FINANCIAL INCLUSION AND FINANCIAL WELL-BEING: A COMPARATIVE STUDY BASED ON GENDER PERSPECTIVE IN UTTARKASHI DISTRICT

Thesis submitted for the Award of the Degree of

DOCTOR OF PHILOSOPHY

in

ECONOMICS

By

Pramod Kumar Ojha

Registration Number: 41800799

Supervised By
Dr. Devinder Kumar (27905)

Mittal School of Business (Assistant Professor)

Lovely Professional University

LOVELY PROFESSIONAL UNIVERSITY
PUNJAB
2026

DECLARATION

I, **Pramod Kumar Ojha**, declare that this thesis titled "**Financial Inclusion and Financial Well-Being: A Comparative Study Based on Gender Perspective in Uttarkashi District"** is the result of research work done by me under the supervision of **Dr. Devinder Kumar**, working as Assistant professor in the Mittal School of Business (Economics) of Lovely Professional University, Punjab, India. The work presented herein is genuine and done originally by me keeping research ethics in mind for possible award of **Doctor of Philosophy (Ph.D.)** in Economics from Lovely Professional University.

I further declare that this thesis has not been submitted by me for award of any other Degree or Diploma of this or any other University.

(Signature of Doctoral Candidate)

Name of Doctoral Candidate: **Pramod Kumar Ojha**

Registration No.: **41800799**

Department/School: **Mittal School of Business (Economics)**

Lovely professional University, Punjab, India

CERTIFICATE

This is to certify that the thesis entitled "**Financial Inclusion and Financial Well-Being: A Comparative Study Based on Gender Perspective in Uttarkashi District"** is being submitted by **Mr. Pramod Kumar Ojha** is fulfilment for the award of Ph.D. in Economics to Lovely Professional University, Punjab is a record of Bonafide work carried out by him under my guidance and supervision.

The results embodied in this thesis have not been submitted to any other University or Institute for the award of any degree or Diploma.

(Signature of Supervisor)

Name of Supervisor: **Dr Devinder Kumar (27905)**

Designation: **Assistant Professor**

Department/School: **Mittal School of Business (Economics)**

Lovely Profession University, Punjab, India

ABSTRACT

Financial inclusion has gained substantial attention from governments, central banks, policymakers, development economists, and researchers worldwide. It is increasingly recognized as a cornerstone for achieving inclusive and sustainable economic growth, especially through its role in poverty reduction, social equity, and economic empowerment. Financial inclusion is widely recognized as a powerful instrument for attaining social justice, reducing poverty, and promoting inclusive economic growth. It is widely acknowledged as an essential enabler of sustainable development, directly supporting several of the United Nations' Sustainable Development Goals (SDGs), particularly those related to poverty alleviation, gender equality, and economic growth. Financial inclusion emerged as a cornerstone of inclusive economic development, aiming to provide access to affordable and appropriate financial services such as savings, credit, insurance, and digital payments—to all segments of society, especially the underserved and marginalized groups. When individuals, particularly women and low-income populations, gain access to these services, they are better equipped to manage their finances, invest in opportunities, and mitigate financial risks, thereby enhancing their financial well-being—a state characterized by financial security, control over day-to-day finances, and the capacity to meet future needs. This enhanced financial capability serves as a key enabler of economic empowerment, allowing individuals to make independent economic decisions, participate in productive activities, and assert control over financial resources.

In India, various policy initiatives such as the Pradhan Mantri Jan Dhan Yojana (PMJDY), Direct Benefit Transfer (DBT), and digital banking reforms expanded the formal financial network. However, despite these nationwide efforts, substantial disparities persisted—particularly among rural women living in remote and hilly regions like Uttarkashi in Uttarakhand. These regions were often characterized by poor infrastructure, limited institutional reach, and deep-rooted socio-cultural barriers that hindered equitable access to financial services. Women in such settings frequently faced compounded disadvantages due to lower literacy levels, restricted mobility, and limited economic independence. While financial inclusion was increasingly recognized as a

key driver of financial well-being and economic empowerment, its effectiveness depended not merely on access to financial accounts but also on the meaningful use of financial services and the ability to derive economic benefit from them.

Against this backdrop, the present study sought to explore the dynamics of financial inclusion from a gendered perspective in Uttarkashi. It examined how financial services impacted women's financial well-being and economic empowerment, and identified the barriers that prevented full financial participation. To make the study methodical and to accomplish the primary objective of financial inclusion and financial well-being based on gender perspective, the following objectives were sketched out:

- To explore the effect of policies of financial inclusion on women's financial well-being.
- To measure the gender gap in the context of financial inclusion.
- To examine the role of women's economic empowerment and financial well-being and the barriers thereof.

The study adopted a quantitative research design and was conducted in the Uttarkashi district of Uttarakhand, encompassing all six administrative blocks. A total of 400 respondents (207 males and 193 females) were selected using a multistage proportional random sampling technique to ensure representative coverage. Primary data were collected through a structured questionnaire, focusing on key constructs such as financial inclusion, financial well-being, and economic empowerment. Financial inclusion was measured across five dimensions: accessibility, affordability, availability, financial literacy, and usage of financial services. Demographic variables including gender, age, marital status, education, income, and employment were also considered. Data analysis involved both descriptive and inferential statistics. Techniques such as correlation analysis, partial least squares structural equation modelling (PLS-SEM), logistic regression, and multiple linear regression were employed using SPSS and STATA software to examine the relationships among variables.

The findings reveal a significant gender gap in financial inclusion, with women showing lower participation across most indicators. Female respondents showed lower financial participation, with gender exhibiting a significant negative correlation with most inclusion indicators. Despite increased access to financial services, overall financial well-being among women remained low—mean scores for financial well-being items ranged from 1.93 to 2.26 on a 5-point scale, reflecting widespread financial insecurity and dissatisfaction. In contrast, economic empowerment indicators scored positively among women, with mean values above 4.00, especially in income improvement (M = 4.25) and financial knowledge (M = 4.23), indicating perceived gains post-inclusion. Among financial inclusion dimensions, accessibility emerged as the strongest predictor for women, followed by usage, affordability, and financial literacy, while availability was found to be insignificant. Regression analysis also revealed that education, income, age, and employment were strong positive predictors of women's financial well-being and empowerment. Gender gaps were evident across financial behaviours. For instance, a one-unit increase in income among males was associated with a 17 percent higher likelihood of insurance ownership, compared to only 2 percent for females. Similarly, a one-unit improvement in education among males led to a 9 percent increase in digital transactions, while the corresponding figure for females was only 3 percent, highlighting a male-biased gender gap in formal financial engagement. However, in contrast to these trends, women outperformed men in certain areas. A one-unit improvement in women's employment status increased the likelihood of ATM usage by 12 percent, as opposed to only 4 percent in males. This reflects emerging shifts in gendered financial behaviour and growing female participation in specific financial activities. These findings underscore the urgent need for targeted, gender-sensitive strategies that address structural disparities and promote inclusive financial ecosystems to enhance women's economic outcomes in rural India.

The study offers several policy insights to enhance financial inclusion and improve financial well-being, particularly among women in rural areas like Uttarkashi. Improving accessibility through the expansion of digital and physical financial infrastructure is essential. Equally important is ensuring affordability by reducing transaction costs and maintenance charges that deter low-income users. Financial literacy programs must move beyond basic information to focus on practical application, trust-building, and behavioural change. Supporting low-income groups through targeted subsidies and income-sensitive financial products is necessary to address financial inequalities. A gender-inclusive approach is crucial, with specific interventions to overcome barriers faced by women, such as limited financial autonomy and employment access. Investments in digital infrastructure should be prioritized to facilitate digital and ATM-based transactions. Additionally, strengthening access to education and generating quality employment opportunities aligned with market needs can drive long-term empowerment. Financial service providers should also develop inclusive and user-friendly products tailored to the needs of underrepresented groups, particularly working women. It is suggested that different areas required distinct approaches to financial inclusion, and gender considerations needed to be integrated into policy formulation.

Remote and hilly regions represented a potential market for financial institutions that needed to be tapped. The outcomes of the study could be extended to other parts of the country. The study provided insight into the factors influencing financial inclusion while highlighting the disparities based on demographic traits. This information offered valuable inputs to researchers, policymakers, and financial institutions to develop a new approach towards inclusive growth through financial inclusion.

ACKNOWLEDGEMENT

The successful completion of this work owes a debt of gratitude to the steadfast guidance and generous support of my mentor, Dr. Devinder Kumar, an Assistant Professor of Economics at Mittal School of Business, Lovely Professional University. His consistent support throughout my entire PhD journey has been the cornerstone of my thesis.

I'd like to express my sincere appreciation to the dedicated team at the Research and Development Cell, Lovely Professional University, for their valuable assistance and collaborative efforts in handling the necessary administrative tasks.

I must acknowledge the significant contribution of faculty member in the Economic department and those involved in the Pre-PhD coursework. Their efforts in enhancing my knowledge were especially beneficial, given my non-academic background and military service. I am deeply appreciative of their support.

My heartfelt thanks go out to the panel members whose advice and ongoing evaluation guided my research in the right direction. Special thanks are due to Dr. Vishal Sarin, Dr. Pooja Kansra, Dr. Vijay Srivastava, Dr. Rajendra, Dr. Tawheed Nabi, Dr Aasif Ali Bhat and Dr. Shailendra Kumar Singh for their valuable insights and rigorous review of my thesis work, which added significant value.

A special word of thanks is due to the respondents across the six blocks of Uttarkashi district, who generously shared their time and experiences. Their participation formed the backbone of this research, and I remain indebted to them.

I am profoundly grateful for the unwavering love and support of my family, whose blessings and strength have been my foundation. My parents' encouragement has always been a source of inner strength. My wife and children have been a constant source of support, believing in my capabilities throughout this project and motivating me to keep moving forward.

I would like to express my heartfelt appreciation to my fellow students at the university and my friends whose continuous encouragement and assistance have propelled me to this stage.

I express my gratitude to all those whose names may not appear here but who, in their own ways, have contributed to the successful completion of this thesis. This work stands as a collective effort and is a reflection of all the guidance and goodwill I have received.

Above all, I offer my gratitude to the divine for granting me the power and resilience to accomplish this task.

Date: 07 Apr 2026 **Pramod Kumar Ojha**

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF MAPS

LIST OF APPENDICES

LIST OF ABBREVIATIONS

APY	Atal Pension Yojna
ATM	Automated Teller Machine
AVE	Average Variance Extracted
BC	Business Correspondent
CFA	Confirmatory Factor Analysis
CFI	Centre for Financial Inclusion
CGAP	Consultative Group to Assist the Poor
CR	Critical Ratio
CRISIL	Credit Rating Information Services of India Limited
EE	Economic Empowerment
EFA	Exploratory Factor Analysis
FI	Financial Inclusion
FWB	Financial Wellbeing
FII	Financial Inclusion Index
GDP	Gross Domestic Product
GOI	Government of India
GPFI	Global Partnership for Financial Inclusion
IFC	International Finance Corporation
KCC	Kisan Credit Card
KYC	Know Your Customer
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
NABARD	National Bank of Agriculture and Rural Development
NPA	Non-Performing Asset
OECD	Organisation for Economic Co-operation and Development
PLS-SEM	Partial Least Squares Structural Equation Modelling
PMJDY	Pradhan Mantri Jan Dhan Yojna
PMJJBY	Pradhan Mantri Jivan Jyoti Yojna
PMSBY	Pradhan Mantri Suraksha Bima Yojna
PCA	Principal Component Analysis

PPF	Public Provident Fund
RBI	Reserve Bank of India
RRB	Regional Rural Bank
SBI	State Bank of India
SDG	Sustainable Development Goal
SHG	Self Help Group
UN	United Nation
WGB	World Bank Group

CHAPTER I

INTRODUCTION

1.1 Introduction

In its widest definition, Inclusion refers to the process of ensuring that every individual has fair and equitable access to opportunities, resources, and services essential for leading a dignified life (UNO, 2016). Among the various forms of inclusion, financial inclusion stands out as a pivotal catalyst for social and economic advancement. Conceptualizing inclusion without incorporating financial access is like navigating a boat without a rudder—lacking both direction and effectiveness. Recent years have witnessed increasing emphasis on the importance of financial inclusion from governments, central banks, policymakers, development economists, and researchers worldwide (Allen et al., 2012; Camara & Tuesta, 2014; Gupte et al., 2012; Arora, 2010). It is increasingly recognized as a cornerstone for achieving inclusive and sustainable economic growth**,** especially through its role in poverty reduction**,** social equity**,** and economic empowerment (Serrao et al., 2012; Nandru et al., 2016). This chapter lays the foundation for exploring financial inclusion not just as an economic mechanism but also as a transformative force for enhancing well-being and equity—particularly from a gender perspective within the context of rural India. It is acknowledged that financial inclusion is a vital facilitator of approximately 40% of the Sustainable Development Goals, with the World Bank asserting that poverty alleviation is unattainable without enhancing financial inclusion. According to empirical research, there is a notable and beneficial relationship between financial inclusion and human development, government integrity, and GDP per capita, banking system conditions, and internet penetration (Sha'ban et al., 2019). Ultimately, financial inclusion contributes to inclusive growth by promoting economic development, reducing poverty and income inequality, and enhancing financial stability (Ratnawati, 2020).

The idea of financial inclusion is reflected in the interesting and relevant quote from Chanakya's (Kautilya) ancient Indian classic Arthashastra (Sharma, 2005): "The wealth of a kingdom lies in the prosperity of its people." This ancient wisdom highlights the importance of ensuring that economic resources and opportunities reach all sectors of society since the general well-being of people strengthens the foundation of a flourishing and inclusive economy. This concept aligns well with the modern notion of financial inclusion, which sees granting everyone easy accessibility to financial services as a way to promote shared wealth and national growth (Demirgüç-Kunt et al., 2018). Financial inclusion is widely recognized as a powerful instrument for attaining social justice, reducing poverty, and promoting inclusive economic growth (Chakrabarty, 2011). By ensuring that individuals and businesses, regardless of their location, gender, or income, have access to affordable financial goods and services, financial inclusion helps eliminate economic disparities and provides people with the means to become financially independent (Sarma & Pais, 2011). It is widely acknowledged as an essential enabler of sustainable development, playing a direct role in backing a number of the Sustainable Development Goals (SDGs) of the UNO, especially those pertaining to economic growth, gender equality, and poverty reduction (UNO, 2018).

The promise of inclusivity and opportunity for all is embodied by financial inclusion, a foundation of economic empowerment that goes beyond simple access to banking services. The notion of financial inclusion has surfaced as a driving force behind social justice in an era of rapidly expanding global economies, helping to move countries closer to sustainable development. To attain inclusivity, it is necessary to dismantle obstacles, promote creativity, and guarantee that every people, irrespective of socioeconomic status, have the resources necessary to engage fully in the formal financial system. In this investigation, we traverse the terrain of financial inclusion, scrutinizing its transformative capacity, enduring obstacles, and the developing tactics that shapes a more equitable and inclusive financial future for global communities. Financial inclusion has the ability to significantly improve the lives of vulnerable populations in India, where there are still pervasive social and economic disparities (Chakrabarty, 2011). Women, who make up about half of India's population, stand to gain a great deal from financial inclusion since it gives them the way to become more economically strong, improve their financial well-being and make better financial decisions.

Even with its acknowledged significance, attaining universal financial inclusion is still difficult, particularly for women. Although gender differences in financial access are noticeable everywhere, they are particularly noticeable in emerging nations like India. Global Findex Database of World Bank indicates that although there have been notable advancements in increasing financial access through programs like the Pradhan Mantri Jan Dhan Yojana (PMJDY), Indian women continue to face substantial barrier (World Bank, 2022). Restrictive social norms, restricted collateral ownership needed to obtain credit, limited access to formal banking services, and low financial literacy are some of the barriers that women encounter when trying to become financially included (Demirgüç-Kunt et al., 2018; OECD, 2013; UNO Women, 2020). When combined, these elements make it more difficult for women to fully engage in and profit from economic activity, which further widens the gender gap in financial inclusion (GPFI & IFC, 2011; Chakrabarty, 2011).

Financial inclusion is closely related to financial well-being, which is defined as a one's capacity to efficiently manage their financial resources to fulfil present commitments, develop resilience against financial shocks, and make long-term plans (Consumer Financial Protection Bureau (CFPB), 2015). Financial well-being for women is closely linked to their social and personal empowerment, and it transcends economic measures. Women's entire quality of life and that of their families is improved when they have access to financial resources, which empowers them to make decisions regarding their livelihoods, education, and health. However, women's financial well-being is weakened by the ongoing gender disparity in financial inclusion, which makes them more susceptible to economic shocks and restricts their capacity to make investments in their communities and themselves.

In India, the societal context may make it more difficult for women in engaging with financial services. Traditional gender roles occasionally require that men should make financial decisions, even when women earn an income or contribute to the household finances. This relationship makes women dependent and limits their financial independence. Additionally, because of their lower levels of digital and financial literacy, women are less likely to use modern financial services and technologies, which are increasingly necessary to achieve financial inclusion (OECD, 2018). To overcome this gap, focused initiatives that tackle both structural limitations and societal attitudes are required.

One essential component of financial inclusion is women economic empowerment. The capacity of women to access resources, make decisions, and act independently in economic domains is referred to as economic empowerment (UNO, 2017). Women who are empowered are more likely to make investments in their businesses, communities, and families, which helps society as a whole. Easy accessibility to financial services empowers women to make investment in their health, education, and other developmental needs, which has a beneficial knock-on effect. Furthermore, women's economic empowerment makes a substantial contribution to the expansion of the national economy (World Bank, 2015; Suri & Jack, 2016). By addressing their particular demands and difficulties, financial inclusion assists as a catalytic agent for women's economic development. For example, savings accounts give women a safe option to keep their money, lowering the possibility of financial loss or exploitation. Women entrepreneurs can establish or grow firms thanks to financing availability, which benefits both the economy as a whole and their financial independence. Insurance products promote financial resilience by providing women with a safety net against threats to their health, lives, and property. Digital financial services, made possible by e-wallets and mobile banking, further improve accessibility and convenience, particularly for women living in rural and isolated areas. However, gender-specific hurdles must be addressed through inclusive policy and program design in order for these tools to reach their full potential.

Even after seven decades of India’s independence, widespread poverty and deprivation of basic need like food, shelter, and clothing persist. Over the decades, economic inequality has widened, raising serious concerns among policymakers. The growth in Gross Domestic Product (GDP) and national resources has not been equitably distributed across the population. In response, "inclusive growth" has become a key focus of Indian policy discourse, emphasizing the fair distribution of resources to benefit all sections of society. It is now a well-established view that inclusive growth is incomplete without financial inclusion (Chakrabarty, 2011). Financial inclusion integrates the economically excluded into the mainstream economy and development processes. Financial inclusion in India has greatly improved because to government initiatives like the Pradhan Mantri Jan Dhan Yojana (PMJDY), which was introduced in 2014. The program seeks to make basic banking services, such as overdraft protection, insurance, and savings accounts, available to all households. With women comprising about half of the 500 million PMJDY accounts opened by 2023, this initiative has been instrumental in strengthening women's financial inclusion (Ministry of Finance, 2023).

Furthermore, digital financial services—enabled through e-wallets and mobile banking—have increased the accessibility and convenience of banking, particularly for women in rural and remote areas (Demirgüç-Kunt et al., 2018). However, to fully harness these tools, it is crucial to address gender-specific barriers through inclusive program and policy design. A multi-faceted strategy is needed that includes improving financial and digital literacy, enhancing access to financial infrastructure, and fostering social environments that support women's economic empowerment (OECD, 2018; UNO, 2017).

The intersectionality of gender with other variables like caste, religion, and geography must also be taken into account in financial inclusion initiatives. Targeted interventions are crucial since women from vulnerable communities frequently face additional obstacles to financial access. For instance, self-help groups (SHGs) and microfinance institutions have proven effective in reaching women in underserved areas, providing them with credit and fostering collective empowerment. These models not only enhance financial inclusion but also build social capital and support networks for women. The significance of financial literacy in achieving financial inclusion and women's economic empowerment cannot be overstated. Financial literate women are more adept to manage their finances, make wise financial decisions, and successfully negotiate intricate financial systems. The unique requirements and circumstances of women must be taken into consideration when designing initiatives to increase financial literacy, taking into account elements including educational attainment, cultural norms, and access to technology.

1.2 Financial Inclusion

Financial inclusion is to provide adequate and appropriate financial services of banks and non-banking finance institution to the vulnerable group of society may be individual or firm at affordable cost and in time which minimizes the financial exclusion. To achieve financial inclusion, one must first have a transaction account. Those who have such an account will be able to keep money and initiate payments and receipts. Additionally, it will enable individuals to benefit from additional financial services, which is why the World Bank Group's Universal Financial Access 2020 projects aim to ensure that everyone in the world has at least one transaction account (World Bank Group, 2020).

Globally, tremendous efforts have been made in recent years to promote financial inclusion, and since 2011, 1.2 billion individuals have gained access to bank accounts. Approximately 69% of adults have an account these days. Nonetheless, women make up half of the 1.7 billion adults who do not have bank accounts. In developing nations, the gender gap in account ownership is still around 9%, which prevents women from effectively managing their financial needs (Findex data, 2018). In order to reduce poverty and foster prosperity, financial inclusion is essential (World Bank Group, 2020). Notably, seven of the seventeen Sustainable Development Goals (SDG) of the United Nations for 2030 view financial inclusion as a vital component that makes sustainable growth internationally possible by improving the standard of life for the poor and disenfranchised segments of society (SDG, 2018). Since 2010 many countries in the world have taken tactical move toward financial inclusion. Some of the countries have achieved the most progress and India's effort to provide digital ID-Aadhar and PMJDY account has been appreciated worldwide.

1.2.1 Financial Inclusion in India

History of financial inclusion in India date back to pre-independence era. It is even believed that some essences of financial inclusion are mentioned in Manu Smirit (Buhler, 1886) and Arthasastra (Sharma, 2005; Kangle, 1960). A small step towards inclusive financing was taken in form of cooperative society act of 1904 (Lal, 2018). Table 1 summarizes various steps taken towards financial inclusion in India.

Table 1.1: Major Milestone in Financial Inclusion in India	
Year	**Events**
1904	Cooperative society Act
1955	Creation of State bank of India
1969	Banks nationalization
1971	Formation of Priority sector Lending
1975	Formation of Regional Rural Bank (RRB)
1980	Nationalization of Banks
1982	Formation of National Bank of Agriculture and Rural Development (NABARD)
1992	Introducing microfinance through Self Help Group (SHG)
1998	Introduction of Kisan Credit Card (KCC)
2005	Adopting branchless banking through
2005	Concept of No-frill account
2016	Pradhan Mantri Jan Dhan Yojna (PMJDY)
2019	National strategy for financial Inclusion for 2019-24 by RBI
2021	Construction of financial inclusion Index by RBI

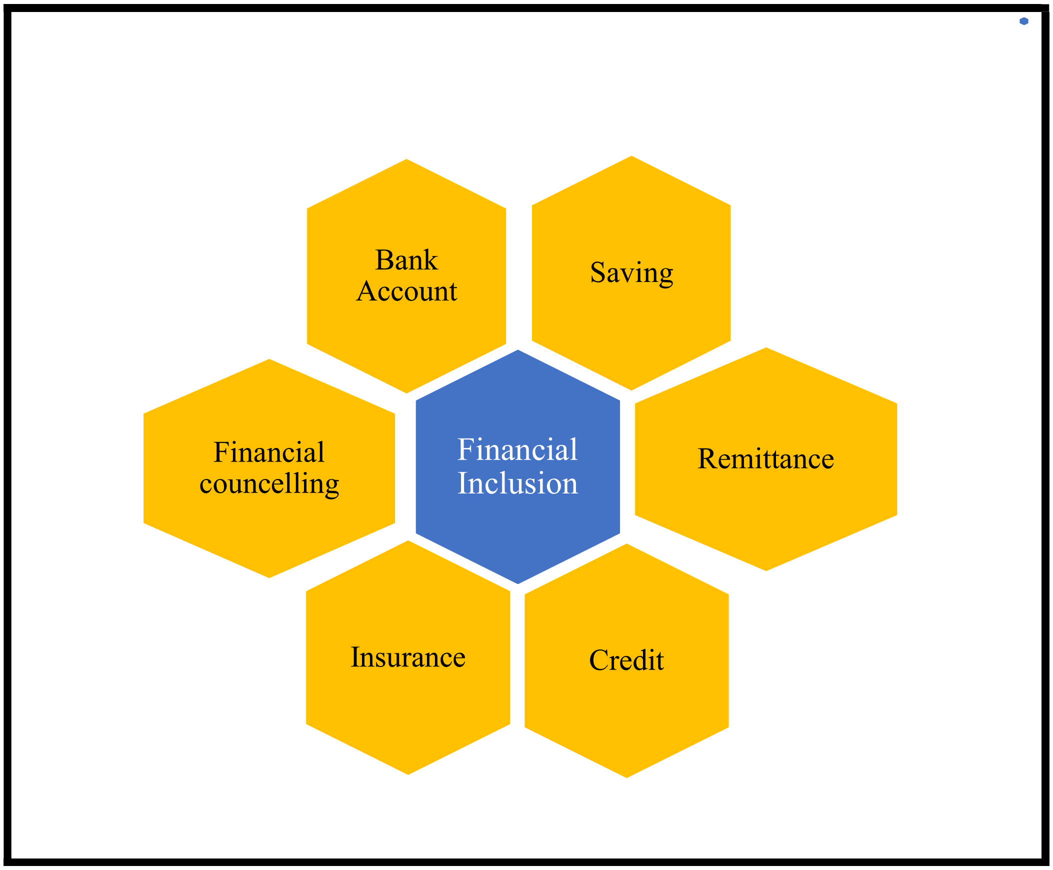
Source: Author's compilation based on literature review

In order to make the formal financial system accessible to the average person, the Reserve Bank of India (RBI) and the Government of India (GOI) have historically been working tirelessly to boost banking penetration in the nation. Some of the combine measure taken by RBI and GOI include creation of network of rural cooperative banks in 1950's, creation of State Bank of India (SBI) in 1955, nationalization of banks in 1969 and 1980's, introducing lead bank scheme in 1970's. Though it was not a direct approach to financial inclusion but it largely supported the farmers and small-scale industries in getting credits. Establishment of NABARD in 1982 was one more step ahead towards financial inclusion as it enhances sustainable agriculture and rural development. Establishing Regional Rural Banks (RRB) in 1975, introduction of microfinance through Self Help group (SHG) in 1992, Kisan Credit Card (KCC) in 1998, no frill account, easing KYC norms (Reserve Bank of India, 2020), permitting banks to utilize the service of NGO, SHG and micro finance institutions as intermediaries to provide banking services to unbanked area through it banking correspondent (BC) model (Serrao et al 2012). In 2016 they took a leap forward in financial inclusion and introduced PMJDY bridging gaps of earlier efforts.

Financial inclusion is "the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low-income groups at an affordable cost,"(Rangarajan Committee, 2008). Financial inclusion does not entail providing free financial services to everyone. Nonetheless, it alludes to the affordable delivery of financial services and goods to underserved and low-income demographics. It is crucial to the country's attempts to end poverty. Giving a substantial portion of the populace equitable access to mainstream financial services is the aim of financial inclusion, which aims to enhance their quality of life and increase their income. It provides a path for growth that is inclusive. Giving underprivileged individuals access to affordable financial services, such as credit, insurance, and savings alternatives, as well as the ability to make payments and transfer money through recognized financial institutions, is known as financial inclusion. Therefore, the availability of a large variety of financial products and services at affordable costs is known as financial inclusion. Along with other financial services like loans, insurance, and equity, it also covers banking goods.

"Financial inclusion is the process of ensuring that all segments of society, including vulnerable groups like lower income and weaker sections, have access to the necessary financial products and services at a reasonable cost in a fair and transparent manner by major institutional participants." (Chakrabarty, 2011)."Convenient access to a basket of basic formal financial products and services that should include savings, remittance, credit, government-supported insurance and pension products to small and marginal farmers and low-income households at reasonable cost with adequate protection progressively supplemented by social cash transfers, in addition to increasing the access of small and marginal enterprises to formal finance with a greater reliance on technology to cut costs and improve service delivery," is the vision for financial inclusion set forth by the Deepak Mohanty Committee on Medium-Term Path to Financial Inclusion (RBI, 2015).

Fig 1.1: **Core Components of Financial Inclusion**



Source: Rangrajan committee report, 2008

The figure above illustrates the core components of financial inclusion, which together form the foundation for integrating individuals and communities into the formal financial system. These elements—bank account access, savings, remittances, credit, insurance, and financial counselling—are essential services that empower individuals, especially from marginalized groups, to participate meaningfully in economic activities. First step toward financial inclusion is to have a bank account, enabling individuals to save securely and receive payments. Savings encourage financial planning and resilience, while remittance services facilitate the safe transfer of funds, particularly for migrant workers. Credit access enables entrepreneurship and investment in education or health, and insurance offers protection against unforeseen risks. Finally, financial counselling helps individuals make informed financial decisions, improving overall financial literacy. Together, these elements not only enhance economic security but also contribute to broader goals such as poverty reduction, gender empowerment, and inclusive growth.

1.2.2 Financial Inclusion in Uttarakhand

Financial inclusion in Uttarakhand has gained increasing policy consideration in recent years, particularly in the wake of governmental programs like the Pradhan Mantri Jan Dhan Yojana (PMJDY, 2016). As a largely hilly and rural state, Uttarakhand faces unique challenges in achieving inclusive financial growth, including difficult terrain, limited connectivity, and a dispersed population. The state has made impressive strides in increasing access to fundamental financial services such as digital payment methods, credit, insurance, and bank accounts in spite of these obstacles. However, disparities persist across districts and demographic groups, particularly among women, low-income households, and residents of remote areas like Uttarkashi and Pithoragarh. People living in hilly and remote area are not aware about banking facilities and these area lacks bank branches, ATM and digital connectivity (Kandpal & Kavidayal, 2020). The state is witnessing uneven sectoral growth and financial inclusion can strive for more balanced growth which is also crucial for sustainable development in the state (Kumar & Singh, 2025). Financial inclusion has helped in income generation in the region however, its impact is different for different caste category (Kandari et al., 2021). Strengthening the network of banking correspondents, promoting financial literacy, and leveraging technology-based solutions can further enhance financial inclusion in Uttarakhand and contribute to the broader goals of equitable and sustainable development. Financial inclusion plays a crucial role in enhancing women entrepreneurship in Uttarakhand (Goel & Madan, 2018). Accessibility, availability and usage are some critical factors that influence financial inclusion among rural women in Uttarakhand and there is a significant positive relation between social status and financial inclusion for rural women (Bharti & Dangwal, 2023). The financial inclusion in Uttarakhand state is being limited to geographic and demographic penetration of bank, ATM and PoS however, it not the bank account but the credit service from main stream banking that promote economic growth, women empowerment and poverty reduction (Pandey & Gupta, 2022).

Table 1.2: CRISIL Inclusix Scores and Ranks for Districts of Uttarakhand								
District	**Score**				**Rank**			
	2013	**2014**	**2015**	**2016**	**2013**	**2014**	**2015**	**2016**
Almora	59.6	63.1	64.4	69.2	161	185	201	166
Bageshwar	51.1	54.4	56.6	62.1	240	245	262	232
Chamoli	53.8	57.8	59.9	60.5	219	218	239	250
Champawat	53.0	57.1	58.2	68.0	225	225	252	179
Dehradun	66.0	80.1	81.8	84.0	101	64	78	60
Garhwal (Pauri)	59.3	63.4	62.8	65.7	165	183	221	193
Haridwar	56.8	63.9	70.0	65.0	194	178	154	198
Nainital	56.6	65.5	66.5	76.7	195	161	183	104
Pithoragarh	64.5	66.7	68.5	71.7	117	155	161	143
Rudraprayag	57.6	58.7	60.0	52.4	181	214	238	313
Tehri Garhwal	50.4	53.7	56.4	59.3	250	251	265	256
Udham Singh Nagar	64.0	69.0	74.5	65.9	120	132	123	190
Uttarkashi	49.8	51.8	56.4	50.7	262	268	264	333
Uttarakhand	59.3	66.0	69.2	69.0	13	14	11	12

Source: CRISIL, (2018)

Note: Inclusix scores are unit-free composite index values (0–100); ranks show relative district positions.

The CRISIL Inclusix data in Table 1.2 highlights considerable variation in financial inclusion across the districts of Uttarakhand. While the state as a whole has shown steady progress—improving its Inclusix score from 59.3 in 2013 to 69.0 in 2016 and consistently ranking among the top 15 states nationally—certain districts continue to lag behind. Notably, Uttarkashi reported one of the lowest scores in the state (50.7 in 2016) and ranked 333rd nationally, indicating a persistently low level of financial access and usage. This contrast is stark when compared to districts like Dehradun (score: 84.0) and Nainital (score: 76.7), which are relatively more urbanized and better served by banking infrastructure. These disparities underscore the need for region-specific and gender-sensitive financial policies, especially in remote and hilly districts like Uttarkashi where access to banking, credit, and insurance services remains limited (CRISIL, 2018).

1.2.3 Financial Inclusion in Uttarkashi District

According to the 2016–17 Economic Survey of Uttarakhand, financial inclusion had progressed considerably in Uttarkashi, with only 1.82% of households lacking access to bank accounts. This high level of inclusion reflected the effective implementation of both national and state-level schemes aimed at extending banking services to rural populations. Government initiatives such as the PMJDY played a vital role in delivering financial services to underserved communities, providing access to savings accounts, insurance, and credit facilities. Although challenges remained in translating banking access into sustained economic growth, the widespread availability of financial services signalled positive socioeconomic development in the district. Despite this progress, the distribution of financial and postal services across the district revealed significant spatial disparities that impeded comprehensive financial inclusion and rural connectivity. As per available data, 544 villages lacked a post office within their boundaries, and in 67 villages, residents were required to travel more than 10 km to reach the nearest postal facility. This limited reach reduced the efficiency of postal banking services and the implementation of government benefit schemes in remote areas.

Similarly, access to formal banking institutions remained insufficient. 673 villages lacked a nearby commercial bank, with 446 villages located more than 10 km from the nearest branch. Co-operative banks, which were crucial for promoting rural savings and providing credit, were absent in 658 villages, and 402 of these were situated over 10 km from the nearest facility. Agricultural Credit Societies, intended to support farmers and rural entrepreneurs, were unavailable in 618 villages, with 210 of them located at similar distances (Census, 2011). These figures highlighted the acute shortage of core financial infrastructure, especially in the remote and mountainous regions of Uttarkashi. The data reinforced the necessity of expanding decentralized delivery models such as

Business Correspondents (BCs), mobile banking units, and post office banking to bridge existing access gaps. Among the 657 villages with populations exceeding 2,000, only a limited number had direct access to formal banking infrastructure. Specifically, 146 villages were served by brick-and-mortar bank branches, while an additional 137 villages were covered by Business Correspondents. In total, just 283 villages, or approximately 43%, had any form of banking coverage, leaving the remaining 374 villages (57%) underserved (Kandpal & Kavidayal, 2020). This significant gap in coverage illustrated the persistent challenges in achieving universal financial inclusion and emphasized the importance of extending digital delivery channels, including mobile banking, micro-ATMs, and digital financial literacy programs, particularly in hard-to-reach areas.

