especially in rural regions, and to make sure that digital platforms are user-friendly and tailored to the unique requirements of women. It is imperative to incorporate women into this digital revolution and position them as active players in the country's economic growth and development, given India's drive towards digitisation in numerous industries. Women will have more access to a wider range of financial services and be better able to attain economic empowerment and make meaningful contributions to the wider economy because of the improvement of the digital financial infrastructure. This would guarantee that women are not left behind in this crucial stage of development and better connect with India's goal of being a digitally empowered society.

8.3.4 Government initiatives for financial inclusion and empowerment

Government programs must concentrate on offering financial assistance that is especially designed for women. This can involve direct cash transfers (DBTs), micro insurance programs, and extending the reach of Self-Help Groups (SHGs). These programs not only offer financial stability, but they also represent a significant advancement in women's economic engagement. This study has revealed that women are remarkably ignorant about financial goods, laws, and programs that the government has put in place to help them. Because of this information gap, women are less able to make well-informed decisions and are unable to take advantage of options that may give them financial empowerment. In this study, a significant number of women had no knowledge of DBTs, pension plans, old-age security measures, or financial benefits associated with digital services, insurance, or healthcare. Encouraging Self-Help Groups and Collective Financial Growth: Self-Help Groups (SHGs) have shown to be effective means of enabling women on the social, economic, and financial fronts. The results, however, indicate that women's involvement in SHGs is still minimal and that there are very few women with personal financial holdings. Policies promoting women's involvement in SHGs should be reinforced by providing financial incentives, training, and simpler credit access in order to solve these issues. In addition to offering chances for financial advancement, SHGs serve as social support networks that provide women access to the resources and collective wisdom of their community. Providing targeted government assistance to Self-Help Groups (SHGs) can augment their contribution to enhancing women's financial autonomy.

8.3.5 Increasing usage of accounts

This research underscores the fact that access alone does not equate to true financial inclusion. Genuine inclusion occurs when women are not only able to open accounts but also actively use these accounts and the associated financial products. Therefore, efforts should be directed toward increasing the ease of use and ensuring consistent engagement with financial services. Additionally, measures must be taken to promote regular account usage and monitor activity to prevent misuse. For instance, introducing a requirement for the physical presence of the account holder for transactions above a nominal limit could deter fraudulent activities, particularly in schemes like Jan Dhan accounts. Alternatively, it could be made mandatory for the account holder to appear in person at least once every six months to maintain the account's active status. These steps would help ensure that financial inclusion is both meaningful and secure.

8.3.6 Legal reforms and policy advocacy

It's also critical to support legislative changes that increase women's financial independence. Reforming property rights, marriage rules, and inheritance laws will guarantee women equitable access to capital and control over their assets. Women's financial stability and decision-making authority in homes and communities, for example, will rise with inheritance rights that confer land and property ownership. Policies that promote women's property and asset ownership can greatly increase their financial independence, as few women in J&K have assets registered in their names. Ensuring that women have fair access to financial goods and services is another benefit of implementing legal reforms that address these challenges and promote a more inclusive financial sector. Together, these initiatives may offer a comprehensive strategy for financial inclusion, empowering women throughout India and in J&K by increasing their access to resources, raising their knowledge of financial prospects, and defending their legal rights. Government programs and partnerships with local organisations can close the current disparities in asset ownership, financial awareness, and economic engagement, hastening the process of financial empowerment for women in the area.

8.3.7 Support women entrepreneurs

More easily accessible funding, mentorship, and training programs tailored to women establishing or growing their firms are necessary to support women-led entrepreneurship. This study discovered that very few women are self-employed or involved in entrepreneurship, despite the enormous potential for women entrepreneurs in the area. In addition, a very small percentage of respondents said they had used any programs or loans from banks, the government, or other organisations to launch a business. This low participation percentage reflects ingrained cultural obstacles, since society conventions frequently indicate that women are incapable of handling or running a business on their own, or they discourage women from working independently. These societal attitudes discourage women from engaging in entrepreneurial pursuits and add to the small number of female entrepreneurs. Nevertheless, some women have already overcome these cultural hurdles to become prosperous business owners. This shows that there is a big chance to encourage women to start their own businesses by tackling both societal restrictions and financial limitations.

8.3.8 Mahila (women) banks

To ensure that women from economically disadvantaged backgrounds are effectively included in the financial inclusion framework, there is an urgent need to reintroduce and promote the concept of a dedicated women's bank (Mahila Bank). Such a bank would focus solely on catering to women's financial needs, offering specialized services and targeted benefits to support their economic empowerment. Although this initiative was launched in India a few years ago, it was discontinued prematurely. Launching this concept with better planning and stronger institutional support could provide much-needed financial access to women, particularly those in marginalized communities. By tailoring products and offering relaxed terms, the bank could play a crucial role in closing the gender gap in financial services, empowering women with the resources and knowledge to improve their economic standing. This initiative would not only foster financial independence but also enhance the overall socio-economic development of women across the country.