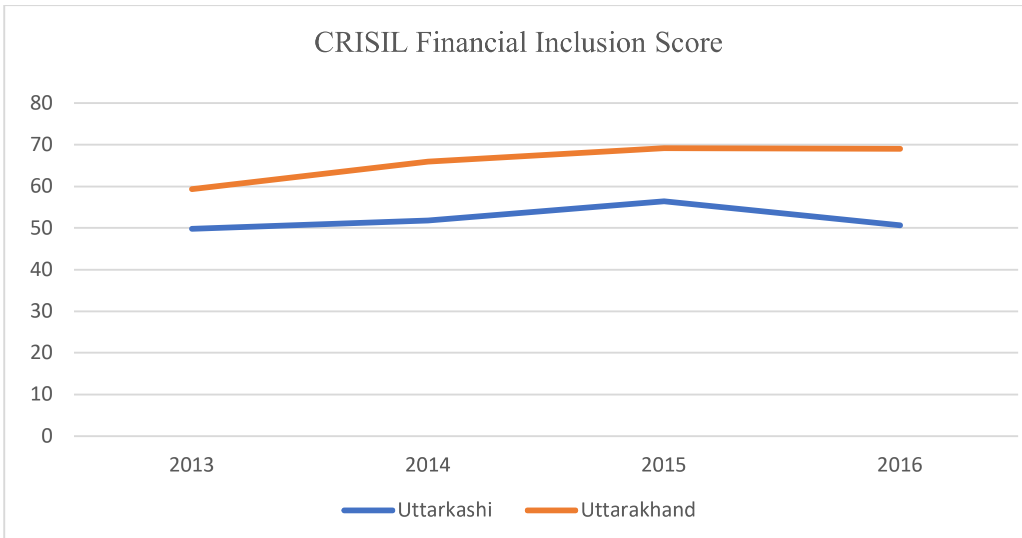
Despite considerable achievements in expanding financial access, Uttarkashi continued to face structural and environmental challenges. The district's rugged terrain, combined with frequent natural disasters such as floods and landslides, significantly hindered infrastructure development and the delivery of essential services. The remoteness of settlements further restricted access to markets, healthcare, and education. Additionally, the economy's heavy reliance on subsistence agriculture, coupled with the adverse impacts of climate change, rendered local livelihoods particularly vulnerable.

These challenges made Uttarkashi a compelling case for researchers exploring intersections of financial inclusion, gender roles, rural development, and education. For instance, the significant involvement of women in agriculture provided valuable insight into the gendered dynamics of rural economies and the potential for empowering women through targeted interventions. Likewise, the district’s relatively high financial inclusion rates offered a unique opportunity to study the impact of banking services on rural resilience and economic empowerment.

Uttarkashi's socioeconomic complexity, coupled with its natural beauty and cultural richness, defined the district’s development landscape. A balanced gender ratio and predominantly rural population further shaped its demographic profile. While notable strides had been made in financial inclusion, considerable scope remained for improving literacy, reducing gender disparities, and promoting sustainable livelihoods.

The district's distinctive combination of challenges and opportunities rendered it a significant area of interest for research aimed at advancing equitable and inclusive development in rural India.

Fig 1.2: CRISIL Inclusix Scores of Uttarkashi and Uttarakhand

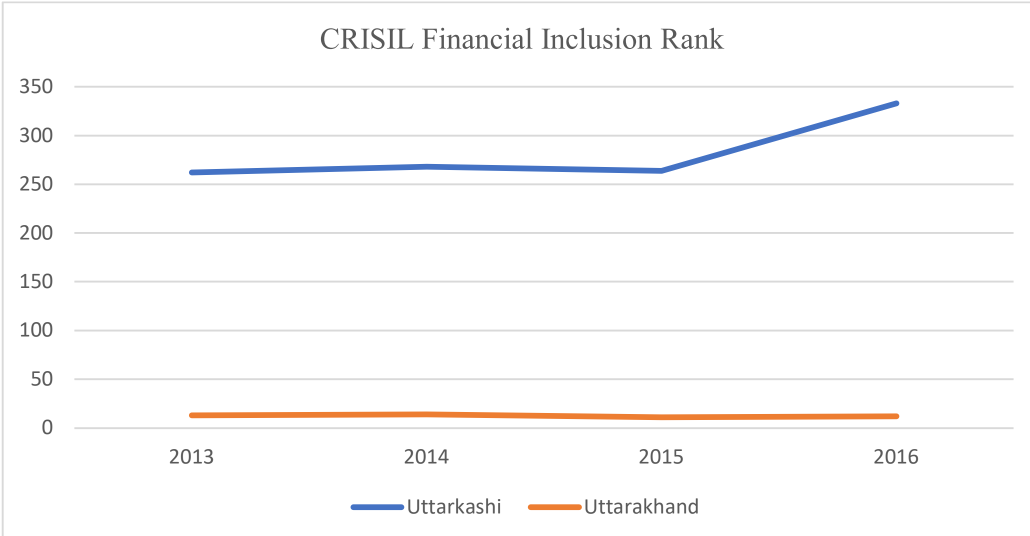


Source: CRISIL, (2018)

The CRISIL Inclusix scores from 2013 to 2016 highlight a persistent gap in financial inclusion between Uttarkashi and the state average of Uttarakhand. While Uttarakhand's score steadily increased from 59.3 in 2013 to 69.2 in 2015 and then remained stable at 69 in 2016, Uttarkashi displayed a more fluctuating trend. The district's score rose from 49.8 in 2013 to a peak of 56.4 in 2015 but declined to 50.7 in 2016. The CRISIL Inclusix rankings from 2013 to 2016 further emphasize the regional disparity in financial inclusion. Uttarakhand maintained a strong national performance, ranking between 11th and 14th among Indian states, reflecting relatively better overall financial access, usage, and penetration.

In contrast, Uttarkashi ranked poorly among Indian districts, with its position deteriorating from 262 in 2013 to 333 in 2016. Despite national and state-level policy initiatives aimed at enhancing financial inclusion, Uttarkashi's worsening rank signals

Fig 1.3: CRISIL Inclusix Rank of Uttarkashi and Uttarakhand



Source: CRISIL, (2018)

persistent structural and geographic challenges. This discrepancy underscores the need for focused district-level interventions and customized financial strategies for remote, underserved areas like Uttarkashi.

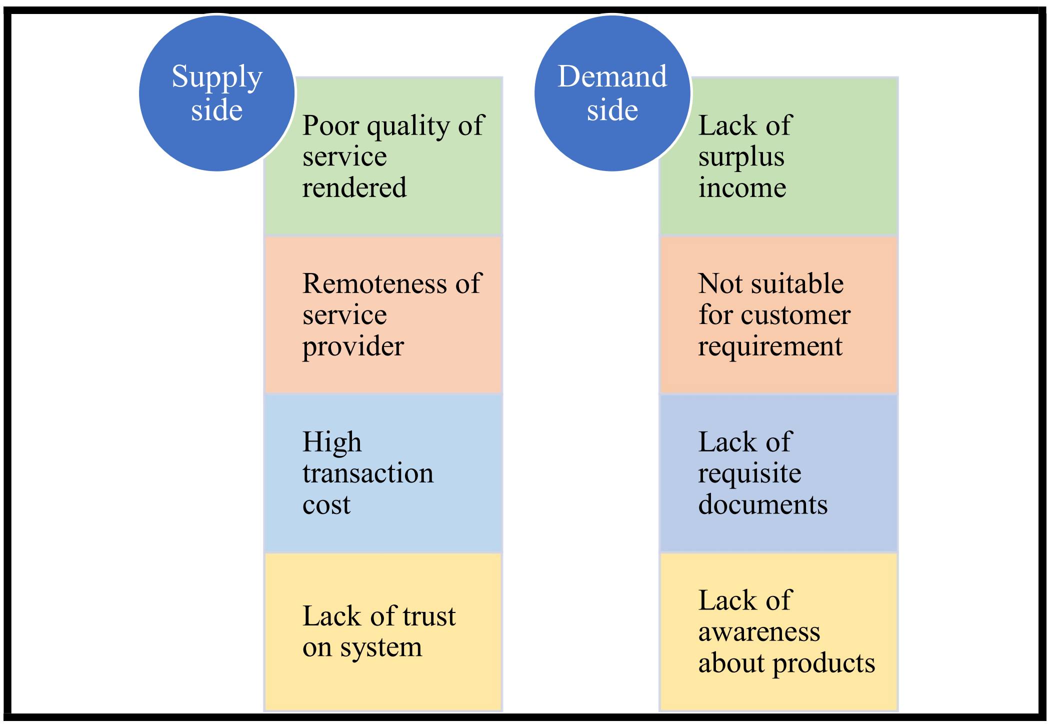
1.3 Financial Exclusion

The term "financial exclusion" defines as the restricted availability of fundamental financial services and goods that are necessary for individual and business entity to interact with the official financial system. Numerous facets of a person's financial life, such as saving money, credit, insurance of life and property and payment services, may be impacted by this exclusion. Individuals who are marginalized financially frequently turn to unofficial and occasionally dangerous financial solutions. The Reserve Bank of India's National Strategy for Financial Inclusion (2019–24) lists several factors that greatly increase the obstacles that people and communities must overcome to obtain formal financial services (RBI, 2020).

- **Insufficient Income:** It may be difficult for those with low incomes to meet the minimum balance requirements set by traditional financial institutions, which makes opening and keeping bank accounts challenging for them. A low income can also make it more difficult to get credit because low-income people are often seen as high-risk borrowers by lenders.

- **Absence of Personalization:** Financial products might fail to fulfil the individual needs and preferences of customers if they are not specifically designed to meet the needs of various customer segments. One-size-fits-all strategies may leave out people in different financial situations.

Fig 1.4: Causes of Financial Exclusion



Source: Reserve Bank of India, 2019

- **Absence of Adequate Records:** To open an account or obtain certain services, many formal financial institutions require certain identity documents. One major obstacle may be a lack of appropriate documentation, such as official identification documents or proof of address. It could be difficult for people living in vulnerable or marginalized communities to obtain the required documentation.

- **Knowledge of Financial Products:** A information deficit about the financial services and products that are available can be caused by low financial literacy. It's possible that people lack sufficient knowledge about managing their finances, using banking services, and choosing investments and loans wisely.
- **Belief in the Financial System:** Certain individuals may have low trust in formal financial institutions, particularly those who reside in underprivileged or marginalized communities. Reluctance to interact with the formal financial system may be caused by past events, bad experience or feeling of exclusivity.
- **Elevated Transaction Expenses:** High transaction costs, such as those for opening an account, completing transactions, or obtaining credit, may be associated with traditional banking services. These expenses may serve as a deterrent for those with low incomes, encouraging them to use unofficial financial services instead.
- **Remoteness of Service Providers:** Physical separation from financial service providers can be a major obstacle, especially in isolated or rural locations. People who don't have easy access to ATMs or physical banks may find it difficult to carry out simple financial transactions.
- **Inadequate Service Quality:** Formal financial institutions might occasionally be unable to offer services that specifically address the needs of particular demographic groups. Exclusion can be caused by inadequate customer service, a dearth of products that are specifically designed for them, and a disregard for the special needs of populations that are financially marginalized.

To effectively address financial exclusion, a comprehensive strategy that takes these variables into account and devises solutions for the unique problems that each community faces is needed. To build a financially inclusive ecosystem that meets the needs of a diverse range of populations, policymakers, financial institutions, and non-governmental organizations all play critical roles.

An effort through policy for financial inclusion in India was first proven by the Reserve Bank of India in 2005 by adopting branchless banking through the Business Correspondent (BC) model (Reserve Bank of India, 2008). In 2011, the Government of India became more serious towards financial inclusion and undertook the Swabhiman scheme, under which it covered 74,000 villages with populations over 2,000 with banking facilities to bridge the disparity between urban and rural economy (Reserve Bank of India, 2020). India took a leap forward in financial inclusion in 2014 when the government adopted a mission-mode approach by launching the Pradhan Mantri Jan Dhan Yojana (PMJDY) scheme with six major objectives (Ministry of Finance, GOI, 2016).

- Universal access to banking facilities
- Providing basic Banking account with RuPay debit card and Overdraft facility
- Financial literacy plan
- Creation of credit guarantee fund
- Micro insurance
- Unorganized sector pension scheme

The implementation timeline for the Pradhan Mantri Jan Dhan Yojana (PMJDY) was structured in two distinct phases. The first phase (August 2014–August 2015) focused on achieving three key objectives: universal access to banking facilities, financial literacy, and providing basic bank accounts with overdraft facilities and RuPay debit cards. The second phase, extending up to August 2018, aimed to consolidate gains by ensuring micro-insurance, pension schemes, and universal access to banking for all households, thereby completing the six-point financial inclusion agenda outlined under the scheme (Department of Financial Services, Ministry of Finance, 2014). Financial inclusion has made people to access appropriate financial product and other financial services in transparent and at affordable cost. But people do not feel a sense of security and does not feel freedom to make decisions that provide people power and the ability to enjoy life and cope up with their day-to-day money need despite having enough money to meet their need. Financial inclusion can be considered as one of the aspects of financial welfare but it is not sufficient for financial well-being.

1.4 Financial Inclusion and Financial Wellbeing

There are many definitions of financial well-being that are used by different stakeholder, but all having similar meaning. The ability to satisfy financial obligations, having a source of enjoyment in life, and be able to handle unforeseen financial crisis are all common components of financial well-being. It also includes being satisfied with one's current financial situation while having an optimistic view and plan for one's financial future (Prendergast et al., 2018). The term financial well-being is not a spontaneous origin but it is an evolution with the time. Twenty years back it was believed that person with more financial literacy should have more knowledge or should result in effective financial behaviour, but the external environmental conditions were neglected which do impact the people's financial conditions. Many factors like state of economy, household circumstances, employment opportunity and people's income were neglected into this consideration. It was also believed that people facing financial hardship require financial knowledge to overcome it. But simply knowing the fact does not make sense until we translate that knowledge into behaviour. So financial literacy does play an important role but it is not sufficient for well-being.

Over the past decade, the focus in financial research has shifted from merely assessing financial knowledge to understanding financial behaviour, leading to the development of the concept of financial capability. Financial capability encompasses a set of behaviours rather than just knowledge. It includes managing day-to-day finances, keeping track of expenditures, staying informed about financial matters, selecting appropriate financial products, and planning for the future. Importantly, it also involves the opportunity to act on one's knowledge, underscoring the role of external factors in shaping an individual's financial capabilities.

Financial well-being is considered the most holistic concept in this domain. It seeks to answer the question of why individuals experience varying financial conditions. Financial well-being incorporates both internal and external dimensions. Socioeconomic factors such as income, employment, social support, and health significantly influence financial well-being. It integrates financial knowledge (literacy), financial behaviour (capability), and financial attitudes, along with psychological traits—such as future orientation—that influence decision-making and overall financial security.

The concept of financial well-being has increasingly gained prominence and has become a critical area of discussion among governments, policymakers, financial professionals, employers, and academic researchers. In the current global context, significant transformations in financial systems, economic uncertainties, and rising cost-of-living pressures have amplified the requirement to grasp and enhance financial well-being across populations (Kempson et al., 2018). The financial issues like job losses, early retirement, health and personal bankruptcies are hampering financial wellbeing of individuals. The study of financial well-being in India is basically restricted to companies for studying employees' financial wellness. The current study alienates from other studies on financial well-being and has focused common public in gender perspective in the district of Uttarkashi.

Although the terms financial inclusion and financial wellbeing are closely related, they are not the same.it is to make available financial service to individual and business entity at affordable price and in transparent manner and financial wellbeing on the other hand incorporates financial health and satisfaction of individual, taking into account things like their capacity to manage financial shocks, fulfil financial commitments, and pursue financial objectives. Financial wellbeing and financial inclusion are closely correlated. People and companies are better equipped to handle their money, make future plans, and reduce financial risks when they have access to a variety of reasonable and suitable financial services. This can then result in better financial health.

Financial wellbeing, which includes an individual's total financial health and satisfaction, is closely related to financial inclusion, which is defined as the ease of access and affordability of financial services to individuals and enterprises. Studies reveal a robust positive association between the two ideas. Improved accessibility to financial services, was linked to higher levels of financial resilience and decreased vulnerability to economic shocks, ultimately resulting in enhanced financial wellbeing among households (Demirguc-Kunt et al., 2015). Increasing financial inclusion may also help to lower poverty and raise living standards, which will benefit people's financial security and general well-being (Norris et al., 2015).

Table 1.3: Various Definitions of Financial Wellbeing	
Authors	**Definitions**
Furgusson et al. (1981)	Asset accumulation and financial income are two indicators of financial well-being.
Porter (1990)	One's behaviour toward their financial situation based on objective factors and judgments, relative to their own standards, is referred to as their financial well-being.
Goldsmith (2000)	A person's or family's financial stability and security, which guards against financial hazards like illness, unemployment, bankruptcy, poverty, and retirement destitute.
Prawitz et al. (2006)	The level of stress and well-being originating from one's personal financial condition
Zaimah et al. (2013)	the objective measures and subjective assessments of people's unique financial situation.
Barclays (2014)	Having a sound financial situation both now and in the future

Source: Kempson et al. (2017) & Magli et al (2021)

The World Bank Group has done a great deal of research on financial inclusion and how it affects different aspects of development, such as economic growth and the decrease of poverty. Their reports frequently stress the vital role of financial inclusion to foster financial resilience and enhancing people's individual and communal well-being. The Centre for Financial Inclusion (CFI) is a global think tank dedicated to promoting financial inclusion. They have emphasized the value of access to high-quality financial services in boosting people's financial wellbeing in studies and report they have published on subjects like the relationship between financial health and financial inclusion. The Global Findex Database of the World Bank offers extensive information on how individuals worldwide manage financial risks, save, borrow, and make payments. Analysing this dataset offers meaningful understanding of interrelationships among financial inclusion and various indicators of financial well-being (Demirgüç-

Kunt et al., 2022). These studies look at how people's financial behaviour, attitudes, and outcomes are affected by their access to financial services using a variety of methodologies. Research and literature indicate that increasing financial inclusion can help to improve financial wellbeing at both the individual and societal levels, even though the precise results may differ (Demirgüç-Kunt et al., 2022; Kempson et al., 2017).

1.5 Financial Inclusion and Economic Empowerment

Encouraging financial inclusion is important for promoting economic empowerment, especially for underprivileged and marginalized groups. Access to a variety of financial services, such as banking, savings, credit, and insurance, is guaranteed by financial inclusion. A key component of economic empowerment is having access to financial services, which allow people to invest in profitable ventures and manage their money wisely (Beck et al., 2007). Because financial inclusion gives people the money they need to launch or grow their businesses, it promotes entrepreneurship and business development. Having access to borrowing options and various financial tool enables business owners to make investments in machinery, supplies, and personnel, which promotes economic expansion and employment creation (Morduch, 1999). Financial inclusion helps people generate income and reduce poverty by giving them access to credit and savings options (Demirguc-Kunt & Klapper, 2012). Better living standards are correlated with greater household income and consumption levels and increased access to financial services (Burgess & Pande, 2005). Building wealth and accumulating assets are key elements of financial inclusion and economic empowerment. Having access to investment and savings opportunities enables people to gradually accumulate assets like homes, land, and education, which promotes greater economic mobility and security (Ssewamala et al., 2010). Financial inclusion increases people's resilience and stability by improving their capacity to manage financial risks and deal with economic shocks (Cull et al., 2015). Access to insurance products and other risk-management resources enables people to reduce the negative effects of unforeseen circumstances on their livelihoods, such as illness, natural disasters, or crop failures (Allen et al., 2014). Through supportive policies and regulatory frameworks, governments and policymakers serve as a key driver of financial inclusion and economic empowerment (World Bank, 2014). The implementation of consumer protection laws, the promotion of financial literacy, and the expansion of banking services' accessibility can all contribute to the development of an environment that is favourable to inclusive economic growth.

Women's economic empowerment and financial inclusion are closely associated. The practice of offering official financial services to everyone in society, including women, is known as financial inclusion. Because it enables them to invest in their enterprises and engage in income-generating activities, Kabeer (2005) argues that financial access is crucial to women's economic emancipation. Women who have access to financial services like loans, savings accounts, and insurance are better equipped to start or expand their own enterprises, which boosts income and fosters economic independence (Duflo, 2012). When more women are empowered to make their own financial decisions, their agency in the home and community increases (Fletschner & Kenney, 2014). Financially included women are better able to fund their own medical care and education as well as that of their families, which promotes the growth of human capital and overall well-being (Demirguc-Kunt et al., 2018). Financial included women are less dependent on others because they are better equipped to handle financial shocks and vulnerabilities, such as illness or job loss (Oxford Policy Management, 2019). Through targeted interventions, such as gender-sensitive financial products, supportive regulatory frameworks, and capacity-building initiatives, policymakers play a crucial role in promoting financial inclusion and women's economic empowerment (World Bank, 2019).

1.6 Statement of Problem

Despite national initiatives aimed at enhancing financial inclusion, considerable portions of India's population, especially in rural, remote and hilly area still encounter considerable obstacles when trying to obtain institutional financial services, despite government measures to improve financial inclusion (Pandey & Gupta, 2022). The relationship between financial inclusion, financial well-being, and women's economic empowerment is especially significant in the state of Uttarakhand because of the diverse

socioeconomic landscape of India and the unique challenges women face in obtaining financial services and participating fully in the economy. With programs like the Pradhan Mantri Jan Dhan Yojana (PMJDY), India has advanced financial inclusion significantly, which aims to provide financial services like banking, savings, credit, and insurance to every household in the country. To improve people's financial well-being and economic empowerment, easy accessibility to financial services is only one aspect of financial inclusion; other aspects include their effective utilization and quality. Even though government programs like the Pradhan Mantri Jan Dhan Yojana (PMJDY) have increased account ownership, little is known about the extent of financial engagement and how it affects financial well-being and economic empowerment, particularly for female. But just having these institutions in place does not ensure that everyone can use or access them equally, especially women. According to studies, women in rural Uttarakhand frequently encounter more obstacles than males when trying to obtain formal financial services because of things like lower literacy rates, societal norms, and restricted mobility impacting their economic empowerment (Tripathi & Gupta, 2017).
In order to address the barriers that women and other underprivileged groups, especially those residing in rural areas, encounter when attempting to access formal financial services due to a lack of infrastructure and resources, the state of Uttarakhand has made financial inclusion a key priority. Financial stability is essential for women's economic empowerment because it empower them to start and scale up enterprises, make investments in healthcare and education, manage their finances sensibly, and participate in decision-making. Research has demonstrated that expanding women's access to financial services increases their capacity to create wealth, earn income, and enhance their general well-being, all of which contribute to their economic empowerment (Kabeer, 2005; Duflo, 2012). Although there has been progress in promoting financial inclusion, women in India, including those in Uttarakhand, continue to face obstacles that prevent them from accessing and using financial services. These obstacles include low financial literacy, social and cultural norms, and a lack of collateral (World Bank, 2014). Nonetheless, there are chances to address these issues with focused interventions like financial products tailored to women, initiatives to develop capacity, and using technology to make financial services more widely available and accessible (Kumar &

Dhir, 2021). Prioritizing gender-sensitive policies and interventions that support financial inclusion and women's economic empowerment is imperative for policymakers in Uttarakhand and India. Enhancing financial literacy, bolstering women's access to savings and credit, advancing property rights, and creating a supportive atmosphere for female entrepreneurs should be the main priorities (CGAP, 2016).

Owing to its largely remote and mountainous geographical features, Uttarkashi district in Uttarakhand, India, offers a unique context for examining the relationship between financial inclusion, financial well-being, and women's economic empowerment. Like many rural areas in India, Uttarkashi district faces obstacles to financial inclusion, such as poor infrastructure, remote location, and restricted access to formal banking services (Hazarika & Sarma, 2015). By extending banking services to underserved areas, like Uttarkashi, government initiatives like the PMJDY and local banks' and microfinance institutions' efforts aim to improve financial inclusion. Women in the Uttarkashi district encounter particular obstacles that prevent them from engaging in the formal financial sector, including restricted mobility, patriarchal norms, and a deficiency of knowledge about financial products and services (Bhushan, 2020).

Prior studies have largely concentrated on urban or macro-level financial inclusion, usually neglecting the gender-specific barriers and the diverse experiences of rural people. There is a glaring absence of gender-sensitive, locally focused research that looks at the relation of financial inclusion and financial well-being in rural, mountainous regions like Uttarkashi. From a gender perspective, this study attempts to close the important knowledge gap about the relationship between financial inclusion and financial well-being in Uttarkashi district. It examines the barriers that men and women in this field face when trying to obtain and use financial services, as well as how these factors affect their general financial well-being. The information gathered from this study will be essential in assisting policymakers and financial institutions in developing targeted strategies that promote equitable financial inclusion and enhance the financial security of both sexes in similar rural environments.

1.7 Key Research Objectives

This study aims to fill three important gaps in the current literature in light of the research limitations that have been discovered. The following goals have been delineated in order to guarantee a methodical approach and accomplish the main objective of investigating financial inclusion and financial well-being from a gender perspective:

1. To explore the effect of policies of financial inclusion on women financial well-being.
2. To measure the gender gap in the context of financial inclusion.
3. To examine the role of woman's economic empowerment and financial well-being and the barrier thereof

1.8 Significance of the Study

The present study holds considerable significance in the context of inclusive development, especially in geographically and socio-culturally diverse regions like Uttarkashi district. Financial inclusion is widely acknowledged as a key enabler of inclusive economic growth, poverty eradication, and sustainable development (Demirgüç-Kunt et al., 2018; RBI, 2020). However, in rural and underdeveloped areas, access to and usage of formal financial services remain uneven, often hindered by structural barriers, deep-rooted gender disparities, and limited financial literacy.

This research addresses a critical gap by examining financial inclusion and its relationship with financial well-being through a gender lens. By comparing the financial behaviours, access levels, usage patterns, and perceived financial well-being of men and women in Uttarkashi, the study uncovers gender-specific challenges and opportunities in achieving inclusive financial ecosystems. Such an analysis is particularly relevant for designing effective, equitable, and context-sensitive financial inclusion policies.

The study's outcomes will be valuable to multiple stakeholders:

- Policymakers can utilize the findings to formulate gender-sensitive financial inclusion strategies tailored to the needs of rural populations.
- Financial institutions may identify ways to improve outreach, service delivery, and product design for underserved communities.

- NGOs and development practitioners will gain insights to enhance women's economic participation and empowerment through targeted interventions.
- Researchers and academicians can draw on the study's empirical contributions to strengthen the literature on gender, financial inclusion, and rural development.

Additionally, by providing practical suggestions that aid in the accomplishment of the Sustainable Development Goals (SDGs), particularly SDG 1 (No Poverty), SDG 5 (Gender Equality), and SDG 10 (Reduced Inequalities), the study advances the larger national and international development agenda (UNO, 2016).

1.9 Scope of the Study

The present study is geographically confined to the Uttarkashi district of Uttarakhand, a remote, rural, hilly, underdeveloped and strategically important region where access to financial services remains limited and uneven. The study concentrates on examining the impact of financial inclusion and financial well-being, while paying special attention to gender disparities and barriers to women's economic empowerment and financial wellbeing. The population covered includes both male and female residents aged 15 years and above, with a focus on individuals who possess at least one formal bank account. Thematically, Key dimensions financial wellbeing, economic empowerment and financial inclusion dimensions such as accessibility, affordability, availability, usage of financial services and financial literacy have been explored. The study's foundation is primary data that was gathered during 2021–2023 and is supported by secondary data from government reports and financial inclusion indices. Methodologically, the study employs a multistage proportional random sampling technique and uses various statistical tools for analysis. A questionnaire has been framed to collect primary data which include demographic details and data on financial inclusion, financial wellbeing and economic empowerment from demand side perspective of respondent in Uttarkashi district. The data collected has been analysed using tool like smart PLS, logit model, regression analysis and descriptive analysis. While the study provides valuable insights into individual-level financial behaviour and gender disparities, it is limited to one district and does not include the perspectives of financial institutions or policy implementers. The scope is thus clearly defined to provide a focused, detail analysis of gender-specific financial inclusion in a rural, underdeveloped setting.

1.10 Chapter Scheme

Chapter 1: The chapter lays the foundation for the study. It begins with the background of the study, followed by a discussion of the conceptual and theoretical frameworks related to financial inclusion, financial well-being, and economic empowerment. The chapter clearly articulates the statement of the problem, highlighting the need and relevance of the research. It also outlines the significance of the study and specifies the scope; The chapter concludes with a description of the chapter scheme for the entire thesis.

Chapter 2: The chapter deals with the review of various empirical and theoretical literature on financial inclusion, financial well-being and economic empowerment at international, national and state level. This chapter also highlights the research gaps related to the realm and focuses on the theoretical issues related to objectives.

Chapter 3: This chapter outlines the overall research design and methodological approach adopted for the study. It includes a detailed presentation of the research objectives, operational definitions of key variables, hypotheses formulation, and research questions. The chapter elaborates on the research design, sampling design, research instruments, and data collection procedures. It also discusses the statistical tools and techniques used for data analysis. Furthermore, it presents the research framework developed to explore the relationship between financial inclusion, financial well-being, and women’s economic empowerment.

Chapter 4: The chapter outlines an in-depth analysis and description of the empirical assessment of the objective “To explore the effect of policies of financial inclusion on women financial well-being”.

Chapter 5: The chapter deals with detail analysis and discussion on the second objective of the study that is “To measure the gender gap in the context of financial inclusion”.

Chapter 6: The chapter deals with the analysis and discussion on the third objective of the study that is "To examine the role of woman's economic empowerment and financial well-being and the barrier thereof".

Chapter 7: This chapter presents a comprehensive summary of the study, highlighting the major findings derived from empirical analysis. It discusses key policy implications, offers targeted recommendations, and outlines the study's limitations. The chapter concludes by suggesting future research directions and summarizing the overall contribution of the study.

Summary

This chapter provides the conceptual and contextual foundation of the study by introducing the theme of financial inclusion and its relevance to financial well-being and economic empowerment. It begins by explaining the concept of financial inclusion and traces its evolution in the Indian context, with a focused discussion on its status in Uttarakhand and the Uttarkashi district. The chapter also highlights the issue of financial exclusion and its adverse implications, particularly for vulnerable and marginalized populations.

Further, the chapter examines the linkage between financial inclusion, financial well-being, and economic empowerment, emphasizing the role of access, usage, affordability, and financial capability in enhancing individual and household economic outcomes. Based on the identified gaps and regional disparities, the statement of the problem is articulated, followed by clearly defined research objectives that guide the direction of the study. The chapter concludes by outlining the significance, scope, and structural organization of the thesis, thereby setting a coherent framework for the subsequent chapters.

References

Allen, F., Demirgüç-Kunt, A., Klapper, L., & Peria, M. S. M. (2014). The foundations of financial inclusion: Understanding ownership and use of formal accounts. Journal of Financial Intermediation, 23(2), 199–228.

Arora, R. U. (2010). Measuring financial access. Griffith Business School Discussion Papers Economics, 1(7), 1-21.

Beck, T., Demirgüç-Kunt, A., & Levine, R. (2007). Finance, inequality and the poor. Journal of Economic Growth, 12(1), 27–49.

Bharti, R., & Dangwal, R. C. (2023). Investigating The Impact of Financial Inclusion on the Social Status of Rural Women: A Study in Uttarakhand. NICE Journal of Business, 18(1).

Bhushan, P. (2020). Empowering women through financial inclusion: A study of Uttarkashi District of Uttarakhand. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.3681754

Bühler, G. (1886). The Laws of Manu. Sacred Books of the East, Vol. 25. Oxford University Press.

Burgess, R., & Pande, R. (2005). Do rural banks matter? Evidence from the Indian social banking experiment. American Economic Review, 95(3), 780–795.

Cámara, N., & Tuesta, D. (2014). Measuring financial inclusion: A multidimensional index. BBVA Research Working Paper, 14/26.

CGAP. (2016). Financial inclusion: What's it worth? Consultative Group to Assist the Poor. https://www.cgap.org

Chakrabarty, K. C. (2011). Financial inclusion: A road India needs to travel. RBI Bulletin, November.

Consumer Financial Protection Bureau. (2015). Financial well-being: The goal of financial education. https://files.consumerfinance.gov/f/201501_cfpb_report_financial-well-being.pdf

CRISIL. (2018). CRISIL Inclusix: Financial inclusion surges, driven by Jan-Dhan Yojana (Vol. IV). CRISIL Limited. https://www.crisil.com/content/dam/crisil/ouranalysis/reports/Research/documents/2018/march/crisil-inclusix-financial-inclusion-surges-driven-by-Jan-Dhan-yojana.pdf

Cull, R., Demirgüç-Kunt, A., & Morduch, J. (2015). Banking the world: Empirical foundations of financial inclusion. MIT Press.

Dabla-Norris, M. E., Kochhar, M. K., Suphaphiphat, M. N., Ricka, M. F., & Tsounta, M. E. (2015). *Causes and consequences of income inequality: A global perspective*. International Monetary Fund.

Demirgüç-Kunt, A., & Klapper, L. (2012). Measuring financial inclusion: The Global Findex Database (Policy Research Working Paper No. 6025). World Bank.

Demirgüç-Kunt, A., Klapper, L., Singer, D., & Ansar, S. (2022). The Global Findex Database 2021: Financial Inclusion, Digital Payments, and Resilience in the Age of COVID-19.

Demirgüç-Kunt, A., Klapper, L., Singer, D., & Van Oudheusden, P. (2018). The Global Findex Database 2017: Measuring financial inclusion and the fintech revolution (Working Paper No. 8444). World Bank.

Demirgüç-Kunt, A., Klapper, L., Singer, D., & Van Oudheusden, P. (2015). The Global Findex Database 2014: Measuring financial inclusion around the world (Working Paper No. 7255). World Bank.

Duflo, E. (2012). Women empowerment and economic development. Journal of Economic literature, 50(4), 1051-1079.

Fletschner, D., & Kenney, L. (2014). Rural women's access to financial services: Credit, savings, and insurance. In M. Corsi et al. (Eds.), Women's empowerment and socio-economic outcomes (pp. 221–243). Springer.

Global Partnership for Financial Inclusion (GPFI), & International Finance Corporation (IFC). (2011). Strengthening access to finance for women-owned SMEs in developing countries. International Finance Corporation.

Goel, N., & Madan, P. (2019). Benchmarking financial inclusion for women entrepreneurship–a study of Uttarakhand state of India. Benchmarking: An International Journal, 26(1), 160-175.

Gupte, R., Venkataramani, B., & Gupta, D. (2012). Computation of financial inclusion index for India. Procedia - Social and Behavioral Sciences, 37, 133–149.

Hazarika, B., & Sarma, R. (2015). Financial inclusion and its determinants: Evidence from Uttarakhand, India. International Journal of Financial Studies, 3(4), 547–562 https://data.worldbank.org/products/data-books/little-data-book-on-financial-inclusion

Kabeer, N. (2005). Gender equality and women's empowerment: A critical analysis of the third Millennium Development Goal. Gender & Development, 13(1), 13–24. https://doi.org/10.1080/13552070512331332273

Kandari, P., Dobriyal, K., & Bahuguna, U. (2021). Impact of Financial Inclusion on Income Generation and Savings in Mountain Regions: A Case Study of Rural Households of Uttarakhand. Journal of Mountain Research, 35-44.

Kandpal, V. (2020). Financial inclusion in India breaking the myths and challenges: The case of Uttarakhand. Test Engineering & Management, Feb.

Kangle, R.P. (Ed.). (1960). The Kautilya Arthashastra. Bombay University.

Kempson, E., & Poppe, C. (2018). Understanding financial well-being and capability. A Revised Model and Comprehensive Analysis. Oslo: Consumption Research Norway (SIFO), Oslo Metropolitan University.

Kumar Vaid, Y., Singh, V., & Sethi, M. (2020). Determinants of successful financial inclusion in low-income rural population. The Indian Economic Journal, 68(1), 82–100. https://doi.org/10.1177/0019466220920345

Lal, T. (2019). Measuring impact of financial inclusion on rural development through cooperatives. International Journal of Social Economics, 46(3), 352–376. https://doi.org/10.1108/IJSE-05-2018-0249

Magli, A. S., Sabri, M. F., & Rahim, H. A. (n.d.). Review of the factor influencing and measurements of financial well-being.

Ministry of Finance. (2023). Pradhan Mantri Jan Dhan Yojana: Progress report. Government of India. https://financialservices.gov.in

Morduch, J. (1999). The microfinance promise. Journal of Economic Literature, 37(4), 1569–1614.

Nandru, P., Anand, B., & Rentala, S. (2016). Exploring the factors impacting financial inclusion: Evidence from South India. Annual Research Journal of Symbiosis Centre for Management Studies, 4, 1–15.

OECD. (2018). Bridging the digital gender divide: Include, upskill, innovate. Organisation for Economic Co-operation and Development. https://www.oecd.org/digital/bridging-the-digital-gender-divide.pdf

Office of the Registrar General & Census Commissioner, India. (2011). *Census of India 2011*. Ministry of Home Affairs, Government of India. https://censusindia.gov.in/

Oxford Policy Management. (2019). Women's economic empowerment and financial inclusion: Review of selected literature. Oxford Policy Management Ltd.

Pandey, T. D., & Gupta, S. (2022). Discourse on the Financial Inclusion of Uttarakhand: An Empirical Analysis on Changing Dynamics of Demography. Indian Journal of Natural Sciences www. tnsroindia. org. in, 12(70).