8.3.9 Improvement of overall education level

The study revealed a positive and significant relationship between education and financial inclusion. Educated women were more likely to engage with a broader range of financial products and services, which in turn contributed to their empowerment. To enhance this trend, it is crucial for the state to improve the quality of free and compulsory primary education, ensuring that young girls develop the skills necessary to effectively navigate financial systems. Additionally, reviving adult literacy programs would greatly benefit older women, helping them build the confidence needed to interact with formal financial institutions and fully participate in economic activities. These efforts would empower women across age groups and strengthen their inclusion in the financial sector.

8.3.10 Decentralization of financial inclusion framework

The financial inclusion framework in India requires a more decentralized approach to be truly effective. Currently, the top-down structure limits the autonomy of local branches, leaving them with minimal practical authority to tailor their operations to the unique needs and conditions of their communities. This centralized system often overlooks regional variations in economic activities, social dynamics, and customer preferences, which are critical to designing financial products and services that resonate with the local population. By empowering local branches with greater decision-making authority, they could better adapt their strategies, such as customizing financial products, offering culturally relevant financial literacy programs, and responding swiftly to local market changes. Decentralization would also allow for closer monitoring of financial inclusion efforts, ensuring that they are more inclusive, sustainable, and responsive to the needs of underserved populations. Ultimately, this shift would enhance the effectiveness of financial inclusion initiatives and increase their impact on regional development and economic empowerment, especially for marginalized groups like women.

8.4 Implications

8.4.1 Theoretical implications

Our study provides a thorough and nuanced analysis by looking at the functions of access, usage, quality, and trust in financial services, together with aspects like income, savings, asset generation, and control over household income. This multifaceted approach offers a deeper understanding of the intricate linkages between financial inclusion and women's economic empowerment, which improves the theoretical frameworks that are currently in place. Our research emphasises the equally important roles of service quality and trust in financial inclusion, while previous studies have mostly focused on access and utilisation. According to this research, successful financial inclusion programmes should place equal emphasis on providing high-quality services, building user confidence, and facilitating accessibility and utilisation. Additionally, we expand empowerment theory by adding the empowerment indicators of asset development and control over household income as ways to increase the economic empowerment of women. Moreover, empowerment through digital financial services were also explored the data underscores the growing importance of digital financial services (DFS) in promoting financial inclusion and autonomy, particularly among women. This supports technology acceptance model (TAM), emphasizing the importance of ease of access, security, and trust in encouraging the adoption of DFS.

8.4.2 Practical implications

Women in Jammu and Kashmir (Direct Beneficiaries)

- **Access to financial services**: Women can benefit from increased financial independence by engaging with accessible banking services like savings accounts, debit cards, and mobile banking. However, addressing the gaps in financial knowledge and awareness of advanced services like loans, credit cards, and pensions is crucial for empowerment.
- **Digital financial services (DFS)**: Women, particularly in urban areas, should be encouraged to adopt DFS as a tool for economic empowerment. Tailored initiatives like mobile banking training can help women gain financial autonomy, manage family finances, and increase their purchasing power and savings capacity.
- **Financial education**: Women should be provided with financial literacy programs that address income management, savings, investments, and long-term financial planning, especially in rural areas where these practices are less common.
- **Empowerment through savings and assets**: Financial inclusion can enable women to participate in saving schemes, accumulate assets, and improve their control over household finances, contributing to improved family welfare and decision-making.

Government (Policymakers and Administrators)

- **Enhancing financial inclusion initiatives**: Policymakers can leverage the findings to fine-tune programs like PMJDY (Pradhan Mantri Jan Dhan Yojana), focusing on resolving issues like inactive accounts, low banking infrastructure, and financial illiteracy. They could strengthen the local implementation framework by decentralizing tasks and making programs more accessible at the grassroots level.

- **Targeted programs for rural women**: The government could design more specific financial services and literacy programs for rural women, addressing their unique needs and challenges. Improving digital literacy and infrastructure in rural areas would make a significant impact.

- **Expanding economic infrastructure**: Addressing gaps in banking services, internet access, and digital literacy is essential. Policymakers can improve access to markets and enhance the availability of digital services to empower women in remote regions.

- **Support for married women**: Developing targeted policies for married women to enhance their economic participation, such as flexible working arrangements, financial independence workshops, and entrepreneurship support, would help improve financial autonomy.

Banks and financial institutions

- **Developing tailored financial products**: Banks should design products specifically for women, especially in rural areas, with lower entry barriers and simplified processes. Encouraging the use of savings accounts, loans for small businesses, and pension schemes would enhance women's financial participation.

- **Promoting digital financial services**: Financial institutions should develop mobile-friendly platforms and enhance their digital services to increase women's access to banking facilities. They can also create awareness campaigns to educate women on how to use these services.

- **Improved access to credit**: Institutions could expand credit facilities to self-employed women and those looking to start businesses, addressing the current gap in financial products suited for women in different socioeconomic categories.

Community-based organizations and self-help groups (SHGs)

- **Financial literacy and awareness campaigns**: CBOs and SHGs can play a crucial role in educating women about financial services, particularly in rural areas. They can facilitate training sessions on savings, investment, and digital banking services, especially in places where women have limited financial knowledge.

- **Promoting entrepreneurship**: CBOs can work with financial institutions to promote microloans and other forms of credit that enable women to start businesses, especially in rural and marginalized communities, enhancing their financial autonomy.

Academia and researchers

- **Further research on financial inclusion**: Academics and researchers can build upon this study by exploring other dimensions of financial inclusion, particularly the impact of digital financial services in marginalized regions and how these services can be better integrated into women's everyday lives.

- **Evaluation of government programs**: Future research could assess the effectiveness of government initiatives like PMJDY on a broader scale, offering policy suggestions to fine-tune existing programs and create more effective interventions for women's financial inclusion.

International development organizations (NGOs, Donors)

- **Supporting financial inclusion programs**: International development agencies can collaborate with local governments to fund and scale financial inclusion projects that directly benefit women, with a particular focus on rural and underserved areas.

- **Promoting gender equality in financial services**: Donor organizations can help integrate gender equality into the design and implementation of financial inclusion initiatives, ensuring that women are the primary beneficiaries of these projects.

- **Monitoring and evaluation**: These organizations can help monitor the progress of financial inclusion initiatives, providing data and recommendations for enhancing their impact on women's economic empowerment.

General public and society

- **Changing social norms**: There is a need for broader societal change regarding the role of women in financial decision-making and entrepreneurship. Public awareness campaigns can encourage a cultural shift that values women's financial independence, both at the family and community levels.

- **Encouraging women's participation in the workforce**: By supporting policies that foster women's access to jobs and financial services, society can increase female participation in the economy, leading to greater financial independence and empowerment.

Sustainable development goals

Achieving gender-equitable financial inclusion is a critical component of advancing global development priorities, particularly in alignment with the United Nations' Sustainable Development Goals (SDGs). Gender equality in financial access is not just a matter of fairness; it is an economic imperative that fosters sustainable growth, reduces poverty, and enhances social cohesion. Addressing the structural barriers women face in accessing financial services directly contributes to several key SDGs, including SDG 1 (No Poverty), SDG 5 (Gender Equality), and SDG 8 (Decent Work and Economic Growth).

- **Contributing to SDG 1: No Poverty**

Financial inclusion empowers women by providing them with access to essential financial tools, such as savings accounts, credit facilities, and insurance. These tools enable women to build financial resilience, save for emergencies, and invest in income-generating activities. By bridging the gender gap in financial access, women, especially those in marginalized communities, can escape cycles of poverty. For instance, access to microloans allows women to start small businesses, increasing household income and creating a multiplier effect on community development. Furthermore, financial literacy programs equip women with the knowledge to manage resources effectively, reducing economic vulnerabilities and fostering long-term financial stability. Achieving gender-equitable financial inclusion is therefore a vital strategy for eradicating poverty globally.

- **Advancing SDG 5: Gender Equality**

Gender equality is both a goal and a means to achieve other SDGs. Financial inclusion directly addresses systemic inequalities that have historically excluded women from economic participation. Access to financial services enhances women's autonomy, enabling them to make independent financial decisions and manage their resources. It also increases their bargaining power within households and communities, reducing gender disparities in economic and social domains. Empowering women financially contributes to breaking down societal norms that perpetuate inequality. Initiatives such as women-centric financial products, digital financial services, and policies promoting asset ownership among women provide a foundation for equal opportunities. This alignment with SDG 5 ensures that women can fully participate in and benefit from economic growth, paving the way for a more equitable society.

- **Supporting SDG 8: Decent Work and Economic Growth**

Financial inclusion is a key driver of economic productivity and growth. When women have access to financial resources, they can participate more actively in the labor market, invest in entrepreneurial ventures, and contribute to local economies. Studies show that gender-diverse workforces and increased female participation in entrepreneurship are linked to higher GDP growth rates. By providing women with the tools to overcome financial and social barriers, economies can unlock a vast pool of untapped potential, driving inclusive and sustainable development. Additionally, women's financial independence fosters improved conditions for decent work by enabling access to education, healthcare, and childcare, which are essential for productive workforce participation.

- **Promoting Long-Term Economic Resilience and Social Cohesion**

Beyond individual benefits, gender-equitable financial inclusion contributes to broader societal stability. Financially empowered women invest more in their families' health, education, and well-being, creating intergenerational impacts. This strengthens social cohesion and reduces inequalities, fostering a more inclusive and resilient society. Ultimately, by integrating women into the financial system, we not only achieve specific SDGs but also establish a foundation for sustainable global development.