Rangarajan, C. (2008). Report of the Committee on Financial Inclusion. Government of India. Retrieved from https://www.findevgateway.org/paper/2008/01/report-of-committee-on-financial-inclusion

Ratnawati, K. (2020). The impact of financial inclusion on economic growth, poverty, income inequality, and financial stability in Asia. The Journal of Asian Finance, Economics and Business, 7(10), 73–85. https://doi.org/10.13106/jafeb.2020.vol7.no10.073

Reserve Bank of India. (2015). Report of the Committee on Medium-term Path on Financial Inclusion (Dec. 28, 2015). Reserve Bank of India. Retrieved from https://rbi.org.in/Scripts/PublicationReportDetails.aspx?UrlPage=&ID=836

Reserve Bank of India. (2020). National strategy for financial inclusion: 2019–2024. https://www.rbi.org.in/Scripts/PublicationReportDetails.aspx?ID=1154

Sarma, M., & Pais, J. (2011). Financial inclusion and development. Journal of International Development, 23(5), 613–628. https://doi.org/10.1002/jid.1698

Serrao, M. V., Sequeira, A. H., & Hans, B. (2012). Designing a methodology to investigate accessibility and impact of financial inclusion. Household Finance e-Journal - CMBO.

Sha'ban, M., Girardone, C., & Sarkisyan, A. (2020). Cross-country variation in financial inclusion: A global perspective. The European Journal of Finance, 26(4–5), 319–340. https://doi.org/10.1080/1351847X.2019.1644365

Sharma, R.S. (2005). India's Ancient Past. Oxford University Press.

Ssewamala, F. M., Alicea, S., Bannon, W. M., & Ismayilova, L. (2010). A novel economic intervention to reduce HIV risks among school-going AIDS orphans in rural Uganda. Journal of Adolescent Health, 46(4), 369–373. https://doi.org/10.1016/j.jadohealth.2009.10.003

Suri, T., & Jack, W. (2016). The long-run poverty and gender impacts of mobile money. Science, 354(6317), 1288-1292.

Tripathi, V., & Gupta, S. (2017). Financial inclusion in rural Uttarakhand: An assessment of challenges and opportunities. MUDRA: Journal of Finance and Accounting, 4(1), 58–68. https://doi.org/10.17492/mudra.v4i01.9776

UN Women. (2017). Women's economic empowerment in the changing world of work. United Nations Entity for Gender Equality and the Empowerment of Women. https://www.unwomen.org/en/digital-library/publications/2017/3/womens-economic-empowerment-in-the-changing-world-of-work

UN Women. (2018). Turning promises into action: Gender equality in the 2030 Agenda for Sustainable Development. United Nations Entity for Gender Equality and the Empowerment of Women. https://www.unwomen.org/en/digital-library/publications/2018/2/gender-equality-in-the-2030-agenda-for-sustainable-development.

United Nations. (2016). Sustainable development goals. https://www.un.org/sustainabledevelopment/sustainable-development-goals/

Washington, DC: World Bank. https://doi.org/10.48529/JQ97-AJ70

World Bank. (2015). Empowering women through financial inclusion. https://www.worldbank.org/en/news/feature/2015/08/05/empowering-women-through-financial-inclusion

World Bank. (2022). Global Findex database. https://globalfindex.worldbank.org/

World Bank. (2018). The little data book on financial inclusion

CHAPTER II

REVIEW OF LITERATURE

2.1 Introduction

A literature review is a critical assessment and synthesis of earlier research done on a specific topic. It entails looking through academic books, articles, and other sources to give a summary of what is and is not known about a specific topic. To find gaps in the body of knowledge, support the need for additional research, and add to the scholarly discourse, a literature review is frequently carried out as an initial stage of the research process. Numerous previous studies on financial inclusion, financial wellbeing and economic empowerment from both national and international perspectives have been conducted. This section provides a thorough analysis of the literature on financial inclusion in India, including studies on the financial inclusion of women in particular and the public in general.

The chapter is an attempt to review the literature on the following topics.

1. Financial inclusion
2. Gender gap in financial inclusion
3. Financial wellbeing.
4. Women's economic empowerment.

2.2 Financial Inclusion

Financial inclusion has become a major focus for scholars, decision-makers, and practitioners in recent years due to its crucial function in promoting inclusive growth and economic development. By combining both international viewpoints and particular insights from the Indian context, this literature review aims to offer a thorough analysis of the area. The availability and accessibility of formal financial services to all societal segments, regardless of demographic, socioeconomic, or geographic constraints, is known as financial inclusion, and it is a fundamental component of inclusive growth.

Financial inclusion seeks to address these issues to bring marginalized groups into the official financial system, which will advance economic empowerment and equity.

The influence of policy interventions and the role of technology in improving access to financial services are just two of the many topics covered in the literature on financial inclusion. Researchers have looked into how financial inclusion affects overall societal well-being, economic stability, and the decrease of poverty. Furthermore, the review will examine the challenges that remain to be overcome in order to attain complete financial inclusion, as well as suggested solutions. A number of frameworks and initiatives have been introduced globally to improve financial inclusion. The results of global research will be compiled in this review. A more sophisticated grasp of the advancements achieved and the ongoing difficulties encountered globally will be made possible by the insights gained from these sources.

Now that we are concentrating on India, a nation with a distinct socioeconomic environment, the literature review will look at the development and effects of financial inclusion policies. Launched in 2014, the Pradhan Mantri Jan Dhan Yojana (PMJDY) is a noteworthy initiative whose results will be evaluated closely. Furthermore, an examination will be conducted into how technology, specifically digital financial services and mobile banking, is propelling financial inclusion in India.

This literature review will examine several important topics, such as how to measure financial inclusion, how effective policy interventions are, how important financial education is, and how technological innovations affect society. This literature review attempts to provide a basis for comprehending the current state of financial inclusion, identifying research gaps, and providing insights for future scholarship and policy formulation by synthesizing and critically evaluating the body of existing knowledge. In the end, it aims to further the ongoing discussion on financial inclusion advancement for equitable and sustainable economic development.

Ali and Shah (2023) conducted the study and created a thorough and updated Financial Inclusion Index for developing countries using data from 2005 to 2020, this study fills a research vacuum. A macro-level multidimensional index that takes into account both financial and socioeconomic aspects is created using the data, which is obtained from the World Bank, central banks, and finance departments of the various countries. Three levels of financial inclusion are distinguished by the index, which runs from 0 to 1: low financial inclusion (0 to 0.30), medium financial inclusion (0.31 to 0.50), and high financial inclusion (0.51 till 1). The results show that the majority of developing countries are classified as low or medium, with Estonia being the only one to attain high financial inclusion between 2009 and 2010.

Using the World Bank Global Findex database, **Hasan et al. (2023)** conducted a cross-sectional analysis of data from 144 countries to investigate the connection between women's financial inclusion and digital financial literacy. Using probabilistic regression approaches, the study discovered that formal banking services were substantially more likely to be used by female entrepreneurs who had greater levels of digital financial literacy. The findings of this study can be used by banks and regulators to create effective policies that attract female customers. In the absence of efficient regulatory action, women may look into financial crimes like money laundering because they are not part of the official banking system.

Mossie (2023) examined Ethiopia's financial inclusion's motivators, obstacles, and drivers. using a probit regression model with financial accounts, formal savings, and formal credits as indices of financial inclusion. According to the report, there are several obstacles to formal account ownership, including forced exclusions like lack of documentation and distance to financial services, as well as voluntary exclusions like lack of funds or family members having accounts. The research also discovered that people with various sociodemographic traits have distinct reasons for using bank accounts for lending and saving.

Ali and Shah (2022) explored that Income levels, gender differences, financial literacy, financial innovations, regulatory frameworks, financial stability, service costs, economic conditions, political environments, and access to information and communication technology (ICT) are some of the major factors influencing financial inclusion that are identified in this study. Variations in financial inclusion between countries are mostly explained by differences in these indicators. Using metrics including lending, saving, the quantity of ATMs, bank branches, and bank accounts, the study identifies three essential elements of financial inclusion: availability, accessibility, and usage. It also covers demand-side elements like socioeconomic circumstances and cultural views, as well as supply-side elements like infrastructure and service costs. These observations provide a framework for investigating various facets of financial inclusion and direct gap-closing tactics, especially for marginalized groups.

Hermawan et al. (2022) found that financial inclusion has a very strong influence and financial literacy has a medium significance on the intention to use digital finance Since it is rare for MSME players in particular to plan to use digital finance research, this study contributes to the body of information on fintech. Therefore, the results offer recommendations for improving market and MSME development through the dissemination of financial knowledge and services that influence usage intentions. This study focuses on MSMEs' intentions to use digital finance, which is significant because it necessitates adapting to the times.

Chakraborty and Abraham (2021) examined the relationship between financial inclusion and economic growth by examining World Bank data from 2011 to 2017 in 179 different countries. Using metrics including checking account, savings account, debit card, and loan ownership among the poorest 40% of the population, the study evaluated financial inclusion. Gross savings, financial inclusion, and GDP per capita growth were all significantly correlated, according to regression analysis. Validated metrics for social empowerment, economic empowerment, and economic development were created in a follow-up study that concentrated on rural Bangladesh. Through the use of structural equation modelling, the researchers discovered that the relationship between financial inclusion and overall economic advancement was significantly mediated by social and economic empowerment.

Kandari et al. (2021) revealed a noteworthy correlation between financial inclusion and socioeconomic variables. The study's overall analysis suggests that as a person's financial literacy increases in the state's hilly rural areas, so does their likelihood of having a bank account, using mobile banking, and applying for credit. Additionally, the study shows that women are more susceptible than men when it comes to using a mobile device and getting credit. The study's conclusions recommend raising financial literacy in these areas and focusing on the economically disadvantaged population segment (as indicated by low financial inclusion).

Kaur and Singh (2021) emphasised to learn more about the factors that impact financial inclusion in rural Punjab. Using a random sampling technique, 150 households were selected from two villages in the Fazilka district to meet the study's objectives. The study area's financial exclusion was primarily caused by low income (61.33%), low savings (83.33%), and illiteracy (78.67%), according to the sampled respondents. The primary barrier to institutional loan availability for rural households was the high transaction costs (43.33%). People felt that borrowing money from informal credit sources was easier as a result of all these hassles because it was easily available (75.33%) and had low transaction costs (85.33%). According to the regression analysis, the main variables that were substantially influencing the financial inclusion in the rural areas were caste, farm size, savings, and banking vs. non-banking.

Kumari (2021) explored the factors that influence financial inclusion in Sri Lanka, concentrating on finding the factor that matters most in determining financial inclusion. The analyses' source of data was 400 adult individuals nationwide. To examine the connection between each dimension and the target respondents' levels of financial inclusion, additional correlations were estimated. The results of the research showed that quality and impact both had a major influence on the financial inclusion, with impact being recognized as the most important of the four dimensions. The least important factor in assessing Sri Lanka's level of financial inclusion was found to be usage level. Policymakers in Sri Lanka can take the implications of the findings to heart, especially when developing a comprehensive financial framework aimed at minimizing the less important aspects of financial inclusion while preserving the beneficial ones. Conversely, formal financial institutions can use financial inclusion as a competitive strategy to reach untapped markets by competing with other types of financial institutions.

The factors that influence financial inclusion and how it affects the financial well-being of marginalized street sellers were investigated by **Nandru et al.** in 2021. 371

respondents made up the study's sample, which used a demand-side methodology. Convenience sampling was used to deliver a structured interview schedule, and both descriptive and exploratory research methodologies were used to gather data. The results provide light on how economically disadvantaged groups use and have access to financial services. The use of confirmatory factor analysis (CFA) and structural equation model (SEM) provides adequate empirical support for describing the latent constructs and their possible linkages. Financial literacy is found to be statistically irrelevant, but accessibility, availability, usage, and affordability—the five dimensions of financial inclusion that were taken into consideration for the study—are found to be important determinants of financial inclusion. Additionally, the study's findings attest to the fact that financial inclusion has a noteworthy positive impact on the welfare of marginalized street vendors. The study's findings will help all parties involved—including financial institutions and legislators—enact legislative directives that will guarantee the marginalized street vendors' financial security through financial inclusion programs. Financial inclusion can lead to financial well-being even in the absence of financial literacy, as demonstrated by the marginalized street vendors in the unorganized sector. As a result, it gives the body of research on demand side analysis of financial inclusion measurement a fresh perspective.

Vasile et al. (2021) founds that age groups and national borders play a significant role in financial inclusion. The pandemic has brought to light the widening gaps and inequalities as well as the system's shortcomings in terms of accessibility, flexibility, and customer-bank relationship amenities. It has also raised questions about the financial literacy of the younger generation and vulnerable workers. The Global Findex available data, along with some findings after the COVID-19 crisis lasted for more than a year, outlined the key components of financial digitization by groupings of people and nations. Simultaneously, it is recognized that the difficulties and issues that arose during the pandemic, which considerably altered the way citizens consumed and heightened the necessity of online access for financial transactions.

Billah and Ahmad (2020) investigated that the different metrics of financial inclusion are significantly impacted by gender, age, income, and education. These elements also significantly affect unofficial borrowing and saving.

Nguyen (2020) explored through composite index that was created by the study using the Principal Component Analysis (two stages) Method. Prior to using the PCA data analysis method, indicators of each to obtain values between zero and one, the dimensions were normalized. The degree of financial inclusion and penetration, availability, and usage have been found to strongly positively correlate with each other by the study. According to the study, Tanzania had the lowest degree of financial inclusion among the sample countries, while Mauritius had the highest. As per the study, there is a statistically important relation between account ownership and the financial inclusion index. To increase financial inclusion, the study suggested digitalizing all government payments and social benefits, protecting consumers, and promoting financial literacy.

Ali and Shah (2019) revealed that financial literacy directly affects people's earnings. They also came to the conclusion that there is an indirect relationship between money management and monthly income and a direct relationship among monthly income, financial knowledge, and financial readiness.

Goel and Madan (2019) reported that financial inclusion has provided a platform to women to prove their entrepreneurial might which specify that there is noteworthy effect of financial inclusion on women entrepreneurship. However, this research is limited to two districts of Uttarakhand which can be further extended to other part of India for generalizing the findings.

Nandru and Rentala (2019) found that various dimensions of financial inclusion like physical proximity, availability, ease of access, affordability and usage have significant impact of socio-economic status of the beneficiary. Researchers collected primary data and has used reliability and validity test to establish financial inclusion dimension and socio-economic status factors and has used Confirmatory factor analysis and structure equation modelling as data analysis tools.

Sharan and Dale (2019) highlighted the collaborative efforts of the Department of International Development (DFID), Small Industries Development Bank of India (SIDBI), and Hand in Hand, India, a renowned NGO, to empower over 50,000 women in Madhya Pradesh, India, using a multifaceted approach to increase their capacity to properly utilize the credit facilities that have been extended to them. The financial literacy training programs strengthened and promoted women's identities while also improving their abilities in financial planning and fund management. To add even more value, gender issues were incorporated into each of these initiatives. Men and powerful community members were also involved as part of the change management strategy to support the process of change and transformations in women's lives. Our goal is to provide empirical proof of rural women's empowerment, which has empowered them to make decisions that have improved their social and financial well-being.

Baber and Zaruova (2018) highlighted the importance and need of Islamic banking to counter the huge financial inclusion in India. The authors have emphasized that Islamic banking has nothing to do with a particular religion and its benefit can be enjoyed by all people who are financially excluded. This paper has also pointed out the features of Islamic banking which is the link between ethic and finance. It is based on Sharia law and principle of Quran and also prohibits interest. Author has signified the Islamic banking for India where there is a large cultural and geographical diversity. It can act as a tool of microfinance for those who have been excluded or does not fit into the conventional financial system of India. This paper has listed various challenges and limitations of Islamic banking implementation in India. It has also suggested in this paper that if Islamic banking in complete cannot be implemented in India, then some of its instrument which are useful for the people can be accepted.

Georgia's current state of financial inclusion and financial literacy was highlighted by **Babych et al. (2018)**. Financial inclusion indicators have been categorized into four groups in the literature that is currently available: access, outreach, usage, and quality. The obstacles on the supply side are categorized as infrastructure-related barriers, regulatory barriers, and market-driven barriers. High maintenance costs, the high cost of delivering financial services in rural areas, information asymmetry, and a dearth of easily accessible points are examples of market-driven barriers. Strict identity requirements, limitations on foreign ownership, and requirements for opening branches and ATMs are examples of regulatory barriers. Infrastructure-related obstacles include unreliable internet connections, scarce phone service, trouble getting to ATMs, and an untrustworthy payments and settlements system. Low income, ignorance, mistrust, and institutional traits (e.g., bankruptcy law, evaluation of creditworthiness) are some of demand side barriers.

Ghosh (2018) reported the interdependence of mobile telephony, economic growth, and financial inclusion. It also reveals that mobile telephony has a positive and statistically significant effect on economic growth. Furthermore, it reveals that mobile telephony and financial inclusion have strong complementarities, with the latter being more prevalent in the case of financial use than financial access. This article demonstrates how Aadhar and mobile phones interact significantly and have a noticeable effect on financial access.

Grohmann et al. (2018) investigated that increasing financial literacy can help improve financial inclusion. This cross-country study found that financial literacy does play a role in financial decision-making and that its marginal effect on access to financing is greater at low levels of financial depth, but its marginal effect on the use of financial services is larger at high levels of financial depth.

Inoue (2018) revealed that private sector banks have demonstrated variation in their use of financial products for poverty reduction, this study demonstrates that financial inclusion and financial deepening facilitated by public sector banks have shown favourable influence on poverty reduction in India.

Jain (2018) emphasised on various definitions of financial inclusion of financial inclusion given by world reputed institutions at different point of time. This paper has also mentioned the three stages of financial inclusion and its mode in India. The author has listed the initiative of GOI and policy measure of RBI for financial inclusion in India. The uniqueness of this paper is that author has also mentioned the initiative of corporate sector and ambitious project created by them in India to achieve universal financial inclusion. The study mentions various challenges and issues in implementation of financial inclusion.

Kabakova and Plaksenkov (2018) found that financial inclusion consists of four component Access, Usage, Quality and welfare and there is a unified approach only to measure access but still there are ambiguity in measuring other components.

Lal (2018) revealed that financial inclusion through cooperative has undeviating and considerable impact. It has also been uncovered through this study that financial inclusion is an approach toward inclusive growth which itself is a compartment of inclusive development. This study has some unavoidable restrictions like it is limited to three northern states of Jammu & Kashmir, Himachal Pradesh and Punjab.

Patwardhan (2018) revealed that financial inclusion has nothing to do with degree of development of a country and financial exclusion even effect middle class people. He has revealed the financial exclusion in developed country by showing the data of USA.

Sharma et al. (2018) explored that UT like A&N, Puducherry and Chandigarh has top the list in financial inclusion. It was also found that infrastructure like rural roads are important positive determining factor and labour force participation, poverty and regional disparity are other factors. Using of multivariate regression analysis resulted that PMJDY has been effective in state with low and under economic development. PMJDY does not have that much impact in urban as it has on the lower income group in rural India.

Shetty and Hans (2018) investigated that growth without involving marginalized section is meaningless. Most of the beneficiaries of financial inclusion in India are women and Self-Help Group (SHG) is playing a major role in women empowerment through financial inclusion. It has been also pointed out by this study that SHGs are enhancing the capabilities and confidence among different social groups. This article also features the challenges and prospects of women empowerment through SHG. This study also recommends adoption of technology, door step banking, no frill account and General-purpose credit card to marginalized section to bring them into Financial Inclusion.

Sinha et al. (2018) observed various demand side challenges of using Financial Technology (Fintech) for financial inclusion. As per the study, it is the financial literacy that is barrier to digital transaction. The study founded out that demand side of digital financial inclusion is largely unaddressed. This article has listed out many challenges in using digital payment in India at present scenario. The authors have suggested for a massive awareness generation among financial excluded population and at the same time adoption of digital hardware at point of sale. This study also recommends the collaboration between financial and telecom sectors to promote financial inclusion as the real challenge of fintech is the organizational effort.

World Bank Group (2018) reported that India has done quite good in bank account opening of fifteen plus age population in comparison to world average, south Asia, and also among low-income country. Its percentage is also fine in account opening for women in this entire group. Its performance is also appreciable in account opening in rural area. Digital payment in India is somewhat equal to south Asia and lower middle-income countries but it is much lower than world average. The percentage of inactive account is also much higher than world average and quite high when it is compared to south Asian and lower middle-income countries. Saving with financial institution in India is quite low when compare to world average.

Sharma and Goyal (2017) investigated that the process of financial inclusion is greatly influenced by factors such as income level, sources of financial information, and knowledge of inclusion programs. The research showed a relationship between rural households' level of awareness of PMJDY and their demographic characteristics. It has been found that rural households are more expected to live closer to a bank and be financially included.

Dutta and Das (2017) highlighted the methods used by various banks to promote financial inclusion as well as the reactions of clients to those methods. They saw that banks were fully adhering to RBI regulations regarding the opening of new branches, providing no-frills accounts, KCC, and streamlining KYC procedures; however, much more work is required to reach the objective of financial inclusion. The combined efforts of the three pillars—the RBI, all banks, and the general public—are necessary to achieve the ultimate goal of financial inclusion.

Garg and Singh (2017) revealed that, in most regions of the world, young people have low levels of financial literacy. The younger generation's financial literacy is greatly influenced by a number of demographic and socioeconomic factors, including age, gender, income, marital status, and educational background. Additionally, there is a cyclical relationship between financial literacy and financial behaviour, attitudes, and knowledge that influences overall financial capabilities. There is a persistent gender gap in financial education in India, where financial literacy is particularly poor and men tend to have higher levels of financial understanding than women.

Guild (2017) in this research based on case study of India and Kenya in digital cash transfer service and that of China in peer-to-peer lending. The author through this research emphasised to bring into notice that these services when get hitched with harmonizing government policies and regulatory framework has the potential to expand financial inclusion towards those who are unbanked and financially excluded. Fintech is a hope for future finance because inclusive finance leads to economic growth. He has also cautioned that such initiative should be handled with inclusive policies and prudent regulatory norms. It should neither be handled with pure finance law or pure telecom laws but a blend of both as it was done in Kenya and China.

Kaur (2017) investigated the factors influencing financial inclusion in Punjab. The percentage of the working population, district GDP, urbanization level, and literacy rate were found to be important socioeconomic determinants affecting financial inclusion. The chosen socioeconomic indicators were regarded as independent variables, and the FII was examined as the dependent variable using step-wise regression and correlation analysis. While the percentage of the working population had no discernible effect, the results demonstrated a substantial positive association between financial inclusion and the literacy rate, urbanization, and district GDP. Urbanization was the most significant of the covariates, accounting for 53% of the differences in financial inclusion between districts.

Mapfuyanzara and Sandada (2016) examined the causes of financial exclusion in the financial sectors of Zimbabwe. Managers of saving banks, building societies, and commercial banks provided the data. The writers performed a factor analysis of the important variables causing exclusion from financial access. The study's conclusions support the notion that the primary causes of financial exclusion in Zimbabwe are the lack of liquidity, culture and occupation, personal problems, accessibility constraints, financial circumstances, and gender.

Mundra (2016) in this study has highlighted India's journey towards universal financial inclusion, the challenges encountered and way forward. He brought out the role and listed out various efforts of RBI to bring financial inclusion in India. According to him the major challenge to financial inclusion in India is technology and cost-effective service delivery He emphasized the designing of product that must be suitable for newly inducted customer and avoid mis-selling of product which may hamper business in long term. He has given the concept of 3x3x3 matrix for enhancing the financial capability of individual. This matrix refers to three sections of society which need greater focus, pitching of product based on three kinds of surplus that people generate and three type of institution that have central role to play.

Nanziri (2016) founds that there were no statistically significant variations in the wellbeing levels of men and women who utilize formal financial services, according to a South African study on financial inclusion. On the other hand, women who were financially included showed greater welfare levels than those who were not. This highlights the importance of financial inclusion in lowering gender gaps in economic well-being by showing that women can attain welfare levels on par with men when they have access to formal financial services.

Sherline (2016) concluded that demonetization as a preface of financial inclusion and found that despite the pain and confusion among people regarding demonetization, it is essential to shake the economy system to a new compliance normal. Demonetization has given boost to government's initiative to financial inclusion.

Deka (2015) found that financial inclusion is a great step for women empowerment in India and she found that financial literacy among Indian women is abysmally low and there is a need to understand the need of financial literacy to improve financial and banking service at grass root level.

Gupta and Kaur (2014) found that financial literacy and Credit counselling centres which were established by banks have not been targeted the required people as the micro entrepreneurs are still lagging in record keeping, possess poor cash management and improper saving habit they are also less aware regarding different financial product.

Dangi and Kumar (2013) highlighted various initiatives of RBI and GOI, there policy measures, factor affecting access to financial inclusion, present status and future prospect of financial inclusion in India. This study finds that though FI has progressed a lot but still it has to travel a long way as still there are large rural population I India who are financially excluded. The article also suggested that there is huge potential in Information and communication technology to bring people towards Financial Inclusion. The article emphasized on use of BC model, e-banking, mobile banking, training and financial education and enhancement of role of PSB and RRB in India.

Shankar (2013) in this study found that Microfinance Institutions (MFI) has done tremendous job in breaking the barrier to financial Inclusion, but there are many limitations in reaching to those who are excluded. There penetration was found skewed and it was found that in some areas they too have neglected those who were neglected by banking sectors. Secondly it was also found that MFI need to adopt more flexible operating model including skill-based training to MFI members.

As noted by **Chakraborty and Mukherjee (2012)** encouraging financial inclusion has been a crucial social and financial requirement in many nations. Financial inclusion in India is primarily the responsibility of the commercial banks under the RBI's direction. However, the commercial banks have been enlisting the aid of numerous social and financial organizations in a nation such as India, which is diverse and has a sizable population.

Bhanot et al. (2012) investigate the critical factors that influence the degree of financial inclusion in remote areas. The study also attempts to offer banks recommendations on how to enter untapped markets. Primary data from 411 households in the northeast Indian states of Assam and Meghalaya were gathered using a structured questionnaire. A logistic regression model was utilized to determine the factors that were significantly responsible for the inclusion. In northeast India, the level of financial inclusion is still quite low. Factors that contribute to inclusion include education, awareness of self-help groups (SHGs), income, and financial data from a various source. The likelihood of inclusion is increased by proximity to post office banks. Inclusion is not facilitated by variables such as geographic location and individual government benefit receipt. On the other hand, those who receive government assistance in rural areas exhibit a higher degree of inclusion. The findings can't be applied widely because the study was limited to northeast India. Since efforts to disseminate, financial information is perceived to have a direct impact on inclusion, banks stand to gain new business opportunities from this close collaboration between policy makers and banks. With the use of primary data, this study investigates potential determinants of financial inclusion in physically isolated places. It provides a distinctive viewpoint by capturing conditional interactions between factors as they arise in actual situations. The results give banks and regulators important information that helps them create focused plans to increase financial inclusion in underserved areas.

Gupte et al. (2012) explored that financial inclusion assures that the weaker section of society participate in the financial system. In this regard, the RBI has taken steps since 2005–06, including easing KYC requirements, offering no-frills accounts, and granting GCC credit for small deposits.

Chakraborty (2011) has stated that banking is a public good and it should be our prime objective that this service should reach to entire population without discrimination. He also listed out the expectation of poor from the formal financial system. In this speech Dr KC Chakraborty has emphasized the importance of appropriate financial product and service that are needed by vulnerable, weaker and economically group at a reasonable cost in fair and transparent manner. He has suggested the new model of financial inclusion which should transform itself from cost centric to revenue generation. He has suggested for adopting Information and Communication Technology for achieving financial inclusion for which he suggested to exploit mobile banking and m-commerce. He has also mention for collaborative model in which in addition to improvement from banking point of view it is also required to improve infrastructure like digital and physical connectivity, continuous power supply etc. At the conclusion he mentioned that there is a need of change in mindset, culture and attitude at grass root level and there is requirement of cutting-edge technology at branch level of banks.

Rachana (2011) investigated the state of financial inclusion in rural areas, the causes of this low inclusion, the degree of satisfaction that rural residents have with banking services, and the effectiveness of the banks operating in these areas. The findings of a survey given to 200 residents of the Gujarati villages of Khadalpur, Jotana, and Ambasan indicate that commercial banks have a great deal of potential to investigate the unbanked rural areas. Despite having strong coverage, the majority of Primary Agriculture Credit Societies (PACS) and Regional Rural Banks (RRBs) are experiencing losses. Commercial banks ought to take advantage of this chance rather than regard it as a duty to the community.

Anand and Saxena (2010) conducted an analysis of Indian commercial banks' technology-based initiatives aimed at promoting financial inclusion. IT is essential to the financial inclusion process. Commercial banks have made a number of electronic payment options available. which covers ATMs, biometric ATMs, mobile ATMs, net banking, telebanking, common service centres (KIOSKS), and smart cards. Despite the availability of multiple electronic payment methods, consumers tend to use them more sparingly. According to the study, banks should educate their customers to allay their anxiety.

The necessity of a multifaceted financial inclusion index was underlined by **Sarma (2008)**. She constructed Financial Inclusion Index (FII) in this research using the multidimensional methodology, which is comparable to the method the UNDP uses to create other indices. The three fundamental components of an inclusive financial system—banking accessibility, banking service availability, and banking service usage has been included in the current index. The index ranges from zero to one in which zero represent poor and one indicate best in dimension. There are also some limitations in this index as it does not emphasize on country specific information such as geographical and gender aspects. This index does not distinguish between resident and non-resident bank account too.

2.3 Gender Disparity in Financial Inclusion

The gender inequality in financial inclusion has come to light as a significant and complex issue with wide-ranging effects on social justice and economic growth. The goal of this literature survey is to thoroughly examine the corpus of research that has been done on the differences in accessibility and usage of financial services between men and women. Within the larger discourse on financial inclusion, the gender gap lens offers a more nuanced perspective on the obstacles that women encounter when attempting to fully participate in formal financial systems across the globe.

The review starts by placing the gender disparity in financial inclusion and highlighting how important it is for lowering poverty and promoting economic empowerment. Significant gender discrepancies still exist despite international attempt to increase ease of access to formal financial services, which prevents inclusive financial systems from reaching their full potential. These disparities highlight the necessity of focused tactics to guarantee equal access to and use of financial resources for both sexes.

Numerous factors that donate to the gender disparity in financial inclusion have been identified by scholars in this field. These could include differences in schooling, legal and policy frameworks, and sociocultural norms. This review attempts to provide a comprehensive understanding of these determinants by synthesizing existing research and examining how they intersect and reinforce one another, creating barriers that disproportionately affect women.

The literature review will also explore the different ways that gender disparities exist, looking at things like ownership of financial assets, participation in formal credit markets, and access to banking services. A special focus will be on the probable influence of innovative financial technologies to the economic empowerment of women, as well as the part that financial literacy and education play in closing the gender gap.

Chen et al. (2023) noted a significant and pervasive gender gap in fintech. The gender disparity in bank account ownership at conventional financial institutions is not the only distinction. About one-third of the gender disparity in fintech can be explained by individual level restrictions and country variables.

Antonijevic et al. (2022) emphasised on comparing and contrasting men and women in seven sections pertaining to financial inclusion: 1) having a bank account; 2) storing money there; and 3) taking out a loan from a financial institution; 4) credit card ownership; 5) accessing a bank account through mobile device or the Internet; 6) using the Internet to make online purchases or pay bills; and 7) transactions through digital mode. The Global Findex Database 2017 served as the foundation for the study. There are 144 countries in the sample. In every financial inclusion segment, a significant difference was found between men and women according to the Wilcoxon Signed-Ranks test.

Yeyouomo and Usongu (2022) highlighted the topic of financial innovation in developing nations, with a particular emphasis on the contribution that fintech have made to reducing the gender disparity in financial inclusion in Sub-Saharan Africa (SSA) between 2011 and 2017. The multilevel Tobit regression model fitted to panel data serves as the foundation for the empirical evidence. The study's findings demonstrate how fintech close the gender disparity in financial inclusion by reducing barriers to and usage of financial services for different genders. Additionally, they raise questions about whether the development of fintech can close this gap on its own and allude to the combined significance of focused legislative initiatives meant to do just that. These findings have significant ramifications for economic policy and show that women's economic circumstances have improved in terms of financial inclusion, which has reduced the gender gap.

Nkuna et al. (2021) examined the factors that influence financial inclusion in Malawi from the viewpoint of its users. According to the study, the most significant element that favourably influences the chance of using financial goods is financial capability. Age, occupation, income, marital status, education, gender, and regional dispersion are additional significant factors. According to the findings, women in Malawi are more likely to use financial products and services as compare to men, reversing the gender difference in financial inclusion. People who live in urban area are more likely than those who live in rural areas to use financial products and services. The probability of possessing a product rises with age, income, education, marital status, and urban residency.

Were et al. (2021) noted that women, particularly married women, have lower access to banking and mobile money services than males do, according to data from the 2017 FinScope Tanzania survey. In a similar vein, Women exhibit lower engagement in borrowing and saving practices than their male counterparts; instead, a greater proportion choose to save in a savings group or keep cash on hand. Financial inclusion gaps between the sexes can be attributed to a number of things, including low income, low financial literacy, and restricted access to digital tools like smartphones. It is important to recognize that preferences vary by gender.

Mudolwa and Alhassan (2020) explored gender gap in financial inclusion using data from 4,466 respondents in Tanzania's Finscope survey. The results show notable gender differences, especially in formal savings (21.3%), mobile money accounts (9.4%), and formal accounts (10.6%). Interestingly, compared to men, women are 17.1% less likely to hold a formal savings account, despite being 2% more likely to seek for formal credit. According to the study, these differences are caused by things like women's economic reliance on men, lower wages, and low levels of education. To close these inequalities, it promotes gender mainstreaming across a range of industries, stressing the value of expanding women's work and educational options to increase financial inclusion and access.

Ghosh and Vinod (2017) investigated the connection between gender and financial inclusion. They discovered that when it comes to financial access and utilization, there are significant gender disparities. Compared to households headed by men, female-headed families are typically 8% less likely to receive official funding and 6% more likely to use informal financing.

Siddik (2017) emphasised on relationship between financial inclusion and women's empowerment in developing economies—particularly Bangladesh. To accomplish the goal, 500 rural women in Bangladesh's Kurigram and Gaibandha districts participated in a structured questionnaire survey that was conducted in January and February 2017. Research indicates that financial inclusion improves women's family status, purchasing power, income, and quality of life. According to the report, rural women who have taken part in financial inclusion initiatives are also better able to manage emergencies, give their kids better healthcare and education, and become less reliant on moneylenders. Initiatives for financial inclusion promote the economic empowerment of women. The study's conclusions are more significant for the nation's academics, practitioners, and policymakers, who should use them to create packages that encourage financial inclusion, which will increase women's empowerment and promote the inclusive development of the nation.

Nanziri (2016) investigated whether the well-being of financially included and non-financially included women, as well as men and women, differs statistically significantly. The study analysed pooled dataset on financial access in South Africa and finds that men are more likely to use formal credit, insurance, and savings goods, whilst women are more likely to use informal financial mechanisms and formal transactional products. A quantile regression study reveals no statistically vital disparity in the welfare of financially included men and women, despite these divergent trends in the use of financial products. The well-being of financially included and non-financially included women differs significantly, nevertheless, with those who use non-formal credit and insurance demonstrating better welfare at the lower end of the welfare distribution. Race, education, income, and, to a lesser extent, marital status is some of the major determinants that contribute to welfare differences, according to an Oaxaca-Blinder decomposition. The average treatment effect estimates from the study points to a underlying relationship among financial inclusion and better welfare, especially when it comes to conserving durable items and using formal financial services.

Verma and Garg (2016) investigated the success of financial literacy programs under PMJDY as well as target group awareness of the program to determine how effective PMJDY is. The households in the Rajasthani district of Ajmer's Bandrasindri village participated in the study. While the mission mode project PMJDY scheme aims to provide universal access to banking, the ground level realities indicate that ongoing efforts are required to truly eradicate financial untouchability.

Adeghite and Machethe (2014) explored the gender difference in financial inclusion and its effect on sustainable development have been determined by the study. The gender disparities in financial inclusion are primarily caused by a number of interrelated socioeconomic, sociocultural, institutional, legal, and regulatory variables. Food insecurity, poverty, and economic disparity are all negatively impacted by the gender gap.