8.5 Limitations

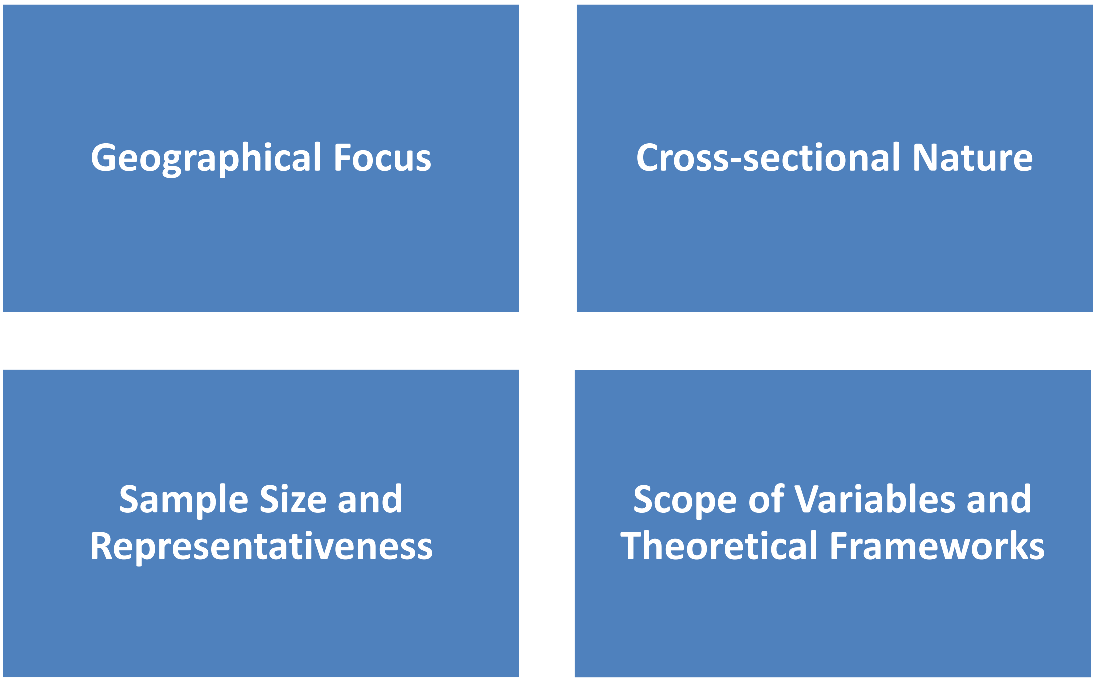


Figure 14: Limitations

Source: Authors work

8.5.1 Geographical focus

The study is limited to the region of Jammu and Kashmir, which presents a unique socio-economic and cultural environment. While the findings provide valuable insights into the financial inclusion of women in this region, they may not be fully generalizable to other parts of India or globally. The distinct regional disparities, including the urban-rural divide and socio-political context, restrict the broader applicability of the results.

8.5.2 Cross-sectional nature

The research is based on cross-sectional data, which captures the current state of financial inclusion and women's economic empowerment at a single point in time. This limits the ability to establish causal relationships or observe long-term trends, which might be more effectively studied through longitudinal analysis.

8.5.3 Sample size and representativeness

Although the sample size of 426 respondents is sufficient for statistical analysis, it may not fully represent the diverse socio-economic segments of women in Jammu and Kashmir.

Subgroups, such as women from marginalized communities, those without access to digital infrastructure, or older populations, might be underrepresented.

8.5.4 Scope of variables and theoretical frameworks

The selection of variables and theoretical frameworks in this study is comprehensive but may not fully capture the multi-dimensional nature of financial inclusion, digital financial services and women's economic empowerment. While economic empowerment theory provides a robust foundation, other important dimensions such as social, political, and psychological factors might be underexplored. Additionally, the use of economic measures alone might overlook qualitative aspects like personal agency, social capital, or cultural nuances that influence empowerment. Future research should integrate a broader array of variables and consider alternative frameworks such as feminist institutionalism, gender and development theory, or empowerment conceptualization to provide a more holistic understanding of the topic.

8.6 Directions for Future Research

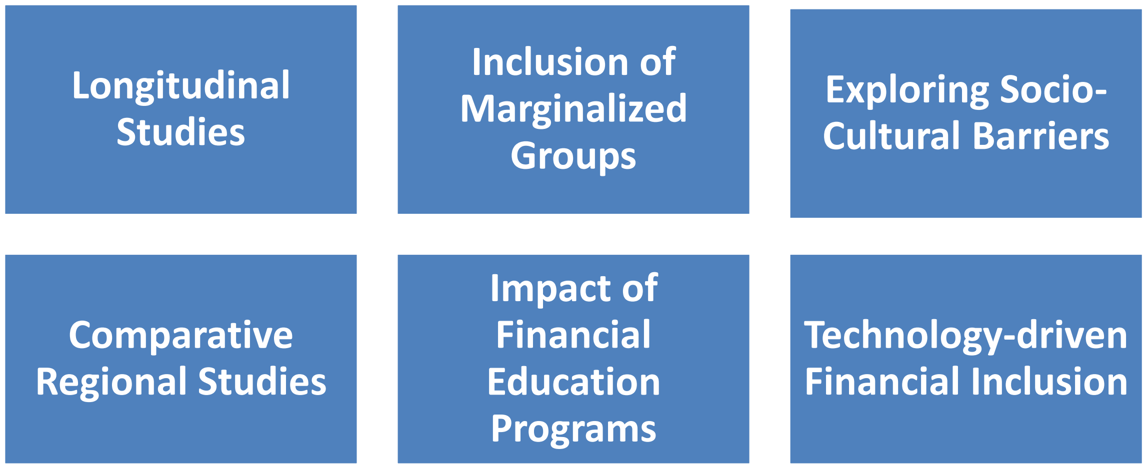


Figure 15: Future research Source: Authors work

8.6.1 Longitudinal studies: Future research could employ longitudinal studies to track the impact of "financial inclusion on women's economic empowerment" over time. This would provide a clearer understanding of how sustained access to financial services contributes to long-term economic empowerment.

8.6.2 Inclusion of marginalized groups: Future studies could explore financial inclusion among more marginalized groups of women in Jammu and Kashmir, such as those living in remote areas, women with disabilities, or those belonging to lower socio-economic classes. A more inclusive sampling approach would help address potential disparities and provide a holistic view of financial inclusion across diverse populations.

8.6.3 Exploring socio-cultural barriers: Research focusing on socio-cultural factors affecting financial inclusion in Jammu and Kashmir, such as gender norms, family dynamics, and religious beliefs, could add depth to understanding the barriers women face in accessing financial services and achieving economic empowerment.

8.6.4 Comparative regional studies: Expanding the research to include comparative studies between Jammu and Kashmir and other Indian UTs/ States could highlight the unique or shared challenges women face in achieving financial inclusion and economic empowerment in different socio-political contexts.

8.6.5 Impact of financial education programs: Future studies could evaluate the effectiveness of specific financial literacy and education programs aimed at women. Understanding which programs lead to increased financial literacy and usage of financial products could help policymakers and NGOs design more targeted interventions.

8.6.6 Technology-driven financial inclusion: With the rapid evolution of fintech, future research could investigate the role of emerging technologies like block chain, AI, and digital wallets in enhancing financial inclusion for women in regions with limited financial infrastructure. Exploring how these technologies are being adopted or could be scaled up would be a timely area for research.

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APPENDIX

<u>Interview Schedule</u>

"A study of Financial Inclusion and Economic Empowerment of Women in J&K"

Mittal School of Business, Lovely Professional University,

Punjab, 144411, India.

Research Scholar

Mohsin Showkat

Mittal School of Business,
Lovely Professional University

Supervisor

Dr. Razia Nagina

Mittal School of Business,

Lovely Professional University

Co- Supervisor
Dr. Usha Nori
Institute of Public Enterprise, Hyderabad

Dear Respondent,

Greetings

I am a PhD Research Scholar from Lovely Professional University, Punjab, conducting a study titled *"A Study of Financial Inclusion and Economic Empowerment of Women in Jammu & Kashmir."* The purpose of this research is to gain insights that will contribute towards better implementation of policies and practices aimed at promoting financial inclusion and the economic empowerment of women.

Your participation in this research is entirely voluntary, and you are free to withdraw at any point if you feel uncomfortable or wish to opt out. The responses you provide will be treated with the utmost confidentiality and will be used solely for academic research purposes. No identifying information will be disclosed in any reports or publications arising from this research.

Thanking you in advance for giving your precious time.

Best regards

Mohsin Showkat

Section 1: Demographic Profile of Respondents

1. **Name of the respondent**

2. **Age**

   ☐18-24 ☐ 25-34 ☐ 35-44 ☐ 45-54 ☐ 55-above

3. **Locality / Area**
   ☐Rural ☐Urban ☐Semi- Urban

4. **District**

   --

5. **Education Level**
   ☐No formal education ☐ Primary School
   ☐ Diploma/certificate ☐ Bachelor's degree ☐ Master's degree or higher

6. **Marital status**
   ☐Single ☐Married ☐ Divorced ☐Widowed ☐Denied

7. **Designation**
   ☐Employed ☐Self-employed ☐Unemployed ☐Homemaker
   ☐Student

8. **Monthly household income in (INR)**
   ☐Below 3000 ☐3000-5000 ☐5000-7000 ☐7000-9000 ☐10000-Above

9. **Type of family**
   ☐Nuclear Family ☐Joint Family ☐Single-Parent Family ☐Other (Please Specify)

10. **Number of Family Members**
    ☐1-2 ☐3-4 ☐5-6 ☐7-8 ☐9 or more

11. **Head of Household**
    ☐Male ☐Female ☐Other (Please Specify)

12. **Ration Card Type:**
    ☐Above Poverty Line (APL) ☐Below Poverty Line (BPL) ☐Antyodaya Anna Yojana (AAY) ☐No Ration Card Other (Please Specify**)**

Section 2: Specific Information.