Pereznieto and Taylor (2014) investigated that economic empowerment is the process by which women and girls gain more financial advancement, autonomy, and influence. It compiles knowledge about the methods and strategies for tracking, assessing, and learning, and both qualitative and quantitative approaches were used in the investigation to fully evaluate economic empowerment. The creation and application of indicators to gauge empowerment, the methodological soundness of assessments, developments in the application of approaches across topics such as microfinance, social protection, fair trade, and legal frameworks, and tactics to elevate the voices of all genders are some of the important areas that were looked at. The review also discusses the advantages, disadvantages, new developments, and difficulties of primary data-based research approaches. To effectively capture and promote significant changes in the lives of women and girls, this work attempts to provide guidance for the design of interventions and evaluations.

2.4 Financial Wellbeing

The concept of financial well-being is complex and includes people's overall financial health as well as their level of satisfaction with their financial circumstances. A number of variables come into play when people manage the complexities of personal finance, which affects their financial well-being. To shed light on the critical elements that support or undermine people's financial wellness, this literature review will examine and summarize the body of research on the factors that influence financial well-being and its consequences.

Hamida et al. (2023) examined the impact of Islamic financial inclusion on financial well-being is examined in this study by measuring the relationships between each dimension or research variable. The data for the study came from 100 Indonesian households that made use of Islamic financial organizations' services. To examine the relationship between variables and evaluate a number of hypotheses, a structural equation model–partial least square (SEM-PLS) analysis was carried out. The findings demonstrated that household financial concerns, financial safety, and financial satisfaction were all significantly impacted by access. The utilization of construction and its dimensions positively impact household emergency funds, financial satisfaction, and financial safety. Meanwhile, the financial safety of a household is impacted by the quality of construction. This study will identify the factors that influence Islamic financial sector policy makers in terms of service planning and enhancing the availability, calibre, and use of Islamic financial services. Additionally, this study will raise household awareness of managing finances.

Forde et al. (2022) highlighted financial well-being measures for a large Australian bank's customers based on survey responses and comparisons with the customers' financial records. They develop two financial wellbeing measures using item response theory (IRT) models: (1) an Observed Financial Wellbeing Scale based on financial record measures of customers' account balances, net spending, and payment problems; and (2) a Reported Financial Wellbeing Scale based on data regarding people's experiences and views of financial results. All of the scales have similar capacities for consistently differentiating between a large range of outcomes. By estimating prediction models with additional quantitative properties, we validate the scales' validity.

Singh and Malik (2022) investigated that financial well-being has a major impact on happiness and life satisfaction, it is crucial for individuals, families, and nations. The main domains and aspects of financial well-being are examined and summarized in this study using bibliometric analysis in conjunction with a methodical literature survey. Through the analysis of 467 articles from the Scopus database covering a 25-year period (1997–2021), the study uses a variety of graphs and network visualizations to look at publishing trends, prominent papers, conceptual and intellectual frameworks, and networks of research collaboration. The conception and antecedents of financial well-being, financial well-being among young adults, the connection between financial literacy and well-being, and the effects of financial well-being were the four primary study clusters that were found. Emerging trends in this subject are also highlighted by a content analysis of articles published over the past five years. The results illuminate the current state of financial well-being and point to areas for further investigation, which is helpful for academic scholars, regulatory agencies, and financial planners. This is the first thorough bibliometric investigation of financial well-being that the authors are aware of, utilizing both quantitative and qualitative techniques to assess published research and derive significant findings.

Magli et al. (2021) highlighted both an objective and a subjective definition of financial wellbeing. Socioeconomic status, household expectations, and demographic characteristics could be used as objective definitions. To put it another way, objective definition also applies to quantitative measures of financial health like family size and income. The researchers did make the case in this work that there are various ways to understand personal financial well-being. Financial well-being could be quantified based on the researcher's preferences and comparisons. According to the research, a subjective approach is thought to be more inclusive than an objective one since it is a more thorough means to capture non-financial issues.

Prakash et al. (2021) emphasised to comprehend the factors influencing the financial wellbeing of IT employees in India. It makes use of tried-and-true survey tools to evaluate how financial stress, financial behaviour, and financial literacy affect financial wellbeing. Utilizing structured equation modelling (SEM), the relationship between the determinants is investigated. Through multigroup analysis, the research aims to recognize the implication of demographic variables in defining financial wellbeing. The analysis's data set includes 237 workers in the IT industry. Financial stress has a major detrimental influence on financial wellbeing, despite the fact that financial behaviour and financial literacy have a major positive impact. It was revealed that there is a mediating role for financial behaviour and financial stress in the relationship between financial wellbeing and financial literacy. Significantly moderating the relationship between the factors contributing to financial wellbeing are the demographic variables. The findings demonstrate the necessity for financial wellbeing initiatives to concentrate on raising financial literacy and refining financial planning. Furthermore, it recommends against using a "one program, fits all" strategy and instead providing employees with tailored financial well-being programs based on their demographics.

Iramani and Lutfi (2020) investigated that being financially secure is one of every person's top priority, whether they are an individual or a household. Previous studies have demonstrated that a number of factors affect one's financial well-being. By analysing numerous factors that influence family financial welfare, this research seeks to develop an integrated model for it. Data from 1,158 households were gathered for this study via an online survey. The results of structure equation model shows that financial experience, financial knowledge, financial standing, and marital status all have a direct effect on financial well-being. Relationship between locus of control, financial behaviour, and financial knowledge and their impact on financial well-being is substantially mediated by financial behaviour. Additionally, the impact of financial experience on financial well-being is not strengthened by marital status; instead, it is strengthened by financial knowledge. The government and financial authorities should endeavour to improve the effectiveness of financial inclusion and financial literacy initiatives and encourage households to live more frugal lives in order to prevent financial troubles, according to this report.

Mahendru et al. (2020) reported the concept of financial well-being from the standpoint of developing nations. Meeting current and future financial obligations, feeling secure in one's financial situation, having autonomy of choice, and having an improved value of life are the four circumstances that study consider to be in a state of financial well-being. According to the research, financial well-being of consumer can be crucially predicted by both objective and subjective financial measures. Financial conduct, which is influenced by this relationship, is caused by antecedents such as personality traits, financial knowledge, and conscious finance. It offers five recommendations for antecedent-based interventions based on this analysis for upcoming research in the area. To achieve financial well-being, the paper offers a theoretical framework that illustrates behavioural interventions in a particular socioeconomic environment. The findings open up new avenues for the theory's development regarding financial well-being and its antecedents in various socioeconomic contexts. This study's managerial contribution is in educating marketers on how to tailor their tactics to the health of their finances. Additionally, it provides macroeconomic policymakers with information so they can create behavioural interventions that enhance financial well-being.

Abdullah et al. (2019) examined how young workers' attitudes toward money, financial literacy, and debt management impact their financial well-being. For this study, a multistage random sampling technique was employed in Malaysia's central zone. 508 respondents who were under 40 years old were chosen in total. A study employing Pearson's correlation analysis revealed a positive relation between financial well-being and debt management, financial literacy, and attitudes toward money (inadequacy, effort/ability, and retention). All eight variables accounted for 27.4% of the variance in financial well-being, according to the results of the multivariate regression, with the attitude toward money variable—the ability/effort dimension—contributing uniquely to financial well-being.

According to **Sabri et al. (2018)**, financial competence, financial stress, money attitude, and financial literacy were all moderated by gender. Using a multi-stage random selection technique, the study chose a sample from the states of Perak, Selangor, Federal Territory of Kuala Lumpur, and Federal Territory of Putrajaya in central Peninsular Malaysia. 508 respondents in all, who were 40 years of age or younger and employed by Malaysian public and private organizations, were selected for the study. The overall return rate was 84.7%. The study performed a multi-group analysis of structural equation modelling on the data using AMOS software. The evaluation's results indicate that gender modifies the model as a whole.

Bruggen et al. (2017) highlighted the conversation in three ways while seeking to expand and enhance our perception of financial well-being. First, we offer a revised definition of financial well-being that is based on a perceptual viewpoint and connects it to a person's present and future expected standard of living and financial independence. Next, we create a framework that separates the essential components of financial well-being into four categories: financial behaviours and interventions, consequences, contextual factors, and personal factors. Next, to direct future studies on financial well-being, we offer a research agenda. The goal of this work is to motivate scholars to carry out more research to provide financial institutions with the knowledge they require to make wiser financial choices.

Mokhtar and Husniyah (2017) explored the variables influencing the financial well-being of Malaysian public servants in Putrajaya. To gather the required data for this quantitative study, a series of structured online questionnaires was used. 207

questionnaires were completed in total, out of 316 completed surveys were analysed using SPSS version 21, a statistical package for social science. The results demonstrated a strong correlation between financial behaviour, locus of control, work environment, and financial stress and financial health. Additionally, after financial stress, the work environment was determined to be the second most important factor influencing financial well-being. The findings of this research can be used to enhance comprehension of employees' financial behaviour, which can be achieved through financial education in the workplace.

Muir et al. (2017) has identified the three components of financial wellbeing and defined it as the state in which an individual feels secure in their financial situation both now and in the future, is able to pay their bills and have some money left over, and is in control of their finances.

Kempson et al. (2017) concluded that financial wellbeing is a broad topic and it can be defined in various way as per the need. As per the definition financial wellbeing can be categorized into subjective and objective. Financial wellbeing is differed from individual to individual and it depends on objective attributes like income, saving socioeconomic status, expenditure etc. and also on subjective attributes like satisfaction and behaviour. Eleven questions in total, divided into three categories—meeting commitments, comfort, and future resilience—were used in this study. This paper has used principal component analysis and regression to measure financial wellbeing quantitatively.

Delafrooz and Paim (2013) suggested that lowering financial stress, resolving financial issues, and enhancing financial behaviour can all improve an individual's financial wellness. According to the study's findings, people with fewer financial issues typically experience less financial stress and, as a result, enjoy more financial wellness. It is reasonable to assume that financial education can assist individuals with their financial problems, thereby reducing their financial stress and enhancing their financial well-being.

Taft et al. (2013) emphasized how financial health, financial literacy, and financial concerns are related. Participants were chosen at random to receive a specifically created questionnaire. Regression analysis, correlation analysis, and an independent two-sample test based on the T distribution were used to analyse the data. The results showed that financial wellness and financial literacy were positively correlated with age and education. Married people and men are more financially literate. The results showed that financial wellness and financial literacy were positively correlated with age and education. Married people and men are more financially literate. Better financial well-being and less financial worries are linked to higher financial literacy. Finally, financial concern is lessened when one's financial circumstances are sound.

Vlaev and Elliot (2013) contributed to the advancement of psychological theory of well-being by providing a more in-depth understanding of the variables that specifically influence financial well-being (FWB). An empirical study was carried out in the UK to determine the factors that influence financial wellbeing for two demographic groups: young workers and families with young children. Their household suffers significant repercussions from their financial decisions. Sixty-four people participated in a large-scale online survey that determined the key factors influencing financial well-being, or satisfaction, which is comparable to measuring subjective well-being in the healthcare industry. The most noteworthy result of the regression is how important financial control is to both groups; for this population, control is even more significant than available funds. The study's conclusion is that if people felt like they had more overall control over their finances, their FWB would rise. Financial institutions, in particular, could offer their clients better FWB through procedures and products. The advantages of reduced unsecured debt and increased savings to lessen unforeseen life events may also have policy ramifications.

Zemtsov and Osipova (2013) highlighted the term "wellbeing" and described the different approaches (statistical, theoretical) to defining it. The definition, determinants, and concept of financial wellbeing are given particular consideration. We may talk about the financial health of typical families by starting with the quantitative indicators that the authors proposed. The fundamental consumer budgets that enable householders to live, develop, and accomplish their objectives are among these framework-based metrics. This paper develops a model of personal well-being by combining the concept of subjective wellbeing with the theory of different types of capital. The elements of personal well-being are financial, social, psychological (including emotional and mental), and physical. All facets of wellness are connected to an individual's types of capital, which include capital, social capital, financial capital, and physical health. Financial behaviour and the income flow produced by fundamental assets define financial wellbeing. Financial management, financial attitudes, and financial literacy and knowledge all contribute to financial behaviour.

Sabri and Falahati (2012) investigated the variables that impact financial happiness as well as the function of financial behaviour as a mediator in the connections among financial attitude, financial literacy, early consumer experiences, socialization agents, and financial contentment. The study's suggested model was tested using structural equation modelling (SEM) via AMOS, and the mediating function of financial behaviour in the relationship between financial strain and satisfaction was assessed using Baron and Kenny's (1986) mediation technique. The findings showed that early consumer socialization, financial strain, financial literacy, financial conduct, financial attitude, and the impact of primary and secondary socialization agents all have a substantial impact on financial contentment.

Falahati and Paim (2011) explored the perceived financial well-being of Malaysian college students. The funding for this study came from (IRPA). Students at Malaysian universities, both public and private, provided the data. The technique of multi-stage stratified random sampling was employed. 350 students received questionnaires from the student affairs department of each of the 11 universities that were randomly chosen for the research. Questionnaires that were self-administered were used to gather data. A six-item scale was used to measure financial well-being. The statements cover the following topics: amount saved, financial status, spending power, emergency savings, and ability to make purchases. The findings showed that among Malaysian college students, there were notable gender disparities in financial matters. The results show that Malaysian female students are significantly happier with their financial circumstances than their male counterparts. Female students are less financially literate and have less late-life financial socialization than male students. The finding showed that among female students, financial challenges was the best indicator of financial well-being, but among male students, primary socialization agents was the best indicator of financial well-being. Mediation analysis was used to validate the mediation effect of financial issues on the link between predictors and financial well-being.

Praag et al. (2010) stated that there are two different kinds of variables that affect an individual's subjective well-being (SWB). The first category includes personal attributes like age, health, income, and so forth. His reference group's members' individual characteristics make up the second category of variables. We learn a great deal about the effects of objective variables from the extensive literature on happiness, quality of life, and well-being. Research on the impact of the second type on wellbeing is substantially lacking. It is maintained that defining the concept of well-being inequality correctly requires consideration of the referencing process. The reference effect is influenced by the frequency with which people compare themselves to others as well as the level of social transparency in the community. Our goal is to provide a structural integration of the concept of reference groups within SWB-models. To include the idea of inequality in happiness, or SWB, in happiness studies, we use the reference-extended model in this paper. In conclusion, we argue for the expansion of the current happiness paradigm by establishing a new, extra research agenda to obtain quantitative understanding of the referencing process. We propose adding a new question module to newly created survey questionnaires as a first step.

Malone et al. (2009) explored the financial well-being of American women. More specifically, we looked at how women who were single, married, cohabiting, stepfamilies, and those without children perceived their financial well-being. Most women said that they were worried about their financial future and retirement, had conservative buying habits, wished to be financially independent, had a poor opinion of their current financial situation, and believed that long-term care insurance was crucial. Compared to women in first marriages, women in nontraditional families—such as single mothers, cohabitators, and stepfamilies—were noticeably more concerned about their financial futures. Single moms were more likely to worry that their money wouldn't last until retirement and were less likely to say that they had their finances in order. Women who live together were substantially more likely to report worries about becoming a burden. Compared to women in first marriages, all three groups were more likely to concur that long-term care insurance is essential. Women perceived their financial status more favourably when they were older, more educated, earned more money, and made larger contributions to the household income.

Bonke and Browning (2008) emphasised on a survey measuring self-perceived economic well-being to directly address the problem of the intra-household welfare distribution. A theoretical framework for couples' satisfaction in the home is created. It is concluded from the empirical analysis that spouses frequently report varying degrees of financial satisfaction. Relative income is found to be the most significant correlate of relative satisfaction within the household. This is predicted by our theoretical model and directly confirms the previously implicit findings.

Prawitz et al. (2006) discovered a correlation between financial wellbeing and personal attributes such marital status, education level, and gender. It has used eight variables to construct financial distress and financial wellbeing scale by applying method of factor analysis and by using the tools like Cronbach Alpha to check it reliability and validity, Pearson correlation, and t-test to find the difference between male and female. This study can be considered as the base of subjective measure of financial wellbeing. Additionally, it was discovered that the degree of financial stress and perceived financial well-being varies across male and female students.

Greninger et al. **(1996)** emphasised to create and improve benchmarks and ratios for evaluating financial well-being, this Delphi study involved 156 specialists, including educators and financial advisors. On 20 of the 22 ratios, which covered important topics like liquidity, savings, asset allocation, inflation protection, tax burden, housing prices, and bankruptcy or credit indicators, consensus was reached. Less agreement was found about the usefulness of ratios addressing inflation protection and insolvency/credit, even though both groups acknowledged the significance of measures pertaining to liquidity and tax burden. In general, the suggested ratios were simpler and simpler to use than those employed in previous research. Based on the results, a useful instrument for assessing financial health was proposed: a predictive assessment of the average person's or family's financial well-being.

2.5 Economic Empowerment

A critical and revolutionary agenda for women's economic empowerment has surfaced in the larger conversation about gender equality and sustainable development. Women's economic empowerment is a strategic imperative with far-reaching implications for individuals, communities, and nations. It is not just a social justice issue. This literature review's goal is to analyse the corpus of work on women's economic empowerment, examining the several facets, determinants, and consequences of this phenomenon. The social process that enables people to take charge of their own life is known as empowerment. It is a method that gives people the confidence to act on matters that they believe are important in their own lives, communities, and society. Women's empowerment is a major futuristic notion that gives both genders equal opportunities. Empowerment is a relative phrase and aim five of the United Nations Social Development Goals (SDG) for gender balance.

Adera and Abdisa (2023) explored the connection between financial inclusion and women's economic empowerment in Ethiopia. Endogenous switching regression and instrumental variable techniques were employed as empirical tools in this study. The data utilized in this study came from the Women's module of the Ethiopian Demographic and Health Survey (DHS). According to the findings, women's economic empowerment in Ethiopia is positively and statistically significantly impacted by financial inclusion, indicating that better access to financial services leads to better economic outcomes for women. The results demonstrate how important it is for Ethiopia to prioritize financial inclusion programs in order to promote gender equality, encourage economic growth, and lessen poverty.

Pal et al. (2022) examined how social and economic factors influence women's empowerment in rural India through financial inclusion. Using a primary survey of women in Gujarat, selected via simple random sampling, the study employed logistic regression to explore the relationship between the need for a bank account—a key indicator of financial inclusion—and various dimensions of empowerment, including earning status, participation in financial decision-making, access to social welfare schemes, and perceptions of saving safety. Although the odds ratio for the variable related to the safety of women's savings was notably high, it was found to have a negligible effect. The findings highlight that women's empowerment through financial inclusion is significantly shaped by their income status, role in financial decision-making, and access to welfare programs.

According to the findings of **Rashid et al. (2021)** study on financial well-being and economic empowerment, having a positive financial attitude and financial literacy boosts financial wellbeing, which in turn boosts both male and female economic empowerment.

Kumari et al. (2020) investigated into the relationship between financial literacy and women's economic empowerment in rural Sri Lanka found that financial literacy significantly influences the economic empowerment of women in rural areas, and this study recommends that financial literacy is a key factor in determining economic empowerment. This study also discovered that rural women's financial literacy is significantly impacted by their financial control and well-being over time.

Muhammad et al. (2020) emphasised on to classify women's empowerment into two categories: economic and social empowerment. The study aimed to investigate the significant factors that contribute to women's empowerment in Pakistan. 10,935 married women make up the study's sample, and multiple regression analysis is being used in this investigation for empirical analysis. The regression analysis's findings indicate that while women's age and place of residence have a positive but insignificant impact on women's social and economic empowerment, women's education, women's occupation, wealth index, and men's occupation have a positive and statistically significant effect on women's empowerment. According to the findings, working women who are independent and educated have greater influence and can contribute significantly to household decision-making. In conclusion, women's involvement in household decision-making is critical because they are better equipped to handle household chores with ease and confidence.

Bhatia and Singh (2019) examined the social, economic, and political aspects of women's empowerment and tested how financial inclusion affects these aspects. The researcher has created questionnaires on financial inclusion and women's empowerment programs like as the Atal Pension Yojna (APY), Pradhan Mantri Jan Dhan Yojna (PMJDY), Pradhan Mantri Jiwan Jyoti Bima Yojna (PMJJBY), and

Pradhan Mantri Suraksha Bima Yojna (PMSBY). The results indicated that the PMJDY scheme was particularly impactful for women residing in slum areas, contributing positively to their social, political, and economic empowerment.

Batool et al. (2018) investigated the demographic factors that influence women's economic empowerment empirically. Women's economic empowerment was measured by controlling economic resources. The demographic factors (age, education, paid work, income, and property) that influence the economic empowerment of women who are least, moderately, and highly empowered were examined using ordered probit regression. Age, income, property, and paid employment all seemed to be favourable and significant predictors of women's economic empowerment.

Sofia and Pervaiz (2018) concluded that women's empowerment is meaningfully influenced by their education and employment. Compared to illiterate and jobless women, educated and employed women are more likely to engage in decision-making.

Batool et al. (2017) examined the psycho-social and economic elements that affect Pakistani women's psychological empowerment was the aim of the current study. 500 women in Lahore, ranging in age from 21 to 49, were selected as a sample. The study variables were measured using the Berlin Social Support Scales (BSSS: Schwarzer & Schulz, 2003), the Rosenberg Self-Esteem Scale (Rosenberg, 1965), the Global Psychological Empowerment Scale for Women (GPESW: Batool, 2017), the Internal Locus of Control, a subscale of the Locus of Control Scale (Reid & Ware, 1974), and the demographic data sheet. The relative strength of the factors in predicting women's psychological empowerment was evaluated using stepwise regression. Our hypothesis was validated by the results, which showed that factors such as education, dowry, internal locus of control, self-esteem, social support from husbands, paid work, and dowry significantly predicted women's psychological empowerment, accounting for 24% of the variance. The study's limitations and implications have been discussed.

Haque and Zulfiqar (2015) explored that all the independent variables had a positive and substantial relationship with economic empowerment, as per their research on the relationship between financial literacy, financial attitude, and financial wellness. The study's findings suggest that age, education, income, marital status, occupation, and investment and saving habits all have an influence on economic empowerment. Based on the working women's age and marital status, this study found a considerable disparity in economic empowerment.

Reshadat et al. (2014) examined level of empowerment of rural women in general population indicate that the women’s is at mediocre level. The regression analysis shows that the education level and employment status variable explain 28.4% of overall empowerment variance change. The research finding shows that the empowerment of women is multilayer process requiring focus on social economic, psychological and Familia aspect of rural women empowerment.

Sarban and Hassanzadeh (2014) determined the obstacles standing in the way of rural women's economic empowerment. In this study, a descriptive–correlation survey approach was adopted. The women who lived in Ardabil County's rural areas made up the population. In this study, the interview and questionnaire were utilized to gather data. The survey instrument was created by the researcher. A group of experts was utilised to determine the validity of the instrument. For different questions, the instrument's reliability ranged from 0.83 to 0.86. The findings indicated that the main obstacles to rural women's economic empowerment are: women's lower skill levels, men's lack of confidence in them, women's sexual orientation, women's busy schedules that prevent them from working from home, the government's lack of support for women-owned businesses, and women's difficulty speaking in public. The four primary factors that stand in the way of rural women's economic empowerment are infrastructure, social-institutional, individual-psychological, and economic participation, as determined by factor analysis.

Negash (2010) examined that increased income controlled by women gives them self-confidence, they tend s to distribute income equitably between son and daughter, economically empower women tends to have fewer children and they also favour sustainable environmental practice.

2.6 Research Gap

A research gap is an incomplete or missing body of knowledge in a specific field of study. It stands for the distinction between what has already been discovered through research and what is still unknown or poorly understood. Finding a research gap is essential to demonstrating why a new study is necessary. It supports researchers in showcasing the importance and novelty of their work. As researchers seek to fill in the gaps or address unresolved issues in the body of current knowledge, the formation of research questions is based on the research gap.

This chapter's earlier sections provided examples of reviewing earlier research to get a comprehensive picture of the body of knowledge on financial inclusion, financial wellbeing, and economic empowerment. Numerous studies on various facets of financial inclusion, financial wellbeing, and economic empowerment in various global regions are highlighted by the literature survey. The working definition of financial inclusion, financial wellbeing, and economic empowerment, as well as their measurements, individual and national characteristics linked to financial inclusion, and their relationship to financial wellbeing and economic empowerment, are the main foci of research. The bulk of the studies were based on the dimensions for building a multi-dimensional IFI (relating to accessibility, availability, and use of banking services dimensions), following a comprehensive review of earlier research in the area of financial inclusion in the Indian context. The association between financial inclusion and overall financial well-being, as well as the gender gap in contemporary financial inclusion aspects and the obstacles to women's financial health and economic empowerment, were not given enough attention. After a detail assessment of prior studies in the sphere of financial inclusion in the India, it was found that most of the studies on financial inclusion were based on measuring financial inclusion through formulating indices.

- ✓ Though there are studies based on finding gender gap in context of financial inclusion but they are limited to African countries and there are very studies that focus on women in Indian context.
- ✓ Most of the studies on financial inclusion has considered the traditional measurement of financial inclusion that is having a bank account, saving in financial institution and borrowing from financial institution. However, there

are very few studies that have included digital and insurance part of financial inclusion

- ✓ In most of the study there has been only one aspect of financial inclusion for women and that is empowerment but there is a need to study the financial wellbeing in gender perspective
- ✓ Till now the studies of financial inclusion has mainly focused on accessibility for women but we need to study other components of financial inclusion like usage quality, affordability, financial literacy.
- ✓ Most of the studies are dedicated to financial inclusion and its impact on society as whole but very few studies have gone beyond this and has measured the impact of financial inclusion on vulnerable section financial wellbeing.
- ✓ There are many studies pertaining to financial inclusion success but very few of them are dedicated to evaluate its success on gender perspective.
- ✓ There are limited studies that finds the barrier to financial wellbeing and economic empowerment of women in context of financial inclusion

Summary

The literature survey on financial inclusion, gender disparities in financial inclusion, financial wellbeing, and economic empowerment was provided in this chapter. The multifaceted nature of financial inclusion, financial wellbeing and economic empowerment is revealed through a thorough analysis of these concepts. The research gaps that this research aims to fill are listed in this chapter. The research gap is defined as the dearth of studies examining the connection between financial inclusion, financial wellbeing, and economic empowerment. The study's goals, theory, proposed model, and research methodology are covered in the following chapter.

References

Abdullah, N., Fazli, S. M., & Arif, A. M. (2019). The relationship between attitude towards money, financial literacy and debt management with young worker’s financial well-being. Pertanika Journal of Social Sciences and Humanities, 27(1), 361-387.

Adera, A., & Abdisa, L. T. (2023). Financial inclusion and women's economic empowerment: Evidence from Ethiopia. Cogent Economics & Finance, 11(2), 2244864. https://doi.org/10.1080/23322039.2023.2244864

Ali, N., & Shah, P. A. (2019). Financial literacy among peoples in un-organized sectors: Evidence from the state of J&K. Significance, 7(2).

Anand, S., & Saxena, D. (2016). Financial Inclusion Through On-Line Banking: Impact of Customer Occupation on Awareness and Usage Level. NICE Journal of Business, 11.

Antonijević, M., Ljumović, I., & Ivanović, Đ. (2022). Is there a gender gap in financial inclusion worldwide? Journal of Women's Entrepreneurship and Education, (1–2), 79–96.

Azra Batool, S., Ahmed, H. K., & Qureshi, S. N. (2018). Impact of demographic variables on women's economic empowerment: An ordered probit model. Journal of women & aging, 30(1), 6-26.

Baber, H., & Zaruova, C. (2018). Religion and banking: A study of Islamic finance in India. International Journal of Innovation and Development and Business, 9(6), 7–13.

Bhanot, D., Bapat, V., & Bera, S. (2012). Studying financial inclusion in North-East India. International Journal of Bank Marketing, 30(6), 465–484.

Bhatia, S., & Singh, S. (2019). Empowering women through financial inclusion: A study of urban slum. Vikalpa, 44(4), 182-197.

Billah, M. M. S., Ahmad, S., & Haq, S. G. (2021). Emergence of i-FinTech in the Contemporary Socio-Economic Reality. In Islamic FinTech: Insights and Solutions (pp. 3-18). Cham: Springer International Publishing.

Bonke, J., & Browning, M. (2009). The distribution of financial well-being and income within the household. Review of Economics of the Household, 7(1), 31–42.

Brüggen, E. C., Hogreve, J., Holmlund, M., Kabadayi, S., & Löfgren, M. (2017). Financial well-being: A conceptualization and research agenda. Journal of Business Research, 79, 228–237.

Chakrabarty, K. C. (2011). Financial inclusion: A road India needs to travel. RBI Bulletin, November.

Chakraborty, R., & Abraham, R. (2021). The impact of financial inclusion on economic development: the mediating roles of gross savings, social empowerment and economic empowerment. International Journal of Social Economics, 48(6), 878-897.

Chen, S., Doerr, S., Frost, J., Gambacorta, L., & Shin, H. S. (2023). The fintech gender gap. Journal of Financial Intermediation, 54, 101026.

Comerton-Forde, C., De New, J., Salamanca, N., Ribar, D. C., Nicastro, A., & Ross, J. (2022). Measuring financial wellbeing with self-reported and bank record data. Economic Record, 98(321), 133-151.

Dangi, N., & Kumar, P. (2013). Current situation of financial inclusion in India and its future visions. International Journal of Management and Social Sciences Research, 2(8), 155–166.

Deka, P. P. (2015). Financial literacy and financial inclusion for women empowerment: A study. International Journal of Applied Research, 1(9), 145–148.

Delafrooz, N., & Paim, L. H. (2013). Role of financial stress on relationship between financial problem and financial wellness among Malaysian workers. African Journal of Business Management, 7(20), 1966–1972.

Demirgüç-Kunt, A., Ansar, S., Hess, J., Klapper, L., & Singer, D. (2018). The little data book on financial inclusion. World Bank.

Dutta, T., & Das, A. (2017). Analyzing data of Pradhan Mantri Jan Dhan Yojana. Indian Institute of Technology Bombay, Mumbai.

Falahati, L., & Paim, L. H. (2011). Gender differences in financial well-being, financial socialization and financial knowledge among college students. Life Science Journal-Acta Zhengzhou University Overseas Edition, 8(3), 173-178.

Garg, N., & Singh, S. (2018). Financial literacy among youth. International Journal of Social Economics, 45(1), 173–186.

Ghosh, S. (2018). Biometric identification, financial inclusion and economic growth in India: Does mobile penetration matter? Information Technology for Development, 24(2), 296–322. https://doi.org/10.1080/02681102.2017.1319496

Goel, N., & Madan, P. (2019). Benchmarking financial inclusion for women entrepreneurship–a study of Uttarakhand state of India. Benchmarking: An International Journal, 26(1), 160-175.

Greninger, S. A., Hampton, V. L., Kitt, K. A., & Achacoso, J. A. (1996). Ratios and benchmarks for measuring the financial well-being of families and individuals. Financial Services Review, 5(1), 57–80.

Grohmann, A., Klühs, T., & Menkhoff, L. (2018). Does financial literacy improve financial inclusion? Cross-country evidence. World Development, 111, 84–96.

Guild, J. (2017). Fintech and the Future of Finance. Asian Journal of Public Affairs, 17-20.

Gupta, K., & Kaur, J. (2014). A study of financial literacy among micro entrepreneurs in district Kangra. International Journal of Research in Business Management, 2(2), 63–70.

Gupte, R., Venkataramani, B., & Gupta, D. (2012). Computation of financial inclusion index for India. Procedia - Social and Behavioral Sciences, 37, 133–149.

Hamida, A., Muhajir, M. N. A., Sukran, M. P., & Paulus, M. (2023). Does Islamic Financial Inclusion Matter for Household Financial Well Being. Jurnal Keuangan Dan Perbankan, 27(1), 2443-2687.

Hasan, R., Ashfaq, M., Parveen, T., & Gunardi, A. (2023). Financial inclusion: Does digital financial literacy matter for women entrepreneurs? International Journal of Social Economics, 50(8), 1085–1104.

Hermawan, A., Gunardi, A., & Sari, L. M. (2022). Intention to use digital finance MSMEs: The impact of financial literacy and financial inclusion. Jurnal Ilmiah Akuntansi dan Bisnis, 17(1), 171–182. https://doi.org/10.24843/JIAB.2022.v17.i01.p13

Inoue, T. (2019). Financial inclusion and poverty reduction in India. Journal of Financial Economic Policy, 11(1), 21–33. https://doi.org/10.1108/JFEP-07-2018-0104

Jain, S. (2018). Financial inclusion in India–Contemporary issues and challenges. The Institute of Cost Accountants of India, 36.

Kabakova, O., & Plaksenkov, E. (2018). Analysis of factors affecting financial inclusion: Ecosystem view. Journal of Business Research, 89, 198–205. https://doi.org/10.1016/j.jbusres.2018.01.066

Kandari, P., Dobriyal, K., & Bahuguna, U. (2021). Impact of Financial Inclusion on Income Generation and Savings in Mountain Regions: A Case Study of Rural Households of Uttarakhand. Journal of Mountain Research, 35-44.

Kaur, G., & Singh, G. (2021). Determinants of financial inclusion in rural Punjab. Journal of Agricultural Development and Policy, 31(2), 228-238.

Kaur, J. (2017). Factors affecting financial inclusion: A case study of Punjab. International Journal of Advanced Research and Development, 2(5), 2455–4030.

Kempson, E., & Poppe, C. (2018). Understanding financial well-being and capability. A Revised Model and Comprehensive Analysis. Oslo: Consumption Research Norway (SIFO), Oslo Metropolitan University.

Kumari, T. (2021). Dimensions of financial inclusion: An individual perspective. Journal of Accountancy & Finance, 6(2), 41–60.

Lal, T. (2019). Measuring impact of financial inclusion on rural development through cooperatives. International Journal of Social Economics, 46(3), 352–376. https://doi.org/10.1108/IJSE-05-2018-0249

Magli, A. S., Sabri, M. F., & Rahim, H. A. (n.d.). Review of the factor influencing and measurements of financial well-being.

Mahendru, M., Sharma, G. D., & Hawkins, M. (2022). Toward a new conceptualization of financial well-being. Journal of Public Affairs, 22(2), e2505. https://doi.org/10.1002/pa.2505

Malone, K., Pitts, D., Perkins, D., & Ball, J. (2010). Perceptions of financial well-being among American women in diverse families. Journal of Family and Economic Issues, 31(1), 63–81. https://doi.org/10.1007/s10834-009-9172-z

Mokhtar, N., & Husniyah, A. R. (2017). Determinants of financial well-being among public employees in Putrajaya, Malaysia. Pertanika Journal of Social Sciences and Humanities, 25(3), 1241-1260.

Mossie, W. A. (2023). Financial inclusion drivers, motivations, and barriers: Evidence from Ethiopia. Cogent Business & Management, 10(1), 2167291.

Muir, K., Hamilton, M., Noone, J. H., Marjolin, A., Salignac, F., & Saunders, P. (2017). Exploring financial wellbeing in the Australian context: Report for Financial Literacy Australia. Centre for Social Impact, UNSW Sydney.

Mukherjee, A., & Chakraborty, S. (2012). Financial Inclusion of the poor and marginalised in Jharkhand: Analysis of the Existing Model. International Journal on Research and Development-A Management Review (IJRDMR), 1(1).

Mundra, S. S. (2016). Financial inclusion in India: The journey so far and the way ahead (No. id:11358).

Nandru, P., & Rentala, S. (2020). Demand-side analysis of measuring financial inclusion: Impact on socio-economic status of primitive tribal groups (PTGs) in India. International Journal of Development Issues, 19(1), 1-24.

Nandru, P., Chendragiri, M., & Velayutham, A. (2021). Examining the influence of financial inclusion on financial well-being of marginalized street vendors: Empirical evidence from India. International Journal of Social Economics, 48(8), 1139–1158. https://doi.org/10.1108/IJSE-09-2020-0613

Nanziri, E. L. (2016). Financial inclusion and welfare in South Africa: Is there a gender gap? Journal of African Development, 18(2), 109–134.

Negash, G. (2014). To investigate opportunities and challenges of women's empowerment in leadership position in Endamehoni Woreda that found in Tigray regional state of Ethiopia.

Nguyen, T. T. H. (2021). Measuring financial inclusion: a composite FI index for the developing countries. Journal of Economics and Development, 23(1), 77-99.