1. **Is there any bank/ financial institution in your area?**
   ☐Yes ☐No
2. **What is the distance of bank from your place?**
   ☐Less than 1KM ☐1-3KM ☐3-5KM ☐5-10KM ☐More than 10KM
3. **Which type of bank account do you have?**
   ☐Jan Dhan account ☐Savings ☐Current ☐Fixed ☐Recurring
4. **Do you frequently use formal financial services/Bank for savings?**
   ☐Yes ☐No

5. **In a typical month, is money DEPOSITED into your personal account(s) two or more times per month?**
   ☐Yes ☐No
6. **In a typical month, is money TAKEN OUT of your personal account(s) two or more times per month?**
   ☐Yes ☐No
7. **Do you typically keep any money in your personal account(s)?**
   ☐Yes ☐No
8. **In the past 12 months, have you, personally, saved or set aside any money FOR your OLD AGE?**
   ☐Yes ☐No

9. **In the PAST 12 MONTHS, have you, personally, saved or set aside any money for any reason?**
   ☐Yes ☐No
10. **Have you linked insurance to your bank account?**
   ☐Yes ☐No
11. **I frequently use formal financial services for borrowing or credit needs.**
   ☐Yes ☐No
12. **IN the PAST 12 MONTHS, have you, by yourself or together with someone else, borrowed money for health or medical purposes?**
   ☐Yes ☐No
13. **Have you ever taken a loan specifically for starting or expanding a business?**

   ☐ Yes ☐ No

14. **Have you ever utilized an overdraft facility on your bank account?**

   ☐ Yes ☐ No

15. **Have you ever invested in mutual funds or other financial instruments (stocks, bonds, etc.)?**

   ☐ Yes ☐ No

16. **Is there any ATM in your area?**
   ☐Yes ☐No
17. **Do you have an ATM card?**
   ☐Yes ☐No
18. **Do you frequently use ATM / Debit card to withdraw cash?**
   ☐Yes ☐No
19. **Do you have a credit card?**
   ☐Yes ☐No
20. **Do you use your credit card to make payments?**
   ☐Yes ☐No
21. **Do you have a smartphone?**
   ☐Yes ☐No
22. **In the past 12 months, have you personally used a mobile phone to make payments, buy things, or to send or receive money using a service such as (mobile money, M pay, UPI)**
   ☐Yes ☐No
23. **Have you ever availed or part of any pension scheme?**
   ☐Yes ☐No
24. **Are you currently receiving direct benefit transfers (DBT) from the government or any other organization?**
   ☐Yes ☐No
25. **Have you ever been part of a self-help group (SHG) for financial or social purposes?**

☐Yes ☐No

Section 3: Digital financial services, please rate your agreement with the following statements:

Item	**Digital financial services**	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
DFS1	I use digital/online financial services (M pay, UPI, mobile banking).					
DFS2	I am satisfied with the availability and reliability of digital payment options in my area.					
DFS3	I find digital payment methods (e.g., mobile payments, online banking, M pay) convenient to use.					
DFS4	I believe digital payments have increased my access to financial services.					
DFS5	"I typically use [mobile money, M pay, UPI] to make payments, buy things, or to send or receive money using a service such as two or more times a month."					
DFS6	I typically keep some money in my mobile money account.					
DFS7	I can use my mobile money account by myself without the help of another person or mobile money agent.					
DFS8	In the PAST 12 MONTHS, I have personally used a mobile phone or the Internet to send money to a relative or friend.					
DFS9	In the PAST 12 MONTHS, I have personally used a mobile phone or the Internet to make bill payments.					
DFS10	In the PAST 12 MONTHS, I have personally used a mobile phone or the Internet to buy something online.					
DFS11	Using digital financial services has enabled me to make independent financial decisions.					
DFS12	Digital financial services have					

	provided me with greater control and influence in household financial decisions.					
DFS13	Digital financial services have provided me with a greater sense of financial security and stability.					

Female financial autonomy
Please indicate your level of agreement with the following statements by selecting the appropriate response:

Sr no	**Female financial autonomy**	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
FFA 1	I have control over my own income.					
FFA 2	I have freedom to choose how to spend my income.					
FFA 3	I make independent financial decisions about my personal expenses.					
FFA 4	I am able to save money for my future financial goals.					
FFA 5	I am confident in managing my own finances.					
FFA 6	I have access to financial resources and accounts in my name.					
FFA 7	I am actively involved in acquiring and managing assets (e.g., property, investments).					
FFA 8	I feel financially secure and independent.					
FFA 9	I can make decisions about asset acquisition and disposal without relying on others.					
FFA 10	I am involved in financial planning for my family's future.					
FFA 11	I can make investments and financial decisions without relying on others.					
FFA 12	I feel financially secure and self-sufficient.					

Section 4: Measuring Financial Inclusion, please rate your agreement with the following statement:						
Sr.no	**Access**	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
FIA1	I have easy access to formal financial institutions.					
FIA2	The bank is conveniently located near my place.					
FIA3	I visit the bank regularly.					
FIA4	I have convenient access to ATMs in my local area.					
	Usage					
FIU1	In the past 12 months, I have DEPOSITED money into my personal account(s).					
FIU2	In the past 12 months, I have ever been TAKEN OUT money from my personal account(s).					
FIU3	In the PAST 12 MONTHS, I have used my own ATM/debit card directly to make a purchase					
	Quality					
FIQ1	There is ease in availability of finance.					
FIQ2	Sufficient staff is available at the bank/ Financial institution.					
FIQ3	I am Satisfied with employees'					

	attitude at the bank/ financial institution.					
FIQ4	The operating hours of the bank/ financial institution are suitable.					
FIQ5	I am satisfied with the overall customer service.					
FIQ6	The location is convenient for me.					
FIQ7	There is no Language problem.					
	Trust					
FIT1	I trust banks with my money.					
FIT2	Banks are reliable for availing financial services.					
FIT3	Suggestions from bankers are trustworthy.					
FIT4	I feel safe when using bank services.					
FIT5	Money is safe in the banks.					

Section 5: Financial inclusion and Economic empowerment of women.
Do you think there is any change in the following parameters (which measure economic empowerment) after availing various financial facilities through formal financial institutions?

Sr.no	**WEE**	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
WEI1	There has been an increase in my income.					
WEI2	There has been an addition in income-generating avenues.					

WEI3	I am able to take decisions on household income.					
WEI4	I am able to meet my personal needs.					
WEI5	I am able to make decisions regarding the utilization of money.					
WES1	There has been an increase in my ability to save.					
WES2	I feel more financially secure and empowered because of my savings.					
WES3	I am able to spend my savings independently.					
WES4	I am able to borrow easily.					
WES5	There has been an improvement in my standard of living.					
WES6	There has been a reduction in the level of poverty.					
WEA1	I own asset/assets on my name.					
WEA2	Financial inclusion has facilitated my ability to acquire assets (e.g., property, land, investments).					
WEA3	I feel a sense of empowerment and ownership through the assets I have acquired.					
WEA4	Financial inclusion has positively impacted my long-term financial stability through asset generation.					
WEH1	I am able to take decisions independently regarding the purchase of household items.					
WEH2	I am able to take part in financial matters of the household.					
WEH3	I am able to meet my children’s educational expenses.					
WEH4	I have an equal say in major financial decisions within my household.					
WEH5	My views are appreciated					

	regarding financial issues.					
WEH6	There has been an improvement in my decision-making power.					

Section 6 Pradhan Mantri Jan Dhan Yojana

Please rate your agreement with the following statements

Sr.no	PMJDY	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
PMJDY1	I am aware of government policies and schemes targeted at women economic empowerment.					
PMJDY2	I am benefitted from Government schemes, policies related to the economic empowerment of women or entrepreneurship.					
PMJDY3	I am aware of Pradhan Mantri Jhan Dhan Yojana scheme for financial inclusion.					
PMJDY 4	I am benefitted from Pradhan Mantri Jhan Dhan Yojana scheme for financial inclusion.					
PMJDY5	PMJDY has increased access to banking services for women.					
PMJDY 6	In your opinion, has PMJDY contributed to a reduction in financial gender disparities.					
PMJDY7	Financial literacy initiatives associated with PMJDY in increasing women's awareness about banking services and financial management has been effective.					