Nkuna, O., Banda, M., & Chirwa, E. (2021). Determinants of financial inclusion in Malawi. Malawi Journal of Economics, 2(1), 1-22.

Pal, M., Gupta, H., & Joshi, Y. C. (2022). Social and economic empowerment of women through financial inclusion: Empirical evidence from India. Equality, Diversity and Inclusion: An International Journal, 41(2), 294–305. https://doi.org/10.1108/EDI-09-2020-0260

Patwardhan, A. (2018). Financial inclusion in the digital age. In D. Lee (Ed.), Handbook of Blockchain, Digital Finance, and Inclusion, Volume 1 (pp. 57–89). Academic Press. https://doi.org/10.1016/B978-0-12-810441-5.00003-6

Pereznieto, P., & Taylor, G. (2014). A review of approaches and methods to measure economic empowerment of women and girls. Gender & Development, 22(2), 233-251.

Prakash, N., Alagarsamy, S., & Hawaldar, A. (2022). Demographic characteristics influencing financial wellbeing: a multigroup analysis. Managerial Finance, 48(9/10), 1334-1351.

Prawitz, A. D., Garman, E. T., Sorhaindo, B., O'Neill, B., Kim, J., & Drentea, P. (2006). The InCharge Financial Distress/Financial Well-Being Scale: Establishing validity and reliability. Financial Counseling and Planning, 17(1), 34–50.

Rachana, T. (2011). Financial inclusion and performance of rural co-operative banks in Gujarat. Research Journal of Finance and Accounting, 2(6).

Rashid, S., Bilal, M., Hussain, A., & Shah, M. A. (2022). Impact of financial inclusion on financial well-being: Moderating effect of orientation towards finance. Journal of Economic Impact, 4(2), 124–133.

Rashid, S., Bowra, Z. A., & Hussain, A. (2022). An empirical investigation of financial inclusion on financial well-being of working women: A mediating role of financial capability. Bulletin of Business and Economics, 11(1), 14–23.

Reshadat, S., Rajabi, G. N., Ghasemi, S. R., & Jamshidinazar, F. (2014). Assessment of rural women empowerment level and its relation with demographic and structural factors in Kermanshah, Iran, 2012. Life Science Journal, 11(4), 86-93.

Riaz, S., & Pervaiz, Z. (2018). The impact of women's education and employment on their empowerment: Empirical evidence from household level survey. Quality & Quantity, 52(6), 2855-2870.

Sabri, M. F., & Falahati, L. (2012). Estimating a model of subjective financial well-being among college students. International Journal of Humanities and Social Science, 2(18), 191–199.

Sandada, M., & Mapfuyanzara, R. (2016). An investigation of the causes of financial exclusion in Zimbabwe. AfricaGrowth Agenda, 2016(07), 16-19.

Sarban, V. H., & Hassanzadeh, M. (2014). Survey of barriers to rural women economic empowerment in Iran. European Online Journal of Natural and Social Sciences, 3(3), pp-494.

Sarma, M. (2008). Index of financial inclusion (No. 215). Working paper.

Shah, S. M., & Ali, A. (2022). A survey on financial inclusion: Theoretical and empirical literature review.

Shankar, S. (2013). Financial inclusion in India: Do microfinance institutions address access barriers. ACRN Journal of Entrepreneurship Perspectives, 2(1), 60–74.

Sharan, M., & Dale, P. (2019). Promoting gender equality and inclusive growth through financial inclusion. International Multidisciplinary Research Journal, 1(1), 25–31.

Sharma, D., Bhattacharya, S., & Thukral, S. (2018). Assessment of financial inclusive policy in Indian economy. International Journal of Ethics and systems, 34(3), 304-320.

Sherline, T. I. (2016). Demonetisation as a prelude to complete financial inclusion. International Education and Research Journal, 2(12), 17-19.

Shetty, S., & Hans, V. (2018). Women empowerment in India and financial inclusion barriers. International Journal of Management Sociology and Humanities, 9(3), 1–7.

Siddik, M. N. A. (2017). Does financial inclusion promote women empowerment? Evidence from Bangladesh. Applied Economics and Finance, 4(4), 169-177.

Singh, D., & Malik, G. (2022). A systematic and bibliometric review of the financial well-being: Advancements in the current status and future research agenda. International Journal of Bank Marketing, 40(7), 1575–1609.

Sinha, S., Pandey, K. R., & Madan, N. (2018). Fintech and the demand side challenge in financial inclusion. Enterprise Development and Microfinance, 29(1), 94–98.

Taft, M. K., Hosein, Z. Z., Mehrizi, S. M. T., & Roshan, A. (2013). The relation between financial literacy, financial wellbeing and financial concerns. International Journal of Business and Management, 8(11), 63–75.

Van Praag, B. M., Romanov, D., & Ferrer-i-Carbonell, A. (2010). Happiness and financial satisfaction in Israel: Effects of religiosity, ethnicity, and war. Journal of Economic Psychology, 31(6), 1008-1020.

Vasile, V., Panait, M., & Apostu, S. A. (2021). Financial inclusion paradigm shifts in the post-pandemic period: Digital-divide and gender gap. International Journal of

Environmental Research and Public Health, 18(20), 10938. https://doi.org/10.3390/ijerph182010938

Verma, Y., & Garg, P. (2016). Pradhan Mantri Jan Dhan Yojana (PMJDY): A step towards eradicating financial untouchability. Indian Journal of Finance, 10(1), 56-64.

Vlaev, I., & Elliott, A. (2014). Financial well-being components. Social Indicators Research, 118(3), 1103–1123. https://doi.org/10.1007/s11205-013-0462-0

Were, M., Odongo, M., & Israel, C. (2021). Gender disparities in financial inclusion in Tanzania (No. 2021/97). WIDER Working Paper. https://doi.org/10.35188/UNU-WIDER/2021/049-2

Yeyouomo, A. K., Asongu, S. A., & Agyemang-Mintah, P. (2023). Fintechs and the financial inclusion gender gap in Sub-Saharan African countries. Women's Studies International Forum, 97, 102695. https://doi.org/10.1016/j.wsif.2023.102695

Zemtsov, A. A., & Osipova, T. Y. (2016). Financial wellbeing as a type of human wellbeing: Theoretical review. The European Proceedings of Social & Behavioural Sciences EpSBS, 7, 385–392. https://doi.org/10.15405/epsbs.2016.02.52

CHAPTER III

RESEARCH METHODOLOGY

3.1 Introduction

This study explored the intricate relationship between financial inclusion and financial well-being, with a specific focus on gender differences in the Uttarkashi district of Uttarakhand, India. The district's predominantly rural and mountainous terrain presented distinct logistical and infrastructural challenges that hindered access to formal financial services. These barriers were further amplified for women, who often faced lower literacy rates, limited mobility, and deeply entrenched socio-cultural norms that restricted their economic participation and access to financial resources. In this context, the research aimed to examine how financial inclusion initiatives translated into tangible outcomes in terms of financial well-being and economic empowerment, using a gender-comparative lens. The study investigated core dimensions of financial inclusion—such as accessibility, affordability, availability, financial literacy, and usage of financial services—and their relationship with the financial well-being and economic empowerment of the residents of Uttarkashi, with particular emphasis on women.

The selection of Uttarkashi as the study area offered an opportunity to understand these dynamics within a geographically and socially distinctive region that has received limited focus in mainstream financial inclusion research. Situated within a larger national context—where financial inclusion has been championed as a key developmental strategy through initiatives like the Pradhan Mantri Jan Dhan Yojana (PMJDY)—this study critically examined the reach and efficacy of such programs. Despite increased access to banking infrastructure, concerns persist regarding equitable utilization, especially among underserved groups such as rural women. Accordingly, this chapter presents the methodology adopted to achieve the study's objectives. It describes the research design, sampling framework, tools and techniques of data collection, and methods of analysis. By investigating the gendered patterns of financial inclusion and their implications for financial well-being at the grassroots level, the study contributes policy-relevant insights for designing more inclusive, equitable, and context-sensitive financial interventions. The methodological framework was therefore developed with attention to both academic rigor and practical relevance, ensuring that the findings serve stakeholders including policymakers, financial institutions, and development practitioners.

3.2 Objectives of the Study

4. To explore the effect of policies of financial inclusion on women financial well-being.
5. To measure the gender gap in the context of financial inclusion.
6. To examine the role of woman's economic empowerment and financial well-being and the barrier thereof

3.3 Hypothesis of the Study

To achieve the above objectives, the following hypothesis has been framed for the present research work

H_1: Availability is significant determinant of financial inclusion.

H_2: Accessibility is significant determinant of financial inclusion.

H_3: Financial literacy is significant determinant of financial inclusion.

H_4: Usage is significant determinant of financial inclusion.

H_5: Affordability is significant determinants of financial inclusion.

H_6: Financial inclusion has significant effect on women financial wellbeing.

3.4 Research Questions

The key research questions of the study are as follows:

- What are the policies of financial inclusion in India?
- Do the policies of financial inclusion have an effect on women's financial well-being?
- What are the determinants of financial inclusion?

- Is there a gender gap in financial inclusion in the study area?
- What are the demographic barriers to women's economic empowerment and financial well-being?
- What are the key variables associated with economic empowerment and financial well-being?
- What is the role of women's economic empowerment?

In light of these questions, the present study aimed to fill identified research gaps by proposing a research model incorporating latent variables such as accessibility, availability, affordability, usage, financial literacy, financial inclusion, financial well-being, and women's economic empowerment.

3.5 Research Design

The present study adopts a descriptive and cross-sectional research design with a comparative approach, aimed at examining the relationship between financial inclusion and financial well-being, with a particular focus on gender disparities. The descriptive design is appropriate as it facilitates a systematic analysis of the prevailing status of financial inclusion and the levels of financial well-being among individuals aged 15 years and above who hold at least one formal bank account. The comparative dimension of the design allows for the identification of gender-based differences in the access to, usage of, and outcomes from financial services. This framework supports the broader objective of the study: to generate policy-relevant insights into the barriers and facilitators of inclusive financial systems, especially in geographically challenged hill districts like Uttarkashi. The research design is well-aligned with the study's objectives, enabling a nuanced exploration of patterns, inequalities, and linkages between financial inclusion and financial well-being from a gendered perspective within a unique socio-economic and regional context.

3.6 Area of the Study

The untamed Himalayan region of Uttarkashi, a district in the Garhwal division of Uttarakhand, India, is known for its natural beauty, rich cultural heritage, and socioeconomic significance. Uttarakhand, which was carved out of Uttar Pradesh in the year 2000, comprised 13 districts and is administratively divided into two divisions: Garhwal and Kumaon. Covering a total area of 8,016 square km, Uttarkashi is one of the largest districts in the Garhwal division.

The district's landscape is characterized by difficult hilly terrain, and the majority of its population engaged in traditional occupations such as agriculture and allied activities. The region represented a unique blend of natural diversity and cultural richness. Uttarkashi's administrative structure consisted of six tehsils: Bhatwadi, Chinyalisaur, Dunda, Mori, Puraula, and Rajgarhi. These subdivisions facilitated governance and development planning, especially given the district's challenging topography. The administrative complexity of Uttarkashi reflected its geographical diversity, marked by steep valleys, dense forests, and snow-covered peaks, making it both a challenging and rewarding area for development interventions.

3.6.1 Socio-Economic and Demographic Profile of Study Area

According to the 2011 Census of India, Uttarkashi district, located in the northern Himalayan region of Uttarakhand, had a total population of 3,30,086, which constitutes approximately 3.27% of the state's total population. The district is predominantly rural, with 92.64% of its residents living in villages and only 7.36% in urban areas. The population is almost evenly split by gender, with males comprising 51.07% and females 48.92%, resulting in a sex ratio of 958 females per 1,000 males—slightly better in rural areas (968) than in urban (838). Spread across a vast geographical area of 8,016 sq. km, the district has a low population density of 41 persons per sq. km, reflecting its mountainous terrain and scattered settlement pattern. The overall literacy rate stands at 75.81%, with a significant gender gap: male literacy is 88.79%, while female literacy lags behind at 62.35%. The district is overwhelmingly Hindu (98.4%) in religious composition. In terms of social structure, Other Backward Classes (OBCs) constitute the majority at 74.5%, followed by Scheduled Castes (SCs) at 24.4%, and Scheduled Tribes (STs) at 1.06%. These demographic features highlight both the traditional social composition and developmental challenges of the region, especially regarding gender disparities and rural outreach.

Table 3.1: Socio-Economic and Demographic Profile of Study Area			
Indicators	**Value**		
Population	330086		
Percentage of State Population	3.27 %		
Male Population	168,597 (51.07 %)		
Female Population	161,489 (48.92 %)		
Rural Population	305,781 (92.64%)		
Urban Population	24,305 (7.36%)		
Sex Ratio	958		
Rural Sex Ratio	968		
Urban Sex Ratio	838		
Geographical Area	8016 km²		
Rural Area	92.64%		
Urban Area	7.36%		
Population Density	41 persons/km²		
Literacy Rate	75.81%		
Male Literacy Rate	88.79%		
Female Literacy Rate	62.35%		
Major Religion	Hindu (98.4%)		
Social Groups	OBC (74.5%)	SC (24.4%)	ST (1.06%)

Source: Census, 2011
Note: Uttarkashi district was given OBC status by Government of Uttarakhand in 2013

3.6.2 Uttarkashi District as Study Area

The district of Uttarkashi, located in the far northern region of Uttarakhand, offers a distinctive and compelling context for conducting socioeconomic and environmental research. Its geographical location, persistent developmental disparities, and entrenched socio-economic challenges make it a suitable region for examining critical issues such as financial inclusion, rural livelihoods, migration, and disaster resilience (Planning Commission, 2013; Census of India, 2011; Rawat, 2018). These unique characteristics underscore the necessity for focused interventions and in-depth academic inquiry.

Uttarkashi shares its borders with several districts of Uttarakhand and Himachal Pradesh, and to the northeast, it adjoins the Tibet Autonomous Region of China. This strategic location renders it not only important from a national security perspective but also vital for promoting regional connectivity and cross-border development. However, its rugged terrain and inaccessibility have posed significant barriers to infrastructure development, service delivery, and economic progress—reinforcing the need for region-specific solutions (Jain & Singh, 2017).

As one of the most disaster-prone districts in India, Uttarkashi has frequently experienced landslides, earthquakes, cloudbursts, flash floods, and forest fires (Government of Uttarakhand, 2014). These recurring natural hazards have led to profound socioeconomic disruptions, disproportionately affecting marginalized and vulnerable populations. Studying this region provides deeper insights into resilience-building, disaster risk reduction, and the economic impact of environmental fragility.

The district's economy is primarily agrarian, supplemented by animal husbandry, forest-based products, and cottage industries. However, difficult terrain, limited irrigation infrastructure, and climate vulnerability have impeded agricultural productivity (Jain & Singh, 2017). The per capita income of Uttarkashi, at ₹107,281, is significantly lower than both the national average (₹170,620) and the state average (₹205,840), reflecting the region's chronic underdevelopment (Department of Economics and Statistics, Uttarakhand, 2022). This economic gap highlights the urgency of targeted research focused on rural income generation and livelihood diversification.

A critical concern facing the district is outmigration, driven by inadequate employment opportunities, poor educational and healthcare access, and insufficient infrastructure. This has led to the emergence of numerous "ghost villages", where entire populations have migrated to urban areas in search of better prospects. These abandoned settlements stand as stark indicators of socioeconomic stagnation, offering valuable context for studying migration dynamics and the potential for reversing this trend through inclusive and sustainable development initiatives (Sati, 2015).

In recognition of its marginalization, the Government of Uttarakhand designated Uttarkashi as an Other Backward Class (OBC) district in 2013. This classification acknowledged its limited representation in public employment, education, and institutional inclusion, and facilitated access to various welfare schemes (Planning Commission, 2013). Thus, Uttarkashi presents an ideal case for evaluating the impact of affirmative policies on disadvantaged and underrepresented communities.

Over the last decade, the developmental divide between Uttarakhand's plains and hill districts has widened. Uttarkashi and other hill districts continue to lag due to poor industrialization, inadequate connectivity, and environmental degradation (Rawat, 2018; NITI Aayog, 2020). These disparities call for balanced development strategies aimed at ensuring equitable growth across diverse geographic regions.

In light of these considerations, Uttarkashi offers a rich, multilayered research context for studying financial inclusion, economic empowerment, gender disparities, and rural development. The interplay of its strategic significance, environmental vulnerability, economic challenges, and demographic transitions renders it a microcosm of the broader issues affecting remote Himalayan districts. By selecting Uttarkashi as the focal area, the present research aims to generate empirical insights that can inform evidence-based policymaking and contribute meaningfully to the district's sustainable and inclusive development.

3.7 Population of the Study

The population of the present study consists of individuals aged 15 years and above residing in Uttarkashi district of Uttarakhand, who hold at least one bank account in a formal financial institution.

3.8 Sampling Design and Procedure

A multistage proportional random sampling technique has been adopted to ensure representative coverage across all six developmental blocks of Uttarkashi district. Villages and respondents have been selected proportionately from each block, targeting individuals aged 15 and above with at least one bank account.

3.8.1 Sample Size

As the target population for this study is unknown so the sample size is calculated by the below mentioned formula which is used for calculating sample size of unknown population.

$$\mathbf{N = (Z^\wedge 2 \cdot p \cdot (1 - p))/E^\wedge 2}$$

Required Sample Size (n) = (Z score) ² × Std Dev. × (1 – Std Dev.)) / (Margine of Error) ²

N = Required sample size

Z =score is taken as 1.96 for 95% confidence level

p=Standard deviation as 0.5

E=Margin of error as 5%

So total number of sample size is 384, which is also in harmonizing with Morgan's table of sample size. As per the Krejcie and Morgan's (1970) criteria 384 samples were determined which were rounded to 400 samples proportionately distribute to all over the Uttarkashi district among six administrative blocks.

3.8.2 Sampling Technique

The present study adopted a multistage proportional random sampling technique. In the first stage, Uttarkashi was selected based on its low financial inclusion score as reported in the CRISIL Inclusix Report (2018), and its socio-geographic relevance. In the second stage, the district was divided into its six administrative blocks: Bhatwari, Chinyalisaur, Dunda, Mori, Purola, and Rajgarhi. To ensure proportional representation, the total sample of 400 respondents was distributed across these blocks based on their percentage share of the district population, as per the Census of India (2011).

$$\mathbf{Sample\ per\ Block = (Block\ Population\ \%/100) \times Total\ Sample\ Size\ (400)}$$

In the third stage, 34 villages were selected using simple random sampling from the complete list of revenue villages in each block. To ensure randomness in the selection of villages for the survey, the lottery method was employed. This manual randomization process ensured that each village had an equal and independent chance of being selected, minimizing selection bias and maintaining the integrity of the sample.

Table 3.2: Multi-Stage Proportional Random Sampling Framework					
Stage1	**Stage 2**			**Stage 3**	**Stage 4**
District	**Block**	**% of District Population**	**Sample per Block**	**Sample Villages**	**Samples Per Village**
Uttarkashi	Bhatwari	22.74	91	7	13
	Chinyali	15.12	60	5	12
	Dunda	18.26	73	6	12
	Mori	12.27	49	5	10
	Puraula	10.23	41	4	10
	Rajgarhi	21.38	86	7	12
Total	**06**	**100**	**400**	**34**	

Source: Author's compilation based on Census report of Uttarkashi, 2011

The number of villages per block is decided based on field feasibility and rule-of-thumb (Kodinariya & Makwana, 2013) like:

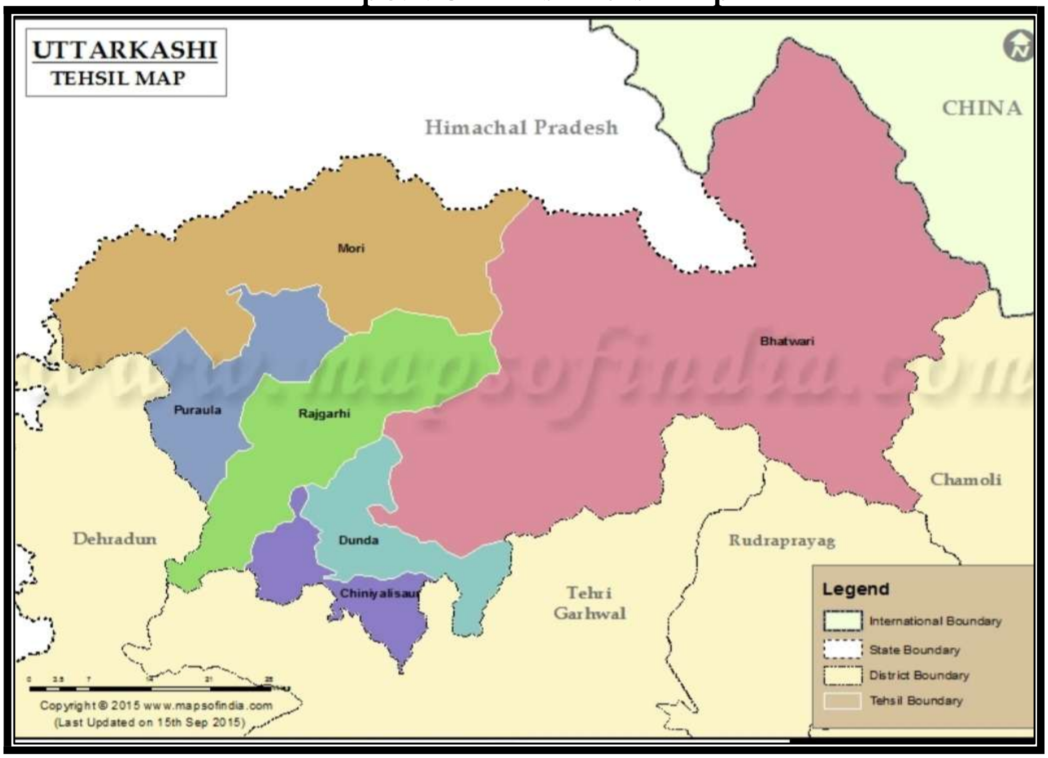
$$\mathbf{K} \approx \sqrt{(\textbf{Sample Size per Block / 2})}$$

The number of villages selected from each block has been proportional to its sample size. This ensured spatial and demographic diversity while maintaining feasibility in field data collection. In the fourth stage, respondents were selected randomly from each sampled village, with an average of 10–13 individuals per village.

$$\textbf{Sample per Village} = \textbf{Total Samples per Block/ Sample Villages per Block}$$

Gender stratification was also ensured by selecting approximately equal numbers of male and female respondents, given the study's emphasis on gender-based comparative analysis. This four-stage sampling structure enabled a balanced and statistically valid representation of the target population while also addressing logistical challenges in Uttarkashi's remote, hilly terrain. The use of multistage proportional random sampling enhanced the representativeness, reliability, and generalizability of the findings. The method is particularly suitable for studies involving geographically dispersed populations and has been widely endorsed in social science research (Kumar, 2019; Kothari, 2004).

Map 3.1: Uttarkashi Tehsil Map



Source: Retrieved from http://www.mapsofindia.com/maps/uttrakhand

3.9 Data and Data Source

The study has used both primary as well as secondary data.

- **Primary Data:** A field survey method was employed, involving direct visits and structured interviews using a well-designed questionnaire. The questionnaire was developed to gather comprehensive information related to financial inclusion, financial well-being, and economic empowerment of the respondents. It included sections on demographic details, accessibility, affordability, availability, usage of financial services, financial literacy, and the overall levels of financial inclusion, well-being, and economic empowerment.

- **Secondary data:** Sourced from pre-existing and credible repositories of information.
  - ✓ Pradhan Mantri Jan Dhan Yojana (Official Website),
  - ✓ Reserve Bank of India (Official website),

- ✓ National sample survey organization,
- ✓ CRISIL Inclusix Reports
- ✓ Census of India
- ✓ Research papers and journals.

These secondary sources were instrumental in supplementing the primary data and providing contextual and comparative insights for the study.

3.10 Operational Definitions

A thorough definition of financial inclusion is put forth and operationalized for assessing it in the context of gender for the current study in the following manner, based on the goals, prerequisites, and prior research works.

- ❖ The process of making basic financial services affordable, accessible, financially literate, and available to the underserved segments of society in general, and women specifically, to support their financial well-being, is known as financial inclusion.
- ❖ The capacity to fulfil present financial commitments, feel confident about the future, and be resilient in the face of unforeseen financial difficulties through efficient resource management and planning is known as financial wellbeing.
- ❖ Economic empowerment is the process by which people, generally those from marginalized groups and particularly women, acquire the knowledge and assets necessary to take charge of their financial choices, take advantage of financial opportunities, to become more independent and self-sufficient.

3.11 Constructs and Variables Used in the Study

The present study is based on primary data that has been gathered in two parts, first is demographic attributes and second part is related to data on financial inclusion, financial wellbeing and economic empowerment.

3.11.1 Demographic Attributes

The key demographic attributes considered in the present study, along with the relevant literature that informed their selection.

Table 3.3: Demographic Attributes	
Attributes	**Source**
Gender	Nandru et al. (2021)
Age	Reshadat et al. (2012), Haque and Zulfiqar (2015)
Marital status	Haque and Zulfiqar (2015)
Education	Nandru et al. (2021), William et al. (2022)
Occupation	Riaz and Pervaiz (2018)
Income	Khalid et al. (2014), Riaz and Pervaiz (2018), Camera and Tuesta, (2015), William et al. (2022)

Source: Author's compilation from literature

The variables include gender, age, marital status, education, occupation, and income—all of which are widely acknowledged in scholarly research as influential determinants of financial behaviour and inclusion.

3.11.2 Construct of Financial Inclusion, Financial Wellbeing and Economic Empowerment

The second part of the questionnaire consist of 38 items in eight constructs. The source of measurement variable used in this study is the previous studies of similar nature. The eight dimensions and scaled items used in this study are presented in Table 3.4. The items have been reviewed/rearticulated to fit the need of the study in context of the population of hilly remote area to maintain the content validity of the items.

- **Availability of Financial Services:** It is the ease of availability of financial services for customer, that may include geographic penetration of banking service and availability of banking staff (Sarma, 2008). The study of Nandru et al (2021) and Nandru and Rentala (2019) has found availability of financial services as a significant dimension of financial inclusion and it include indicators like availability of field worker, branch staff, procedural ease in getting financial services and availability of quality financial services like locker, loans, zero balance account etc. at affordable charges. On the basis of above discussions, the following hypothesis is framed.

Table 3.4: Constructs and Source of Financial Inclusion, Financial Wellbeing and Economic Empowerment

S. No.	Constructs	No. of Items	Source
1	Availability	3	Nandru et al. (2021), Gupte et al. (2012), Sarma (2008)
2	Accessibility	5	Sharma (2008), Arora, (2010), Gupte et al. (2012), Goel and Sharma (2017), Nandru and Rentala, (2019) and Nandru et al. (2021)
3	Financial literacy	6	Garg and Singh, (2017) Nandru et al. (2021), Nandru and Rentala (2019),
4	Usage	4	NABARD, (2016), Sarma (2008), Global Partnership for Financial Inclusion
5	Affordability	4	Gupte et al. (2012), Beck et al. (2008),
6	Financial Inclusion	5	Gupta et al. (2012), NABARD, (2016)
7	Financial Wellbeing	5	Nandru et al (2021), Muir et al (2017), Kempson et al. (2017), Collin and Urban (2020), Swamy (2014)
8	Economic Empowerment	6	Bhatia and Singh (2019)
Total		**38**	

Source: Author's compilation from literature

❖ **Accessibility of Financial Services:** Access to formal financial services represent the possibility for individual to use them (Camara and Tuesta, 2014). Demirguc-Kunt and Levine (2008) has defined access to financial service as the absence of price and non-price barriers. It is the minimum potential barrier in using banking services including proximity of bank branches and automated teller machine (ATM) (Alliance for Financial Inclusion, 2010). It also increases the possibility to enhance the frequency in usage of formal financial services.

- **Financial Literacy:** Financial literacy is understanding and knowledge of financial concepts and risks, and the skills, motivation and confidence to apply these to make effective decision to improve financial wellbeing of individual and society and enable participation in economic life (Garg and Singh, 2017). According to Kostov et al. (2015), financial literacy is to understand financial terms and it is a prerequisite to access financial service. In further elaborating the requirement of financial literacy Beck and Le Da Torre, (2007) mentioned that lower demand of financial services is due to lower financial literacy. Financial literacy increases the ability of an individual to take right financial decision (Martinez et al. 2013).

- **Usage of Financial Services:** Usage is concerned with the permanence of actual usage and depth of financial services or product (Nandru et al. 2021). According to Alliance of Financial Inclusion (2010) it is the regularity, frequency and duration of using financial services. Banking services can be utilised in many form- credit, deposit, remittances, transfer payment etc. and usage dimension includes measuring all this different utilization (Sharma, 2015). Earlier studies on financial inclusion like Sharma (2008), Camara and Tuesta (2014), Nandru et al. (2021), Nandru and Rentala, (2019) have given due importance to usage of financial services in explain financial inclusion.

- **Affordability of Financial Services:** Affordability refers to the service charges that are paid to maintain account (Beck et al., 2008). The study of Gupte et al. (2012) has used ease of transaction as one of the dimensions to formulate financial inclusion index. Allen et al. (2012) has considered this dimension as per the barrier perspective in his studies. Some of the indicators of affordability of financial services includes cost of opening bank account, ATM charges, charges for fund transfer and other charges paid to maintain account. Nandru et al. (2021) and Nandru and Rentala (2019) in their studies founds affordability as a significant determinant of financial inclusion.

- **Financial Wellbeing:** There are many studies that has found a positive and significant relation between financial inclusion or its dimensions and financial wellbeing. People practicing positive financial inclusion reported higher level of financial wellbeing in study of Selvia et al. (2020) because financial inclusion helps people to manage their finance well. In similar study by Zemtsov and Osipova (2016) financial wellbeing is influenced by income generated by assets and financial inclusion. In an American study (2017), it was found that saving and financial cushion adds to the financial wellbeing and many demographic characteristics like employment status, income, age and education are strongly related to financial wellbeing. In addition to wealth of the individual financial wellbeing also depend of socio-economic, governance and cultural element of the country (Agostina et al., 2020). Cabeza -Garcia et al., (2019) have mention in their study that greater financial inclusion in women increases their economic development. Giving access of appropriate financial products to the working women will increase their financial wellbeing (Rashid et al., 2022). On the basis of above discussion following hypothesis has been framed.

- **Economic Empowerment:** Financial inclusion plays a pivotal role in advancing women's economic empowerment by providing them with access to essential financial services such as savings, credit, insurance, and digital payments. Bhatia and Singh (2019) highlight that financial inclusion plays a significant role in empowering women. Access to formal financial systems enables women to gain control over financial resources, make informed economic decisions, and participate more actively in household and community-level economic activities. According to the World Bank (2022), financial inclusion is a key enabler for reducing gender inequalities and enhancing economic resilience among women.

3.12 Research Instrument

A questionnaire was employed as the primary instrument for data collection in this research. The questionnaire was meticulously designed, developed, and tested through the following sequential steps to ensure its validity and reliability:

For the purpose of this study, a specially designed questionnaire was developed to collect primary data. The questionnaire consists of two main sections (refer to Annexure). Section I gathers the respondents' basic demographic and socio-economic information, including gender, religion, block, social category, age, income, educational qualification, marital status, and occupation. Section II is designed to collect demand-side data related to various dimensions such as financial literacy, availability, affordability, accessibility, usage of financial services, financial inclusion, financial well-being, and economic empowerment. The items in this section were structured using a five-point Likert scale ranging from 1 to 5, where 1 represents 'Strongly Disagree,' 2 represents 'Disagree,' 3 represents 'Neutral,' 4 represents 'Agree,' and 5 represents 'Strongly Agree.'

3.13 Pretesting and Pilot Study

Pilot studies play a crucial role in identifying potential issues in research instruments, allowing the researcher to evaluate the clarity, relevance, and comprehensiveness of the questions before large-scale data collection. A pilot study has been undertaken in the Dunda developmental block of the Uttarkashi district prior to administering the full-scale survey. In this phase, 50 questionnaires were completed by individual respondents. The primary objective of the pilot study was to evaluate the clarity, relevance, and comprehensiveness of the questionnaire. Feedback and observations from the participants were carefully reviewed, leading to necessary modifications. These included the removal of outdated items and the incorporation of additional, contextually relevant questions. The finalized version of the questionnaire, reflecting these revisions, is presented in Appendix I.

3.14 Reliability and Validity of the Research Instrument

To ensure the reliability and validity of the research instrument, both internal consistency and construct validity has been tested.

Table 3.5: Validity and Reliability of Constructs

Name of construct	Cronbach Alpha	No of Items Proposed	No of Items Retrieved	Factor loading	Composite Reliability	Average Variance Extracted
Usage	0.930	8	4	0.890-0.930	0.950	0.820
Accessibility	0.950	8	5	0.820-0.960	0960	0.810
Affordability	0.940	6	4	0.860-0.960	0.960	0.850
Availability	0.960	6	3	0.960-0.980	0.980	0.930
Financial Inclusion	0.980	6	5	0.960-0.970	0.990	0.930
Financial Literacy	0.980	8	6	0.940-0.970	0.990	0.930
Financial Wellbeing	0.970	8	5	0.793-0.880	0.980	0.910
Economic Empowerment	0.910	8	6	0.853-0.894	0.910	0.890

Source: Author's calculation based on primary data
Note: Significance level at 0.001

The internal consistency of each construct was measured using Cronbach's Alpha, with all values ranging from 0.910 to 0.980, well above the acceptable threshold of 0.70, indicating high reliability. The factor loadings for each item within the constructs ranged between 0.793 and 0.980, all of which were statistically significant ($p < 0.05$), demonstrating strong indicator reliability. For convergent validity, two key metrics were used: Composite Reliability (CR) and Average Variance Extracted (AVE). Composite reliability values for all constructs were above 0.90, suggesting that the items consistently measure their respective constructs. Similarly, the AVE values ranged from 0.810 to 0.930, exceeding the recommended minimum value of 0.50, which confirms that a substantial amount of variance is captured by the construct in comparison to measurement error. These results establish that the instrument used in the study is both reliable and valid, ensuring robustness in measuring the dimensions of financial inclusion, financial literacy, financial well-being, and economic empowerment among the respondents in Uttarkashi district.

3.15 Statistical Tools and Techniques Used

The study has employed tools like SPSS and smart PLS and both descriptive and inferential statistical techniques to analysed collected data.

- ❖ **Data Analysis:** The data collected through questionnaires has been systematically coded, entered, and analysed using appropriate statistical tools. Both descriptive and inferential statistical techniques were employed to gain comprehensive insights into the research questions. Descriptive statistics such as frequency distributions, percentages, means, and standard deviations has been used to profile the respondents and summarize key variables related to financial inclusion, economic empowerment and financial well-being. Inferential analyses included correlation, regression analysis, logit regression and factor analysis to examine relationships among variables, test hypotheses, and identify underlying dimensions of financial inclusion. Software packages such as SPSS and STATA were utilized to ensure accuracy and reliability of results.

- ❖ **Descriptive Statistics:** To provide a comprehensive overview of the dataset, descriptive statistics were employed to summarize the key characteristics of the variables used in the study. Measures such as frequency, percentage, mean, standard deviation, kurtosis and skewness were calculated for both demographic attributes (including gender, age, education, marital status, income, and employment status) and core variables related to financial inclusion, financial well-being, economic empowerment, dimensions of financial inclusion like accessibility, availability, affordability, usage and financial literacy. These included dimensions such as borrowing behaviour, insurance coverage, savings habits, digital transactions, ATM usage, branch-based banking, and multiple account holding. The use of descriptive statistics helped in understanding the general distribution, central tendency, and dispersion of the data, thereby offering valuable insights into the financial behaviour and socio-economic status of the respondents across gender categories. This preliminary analysis also served as a foundation for further inferential and multivariate statistical techniques applied in the subsequent sections of the study.

- **Correlation:** Correlation analysis has been employed to explore the strength and direction of relationships between key variables such as financial well-being, economic empowerment, and the determinants of financial inclusion, including borrowing behaviour, insurance coverage, saving habits, digital transactions, ATM usage, branch-based transactions, and multiple account holdings. Additionally, the association between these financial indicators and socio-demographic attributes—namely gender, age, education, marital status, income, and employment status—was examined to identify underlying patterns and interdependencies. These correlations provided foundational insights for further inferential testing and served as a precursor to regression and structural modelling employed later in the study.

- **Partial Least Squares Structural Equation Modelling (PLS-SEM):** It is a statistical technique that analyse very complex relationships between latent and observed variables. The latent variables are unobserved variable and the observed variables are those variables that has been taken from the questionnaire. There are many benefits of PLS-SEM over the covariance based structural equation model (CB-SEM) that has made it to gain increasing attention among research of various disciplines. According to Hair et al., (2018)

- It is very useful in applying complex structural model.
- It can be applied with many constructs, indicator variables and structural path without any data distribution assumption.
- It is useful in research that require latent variable scores for analysis.
- It is a causal-predictive approach to SEM
- There are many user-friendly software available for the researcher at affordable rates.
- Small sample size is not an issue in PLS-SEM
- It can very well be used with the secondary data.
- Unlike CB-SEM, PLS-SEM is not bound to the concept of model fit.
- PLS-SEM can handle missing data and is less sensitive to outliers unlike CB-SEM
- It can handle wide range of data including ordinal and categorical.
- It can also be used to test complex theoretical model
- It can also be used in complex model with multiple moderating and mediating variables.

PLS-SEM composed of two sub models, the measurement model that represents the relation between the latent variable and observed data and the structural model represent the relation between the latent variables. The procedure is called partial as a repetitive mathematical or computational procedure solves the structural equation model by estimating latent variables by using the structural model in alternating steps. The manifest variables estimate the latent variable with the help of measurement model. The latent variable estimated by the measurement model help in estimating latent variable through structure model with simple or multiple linear regression. This algorithm repeats until the convergence is achieved.

- ❖ **Logistic Regression:** The present study has used binary logistic regression in which the dependent variable (borrowing, saving, insurance, digital transactions. ATM transaction, branch-based transaction and Multiple account holding) is binary in category of 'yes and 'no' expressed in code of 1 and 0 respectively (e.g., whether or not an individual engages in the respective financial activity). And the independent variables (income, occupation, marital status, age etc) are categorical and ordinal. The logistic regression model estimates the log-odds of the probability P(Y=1) of engaging in a financial activity as a function of independent variables:

$$\mathbf{Log\{P(Y=1)/1-P(Y=1)\}} = \boldsymbol{\beta}_0 + \boldsymbol{\beta}_1\mathbf{Edu} + \boldsymbol{\beta}_2\mathbf{Age} + \boldsymbol{\beta}_3\mathbf{MaritalStatus} + \boldsymbol{\beta}_4\mathbf{Income} + \boldsymbol{\beta}_5\mathbf{Emp}$$

Where:

P (Y = 1): Probability of the outcome occurring

β0 is the intercept.

β_1 - β_5: Coefficients of independent variables

This study has used Seven logistic model each for male and female to find the gender gap in context of financial inclusion in which Borrowing, Insurance, Saving, Digital transactions, ATM transactions, Branch based transactions and Multiple account holding are dependent variables and Gender, Age, Marital status, Income and Employment are dependent variables.

- **Regression Analysis:** To examine the determinants of financial well-being and economic empowerment, multiple linear regression models were employed using socio-demographic predictors. In both models, β_0 represents the intercept, β_1 through β_5 are the regression coefficients measuring the strength and direction of the relationships, and *e* denotes the error term. These models help in identifying which socio-demographic factors significantly shape financial outcomes and empowerment levels among individuals, offering crucial insights for targeted interventions and policy formulation.

Models, assesses the influence of education level, age, marital status, income, and employment status on individuals perceived financial well-being (FWB) and Economic empowerment (EE).

$$\mathbf{FWB = \beta_0 + \beta_1 Edu + \beta_2 Age + \beta_3 Marital\ Status + \beta_4 Income + \beta_5 Emp + \varepsilon}$$

$$\mathbf{EE = \beta_0 + \beta_1 Edu + \beta_2 Age + \beta_3 Marital\ Status + \beta_4 Income + \beta_5 Emp + \varepsilon}$$

Where:

FWB: Financial Wellbeing (dependent variable)

EE: Economic Empowerment (dependent variable)

β_0: Intercept (constant term)

β_1 - β_5: Coefficients representing the effect of each independent variable

Here, Financial Well-Being and Economic Empowerment are dependent variables, while education, age, marital status, income, and employment status are the independent variables. The coefficients (β) indicate the extent and direction of influence each predictor has on financial well-being. The error term ε captures the variance not explained by the model.

3.16 Research Framework

The research framework for this study is structured to explore the relationship between financial inclusion and financial well-being from a gender perspective. Table 3.6 presents the research framework aligned with the study's three core objectives. Each objective has been mapped with an appropriate analytical tool, a specific set of variables, and a clear rationale for the chosen methodology.

Table 3.6: Research Framework			
Framework	**Objective 1**	**Objective 2**	**Objective 3**
Objectives	To explore the effect of policies of financial inclusion on women financial well-being.	To measure the gender gap in the context of financial inclusion.	To examine the role of woman's economic empowerment and financial well-being and the barrier thereof
Analytical Tool	Descriptive statistics, PLS-SEM	Descriptive statistics, Correlation, Logistic regression	Descriptive statistics, Correlation, Multiple linear regression
Variable Used	Financial wellbeing, Financial inclusion, Accessibility, Affordability, Availability Financial literacy, Usage, Gender	Loan, Insurance, Saving, Digital, ATM, Branch transactions, Multiple account and Demographic attributes (Gender, Age, Education, Marital status, Income and Employment)	Financial wellbeing, Economic empowerment and Demographic attributes (Age, Education, Marital status, Income and Employment)
Rationale	Its work with small sample size and PLS SEM allows simultaneous estimation of multiple relationship in a single model	Dependent variable is binary and independent variable is categorical. It does not face the strict assumption of multivariate normality	The outcome variables are likely to influence by combination of demographic factors making MLR best fit to account for these complex interaction

Source: Author's compilation

Summary

The present study adopts a descriptive, analytical, and cross-sectional research design with a quantitative and comparative approach to examine financial inclusion and financial well-being from a gender perspective in the Uttarkashi district of Uttarakhand. The target population comprises adult men and women aged 15 years and above residing in the district. A multistage proportional random sampling technique was employed, involving the selection of district, blocks, villages, and individual respondents. The final sample consisted of 400 respondents, including 207 males and 193 females, with the individual respondent serving as the unit of analysis. The study is based on both primary and secondary data. Primary data were collected through a structured questionnaire using a Likert scale, administered via field surveys across selected blocks and villages. Secondary data were sourced from RBI, Ministry of Finance, NABARD, Census of India, and relevant research literature. The adopted methodology ensures representativeness, reliability, and suitability for achieving the objectives of the study.

References

Ab Hamid, M. R., Sami, W., & Sidek, M. M. (2017, September). Discriminant validity assessment: Use of Fornell & Larcker criterion versus HTMT criterion. In Journal of physics: Conference series (Vol. 890, No. 1, p. 012163). IOP Publishing.

Alliance for Financial Inclusion. (2012). The first G20 Global Partnership for Financial Inclusion (GPFI) forum report (GPFI Forum, 1 October 2011). Alliance for Financial Inclusion. Retrieved from https://www.afi-global.org/wp content/uploads/2024/10/120906_GPFI_G20_FINAL_Low.pdf

Arora, R. (2010). Measuring financial inclusion. Griffith University Economics Discussion Paper, 7.

Beck, T., Demirgüç-Kunt, A., & Martinez Peria, M. S. (2008). Banking services for everyone? Barriers to bank access and use around the world. The World Bank Economic Review, 22(3), 397-430.

Bhatia, S., & Singh, S. (2019). Empowering women through financial inclusion: A study of urban slum. Vikalpa, 44(4), 182-197.

Cámara, N., & Tuesta, D. (2014). Measuring financial inclusion: A multidimensional index. BBVA Research Working Paper, 14/26.

CRISIL. (2018). CRISIL Inclusix: Financial inclusion surges, driven by Jan-Dhan Yojana (Vol. IV). CRISIL Limited. https://www.crisil.com/content/dam/crisil/ouranalysis/reports/Research/documents/2018/march/crisil-inclusix-financial-inclusion-surges-driven-by-Jan-Dhan-yojana.pdf

Demirgüç-Kunt, A., & Levine, R. (2008). Finance et opportunité économique. Revue d'économie du développement, 16(4), 5-29.

Directorate of Economics and Statistics, Government of Uttarakhand. (2017). Economic Survey 2016-17 (Vols. & statistical tables). Government of Uttarakhand. Retrieved from https://des.uk.gov.in/files/Economic_Survey_2016-17.pdf

Garg, N., & Singh, S. (2018). Financial literacy among youth. International Journal of Social Economics, 45(1), 173–186.

Goel, S., & Sharma, R. (2017). Developing a financial inclusion index for India. Procedia Computer Science, 122, 949–956.

Government of India. (2013). Annual report 2012-13. Retrieved from http://164.100.161.239/reports/genrep/annual_report12_13.pdf

Gupte, R., Venkataramani, B., & Gupta, D. (2012). Computation of financial inclusion index for India. Procedia - Social and Behavioral Sciences, 37, 133–149.

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. Long range planning, 46(1-2), 1-12.

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. European business review, 31(1), 2-24.

Kempson, E., Finney, A., & Poppe, C. (2017). Financial Well-Being.

Kodinariya, T. M., & Makwana, P. R. (2013). Review on determining number of Cluster in K-Means Clustering. International Journal of Advance Research in Computer Science and Management Studies, 1(6), 90–95. Retrieved from http://www.ijarcsms.com

Kothari, C. R. (2004). Research methodology: Methods and techniques (2nd ed.). New Age International Publishers.

Krejcie, R., & Morgan, S. (1970). Sample size determination. Business Research Methods, 4(5), 34-36.

Muir, K., Hamilton, M. G., Noone, J., Marjolin, A., Salignac, F., & Saunders, P. (2017). Exploring financial wellbeing in the Australian context.

NABARD. (2016). NABARD financial inclusion report 2016. https://www.nabard.org/auth/writereaddata/tender/1608180417NABARDRepo%2016_Web_P.pdf

Nandru, P., & Rentala, S. (2020). Demand-side analysis of measuring financial inclusion: Impact on socio-economic status of primitive tribal groups (PTGs) in India. International Journal of Development Issues, 19(1), 1-24.

Nandru, P., Chendragiri, M., & Velayutham, A. (2021). Examining the influence of financial inclusion on financial well-being of marginalized street vendors: Empirical evidence from India. International Journal of Social Economics, 48(8), 1139–1158. https://doi.org/10.1108/IJSE-09-2020-0613

Negi, S. K., Jain, H. K., & Singh, V. (2017). Architecture of Uttarakhand and construction techniques for affordable housing. Journal of Environmental Nanotechnology, 6(2), 30-35.

NITI Aayog. (2020). Aspirational Districts Programme. Government of India. Retrieved February 8, 2026, from https://www.niti.gov.in/aspirational-districts-programme

Office of the Registrar General & Census Commissioner, India. (2011). Census of India 2011. Ministry of Home Affairs, Government of India. https://censusindia.gov.in/

Rawat, U. (2018). Essays on macroeconomic dynamics, credit intermediation and financial stability (Doctoral dissertation).

Reshadat, S., Rajabi, G. N., Ghasemi, S. R., & Jamshidinazar, F. (2014). Assessment of rural women empowerment level and its relation with demographic and structural factors in Kermanshah, Iran, 2012. Life Science Journal, 11(4), 86-93.

Riaz, S., & Pervaiz, Z. (2018). The impact of women's education and employment on their empowerment: Empirical evidence from household level survey. Quality & Quantity, 52(6), 2855-2870.

Sarma, M. (2008). Index of financial inclusion (No. 215). Working paper.

Sati, V. P. (2015). Climate change and socio-ecological transformation in high mountains: an empirical study of Garhwal Himalaya. Change and Adaptation in Socio-Ecological Systems, 2(1).

Selvia, G., Rahmayanti, D., Afandy, C., & Zoraya, I. (2021, May). The effect of financial knowledge, financial behavior and financial inclusion on financial well-being. In Proceedings of the 3rd Beehive International Social Innovation Conference (BISIC 2020), 3–4 October 2020, Bengkulu, Indonesia

Swamy, V. (2014). Financial inclusion, gender dimension, and economic impact on poor households. World Development, 56, 1–15. https://doi.org/10.1016/j.worlddev.2013.10.019

Zemtsov, A. A., & Osipova, T. Y. (2016). Financial wellbeing as a type of human wellbeing: Theoretical review. The European Proceedings of Social & Behavioural Sciences EpSBS, 7, 385–392. https://doi.org/10.15405/epsbs.2016.02.52

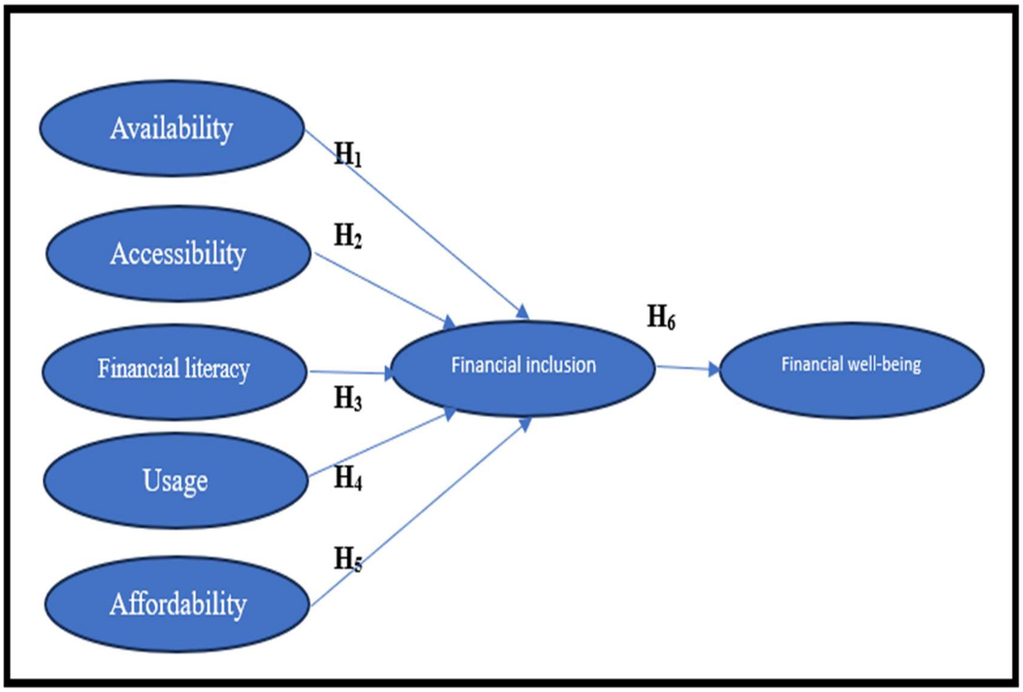
CHAPTER IV

EXPLORING THE EFFECT OF POLICIES OF FINANCIAL INCLUSION ON WOMEN FINANCIAL WELLBEING

4.1 Introduction

Financial inclusion has emerged as a key policy instrument in promoting equitable economic growth, particularly for marginalized groups such as women. With targeted schemes like PMJDY, MUDRA, and DBT, governments have aimed to expand access to financial services. However, the real impact of these policies on women's financial well-being remains underexplored. This chapter presents a comprehensive analysis of the data collected to examine the relationship between financial inclusion and financial well-being from a gendered perspective in Uttarkashi district. The chapter is structured to systematically validate the research model and test the hypothesized relationships among the key constructs. It begins by describing the research model. Next, the measurement model is evaluated by confirming the reliability and validity of the constructs and indicators. Finally, the structural model is analysed to assess the hypothesized relationships using Partial Least Square Structural Equation modelling. The operational definition for financial inclusion, empirical research, and the literature review all provided evidence for the development of the suggested model. Partial Least Squares Structural Equation Modelling (PLS-SEM) has been used to evaluate the structural links between the components found in the theoretical framework. As demonstrated in the current study, this approach works especially well for exploratory research and models that incorporate many dimensions with reflecting indications. The research model is shown in Fig 4.1 and is primarily composed of five factors that determine financial inclusion: availability, accessibility, financial literacy, usage and affordability. Additionally, the research model looks at the connection between financial well-being and the aspects of financial inclusion. The model illustrates the conceptual relationships between several key dimensions influencing Financial Inclusion (FI) and its impact on Financial Well-Being (FWB). In this framework, Financial Inclusion serves as a central construct, influenced by five exogenous variables: Accessibility (ACCE), Availability (AVBL), Affordability (AFRD), Usability (US), and Financial Literacy (FL). These five factors are hypothesized to influence the level of Financial Inclusion, which in turn is proposed to impact an individual's financial well-being.

Fig 4.1: Adopted Research Model of the Study



Source: Author's compilation

4.2 Demographic Profile of Female Respondents

The demographic detail of the female respondent who participated in the survey for this study are presented below. Table 4.1 presents the demographic profile of the female respondents who participated in the study. A total of 193 women were surveyed across different regions of the Uttarkashi district. The table categorizes respondents based on their education level, age group, marital status, income range, and employment status. All percentages are based on the total number of female participants.

Table 4.1: Demographic Profile of Female Respondents		
Demographic	**Frequency**	**Percentage**
Female	193	100
Education		
Illiterate	37	19.17
No formal education	29	15.02
Primary	13	6.73
Secondary	25	12.95
Higher secondary	58	30.05
Graduate/Diploma	31	16.06
Age		
Young (15 -34)	49	25.39
Middle (34-59)	107	55.44
Old (Above 60)	37	19.17
Marital status		
Unmarried	24	12.44
Married	126	65.28
Widow	43	23.28
Income		
Below 7000	136	70.47
7001-13999	26	13.47
14000-20999	15	7.77
Above 21000	16	8.29
Employment		
Unemployed	95	49.22
Casual labour	51	26.42
Self employed	24	12.44
Salaried	23	11.92

Source: Author's calculation based on primary data

The educational background indicates a wide range of literacy levels, with 30.05% having completed higher secondary education and 16.06% holding a graduate degree or diploma. However, a significant portion remains educationally disadvantaged, with 19.17% being illiterate and 15.02% having no formal education. The majority of female respondents fall within the middle-age group (34–59 years), accounting for 55.44%, while 25.39% are young (15–34 years), and 19.17% are above 60 years of age. Regarding marital status, 65.28% are married, while 23.28% are widows—a notable figure that may influence their financial vulnerability and inclusion. Income data reveals that over 70% of female respondents earn less than ₹7,000 per month, indicating a high level of economic marginalization. Employment status further supports this, with 49.22% being unemployed and 26.42% engaged in casual labour, while only 11.92% hold salaried positions. These demographic indicators highlight the socio-economic challenges faced by women in the region and provide critical context for analysing their financial inclusion and financial well-being.

4.3 Confirmation of Measurement Items

Confirmatory Factor Analysis (CFA) has confirmed the 32 measurement items under 7 latent constructs.

Table 4.2: Items measuring Dimensions of Financial Inclusion and Financial Wellbeing

S. No.	Variables	Label
A	**Financial Inclusion**	**FI**
1	I access the insurance service through my bank account	FI1
2	I access the pensions scheme through my bank account	FI2
3	I access small saving schemes through my bank account (PPF/SSA/SCSS)	FI3
4	I use multiple accounts for financial services	FI4
5	Receive government benefits (DBT) in my account	FI5
B	**Financial literacy**	**FL**
1	I know about benefits of the scheme PMJDY	FLI
2	I know about digital payment method	FL2
3	I know the use of ATM/debit card	FL3
4	Knows the procedure of depositing and withdrawing money from account	FL4

Table 4.2: (Continued)		
S. No.	**Variables**	**Label**
5	I am capable of evaluating terms and conditions of insurance product	FL5
6	I am capable of evaluating terms and conditions of loan product	FL6
C	**Financial Usage**	**US**
1	I save/deposit money in bank frequently	US1
2	I use ATM regularly	US2
3	I use bank account for credit facilities	US4
4	I use digital product of bank regularly	US5
D	**Access**	**ACCE**
1	Opening bank acct is easy	ACCE1
2	Getting loan through bank is easy	ACCE2
3	Bank employees are cooperative and respond well	ACCE3
4	Bank branch is located conveniently	ACCE4
5	Accessing information on financial product is easy	ACCE5
E	**Affordability**	**AFRD**
1	Interest rates on loan is acceptable	AFRD1
2	Minimum balance charges to maintain an account is reasonable	AFRD2
3	Bank lending rates is comparatively lower than money lender rates	AFRD3
4	Different service charges are acceptable	AFRD4
F	**Availability**	**AVBL**
1	Field worker/business correspondent are available to guide customer	AVBL2
2	Sufficient bank employees and support staff are available for help	AVBL3
3	Grievances and redressal mechanism is customer friendly	AVBL4
G	**Financial wellbeing**	**FWB**
1	I am able to fulfil my family financial commitment	FWB1
2	I am able to generate income by accessing required finance	FWB2
3	My current financial situation is good	FWB3
4	I am confident about my financial conditions for next 12 months	FWB4
5	I am practicing saving to cover unexpected expenditure	FWB5

Source: Author's compilation

Table 4.2 outlines the specific items used to measure the core constructs of this study, including various dimensions of Financial Inclusion (FI)—namely Financial Literacy

(FL), Financial Usage (US), Accessibility (ACCE), Affordability (AFRD), and Availability (AVBL)—as well as the construct of Financial Well-being (FWB). Each item was measured using a Likert scale, and the variables were adapted from validated instruments in previous studies, modified as needed to suit the local socio-economic context of the respondents in the Uttarkashi district. These items formed the basis for the confirmatory factor analysis and structural equation modelling conducted in subsequent sections. Goodness of fit indices of the model and Validity and reliability of the measurement items have also been confirmed through CFA.

4.4 Accuracy of Measurement Model

The accuracy of the measurement model has been statistically examined using multiple indicators, including construct reliability, convergent validity, standardized factor loadings, critical ratios (t-values), composite reliability (CR), and average variance extracted (AVE). Standardized factor loadings have been used as a primary indicator of measurement reliability, with values required to exceed the threshold of 0.60 and associated t-values (critical ratios) needing to surpass 1.96 ($p < 0.001$) to be considered statistically significant (Hair et al., 2013).

Table 4.3: Validity and Reliability of Constructs

Name of construct	Cronbach's Alpha	Label	Factor loading	Significance	Composite Reliability	Average Variance Extracted
Usage	0.930				0.950	0.820
		US1	0.890	*		
		US2	0.900	*		
		US4	0.910	*		
		US5	0.930	*		
Accessibility	0.950				0960	0.810
		ACCE1	0.890	*		
		ACCE2	0.960	*		
		ACCE3	0.960	*		
		ACCE4	0.860	*		
		ACCE5	0.820	*		
Affordability	0.940				0.960	0.850
		AFRD1	0.960	*		
		AFRD2	0.960	*		
		AFRD3	0.860	*		
		AFRD4	0.900	*		
Availability	0.960				0.980	0.930

Table 4.3: (Continued)						
Name of construct	**Cronbach's Alpha**	**Label**	**Factor loading**	**Significance**	**Composite Reliability**	**Average Variance Extracted**
		AVBL2	0.980	*		
		AVBL3	0.970	*		
		AVBL4	0.960	*		
Financial Inclusion	0.980				0.990	0.930
		FI1	0.960	*		
		FI2	0.960	*		
		FI3	0.970	*		
		FI4	0.960	*		
		FI5	0.960	*		
Financial Literacy	0.980				0.990	0.930
		FL1	0.950	*		
		FL2	0.940	*		
		FL3	0.970	*		
		FL4	0.970	*		
		FL5	0.970	*		
		FL6	0.970	*		
Financial Wellbeing	0.970				0.980	0.910
		FWB1	0.859	*		
		FWB2	0.859	*		
		FWB3	0.845	*		
		FWB4	0.880	*		
		FWB5	0.793	*		

Source: Author's calculation based on primary data

Note: * significant at 1% level, ** significant at 5% level, *** significant at 10% level, **** significant at above 10% level.

In this study, factor loadings ranged from 0.793 to 0.980, all of which were statistically significant, thereby confirming the reliability of the measurement instruments. Construct reliability was assessed using Cronbach's Alpha, which ranged between 0.930 and 0.980—well above the recommended minimum of 0.70—indicating a high degree of internal consistency (Hair et al., 2013). These values suggest that the items within each construct consistently measure the intended latent variable. To evaluate convergent validity, both standardized factor loadings and AVE values were considered. All item loadings exceeded 0.80, with most above 0.90, indicating strong item reliability and affirming that each observed variable is a robust indicator of its respective construct. The AVE values were significantly higher than the minimum requirement of 0.50, ranging from 0.81 to 0.93 (Fornell & Larcker, 1981), thus establishing strong convergent validity. High AVE scores indicate that the majority of the variance in observed variables is captured by the underlying construct rather than by measurement error. Constructs such as Financial Inclusion, Financial Literacy, and Availability reported particularly high AVE values (above 0.90), highlighting the robustness of the measurement framework.

Table 4.4: Discriminant Validity of Constructs

Variables	Acces-sibility	Affor-dability	Avail-ability	Financial Inclusion	Financial Literacy	Financial Wellbeing	Usage
Accessibility	0.90						
Affordability	0.01	0.92					
Availability	-0.01	-0.01	0.96				
Financial Inclusion	0.32	0.23	-0.11	0.96			
Financial Literacy	-0.08	0.11	0.03	-0.14	0.96		
Financial Wellbeing	0.1	0.1	-0.01	0.26	-0.13	0.95	
Usage	0	0.25	0.07	0.24	0.03	0.08	0.90

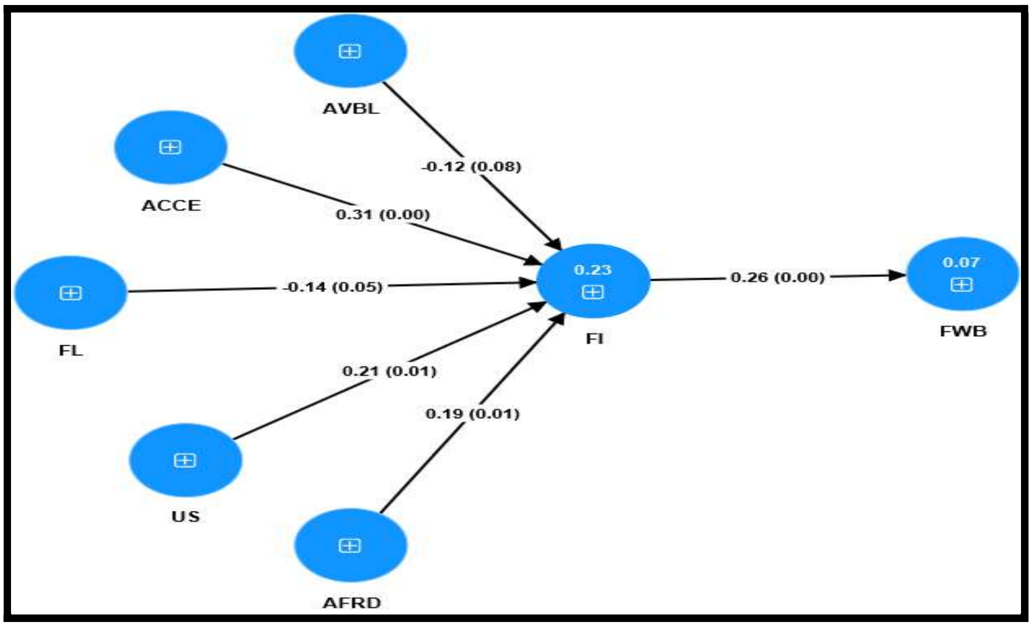
Source: Author's calculation based on primary data

The constructs exhibit excellent psychometric properties, demonstrated through high internal consistency, significant and strong factor loadings, and high AVE values. These findings confirm both the reliability and convergent validity of the measurement model, thereby justifying its suitability for use in the subsequent structural equation modelling phase of the research. The Fornell–Larcker criterion was used to evaluate discriminant validity in addition to reliability and convergent validity. The square root of the Average Variance Extracted (AVE) for each construct is greater than its corresponding inter-construct correlations, indicating that each construct shares more variance with its own indicators than with other constructs. This confirms the discriminant validity of the measurement model.

4.5 The Standardized Regression Path Coefficients of Structural Model

The possible relationship between the latent constructs in the suggested model is being examined in this section. The significance of the regression coefficient for several latent constructs and their fictitious relationship is shown in Fig. 4.2 below.

Fig 4.2: Estimated Structure Model with Path Coefficient for Latent Constructs



Source: Author's calculation based on primary data

Note: Significance level in parentheses

4.6 Evaluation of Structural Model and Hypothesized Relationships

The structural model has been evaluated to test the hypothesized relationships between the key constructs: availability, accessibility, financial literacy, usage, affordability, financial inclusion, and financial well-being among women in the Uttarkashi district. The results of the regression path coefficients, critical ratios (t-values), and their respective significance levels are presented in Table 4.5. Figure 4.2 further illustrates the visual path model used in the structural equation modelling (SEM) framework. Following the guidelines by Hair et al. (2013), a path is considered statistically significant when the critical ratio (t-value) exceeds ±1.96 at the 5% level or ±2.58 at the 1% level. The findings reveal that five out of six hypothesized paths are statistically significant, thus supporting their respective hypotheses.

Table 4.5: Standardized Path Coefficient and t-Statistics of the Structural Model						
Hypothesis	**Hypothesised direction**	**Standard regression weight(beta)**	**Standard deviation**	**Critical ratio (t-value)**	**p - value**	**Remarks**
H1	AVBL -> FI	-0.12	0.07	1.76	0.08	Not Supported
H2	ACCE -> FI	0.31	0.08	3.66	0.00	Supported
H3	FL -> FI	-0.14	0.07	1.99	0.05	Supported
H4	US -> FI	0.21	0.08	2.76	0.01	Supported
H5	AFRD-> FI	0.19	0.07	2.61	0.01	Supported
H6	FI-> FWB	0.26	0.05	4.96	0.00	Supported

Source: Author's calculation based on primary data

Note(s): p-values significant at 1% and 5% levels

- **H1 (Availability → Financial Inclusion)**, however, was not supported ($\beta = -0.12$, $t = 1.76$, $p = 0.08$), revealing that the mere physical presence of financial service providers (such as bank staff, field workers, or correspondents) may not significantly contribute to financial inclusion. This could be due to inefficiencies in service delivery or a lack of trust and familiarity with financial agents, especially in remote or underserved regions. In contrast to the study of Nandru et al (2021); Nandru and Rentala (2019); Arora and Meenu (2012); Gupte et al (2012); Beck et al (2008) the dimension availability found insignificant determinant of financial inclusion. It indicates that presence of field worker, business correspondents, and branch staff are not making much difference in making available such services. In addition to above, the recent study of Durai and Stella (2019); Mago and Chitokwindo (2014) confirms that digital finance like mobile banking, ATM, and Internet banking has made financial services available to marginalised and low-income peoples.

- **H2 (Accessibility → Financial Inclusion)** was strongly supported ($\beta = 0.31$, $t = 3.66$, $p < 0.001$), indicating that accessibility is the most influential determinant of financial inclusion among women in the region. This implies that ease of access to financial services—such as bank branches, ATMs, or digital interfaces—substantially increases the likelihood of women's participation in the formal financial system. It suggests that the most significant factor influencing women's financial inclusion is accessibility. Though other dimensions are also important but accessibility has taken the precedence role over all other factors in context of female financial inclusion. This evidence harmonizes with the finding of Nandru et al (2021); Nandru and Rentala (2019); Lenka and Barik (2018); Camara and Tuesta (2014) and Sharma (2008) in which accessibility of financial services like bank account and credit facilities contributes in enhancing financial inclusion.

- **H3 (Financial Literacy → Financial Inclusion)** showed a statistically significant but **negative** effect ($\beta = -0.14$, $t = 1.99$, $p = 0.05$), suggesting a counterintuitive relationship. This might indicate that despite having some level of financial literacy, structural or socio-cultural barriers may hinder women from utilizing financial services effectively, aligning partially with the contextual limitations of a rural or semi-urban region like Uttarkashi. This study's findings are consistent with those of Martinez et al. (2013), Grohmann et al. (2018), Adentunji and West (2019), and Noor et al. (2020).

- **H4 (Usage → Financial Inclusion)** also emerged as a significant factor ($\beta = 0.21$, $t = 2.76$, $p < 0.05$), underscoring the importance of actual engagement with financial products and services—such as savings accounts, mobile banking, loans, and insurance—in enhancing financial inclusion. The result is also harmonizing with the findings of Nandru et al (2021), Nandru and Rentala (2019), Camara and Tuesta (2014) and Sharma (2008) in which using financial service like credit, insurance ATM and digital service will effectively improve financial inclusion.

- **H5 (Affordability → Financial Inclusion)** was supported (β = 0.19, t = 2.61, $p < 0.05$), indicating that lower costs of financial services (e.g., interest rates, service charges, minimum balance requirements) play a significant role in encouraging women to participate in formal finance. The result is consistent with many previous research namely Nandru et al (2021), Nandru and Rentala (2019), Arora and Meenu (2012), Beck et al (2008). It suggests that affordability of financial services like ATM charges, interest rate on credit and minimum balance requirement will effectively improve financial inclusion among women.

- **H6 (Financial Inclusion → Financial Well-being)** was statistically significant (β = 0.26, t = 4.96, $p < 0.001$), validating the final link in the proposed conceptual model. This suggests that women's financial well-being is positively impacted by more financial inclusion, as evidenced by their capacity to control spending, withstand shocks, and feel confident about their financial future. Involving female in financial inclusion will effectively improve their financial wellbeing further impacting their family finance, their own financial conditions and generating income. This result is harmonizing with many previous studies. For example, Nandru et al. (2021) founds that financial inclusion significantly contributes to financial wellbeing of marginalised street vendors. In study of Selvia et al. (2020) founds that financial inclusion has a mediating effect between financial knowledge and financial wellbeing. In study of Rashid et al. (2022) working women has witnessed as partial mediation between financial inclusion and financial wellbeing.

Summary

This chapter empirically examined the impact of financial inclusion on women's financial well-being using Structural Equation Modelling**.** The analysis confirmed that accessibility, usage, affordability, and financial literacy significantly enhance financial inclusion, whereas the mere availability of financial services does not translate into meaningful inclusion. Financial inclusion was found to have a positive and significant effect on women's financial well-being, underscoring its important mediating role.

The findings highlight that inclusive financial policies must prioritize ease of access, effective usage, affordability, and financial capability to improve women's economic well-being. Overall, the model provides strong empirical support for the proposed relationships, with the exception of availability. Accessibility emerged as the strongest predictor of financial inclusion, followed by usage and affordability. The inverse relationship between financial literacy and financial inclusion raises important concerns regarding the contextual conversion of financial knowledge into actual financial behaviour, indicating the need for more targeted, practical, and action-oriented financial education programs**.** Most importantly, the study confirms that enhanced financial inclusion significantly improves women's financial well-being, reaffirming the broader developmental significance of inclusive financial systems**.**

References

Adetunji, O. M., & David-West, O. (2019). The relative impact of income and financial literacy on financial inclusion in Nigeria. Journal of International Development, 31(4), 312-335.

Arora, S., & Meenu. (2012). The banking sector intervention in the microfinance world: a study of bankers' perception and outreach to rural microfinance in India with special reference to the state of Punjab. Development in Practice, 22(7), 991-1005.

Beck, T., Demirgüç-Kunt, A., & Levine, R. (2007). Finance, inequality and the poor. Journal of Economic Growth, 12(1), 27–49.

Cámara, N., & Tuesta, D. (2014). Measuring financial inclusion: A multidimensional index. BBVA Research Working Paper, 14/26.

Durai, T., & Stella, G. (2019). Digital finance and its impact on financial inclusion. Journal of Emerging Technologies and Innovative Research, 6(1), 122-127.

Gupte, R., Venkataramani, B., & Gupta, D. (2012). Computation of financial inclusion index for India. Procedia - Social and Behavioral Sciences, 37, 133–149.

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. Long range planning, 46(1-2), 1-12.

Mago, S., & Chitokwindo, S. (2014). The impact of mobile banking on financial inclusion in Zimbabwe: A case for Masvingo Province. Mediterranean Journal os Social Sciences, 5.