Copyright of activity mapping PMJDY

Extracts from the Register of Copyrights

Copyright Office, Government Of India

Dated: 25/09/2024

1.	Registration Number	L-154517/2024
2.	Name, address and nationality of the applicant	LOVELY PROFESSIONAL UNIVERSITY , LOVELY PROFESSIONAL UNIVERSITY, JALANDHAR, DELHI-GT ROAD, PHAGWARA, PUNJAB-144411 INDIAN
3.	Nature of the applicant's interest in the copyright of the work	OWNER
4.	Class and description of the work	LITERARY/ DRAMATIC WORK
5.	Title of the work	REQUEST FOR COPYRIGHT FOR ACTIVITY MAPPING OF GOVERNMENT SCHEME (PRADHAN MANTRI JAN DHAN YOJANA)
6.	Language of the work	ENGLISH
7.	Name, address and nationality of the author and if the author is deceased, date of his decease	MOHSIN SHOWKAT , LOVELY PROFESSIONAL UNIVERSITY, JALANDHAR, DELHI-GT ROAD, PHAGWARA, PUNJAB-144411 INDIAN DR. RAZIA NAGINA , LOVELY PROFESSIONAL UNIVERSITY, JALANDHAR, DELHI-GT ROAD, PHAGWARA, PUNJAB-144411 INDIAN DR. MANDEEP BHARDWAJ , LOVELY PROFESSIONAL UNIVERSITY, JALANDHAR, DELHI-GT ROAD, PHAGWARA, PUNJA-144411 INDIAN
8.	Whether the work is published or unpublished	UNPUBLISHED
9.	Year and country of first publication and name, address and nationality of the publisher	N.A.
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Date of Application: 13/08/2024

Registrar of Copyrights

COGENT ECONOMICS & FINANCE
2024, VOL. 12, NO. 1, 2342459
https://doi.org/10.1080/23322039.2024.2342459

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DEVELOPMENT ECONOMICS | RESEARCH ARTICLE

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Empowering women in the digital age: can digital financial services fulfil the promise of financial autonomy and gender equality in the attainment of Sustainable Development Goal 5?

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ABSTRACT

Digital financial services play a crucial role in breaking down traditional barriers to financial access, promoting greater financial inclusion, and providing marginalized groups with equal access. These services offer innovative strategies designed to address the unique financial barriers and empower women to achieve financial access and independence. This study aims to examine the influence of the adoption of digital financial services on enhancing women's financial independence. This study examines the responses of 426 women in North India using Partial Least Squares Structural Equation Modelling (PLS-SEM) as its research approach. This study also employs the PLS Predict technique to evaluate the ability of the model to predict women's financial autonomy. The findings demonstrate a significant and favourable relationship between the utilization of digital financial services and the improvement of women's ability to make financial decisions. This study contributes to the discussion on promoting gender equality and economic empowerment, aligning with United Nations Sustainable Development Goal 5; showcasing the potential of information and communication technology (ICT) in advancing women's economic and social empowerment. The results offer vital perspectives for policymakers, financial service providers, and development agencies, emphasizing the substantial influence of digital financial services in promoting gender parity and enhancing women's socio-economic circumstances.

ARTICLE HISTORY
Received 12 February 2024
Revised 13 March 2024
Accepted 8 April 2024

KEYWORDS
Digital financial services; female financial independence; empowerment; gender equality; SDG 5

REVIEWING EDITOR
Goodness Aye, University of Agriculture, Makurdi Benue State, Nigeria

SUBJECTS
Development Studies; Gender & Development; Finance

1. Introduction

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https://www.emerald.com/insight/1754-2413.htm

Towards sustainable development: financial inclusion and women's economic empowerment in India

Gender in Management: An International Journal

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Received 12 February 2024
Revised 22 May 2024
25 July 2024
10 September 2024
24 September 2024
Accepted 7 October 2024

Abstract

Purpose – This study aims to examine the relationship between financial inclusion and economic empowerment of women, recognising that empowering women is not just an issue of equity and fairness but also an essential prerequisite for achieving sustainable development.

Design/methodology/approach – This research used a survey method to gather data from the female population in northern India. The quantitative analysis was conducted using structural equation modelling with Smart PLS 4 software, based on the theoretical framework of economic empowerment theory.

Findings – The results demonstrated a notable association between financial inclusion and women's economic empowerment. The presence of active participation in financial services appears to contribute significantly to variations in women's earnings, savings and accumulation of assets.

Originality/value – This study contributes to guiding development agencies and policymakers by highlighting the importance of expanding financial services tailored to women and advocating inclusive banking.

Keywords Financial inclusion, Women, Economic empowerment, India, Structural equation modelling

Paper type Research paper

1. Introduction

Financial inclusion refers to the systematic provision of fundamental financial services to every individual in a manner that is convenient and sustainable (Ozili, 2024). Particularly for

The authors deeply acknowledge and appreciate the invaluable contributions of the respondents who participated in this study.

Funding: No funding was received.

Disclosure statement: No potential conflict of interest.

Informed consent was obtained from the participants in this study.

Data availability: The authors hereby declare that the data supporting this study are available to the author and will be provided upon reasonable request for research purposes.

Author contribution: Mohsin Showkat: Conception, design, drafting-, data collection and interpretation of the manuscript; Razia Nagina: Conception, design and Review of the manuscript; and Usha Nori: Design and Review of the manuscript.

The authors read and approved the final manuscript.

Gender in Management: An International Journal
© Emerald Publishing Limited
1754-2413
DOI [illegible]