Martínez, C. H., Hidalgo, X. P., & Tuesta, D. (2013). Demand factors that influence financial inclusion in Mexico: analysis of the barriers based on the ENIF survey. BBVA Bank, BBVA Research Working Paper.

Nandru, P., & Rentala, S. (2020). Demand-side analysis of measuring financial inclusion: Impact on socio-economic status of primitive tribal groups (PTGs) in India. International Journal of Development Issues, 19(1), 1-24.

Nandru, P., Chendragiri, M., & Velayutham, A. (2021). Examining the influence of financial inclusion on financial well-being of marginalized street vendors: Empirical evidence from India. International Journal of Social Economics, 48(8), 1139–1158. https://doi.org/10.1108/IJSE-09-2020-0613

Noor, N., Batool, I., & Arshad, H. M. (2020). Financial literacy, financial self-efficacy and financial account ownership behavior in Pakistan. Cogent Economics & Finance, 8(1), 1806479. https://doi.org/10.1080/23322039.2020.1806479

Rashid, S., Bilal, M., Hussain, A., & Shah, M. A. (2022). Impact of financial inclusion on financial well-being: Moderating effect of orientation towards finance. Journal of Economic Impact, 4(2), 124–133.

Sarma, M. (2008). Index of financial inclusion (No. 215). Working paper.

Selvia, G., Rahmayanti, D., Afandy, C., & Zoraya, I. (2021, May). The effect of financial knowledge, financial behavior and financial inclusion on financial well-being. In Proceedings of the 3rd Beehive International Social Innovation Conference (BISIC 2020), 3–4 October 2020, Bengkulu, Indonesia

CHAPTER V

GENDER DISPARITIES IN FINANCIAL INCLUSION

5.1 Introduction

All other services that enhance the financial standing of individuals and businesses must be incorporated into the ongoing process of financial inclusion. Gender equality is another target of the Sustainable Development Goals. One of the biggest issues facing the globe today is the disparity between genders in financial inclusion. Ozsuca (2019) showed that men have more formal credit and savings than women, and that education and work are significant determinants in this discrepancy. However, the study also noted that money has little bearing on the gender gap. On the other hand, Swamy (2014) finds that women's financial inclusion is significantly influenced by their income. According to Sioson's (2019) research, even if women have bank accounts, there is still a gender gap. Some of the reasons for this include distance from the bank, obligations to family or the workplace, and attitudes against financial institutions.

A thorough examination of the primary data gathered during the fieldwork is presented in this chapter, offering insights into key statistical and demographic dimensions relevant to the study. The chapter begins with a Normality Assessment, ensuring the appropriateness of the data for parametric statistical procedures and validating the robustness of subsequent analyses. Following this, the Profile of Respondents is detailed to provide a contextual understanding of the socio-demographic characteristics of the sample, including variables such as age, education, income, occupation, and marital status. The next section explores the Correlation between Financial Inclusion and Socio-Demographic Attributes, aiming to identify patterns and associations that reveal how demographic variables influence levels of financial inclusion. The chapter concludes with analysis that focuses on trends and inequalities in financial service access and utilization that are dependent on gender. When taken as a whole, these analyses provide the groundwork for a gender-sensitive understanding of the Uttarkashi district's financial inclusion dynamics.

5.2 Normality Assessment of Key Variables

To examine the normality of the dataset, skewness and kurtosis statistics has been calculated for the key variables. According to widely recognized standards, skewness and kurtosis values between ±3 is thought to be suggestive of a roughly normal distribution (Bhat and Mishra, 2021; Kim, 2015). To examine the greatest departure from normalcy, statistics such as skewness and kurtosis are evaluated (Hair et al., 2011).

Table 5.1: Normality Assessment Using Skewness and Kurtosis for Key Variables

Variables	Skewness	Kurtosis
Education	-0.740	-0.775
Age	0.747	1.032
Marital status	-1.113	-0.764
Income	0.702	-1.178
Employment	0.041	-1.260
Borrowing	1.375	-0.111
Insurance	0.442	-1.814
Saving	0.315	-1.910
Digital transaction	0.998	-1.010
ATM transactions	0.762	-1.426
Manual transaction	-1.108	2.698
Multiple Accounts	1.566	0.454

Source: Author's calculation based on primary data

All variables fall within the acceptable range, indicating no severe violations of normality. The skewness values range from -1.113 (Marital Status) to 1.566 (Multiple Accounts), while kurtosis values range from -1.910 (Saving) to 2.698 (Manual Transaction). These results suggest that the data distributions are reasonably symmetrical and not excessively peaked or flat. Although a few variables—such as Borrowing, Manual Transaction, and Multiple Accounts—show relatively higher skewness or kurtosis, they still lie within the acceptable threshold and do not necessitate immediate transformation, given the robustness of the logistic regression methods used in the analysis.

5.3 Demographic Profile of Respondents

Below are the demographic details of the respondents that took part in the survey for this study.

Table 5.2: Demographic Profile of Respondent

Demographic Attributes	Percentage	Total	Female	Male
Gender				
Male	51.7	207	-	-
Female	48.3	193	-	-
Age				
Young (15-34)	20.8	83	49	34
Middle (35-59)	60.0	240	107	133
Old (above 60)	19.2	77	37	40
Marital Status				
Unmarried	11.5	46	24	22
Married	74.3	297	126	171
Widow	14.2	57	43	14
Education				
Illiterate	10.5	42	37	5
No Formal Education	11.3	45	29	16
Primary	6.5	26	13	13
Secondary	13.0	52	25	27
Senior secondary	30.5	122	58	64
Graduate	28.2	113	31	82
Employment Status				
Unemployed	31.5	126	95	31
Casual Wages	20.8	83	51	32
Self-employed/Farmer	37.5	150	24	126
Salaried	10.2	41	23	18
Income				
Below 7000	52.8	211	136	75
7000-13999	15.5	62	26	36
14000-20999	10.2	41	15	26
Above 21000	21.5	86	16	70

Source: Author's calculation based on primary data

The sample consists of 400 respondents, with 51.7% male (n = 207) and 48.3% female (n = 193). The age distribution shows that a majority (60%) of respondents fall within the middle age group (35–59 years), followed by the old age group (19.2%) and young adults (20.8%). In terms of marital status, most respondents are married (74.3%), with 14.2% widowed and 11.5% unmarried. Educational attainment varies across the sample, with a notable proportion having completed senior secondary education (30.5%) and graduation (28.2%), while a smaller percentage are illiterate (10.5%) or without formal education (11.3%). Employment status indicates that 37.5% are self-employed or engaged in farming, 31.5% are unemployed, 20.8% rely on casual wages, and 10.2% hold salaried positions. Income distribution reveals that over half of the respondents (52.8%) have a monthly income below ₹7,000, while 21.5% earn above ₹21,000.

5.4 Correlation Between Financial Inclusion and Socio-Demographic Attributes

Bivariate correlation matrix is presented in Table 5.3 showing the correlation among the variables.

Table 5.3: Correlation Between Socio-Demographic and Financial Inclusion

Variables	Gender	Education	Age	Marital	Income	Employment
Borrowing	-0.218**	0.057	0.073	0.103*	0.266**	0.274**
Insurance	-0.336**	0.257**	0.093*	0.192**	0.571**	0.466**
Saving	-.0350**	0.293**	0.069	0.191**	0.668**	0.455**
Digital Transaction	-0.140**	0.281**	-0.282**	0.186**	0.176**	0.168*
ATM Transactions	0.099*	0.267**	-0191**	0.211**	0.164**	0.168*
Branch Transactions	-0.084	-0.041	0.101*	0.058	0.069	0.414**
Multiple accounts	-0.345**	0.259**	0.037	0.230**	0.528**	0.354**

Source: Author’s calculation based on primary data

Note: **Correlation is significant at the 0.01 level, *Correlation is significant at the 0.05 level (2 tailed)

There is negative correlation between gender and saving, borrowing, insurance, digital transaction and multiple accounts. Age has shown a positive but insignificant correlation with saving, borrowing, insurance and multiple account. However, it has shown a negative but significant correlation with digital transaction. Marital status, income, and occupation have positive and significant correlation with the above mention dependent variables. Education has shown mixed response as it has shown significant and positive correlation with insurance, digital transaction and multiple account and has positive but insignificant correlation with saving and borrowing. Descriptive statistics were used in preliminary research to compare the financial inclusion utilization dimension by gender group. Using econometric models and inferential statistics, a more thorough analysis was carried out. Keeping other variables like employment, income, age, marital status, and educational attainment constant, the models were used to capture the impact of gender on the financial inclusion usage dimension.

Table 5.4: Gender-wise Descriptive Statistics on Financial Inclusion Indicators

Description	Total %	Male %	Female %	Sig
Having a loan account	22	16.0	6.0	*
Having at least an insurance policy	39.3	28.5	10.8	*
Saving in formal financial institution	42.3	30.5	11.8	*
Having account in multiple institution	19.3	16.8	2.5	*
Doing at least one transaction through ATM in last three months	32.3	19.0	13.3	**
Doing at least one branch-based transaction in last three months	92.0	48.8	43.3	
Doing at least one digital transaction in last three months	27.7	17.5	10.2	*

Source: Author's calculation based on primary data

Note(s): * *significant at 1% level, * significant at 5% level

Table 5.4 provides a gender-wise summary of key financial inclusion indicators among respondents. The data reveals significant disparities between males and females across several financial behaviours. Notably, a higher proportion of males have a loan account

(16.0%) compared to females (6.0%), and this difference is statistically significant ($p < 0.05$). Similarly, insurance coverage shows a marked gap, with 28.5% of males having at least one insurance policy compared to only 10.8% of females ($p < 0.05$). Formal saving behaviour also follows a similar pattern, with 30.5% of males saving in formal institutions versus just 11.8% of females ($p < 0.05$). Access to multiple financial institutions is reported by 16.8% of males, whereas only 2.5% of females report the same ($p < 0.05$). ATM usage within the last three months is significantly higher among males (19.0%) than females (13.3%) at the $p < 0.01$ level, indicating a pronounced gender gap in technology-based financial services. Interestingly, while branch-based transactions are high overall (92.0%), the difference between males (48.8%) and females (43.3%) is not statistically significant. However, digital transactions reflect a significant gender divide, with 17.5% of males engaging in at least one digital transaction in the last three months compared to only 10.2% of females ($p < 0.05$).

5.5 Financial Inclusion and Gender: An Analytical Perspective

The results of binary logistic regression, which examines the relationship between gender and financial inclusion indicators by taking into account the dependent variables listed in Table 5.3 while maintaining the explanatory variables such as age, marital status, income, employment status, and education, are displayed in Tables 5.5 to 5.11.

5.5.1 Gender-Wise Logit Analysis of Borrowing Behaviour

The relationship between gender and borrowing from financial institutions is influenced by a complex interplay of socio-economic, cultural, institutional, and individual factors. Traditionally, men have enjoyed greater access to formal credit due to factors such as ownership of collateral, formal employment, and stronger financial networks. In contrast, women often face systemic barriers including limited asset ownership, lower financial literacy, and social norms that restrict their financial autonomy. These disparities are further exacerbated in rural and underserved areas where institutional support for women borrowers remains weak. As a result, women are more likely to rely on informal sources of credit, which can be costly and exploitative, thereby affecting their long-term financial well-being and inclusion.

Table 5.5: Determinants of Borrowing as Measure of Financial Inclusion				
	Male		**Female**	
Variables	**Logit Coefficient**	**Margin dy/dx**	**Logit Coefficient**	**Margin dy/dx**
Education	-0.17(0.13)	-0.02(0.03)	-0.09(0.17)	-0.01(0.02)
Age	-0.22(0.30)	-0.04(0.58)	0.54(0.44)	0.01(0.04)
Marital status	0.01(0.48)	0.00(0.09)	-0.41(0.60)	-0.04((0.06)
Income	0.11(0.16)	0.22(0.32)	0.98(0.34)	0.01(0.32)
Employment	0.41(0.24) *	0.08(0.48) *	0.34(0.32)	0.03(0.03)
Wald $\chi 2$	14.78*		20.99	
Pseudo R^2	0.058		0.144	

Source: Author's calculation based on primary data

Note(s): (* significant at 0.10 level, ** significant at 0.05 level, *** significant at 0.01 level)

The regression analysis for borrowing behaviour indicates limited statistically significant predictors, with clear differences between male and female respondents. Among male respondents, employment status shows a weak but statistically significant influence ($p < 0.10$), with a marginal effect of 8%, implying that one unit increase in employment level of male increases their chance to borrow from formal financial institution by 8 percent as compare female with only 3 percent with statistically insignificant influence. In contrast, none of the variables for female respondents reached conventional levels of statistical significance, although income displayed a relatively high coefficient (0.98) without corresponding statistical strength, likely due to sample variance or contextual factors. For both genders, education, age, and marital status did not show significant associations with borrowing behaviour, suggesting that these socio-demographic factors might not directly influence formal credit usage in the study region. The Pseudo R^2 values were low for both genders (0.058 for males and 0.144 for females), indicating that other unobserved or informal factors could play a substantial role in borrowing decisions, particularly for women. These findings highlight the need for improved access to structured and inclusive credit mechanisms, especially those tailored to working individuals, and underscore the importance of integrating financial counselling and employment-based lending schemes to promote equitable borrowing.

Education is not a statistically significant driver of financial inclusion for either gender, and it has a negative relationship with borrowing from formal financial inclusion. At first glance, the inverse correlation between education and borrowing from official financial institutions might seem strange, given that education is typically linked to improved access to financial resources and a higher level of financial literacy. Greater financial literacy is linked to higher educational attainment and improves people's comprehension of credit products and borrowing procedures. People with higher levels of education might be more aware of the dangers of borrowing, like high interest rates and the possibility of becoming overly indebted. They may consequently exercise greater caution and favor not borrowing money unless it is absolutely required. This aversion to risk may make it less likely that people will take out loans, especially from formal financial institutions where the terms of repayment might be more stringent. (Lusardi and Mitchell, 2014). Women with higher levels of education are more likely to be confident and knowledgeable enough to apply for and handle loans, which closes the gender gap in borrowing (Ghosh and Vinod, 2017).

Income, age, and marital status have also had negligible effects on borrowing from official financial institutions for both men and women. Younger people may have less access to credit because of their shorter credit histories and less stable financial situations. For young women, who frequently face additional challenges like lower financial literacy and economic dependence on family members, this age-related barrier may be more noticeable (Demirgüç-Kunt et al., 2018). Additionally, older women may have trouble borrowing, especially if they have taken time off from work to care for family members. This can negatively affect their income and creditworthiness. Due to shifting financial needs, such as medical costs or business investments, women's borrowing habits may change as they get older (Johnson and Stanforth, 2018).

Due to their reliance on their spouse's income and influence over household decisions, married women may have inadequate access to credit. Married women's access to loans may be restricted by the fact that men are frequently the main decision-makers when it comes to money in many cultures (Agier and Szafarz, 2013). On the other hand, women who are widowed, divorced, or single might be more driven to look for loans on their own to ensure their financial security. But they may also have to deal with issues like lack of collateral and social prejudices, which can make borrowing more difficult for them (World Bank, 2017). Women's capacity to provide collateral, which is frequently needed to obtain loans, is also impacted by lower income (Beck et al., 2007). Reducing the gender gap in borrowing can be achieved by addressing income disparities and offering low-income women tailored financial products (Global Findex Database, 2017).

Employment has shown statistically significant result for male indicating that 8 percent of salaried male are more likely to take loan from formal financial institution as compare to only 3 percent salaried women with insignificant results indicating male biased gender gap of 5 percent. Having a formal job improves one's creditworthiness and repayment capacity. However, because of their inconsistent income and lack of financial records, women in informal employment or the unemployed have more difficulty obtaining loans (Allen et al., 2014). Employment helps women become more financially literate and comfortable dealing with formal financial institutions in addition to providing them with financial stability. To increase women's borrowing capacity and overall financial inclusion, it is imperative to promote their employment, particularly in the formal sector (Sahay et al., 2015).

5.5.2 Gender-Wise Logit Analysis of Insurance Behaviour

The general trend in insurance ownership and gender reveals a persistent gender gap, Where the likelihood of men owning insurance coverage is higher than that of women, particularly formal life, health, and asset insurance. Analysis of insurance ownership (Table 5.6) reveals notable gender-specific determinants within the study area.

For male respondents, income emerged as a highly significant factor ($p < 0.01$), with a strong marginal effect of 17%, indicating that higher-income males are substantially more likely to hold insurance. In contrast, employment was found to be a significant determinant only among female respondents ($p < 0.05$), with a marginal effect of 9%, suggesting that salaried women are more likely to own insurance policies compared to their non-salaried counterparts.

Table 5.6: Determinants of Insurance as Measure of Financial Inclusion				
	Male		**Female**	
Variables	**Logit Coefficient**	**Margin dy/dx**	**Logit Coefficient**	**Margin dy/dx**
Education	0.11(0.15)	0.02(0.02)	0.20(0.14)	0.03(0.02)
Age	0.21(0.35)	0.03(0.05)	0.16(0.35)	0.02(0.05)
Marital status	-0.31(0.51)	-0.04(0.08)	0.15(0.50)	0.02(0.72)
Income	1.08(0.19) ***	0.17(0.02) ***	0.15(0.27)	0.02(0.39)
Employment	0.19(0.24)	0.03(0.04)	0.64(0.27) **	0.09(0.04) **
Wald $\chi 2$	87.90***		32.14***	
Pseudo R^2	0.308		0.157	

Source: Author's calculation based on primary

Note(s): (* significant at 0.10 level, ** significant at 0.05 level, *** significant at 0.01 level)

Other variables such as education, age, and marital status were statistically insignificant for both genders, although their positive coefficients suggest a potential indirect influence on insurance uptake. Notably, income was not statistically significant for females, highlighting a gendered disparity where women's insurance decisions may rely more on employment status than income levels. The Pseudo R^2 values indicate a better explanatory power of the model for males (0.308) compared to females (0.157), suggesting that the included factors more effectively explain insurance ownership behaviour in men. These results highlight the significance of targeted financial literacy and employment-linked insurance schemes to enhance women's participation in formal insurance markets.

The finding of financial inclusion in form of insurance ownership indicates that education, age, marital status is statistically insignificant for both male and female in having an insurance ownership. In contrast to study of Mahdzan and Victorian, (2013) which indicate due to their lower incomes and lack of financial literacy, younger women may own fewer insurance policies than men of the same age and women are more likely to have insurance as they get older, but they still face obstacles like lower income and fewer work options that can make it harder for them to pay for premiums (Piras, Presbitero, and Rabellotti, 2013). According to Cole et al., (2011), education provides women with the information and self-assurance they need to access formal financial services, such as insurance, and make wise financial decisions. Therefore, increasing women's insurance coverage and overall financial inclusion can be greatly aided by providing them with educational opportunities (Beck et al., 2007). Married women may own fewer insurance policies personally as a result of their frequent reliance on their spouses' insurance coverage. Women who are widowed, divorced, or single, on the other hand, might be more likely to buy insurance on their own to safeguard their financial future. Married women's knowledge of and access to insurance products may be restricted by their reliance on their spouses for financial guidance (Loke and Hoi, 2013). The gender disparity in insurance ownership can also be exacerbated by cultural and societal norms that limit women's financial autonomy in many areas (Arun and Kamath, 2015).

Income has shown statistically significant result results for male indicating that 17 percent of male in higher income group are more likely to have insurance ownership as compare to only 2 percent female in higher income group with insignificant result indicating a 15 percent male biased gender gap. Because women often make less money than men do, fewer people own insurance. One of the major hindrances to women's financial inclusion is the gender wage gap. Women with lower incomes have less money to devote to insurance, which also restricts their access to a wider range of insurance options. Closing the gender gap in insurance ownership requires addressing income disparities. Furthermore, financial policies can lessen this inequality by lowering the cost of insurance and increasing its accessibility for low-income women (Fitzpatrick, Magnoni, and Thornton, 2011).

Employment is also playing an important role for women in insurance ownership indicating 9 percent salaried women are more likely to have an insurance as compare to only 3 percent male with insignificant result indicating a female biased gender gap of 6 percent in insurance ownership, contradicting with the notional expectation that were framed before directing the study. Women who work have better financial literacy and are more aware of insurance products, in addition to having financial stability. To increase women's insurance ownership and overall financial security, it is imperative that they be employed, particularly in the formal sector (Raccanello and Anand, 2009).

5.5.3 Gender-Wise Logit Analysis of Saving Behaviour

The general trend in saving in formal financial institutions and gender reveals a consistent gender gap, compared to women, men are more likely to save in formal financial institutions such as banks, post offices, or cooperative societies.

Table 5.7: Determinants of Saving as Measure of Financial Inclusion

	Male		Female	
Variables	**Logit Coefficient**	**Margin dy/dx**	**Logit Coefficient**	**Margin dy/dx**
Education	0.13(0.16)	0.14(0.02)	0.27(0.15)	0.04(0.02)
Age	-0.37(0.42)	-0.04(0.05)	0.12(0.40)	0.02(0.05)
Marital status	1.01(0.61)	0.11(0.07)	0.19(0.51)	0.03(0.07)
Income	1.73(0.26)***	0.19(0.02)***	1.29(0.32)***	0.18(0.04)***
Employment	0.22(0.27)	0.02(0.03)	-0.44(0.28)	0.06(0.04)
Wald $\chi 2$	133.80*		44.07*	
Pseudo R^2	0.477		0.205	

Source: Based on primary data collected by researcher, 2022

Note: (* significant at 0.10 level, ** significant at 0.05 level, *** significant at 0.01 level)

Analysis of saving behaviour as a measure of financial inclusion reveals income as the most significant and consistent determinant for both male and female respondents. For males, income was highly significant ($p < 0.01$), with a marginal effect of 19%, indicating that increase in one unit of male income will increase saving among male by 19% from formal financial institutions. Similarly, income was also significant for females ($p < 0.01$), with a comparable marginal effect of 18%, affirming that rising income levels enhance women’s propensity to save. Other demographic variables such as education, age, and marital status were statistically insignificant for both genders, although the coefficients for education and marital status were positive, suggesting potential but inconclusive influence. Interestingly, employment did not emerge as a significant predictor for either gender, and even showed a negative (though insignificant) relationship for females. These results underline that income is the strongest enabler of formal saving practices among both men and women in the study area. Policy efforts aimed at improving income levels—particularly among low-income and informal sector workers—may significantly boost saving habits and thus deepen financial inclusion. Moreover, the relatively higher Pseudo R^2 value for males (0.477) compared to females (0.205) suggests that the selected predictors explain saving behaviour better among men than women, highlighting the need for more gender-sensitive frameworks to understand and foster women's saving practices.

The finding of saving as financial inclusion determinant indicating that education, age, marital status and employment are insignificant determinant of saving both for male and female. The results are in contrast to the findings of other research of gender gap in saving in formal financial institutions. Age influences the saving patterns of women and they have limited control over financial resources including saving in male dominated household (Chowa and Despard, 2014), educated women are more likely to participate in financial decision about their saving (Lusardi and Mitchell, 2014), employment enhance saving and overall financial inclusion (Sahay et al., 2015).

Income is a significant determinant of saving for both male and female indicating that 19 percent of higher income males are more likely to do saving in formal financial institutions as compare to 18 percent of higher income female. The finding indicating that the gender gap is disappearing as the income of female increasing it is also supported by the research that closing the gender savings gap requires addressing income disparities (Seguino and Were, 2014) and it is also empowering the women in decision making regarding saving. Higher income not only narrows the savings gap but also empowers women to participate more actively in decision-making related to savings.

5.5.4 Gender-Wise Logit Analysis of Digital Transaction Behaviour

The general trend in digital transactions and gender reveals a significant gender gap, with men more likely than women to engage in digital financial transactions, especially in rural and low-income areas. While digital financial inclusion has grown rapidly, women remain to face more challenges in accessing and using digital financial tools.

Table 5.8: Determinants of Digital Transactions as Measure of Financial Inclusion

	Male		Female	
Variables	**Logit Coefficient**	**Margin dy/dx**	**Logit Coefficient**	**Margin dy/dx**
Education	0.52(0.18) **	0.09(0.03) **	0.17(0.14)	0.03(0.02)
Age	-1.56(0.41)***	-0.28(0.06)***	-0.83(0.39)**	-0.12(0.06) **
Marital status	1.11(0.55) **	0.20(0.09) **	0.09(0.45)	0.04(0.07)
Income	0.30(0.17) *	0.05 (0.03) *	-0.24(0.30)	-0.04(0.04)
Employment	-0.05(0.26)	-0.01(0.05)	0.55(0.29) **	0.08(0.42) **
Wald $\chi 2$	47.09 ***		19.06***	
Pseudo R^2	0.178		0.095	

Source: Author's calculation based on primary data

Note: (* significant at 0.10 level, ** significant at 0.05 level, *** significant at 0.01 level)

The logistic regression analysis for digital transactions (Table 5.8) highlights notable gender differences in the determinants of financial inclusion through digital means. For male respondents, education ($p < 0.05$), age ($p < 0.01$), marital status ($p < 0.05$), and income ($p < 0.10$) emerged as significant predictors.

Specifically, higher educational attainment and being married were positively associated with digital transaction usage, with educated males 9% more likely and married males 20% more likely to engage in digital financial services. Conversely, age exhibited a strong negative relationship (margin dy/dx = -0.28), suggesting that younger males are substantially more likely to adopt digital transactions. Income had a modest but statistically significant positive influence. In contrast, for female respondents, age

($p < 0.05$) and employment status ($p < 0.05$) were the only significant predictors. Age negatively impacted digital usage among women as well, though to a lesser extent than for men. Employment status, however, played a crucial role, with employed women being 8% more likely to use digital financial services. Interestingly, education and income did not yield significant effects for women, although the direction of coefficients suggests similar, albeit weaker, trends. These findings emphasize the importance of promoting digital literacy and employment opportunities among women to bridge the gender gap in digital financial inclusion, while also highlighting the relevance of targeting younger, educated, and married males to expand digital transaction adoption in rural or semi-urban areas like Uttarkashi.

About 9 percent of higher educated male are more likely to do digital transaction as compare to only 3 percent higher educated female with insignificant results indicating a 6 percent of male biased gender gap. The finding suggest that education plays an important role in digital transaction indicating that there is positive relationship with digital transaction for both male and female indicating that as the level of education increases the chances of digital transaction increases (Mishra,2019) and (World Bank, 2017).

Age has shown a negative relation with the digital transaction both for male and female. The result indicates that 28 percent aged male are less likely to do digital transaction as compare to aged female where the result shows for 12 percent women. The finding is inclined toward female biased gender gap of 16 percent which is in contrast to other research that suggests that because of their limited exposure to digital technologies and lower levels of digital literacy, older women may encounter more difficulties (Khera et al., 2021).Among younger generations, there is less of a gender disparity in digital transactions because these women are typically more tech-savvy and receptive to utilizing new financial technologies (Demirgüç-Kunt et al., 2018).

Marital status has shown a positive relation with digital transaction indicating that digital transaction increases with marital status of people. In the significant result of male indicates that about 20 percent of married males are more likely to do digital transaction as compare to only 4 percent married female with insignificant results showing a noticeable gender gap of 16 percent biased towards male. The likelihood of married women using digital financial services is impacted by the limitations they frequently face on their ability to make independent financial decisions. On the other hand, widows or single women might be more independent and thus more involved in online transactions. Marital status and financial behavior interact in a complicated way that varies greatly depending on household dynamics and cultural norms (Chakraborty, 2020).

The relation of income and digital transaction has shown a mixed response, it has shown a positive and negative relationship and for male and female respectively. 5 percent of higher income male are more likely to do digital transaction and 4 percent of higher income female are less likely to do digital transaction. Increased income makes it possible to purchase smartphones and internet access, both of which are necessary for conducting digital transactions. One factor contributing to the gender gap in digital financial inclusion is the general lower income levels of women relative to men. Furthermore, women's digital transaction frequency and type may be influenced by stable income (Global Findex Database, 2017).

Like income, employment has also shown a mixed relationship with digital transaction. It has shown a negative relationship with male and positive relationship with female. In an insignificant result of males, it is indicating that only 1 percent of salaried male are less likely to do digital transactions. However, in a significant statistic of females it is directed that 8 percent of salaried female are more likely to do digital transaction indicating a female biased gender gap. Women in the workforce, especially those in formal industries, are more likely to use digital financial services because they must use bank accounts to receive their salaries and use electronic transaction management. Employment improves financial literacy and familiarity with digital tools in addition to raising income. On the other hand, women who work in informal jobs or are unemployed might not need or have as much access to digital financial services (Allen et al., 2016). These disparities are often compounded by structural barriers such as lower levels of digital infrastructure in rural areas, cultural norms limiting women's financial autonomy, and a lack of targeted financial literacy programs (Demirgüç-Kunt et al., 2018; OECD, 2020).

5.5.5 Gender-Wise Logit Analysis of ATM Transaction Behaviour

The general trend in ATM transactions and gender shows a consistent gender gap, with men using ATMs more frequently and confidently than women, particularly in rural and low-income regions.

Table 5.9: Determinants of ATM Transactions as Measure of Financial Inclusion

	Male		Female	
Variables	**Logit Coefficient**	**Margin dy/dx**	**Logit Coefficient**	**Margin dy/dx**
Education	0.45(0.16) ***	0.09(0.03) ***	0.15 (0.13)	0.03(0.02)
Age	-0.72(0.32) **	-0.14(0.06) **	-0.43(0.33)	-0.08(0.06)
Marital status	0.06(0.49)	0.01(0.95)	-0.29(0.42)	-0.05(0.08)
Income	0.33(0.17) **	0.063(0.03) **	-0.39(0.28)	-0.07(0.05)
Employment	0.22(0.26)	0.04(0.05)	0.65(0.26) **	0.12(0.04)
Wald $\chi 2$	37.19 ***		18.17 **	
Pseudo R^2	0.137		0.080	

Source: After calculation based on primary data, 2022

Note(s): (* significant at 0.10 level, ** significant at 0.05 level, *** significant at 0.01 level)

Table 5.10 explores the demographic determinants of branch-based transactions as a measure of financial inclusion across gender. The analysis of determinants influencing ATM transactions reveals clear gender-based distinctions in the factors contributing to financial inclusion. For male respondents, education, age, and income emerged as significant predictors. Higher education levels significantly increased the likelihood of using ATM services ($p < 0.01$), with each unit increase in education associated with a 9% higher probability of ATM usage. Similarly, income positively influenced male ATM usage ($p < 0.05$), while age had a significant negative effect ($p < 0.05$), indicating that younger males are more inclined to adopt ATM-based transactions. In contrast, among female respondents, only employment status showed a statistically significant and positive association with ATM usage ($p < 0.05$), with employed women being 12%

more likely to engage in ATM transactions. Other variables such as education, age, and income did not show significant effects for women, although trends suggest similar directions. The results indicate that while male ATM usage is more broadly influenced by educational attainment and financial capacity, female usage is predominantly driven by their employment status. These findings underscore the need to improve women's access to employment opportunities as a way to strengthen their engagement with digital and semi-digital financial services like ATMs, particularly in regions with low female financial participation.

In a significant result for male, it is found that 9 percent of higher educated male are more likely to do ATM transactions as compare to only 3 percent of higher educated female with insignificant results. One important factor influencing financial behavior, including ATM usage, is education. Higher educated women are more likely to use ATMs because they have a better understanding of banking technology and are more financially literate (Owuondo, 2023). Women with higher levels of education are also more likely to feel comfortable handling their money on their own, including frequent use of ATMs. In contrast, women with lower levels of education might not have the confidence or skills needed to operate ATMs, which would widen the gender disparity in this field.

Age has shown negative relationship with the ATM transactions both for male and female indicating that as the age increases the chances of ATM transaction decreases. In a significant result of males, it is found that 14 percent of aged male are less likely to do ATM transaction as compare to 8 percent aged women with insignificant result. When it comes to ATM transaction frequency and familiarity, age is a major factor. Compared to older adults, younger people—who are typically more tech-savvy—might feel more at ease using ATMs. However, limited mobility and a lack of financial literacy may still present challenges for young women, especially in conservative or rural environments (Demirgüç-Kunt et al., 2018). Conversely, older women might be less likely to use ATMs because they are less tech-savvy, fear fraud, or rely on male family members for financial activities.

Like digital transaction relationship between marital status and ATM transaction has not shown significant result for both male and female. According to previous studies, the use of ATMs can be strongly influenced by marital status. Married women's personal engagement with financial services is decreased when they depend on their husbands for financial transactions, such as using ATMs, especially in patriarchal societies (Agier & Szafarz, 2013). Women who are widowed, divorced, or single may use ATMs more frequently on their own, but this still relies on their degree of financial autonomy and access to financial resources. This group has a smaller but still noticeable gender gap, which reflects larger societal norms regarding gender and money.

ATM transaction has shown a mixed response with income and employment. ATM transaction is positively and significantly related to income for males, while it has shown negative and insignificant relation for female. 6.3 percent of higher income male are more likely to do ATM transaction as compare to higher income female where 7 percent of higher income female are less likely to do ATM transactions. The necessity and frequency of ATM transactions are directly impacted by income levels. Generally speaking, women make less money than men do, which restricts their financial options and lessens the need for frequent ATM withdrawals. Women who prioritize immediate household expenses over maintaining a bank account with regular ATM access may also have fewer bank accounts and limited access to ATMs as a result of their lower income (Beck et al., 2007). The gender gap in ATM transactions is further exacerbated by this income inequality.

The finding also suggests that 4 percent of salaried males are more likely to do ATM transactions as compare to females where 12 percent of salaried females are more likely to do ATM transactions depicting a female biased gender gap of 8 percent. Another important factor influencing ATM usage is employment status. Because they must manage their finances effectively and have steady incomes, women in the workforce—especially those in formal sectors—are more likely to use ATMs (Allen et al., 2016). Accessing ATMs is more difficult for women in informal employment or the unemployed, frequently because of their limited mobility, inconsistent income, or lack of bank accounts. The gender gap may also be exacerbated by women in low-wage or unstable jobs who may not see the need to use ATMs frequently.

5.5.6 Gender-Wise Logit Analysis of Branch Transaction Behaviour

Generally, men are more active users of branch-based banking services, with greater frequency and diversity in transactions. While financial inclusion schemes have improved women's access to branches, social, economic, and confidence-related barriers still limit their autonomous participation in branch-based banking.

Table 5.10: Determinants of Branch Transactions as Measure of Financial Inclusion

	Male		**Female**	
Variables	**Logit Coefficient**	**Margin dy/dx**	**Logit Coefficient**	**Margin dy/dx**
Education	-0.06(0.27)	-0.01(0.01)	-0.16(0.20)	-0.01(0.01)
Age	0.09(0.60)	0.01(0.03)	0.78(0.56)	0.07(0.05)
Marital status	-0.41(0.95)	-0.02(0.05)	-0.23(0.59)	-0.02(0.05)
Income	-0.30(0.35)	-0.02(0.02)	-0.38(0.49)	-0.03(0.04)
Employment	0.49(0.44)	0.03(0.02)	0.88(0.45) **	0.07(0.04) **
Wald $\chi 2$	5.13		12.64*	
Pseudo R^2	0.06		0.098	

Source: Author’s calculation based on primary data

Note: (* significant at 0.10 level, ** significant at 0.05 level, *** significant at 0.01 level)

Table 5.10 explores the demographic determinants of branch-based transactions as a measure of financial inclusion across gender. The logistic regression analysis reveals a notable gendered divergence in the influence of employment status. For female respondents, employment emerged as a statistically significant predictor (logit coefficient = 0.88, $p < 0.05$), with a marginal effect of 0.07, indicating that employed women are 7% more likely to conduct transactions through a bank branch compared to their non-employed counterparts. In contrast, none of the predictor variables—including education, age, marital status, income, or employment—were statistically significant for male respondents. The pseudo-R^2 value for females (0.098) was slightly higher than that for males (0.06), suggesting a modest but greater explanatory power of the model for women.

This pattern may suggest that for women, formal employment increases interaction with the banking system through branch visits, possibly due to salary deposits or greater financial awareness. For men, however, branch usage does not appear to be strongly influenced by any single demographic factor, indicating either a more uniform access or a broader set of motivators not captured in the model.

The frequency of visits to bank branches, which indicates people's usage of formal financial services, is a crucial indicator of financial inclusion. However, women tend to visit bank branches less frequently than males, indicating a glaring gender gap in this area. This disparity is influenced by a wide range of sociodemographic characteristics, including age, marital status, education, income, and employment position.

Branch visit has shown no significant statistics with any of the variable except employment of females. The education has shown negative and insignificant result for both male and female. Indicating that as the education increases the chances of branch-based transaction decreases as people prefer the digital modes of transaction. One important factor influencing financial behavior, such as how often a person visits a bank branch, is education. Educated women are more likely to know the advantages of dealing with financial institutions on a regular basis, which will result in more frequent branch visits. Education also gives women the self-assurance and information they need to successfully use the banking system, whether it be for loans, savings, or other financial services (Owuondo, 2023). On the other hand, women with lower levels of education might not understand the advantages of visiting banks or might be afraid of the formal banking setting, which would widen the gender gap.

Age has shown a positive but insignificant relationship with branch visit indicating that people prefer branches for services at higher age. It is also supported by our earlier model that with the increase in age choices for digital transaction decreases. The likelihood of visiting a bank branch is strongly influenced by age, with older people usually visiting branches more frequently because they are less accustomed to using digital banking platforms. Nonetheless, women tend to visit bank branches less frequently than men within this demographic. Various factors can be ascribed to this phenomenon, such as diminished financial literacy, heightened dependence on family members for financial supervision, and societal conventions that dissuade women from managing financial affairs on their own (Demirgüç-Kunt et al., 2018). Younger women may still encounter obstacles like lower income and limited mobility, which can limit their need or ability to visit bank branches, even though they are more likely to feel at ease with digital banking.

Marital status has shown negative and insignificant statistics with branch visit. The presence or absence of a spouse significantly influences the frequency of bank branch visits. Married women frequently rely on their husbands for financial transactions, especially in traditional or patriarchal societies, which reduces the number of independent bank branch visits. Married couples frequently have joint accounts, which further lessens the need for women to interact with banks directly. On the other hand, women who are widowed, divorced, or single and need to handle their finances on their own might visit banks more regularly. But even within this group, women might experience issues with time constraints, social norms, and safety that prevent them from using formal banking services as much as they would like (Agier & Szafarz, 2013).

Income too has shown negative and insignificant results showing that at higher income people reduces the manual transaction and opts other methods of transactions like digital or ATM based which is also supported by our earlier models. The frequency of visits to bank branches is directly influenced by income levels. Women typically make less money than men do, which restricts their ability to transact financially and lessens the need for frequent bank branch visits. A lower income is also associated with a lower number of financial products that require in-person branch visits, like loans or savings accounts. Due to women's tendency to prioritize urgent household expenses over routine banking tasks, this income disparity plays a significant role in the gender gap (Beck et al., 2007). Although women with higher incomes are more likely to interact with banks, time, convenience, and social expectations may still be obstacles for them.

Employment has shown positive but insignificant results with branch-based transaction for male and positive and significant statistics for female, indicating that 7 percent of salaried women are more likely to do branch-based transactions as compare to only 3 percent of salaried males resulting in a female biased gender gap. Another important factor affecting how frequently people visit bank branches is their employment status. Due to the necessity of managing salaries, savings, and other financial matters, women in formal employment are more likely to visit bank branches on a regular basis. Women who work in formal employment are more likely to interact with banks because they have greater financial independence and access to a wider range of financial products. On the other hand, women who work in informal jobs or are unemployed have more difficulty accessing banking services. The necessity and frequency of bank branch visits are diminished by irregular income, insufficient financial security, and restricted access to formal banking channels (Allen et al., 2016).

Closing the gender gap in bank branch visits requires targeted interventions that address the underlying sociodemographic determinants. Programs for women-only financial literacy can assist them in realizing the significance of consistent interaction with financial institutions. Enhancing women's access to formal work and income levels must be a top priority for policymakers because these actions can have a favourable effect on their financial independence and bank participation. Furthermore, financial institutions can significantly contribute by fostering more inclusive work environments, granting flexible banking schedules, and offering services tailored to the unique financial requirements of women.

5.5.7 Gender-Wise Logit Analysis of Multiple Account Holding Behaviour

The general trend in multiple account holding and gender reveals that men are more likely than women to hold multiple bank accounts, especially across different financial institutions. Table 5.11 presents the results of a logistic regression analysis identifying the determinants of holding multiple financial accounts, disaggregated by gender. For male respondents, income emerged as a statistically significant predictor (logit coefficient = 0.81, $p < 0.01$), with a marginal effect of 0.13, indicating that higher-income males are 13% more likely to hold multiple accounts. Other variables such as education, age, marital status, and employment status were not statistically significant for males.

Table 5.11: Determinants of Multiple Accounts as Measure of Financial Inclusion				
	Male		**Female**	
Variables	**Logit Coefficient**	**Margin dy/dx**	**Logit Coefficient**	**Margin dy/dx**
Education	0.16(0.16)	0.03(0.03)	0.25(0.35)	0.01(0.01)
Age	-0.22(0.32)	-0.04(0.05)	-0.38(1.05)	-0.01(0.03)
Marital status	0.36(0.53)	0.06(0.09)	-0.68(1.09)	-0.02(0.33)
Income	0.81(0.19) ***	0.13(0.08) ***	2.77(0.86) ***	0.086(0.02)***
Employment	0.07(0.28)	0.01((0.05)	-1.37(0.71) **	-0.04(0.02) **
Wald $\chi 2$	51.17 ***		37.00 ***	
Pseudo R^2	0.196		0.47	

Source: Author's calculation based on primary data

Note: * significant at 0.10 level, ** significant at 0.05 level, *** significant at 0.01 level

In contrast, the female model revealed a more complex pattern. Income was again a highly significant predictor (logit coefficient = 2.77, $p < 0.01$), with a marginal effect of 0.086, showing that higher-income women are 8.6% more likely to have multiple accounts. However, employment status showed a significant negative effect (logit coefficient = -1.37, $p < 0.05$), suggesting that salaried women are 4% less likely to hold multiple accounts than their non-employed counterparts. Other variables such as education, age, and marital status did not significantly influence account multiplicity for females.

Having numerous bank accounts is a key sign of financial inclusion and sophistication in money management. But there's still a big gender difference here, with women less likely than men to have multiple accounts. Numerous sociodemographic factors, such as age, marital status, education, income, and employment status, have an impact on this disparity. In this model the relation between holding multiple accounts and demographic variables indicates that education, age and marital status of respondent are insignificantly related. A major contributing factor to having multiple bank accounts is age. Younger people are less likely to open and maintain multiple accounts because they may have fewer financial responsibilities and less income, especially women. Women may take on more financial responsibilities as they get older, such as handling household budgets or setting aside money for retirement, which could result in a rise in account ownership. However, additional obstacles that older women frequently encounter, like decreased mobility and lower digital literacy, can limit their use of financial services (Demirgüç-Kunt et al., 2018).

The ownership of multiple bank accounts is one financial behavior that is significantly influenced by one's marital status. The need for multiple personal accounts may be reduced for married women by relying on joint accounts shared with their spouses. Married women's ability to make independent financial decisions and maintain multiple accounts may be further restricted by the fact that men typically make the majority of financial decisions in many cultures. However, women who are widowed, divorced, or single may have to handle their money on their own, which may lead to a higher chance of them keeping several accounts to suit various needs (Agier & Szafarz, 2013).

Financial literacy and the capacity to handle a variety of financial products, including bank accounts, are strongly correlated with education. Higher educated women are more likely to recognize the advantages of having several accounts, including access to a variety of financial services and products and diversifying savings. According to Ghosh and Vinod (2017), education also enables women to interact with financial institutions more actively and make wise financial decisions. On the other hand, women with less education might not be as financially literate as men, which would explain why multiple accounts are necessary and contribute to the gender gap.

Income has shown positive relationship with multiple accounts for both male and female representing that 13 percent of higher income male are more likely to hold multiple account as compare to only 8.6 percent of higher income female depicting a male biased gender gap of 4.4 percent. Income levels are a major factor in whether or not someone has several bank accounts. A higher income enables people to manage several accounts—such as savings, investments, and everyday spending accounts—for various objectives. However, women typically make less money than men do, which limits their ability to manage multiple accounts as well as their financial resources. One of the main causes of the gender difference in multiple account holding is this income inequality. According to Beck et al. (2007), women who earn less might put their immediate household needs ahead of opening new accounts, which would widen the disparity.

The result of relationship between employment and multiple account shows mixed response. It has shown positive but insignificant relationship for males and negative but significant relationship with female indicating that 4 percent of salaried women are less likely to have multiple accounts as compare to 1 percent of salaried male are more likely to have multiple accounts. The likelihood of having multiple bank accounts is significantly influenced by one's employment status (Wu et al., 2023). It is more common for women in formal employment, particularly those with higher and more stable incomes, to keep multiple accounts to manage various aspects of their finances, including investments, savings, and salary. In contrast, women who work in informal employment or are unemployed may find it more difficult to keep multiple accounts because of their inconsistent income, lack of stability in their finances, and restricted access to banking services. Multiple account ownership among women can be encouraged by employment in the formal sector, which frequently entails additional financial products like employer-provided savings plans (Allen et al., 2016).

Enhancing access to employment opportunities, promoting income equality, and empowering women through education are critical in closing the gender gap in multiple account holding. Women can benefit from financial literacy programs that focus on teaching them how to manage multiple accounts and the advantages of doing so. The reduction of income inequality and equal access to formal employment for women are important policy initiatives that can greatly improve their financial independence and capacity to participate fully in the financial system.

The Wald chi-square statistic confirms the overall significance of both models (χ^2 = 51.17 for males, χ^2 = 37.00 for females), and the pseudo-R^2 values indicate that the explanatory power is notably stronger in the female model (0.47) compared to the male model (0.196). These findings imply that income plays a decisive role in promoting financial diversification (i.e., holding multiple accounts) for both genders, whereas employment status impacts women differently, possibly due to institutional barriers, time poverty, or lack of trust in financial institutions.

Summary

The findings under this objective have indicated the gender disparities in borrowing from formal financial institution, insurance ownership, saving in formal financial institutions, digital mode for financial transactions, ATM transaction and holding multiple accounts. Employment of male and female plays an important role in borrowing from formal financial institutions. Income and occupation also decide the insurance ownership as there exist disparities between male and female with different income and occupation category. There exists gender gap in saving in formal financial institution and income is the important factor behind it. The gender disparity in digital transaction is decided by age, education, marital status, income and occupation and so is the case with the disparity in ATM transaction. There also exists gender disparity in holding multiple accounts and income of respondents is the deciding factor.

References

Agier, I., & Szafarz, A. (2013). Microfinance and gender: Is there a glass ceiling on loan size? World development, 42, 165-181.

Agier, I., & Szafarz, A. (2013). Subjectivity in credit allocation to micro-entrepreneurs: Evidence from Brazil. Small Business Economics, 41(1), 263-275.

Allen, F., Demirgüç-Kunt, A., Klapper, L., & Peria, M. S. M. (2014). The foundations of financial inclusion: Understanding ownership and use of formal accounts. Journal of Financial Intermediation, 23(2), 199–228.

Ansar, S., Klapper, L., & Singer, D. (2023). The importance of financial education for the effective use of formal financial services. Journal of Financial Literacy and Wellbeing, 1(1), 28-46.

Arun, T., & Kamath, R. (2015). Financial inclusion: Policies and practices. IIMB Management Review, 27(4), 267-287.

Beck, T., Demirgüç-Kunt, A., & Levine, R. (2007). Finance, inequality and the poor. Journal of Economic Growth, 12(1), 27–49.

Bhat, A. A., & Mishra, R. K. (2021). Demographic characteristics and residents' attitude towards tourism development: A case of Kashmir region. Journal of Public Affairs, 21(2), e2179.

Chakraborty, G. (2020). A critical commentary on the proposals to reform India's financial system in its 2019–20 union budget. Journal of Public Affairs, 20(3), e2107.

Chowa, G. A., & Despard, M. R. (2014). The influence of parental financial socialization on youth's financial behaviour: Evidence from Ghana. Journal of family and economic issues, 35(3), 376-389.

Chowa, G. A., Despard, M. R., & Osei-Akoto, I. (2012). Youth saving patterns and performance in Ghana.

Cole, S., Sampson, T., & Zia, B. (2011). Prices or knowledge? What drives demand for financial services in emerging markets? The journal of finance, 66(6), 1933-1967.

Demirgüç-Kunt, A., Ansar, S., Hess, J., Klapper, L., & Singer, D. (2018). The little data book on financial inclusion. World Bank.

Fitzpatrick, A., Magnoni, B., & Thornton, R. L. (2011). Microinsurance utilization in Nicaragua: A report on effects on children, retention, and health.

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Partial least squares structural equation modelling: Rigorous applications, better results and higher acceptance. Long range planning, 46(1-2), 1-12.

Khera, P., Ogawa, M. S., & Sahay, M. R. (2021). Is digital financial inclusion unlocking growth? International Monetary Fund.

Kim, N. (2015). Tests based on skewness and kurtosis for multivariate normality. Communications for Statistical Applications and Methods, 22(4), 361-375.

Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. American Economic Journal: Journal of Economic Literature, 52(1), 5-44.

Mahdzan, N. S., & Victorian, S. M. P. (2013). The determinants of life insurance demand: A focus on saving motives and financial literacy. Asian social science, 9(5), 274.

Mishra, D. (2019). Financial Inclusion in Odisha: Issues and Challenges. The Research Journal of Social Sciences, 10(5), 345-350.

OECD. (2018). Bridging the digital gender divide: Include, upskill, innovate. Organisation for Economic Co-operation and Development. https://www.oecd.org/digital/bridging-the-digital-gender-divide.pdf

Owuondo, J. (2023). Fostering financial inclusion and education access in the global south: collaborative stratagem. Available at SSRN 4585295.

Özşuca, E. A. (2019). Gender gap in financial inclusion: Evidence from MENA. Economics and Business Letters, 8(4), 199-208.

Pahlevan Sharif, S., Naghavi, N., Waheed, H., & Ehigiamusoe, K. U. (2023). The role of education in filling the gender gap in financial inclusion in low-income economies. International Journal of Emerging Markets, 18(12), 5755-5777.

Piras, C., Presbitero, A., & Rabellotti, R. (2013). Definitions matter: measuring gender gaps in firms' access to credit.

Raccanello, K., Anand, J., & Arroyo Martínez, P. (2009). Social Capital as an Incentive for Participation and Formation of Women-dominant ROSCA. In Economic development, integration, and morality in Asia and the Americas (pp. 407-429). Emerald Group Publishing Limited.

Sahay, M. R., Cihak, M., N'Diaye, M. P., Barajas, M. A., Mitra, M. S., Kyobe, M. A., ... & Yousefi, M. R. (2015). Financial inclusion: can it meet multiple macroeconomic goals? International Monetary Fund.

Seguino, S., & Were, M. (2014). Gender, development and economic growth in Sub-Saharan Africa. Journal of African Economies, 23(suppl_1), i18-i61.

Sioson, E. P. (2019). Closing the gender gap in financial inclusion through Fintech.

Swamy, V. (2014). Financial inclusion, gender dimension, and economic impact on poor households. World Development, 56, 1–15. https://doi.org/10.1016/j.worlddev.2013.10.019

World Bank. (2022). Global Findex database. https://globalfindex.worldbank.org/

Wu, W., Hon-Wei, L., Yang, S., Muda, I., & Xu, Z. (2023). Nexus between financial inclusion, workers' remittances, and unemployment rate in Asian economies. *Humanities and Social Sciences Communications*, *10*(1), 1-10.

CHAPTER VI

BARRIERS TO WOMEN ECONOMIC EMPOWERMENT AND FINANCIAL WELLBEING

6.1 Introduction

This chapter provides a thorough examination and explanation of the information gathered to examine the barrier to women financial well-being and economic empowerment in Uttarkashi district. The chapter begins with a normality assessment to ensure that the data meet the assumptions required for applying parametric statistical techniques. Following this, a profile of respondents is developed, highlighting their socio-demographic characteristics such as gender, age, education, marital status, income, and employment status. To identify the underlying components of economic empowerment and financial well-being, exploratory factor analysis (EFA) is conducted, helping to structure complex constructs into measurable dimensions. The chapter further explores the correlation between economic empowerment, financial well-being, and key demographic attributes, offering insights into the interrelationships among these variables. Finally, multiple regression analysis is employed to determine the extent to which education, age, marital status, income, and employment influence financial well-being and economic empowerment. Since parametric tests are predicated on the premise that data is normal, many statistical tests require it. Two statistical variables, skewness and kurtosis, are used to assess the maximum deviation from normalcy (Hair et al. 2011). According to Kim et al. (2015), and Bhat and Mishra (2021), the acceptable range for skewness and kurtosis is -3 to +3. According to the current analysis, skewness and kurtosis lie between -3 and +3.

6.2 Assessment of Economic Empowerment and Financial Wellbeing Post Financial Inclusion

Table 6.1 provides an assessment of how respondents perceive improvements in key dimensions of economic empowerment—such as income, savings, asset ownership, mobility, financial literacy, and household decision-making—following their inclusion in formal financial systems. Each item was rated on a five-point Likert scale from Strongly Disagree to Strongly Agree, and the data reveals a clear trend of positive perception among respondents.

Table 6.1: Assessment of Economic Empowerment Post Financial Inclusion

Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean
Improvement in income after financial inclusion	5.2%	3.6%	2.1%	38.9%	50.3%	4.25
Improvement in saving after financial inclusion	6.2%	2.6%	2.6%	47.2%	41.5%	4.15
Improvement in personal assets after financial inclusion	5.7%	4.7%	1.0%	48.2%	40.4%	4.13
Improvement in mobility from home after financial inclusion	5.2%	5.7%	1.6%	46.1%	41.5%	4.13
Improvement in financial skill and knowledge after financial inclusion	3.6%	3.6%	4.7%	42.5%	45.6%	4.23
Improvement in household decision making after financial inclusion	3.6%	3.6%	3.6%	43.5%	45.6%	4.24

Source: Author's calculation based on primary data

The highest level of agreement was observed for (Improvement in income), where 89.2% of respondents agreed or strongly agreed, yielding a mean score of 4.25. This indicates that a substantial proportion of individuals perceive a positive shift in their income levels as a result of financial inclusion. Similarly, high agreement levels were recorded for (Improvement in financial skills and knowledge) and (Improvement in household decision-making), with mean scores of 4.23 and 4.24 respectively, reflecting enhanced financial capability and agency within the household. Items (improvement in saving), (improvement in personal assets), and (improvement in mobility from home) also showed strong agreement, with mean scores above 4.1, suggesting that financial inclusion has contributed to broader aspects of economic empowerment, including asset accumulation and increased physical and social mobility. The proportion of respondents selecting Disagree or Strongly Disagree across all items remained low (ranging from 3.6% to 6.2%), while neutral responses were minimal, further reinforcing the clarity and strength of the positive perceptions. The consistently high mean scores across all six items and the dominant agreement responses indicate that financial inclusion is perceived to have had a considerable and multi-dimensional optimistic influence on economic empowerment among the participants. These results provide credence to the idea that having access to and involvement in formal financial institutions might improve people's financial status, sense of independence, and self-assurance in handling their own and their families' money.

Table 6.2: Assessment of Financial Wellbeing Post Financial Inclusion

Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean
Able to fulfil family financial commitment	30.1%	39.9%	16.1%	10.4%	3.6%	2.18
Able to generate income by accessing required finance	17.6%	48.2%	24.4%	9.8%	0%	2.26
Current financial condition is good	29.0%	39.4%	21.8%	8.3%	1.6%	2.14
Confident about financial condition for next 12 months	36.8%	36.8%	14.5%	10.9%	1%	2.03
Practicing saving to cover unexpected expenditure	36.3%	43.0%	14.0%	5.2%	1.6%	1.93

Source: Author's calculation based on primary data

Table 6.2 illustrates respondents' perceptions regarding their financial wellbeing after gaining access to financial inclusion services, measured across various dimensions such as income generation, financial confidence, and saving behaviour. The responses indicate a generally low level of perceived financial well-being among participants, despite their access to financial services. Across all five items, a majority of respondents reported disagreement with positive statements about their financial condition. For instance, (Ability to fulfil family financial commitments) shows that 70% of respondents either strongly disagreed or disagreed, resulting in a low mean score of 2.18. Similarly, (Ability to generate income by accessing required finance) recorded the highest disagreement level at 65.8%, with a mean score of 2.26. Other items reflected similar patterns. For (Current financial condition is good), 68.4% disagreed, and (Confidence in financial condition over the next 12 months) saw a combined 73.6% of respondents indicating disagreement, with a mean of 2.03. The lowest mean was found in (Practicing saving for unexpected expenses), at 1.93, where 79.3% disagreed or strongly disagreed. Neutral responses ranged between 14% and 24%, suggesting that a minority of respondents remained uncertain or ambivalent about their financial well-being. Importantly, agreement and strong agreement responses were very limited, rarely exceeding 10%, highlighting a widespread sense of financial vulnerability and lack of preparedness. These findings suggest that despite access to financial services, a significant portion of the population continues to experience low financial confidence, limited savings capacity, and challenges in meeting basic financial obligations. This points to the gap between financial inclusion and financial well-being, emphasizing that mere access to financial tools may not translate into improved financial outcomes without corresponding financial literacy, income opportunities, and economic support systems.

6.3 Exploratory Factor Analysis of Economic Empowerment and Financial Well-being Among Women

A statistical method called factor analysis divides a collection of observed variables into latent constructs or factors according to their intercorrelations in order to reveal the underlying structure of the data.

Table 6.3: Factor Structure of Economic Empowerment and Financial Wellbeing Constructs				
Items	**Factor loading**	**Eigenvalue**	**Variance Explained**	**Cumulative Variance Explained**
Improvement in household decision making after financial inclusion	0.894	5.461	42.5	42.5
Improvement in mobility from home after financial inclusion	0.886			
Improvement in financial skill and knowledge after financial inclusion	0.885			
Improvement in personal assets after financial inclusion	0.864			
Improvement in income after financial inclusion	0.861			
Improvement in saving after financial inclusion	0.853			
Confident about financial condition for next 12 months	0.888	3.030	34.7	77.2
Practicing saving to cover unexpected expenditure	0.882			
Current financial condition is good	0.872			
Able to fulfil family financial commitment	0.854			
Able to generate income by accessing required finance	0.824			

Source: Author's calculation based on primary data
Note: KMO-0.901, Bartlett's test of sphericity (Significance level)-0.000

In this study, exploratory factor analysis (EFA) was conducted to validate the dimensionality of key constructs such as economic empowerment and financial well-being. The primary goal was to determine whether the items designed to measure these constructs loaded onto distinct factors, thereby confirming their construct validity. Items with factor loadings above 0.80 were retained, indicating a strong association with their respective factors. The strength and explanatory power of each factor were evaluated using criteria such as eigenvalues larger than 1 and the percentage of variance explained. The cumulative variance explained by the extracted factors exceeded the acceptable threshold of 60 percent (Hair et al. 2013), indicating that the selected items effectively captured the underlying dimensions of the constructs. Overall, the factor analysis confirmed that the measurement instruments were both reliable and valid for the purposes of this research. Table 6.5 provides the factor analysis results using principal component analysis (PCA) of perceived financial wellbeing (FWB) and economic empowerment (EE) resulted in KMO (0.901) and significant Bartlett's test of sphericity. The KMO measure of sampling adequacy was 0.901 which is labelled marvellous by Kaiser (1974). These two values show the sufficiency of data matrix for factor analysis. Therefore, all the 11 items for two dimensions were appropriate for factor analysis. The dimensions are economic empowerment (EE) and financial well-being (FWB) each loaded with six and five items respectively.

The exploratory factor analysis (EFA) revealed two distinct factors representing Economic Empowerment (EE) and Financial Well-Being (FWB). The six items under Economic Empowerment loaded strongly on a single factor, with factor loadings ranging from 0.853 to 0.894. This factor had an eigenvalue of 5.461 and explained 42.5% of the total variance. Similarly, the five items measuring Financial Well-Being also demonstrated strong factor loadings between 0.824 and 0.888, contributing an eigenvalue of 3.030 and explaining an additional 34.7% of the variance. A robust factorial structure and the convergent validity of the constructs were confirmed by the cumulative variance explained by both factors, which came to 77.2%. All factor loadings showed strong item reliability and construct consistency, above the suggested cutoff of 0.70.

6.4 Correlation Between Economic Empowerment, Financial Wellbeing, and Demographic Attributes

The association between the variables is illustrated in the correlation matrix displayed in Table 6.6. there is negative and insignificant correlation between education and economic empowerment of women. This correlation data explores how certain demographic factors—such as education, age, marital status, income, and employment—relate to economic empowerment and financial well-being. By examining each attribute's association with these two outcomes, we can interpret how strongly and in what direction these factors are related, as well as what this means for policy or intervention design to improve economic conditions.

Table 6.4: Correlation Between Demographic Attributes, Economic Empowerment, and Financial Wellbeing

Demographic attributes	Economic empowerment	Financial well-being
Education	-0.070	0.337**
Age	0.034	0.111*
Marital status	0.067	0.022
Income	0.096*	0.800**
Employment	0.035	0.536**

Source: Author's calculation based on primary data

Note: **Correlation is significant at the 0.01 level (2 tailed), *Correlation is significant at the 0.05 level (2 tailed)

Education shows a weak negative correlation with economic empowerment, which is somewhat surprising as education is often expected to enhance empowerment. This weak correlation may hint at a gap between educational attainment and access to empowering economic opportunities, possibly due to mismatches between education and local employment markets. Education and financial well-being have a favourable, substantial, and high association ($p<0.01$). This finding aligns with broader research that links higher education levels to better financial outcomes. Education may contribute to financial literacy, better employment prospects, and thus financial well-being, highlighting the role of educational policies in fostering financial security. Age has a minimal positive correlation with economic empowerment, suggesting that older individuals may experience slight gains in empowerment, potentially due to accumulated life experience or established networks. Financial well-being and economic empowerment have a stronger positive link, which is statistically significant at $p<0.05$. This could indicate that financial stability generally improves with age, possibly due to accumulated assets or career progressions, supporting the notion that age may bring about greater financial stability. Marital status is positively but weakly correlated with economic empowerment, implying that married individuals might have slightly more resources or networks that enhance empowerment. However, the effect is minor and not statistically significant. Similarly, marital status has a very low positive correlation with financial well-being, indicating that marriage itself does not significantly influence financial stability or satisfaction, though combined incomes or shared assets in married households might be beneficial. Income positively correlates with economic empowerment at a statistically significant level ($p<0.05$), highlighting that higher incomes are likely to afford individuals greater autonomy and ability to make economic decisions, as expected. Financial well-being and income had the strongest positive association, which is significant at $p<0.01$. This strong relationship underscores income as a primary driver of financial stability and satisfaction, supporting initiatives aimed at increasing earnings as a direct way to enhance financial well-being. Employment has a very weak positive correlation with economic empowerment, suggesting that mere employment might not be enough to empower economically unless accompanied by decent wages and job quality. The positive and significant correlation ($p<0.01$) between employment and financial well-being implies that employment status is highly relevant for financial stability. However, it indicates that while employment contributes significantly to financial well-being, economic empowerment may require additional factors beyond mere job access.

6.5 Empirical Assessment of Influencing Factors Using Multiple Linear Regression

Multiple regression has been conducted to test the relationship among female demographic attributes financial wellbeing and economic empowerment of female.

$$\mathbf{FWB} = \boldsymbol{\beta}\mathbf{0} + \boldsymbol{\beta}\mathbf{1Education} + \boldsymbol{\beta}\mathbf{2Age} + \boldsymbol{\beta}\mathbf{3Marital\ status} + \boldsymbol{\beta}\mathbf{4Incom} + \boldsymbol{\beta}\mathbf{5Employment}$$

$$\mathbf{EE} = \boldsymbol{\beta}\mathbf{0} + \boldsymbol{\beta}\mathbf{1Education} + \boldsymbol{\beta}\mathbf{2Age} + \boldsymbol{\beta}\mathbf{3Marital\ status} + \boldsymbol{\beta}\mathbf{4Income} + \boldsymbol{\beta}\mathbf{5Employment}$$

In the above two regression models the demographic attributes were treated as independent variables and financial wellbeing (FWB) and economic empowerment (EE) as dependent variables. To examine the connection between female demographic traits and reported financial well-being, the first regression model was run. The second regression model was conducted to test the relationship between female demographic characteristics and perceived Economic empowerment. The impact of demographic attributes like age, education, marital status, income and occupation of women has been examined to find the barrier to the financial wellbeing and economic empowerment. The impact differs by their demographic attributes. The result of the model shows the demographic characteristics of women have on their perceived financial wellbeing and economic empowerment acting as a barrier to the dependent variables.

Table 6.5: Determinants of Economic Empowerment and Financial Wellbeing

Dependent Variables →	**Financial Wellbeing**	**Economic Empowerment**
Independent Variables ↓	**Beta and Significance**	
Education	0.17****	0.30****
Age	0.31****	0.35****
Marital status	-0.12***	0.02****
Income	0.26****	0.16****
Employment	0.30****	0.28****
Model Summary Statistics		
R-squared	0.507	0.583
Adjusted R square	0.491	0.570
F- statistics	31.68****	43.145****

Source: Author's calculation based on primary data

Note: *p>.10; **p<.10; ***p<.05; ****p<.001

Financial well-being is somewhat positively impacted by education. This positive and highly significant relationship advocates that higher education levels contribute to improved financial outcomes, possibly through better-paying job opportunities, financial literacy, and resource management skills. Effect of education on economic empowerment is stronger than on financial well-being. This indicates that higher education can lead to greater autonomy, decision-making power, and control over resources. Education likely enhances empowerment by providing knowledge and skills that facilitate personal agency in economic matters. Female having higher education perceived to be more economically empowered than women having less education (Muhammad et al. 2021) and as per the Riaz and Pervaiz (2018) educated women are more likely to participate in decision making regarding their household purchases. Financial well-being is significantly positively impacted by age, indicating that older people are more financially stable, possibly as a result of accumulated assets, long-standing employment, or better financial habits throughout time. The effect of age on economic empowerment is even stronger, indicating that as individuals grow older, they may gain increased control and autonomy in economic decisions. This could be due to greater experience, confidence, and social capital acquired with age. Female at elder age is more likely to be in good financial wellbeing as compared to younger age (Prakash et al. 2021), Shankar et al. 2022). However, as per the study of Delafrooz and Paim, (2011) age in not significantly effects financial satisfaction. The negative correlation between financial well-being and marital status implies that having a spouse or being married may marginally lower financial well-being after adjusting for other variables. This could be due to the financial pressures associated with marriage, such as increased household expenses or the potential burden of supporting a larger family. Marital status has a very weak but statistically significant positive effect on economic empowerment, implying a minimal increase in empowerment among married individuals. While not very influential, it could reflect shared responsibilities or resources within partnerships that contribute slightly to empowerment. Income has a significant positive impact on financial well-being, confirming that greater incomes are essential for both financial security and contentment. These finding highlights income as a primary factor contributing to financial health. Income also positively influences economic empowerment, though to a slightly lesser extent than financial well-being. Higher income likely provides individuals with more freedom to make independent financial decisions, though empowerment can also depend on non-financial factors. Female with higher income have good financial wellbeing and are more economic empowered. Financial position satisfaction is better among those with higher incomes (Delafrooz and Paim, 2011; Sabari and Falahati, 2013). Financial well-being is strongly and significantly positively correlated with employment, indicating that employment status (likely representing job quality, security, and income) is central to financial health. Employment also strongly influences economic empowerment, suggesting that employed individuals experience a greater sense of control and autonomy in their economic lives. Quality employment may enhance empowerment by offering stability, benefits, and social connections. Female with stable employment is more likely to have good financial wellbeing and are more economically empowered. Employment gives them a source of income that improves their control over resources and lessens their dependency (Batool et al., 2017), Muhammad et al. (2020). Employment of women has been found positively significant with the participation in decision making (Riaz and Pervaiz, 2018)

The R^2 value indicates that approximately 50.7% of the variance in financial well-being is explained by the model, suggesting a strong fit. The adjusted R^2, which accounts for the number of predictors, is 0.491, reflecting a robust model. The model appears to be statistically significant based on the strong F-statistic (31.68). The same is for economic empowerment, this model explains around 58.3% of the variance in economic empowerment, suggesting it is a good fit as well. The adjusted R^2 of 0.570 supports this, and the high F-statistic (43.145) indicates statistical significance.

The findings underscore the strong influence of age, employment, education, and income on both financial well-being and economic empowerment, with marital status showing a nuanced relationship. Notably, education and employment stand out as key drivers of empowerment, while income and age are particularly influential for financial well-being. These insights suggest that policies aimed at enhancing financial well-being and empowerment could focus on improving access to education and quality employment while addressing income growth, especially for younger populations and those from less financially stable backgrounds.

The findings of a 2019 study by Bhatia and Singh on India's premier financial inclusion program, PMJDY, demonstrated that financial inclusion positively affects the social, political, and economic facets of women's empowerment. Due to poorer income, education, and employment position, the study by Aterido et al. (2013) reveals that there is a gender gap in financial inclusion in sub-Saharan Africa. Financial inclusion will empower women, according to a 2018 study by Shetty and Hans. A 2019 study by Goel and Madan also noted that financial inclusion will improve women's entrepreneurial character. According to Shetty and Hans's (2018) study, one of the biggest obstacles to financial inclusion in Indian society is the devaluation of women's status, as women contribute equally to the economy but have comparatively fewer decision-making rights than men. According to the findings of a study by Mndolwa and Alhassan (2020), women's over-reliance on men and lower levels of education and income are the main causes of the gender gap in financial inclusion in areas like formal savings, formal accounts, and mobile accounts.

Summary

This chapter analysed the barriers to women’s financial well-being and economic empowerment in the Uttarkashi district using empirical methods. Normality tests confirmed the suitability of the data for parametric analysis. Descriptive results showed that although financial inclusion has contributed positively to economic empowerment indicators such as income, savings, asset ownership, and decision-making, its impact on financial well-being remains limited. Exploratory Factor Analysis validated two reliable constructs: Economic Empowerment and Financial Well-Being. Correlation analysis revealed strong associations between income, employment, and financial well-being, while education showed mixed effects. Regression results confirmed that education, age, income, and employment significantly influence both outcomes. Overall, the findings highlight a gap between access to financial services and actual financial well-being, emphasizing the need for income stability and targeted financial capability interventions.

References

Batool, S. A., Batool, S. S., & Ahmed, H. K. (2017). Socio-Demographic Determinants of Economic Empowerment of Women. Pakistan Journal of Women's Studies: Alam-e-Niswan, 24(1).

Bhatia, S., & Singh, S. (2019). Empowering women through financial inclusion: A study of urban slum. Vikalpa, 44(4), 182-197.

Delafrooz, N., & Paim, L. H. (2013). Role of financial stress on relationship between financial problem and financial wellness among Malaysian workers. African Journal of Business Management, 7(20), 1966–1972.

Goel, N., & Madan, P. (2019). Benchmarking financial inclusion for women entrepreneurship–a study of Uttarakhand state of India. Benchmarking: An International Journal, 26(1), 160-175.

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. Long range planning, 46(1-2), 1-12.

Kim, N. (2015). Tests based on skewness and kurtosis for multivariate normality. Communications for Statistical Applications and Methods, 22(4), 361-375.

Kumar, P., & Shankar, I. (2011). Education and women empowerment in India.

Mndolwa, F. D., & Alhassan, A. L. (2020). Gender disparities in financial inclusion: Insights from Tanzania. African Development Review, 32(4), 578-590.

Muhammad, F., Bano, K., Muhammad, K., & Baig, T. (2021). Women empowerment in Pakistan: assessing the socio-economic determinants. Studies of Applied Economics, 39(3).

Prakash, N., Alagarsamy, S., & Hawaldar, A. (2022). Demographic characteristics influencing financial wellbeing: a multigroup analysis. Managerial Finance, 48(9/10), 1334-1351.

Riaz, S., & Pervaiz, Z. (2018). The impact of women’s education and employment on their empowerment: Empirical evidence from household level survey. Quality & Quantity, 52(6), 2855-2870.

Sabri, M. F., & Falahati, L. (2012). Estimating a model of subjective financial well-being among college students. International Journal of Humanities and Social Science, 2(18), 191–199.

Shankar, N., Vinod, S., & Kamath, R. (2022). Financial well-being–A Generation Z perspective using a Structural Equation Modeling approach. Investment Management & Financial Innovations, 19(1), 32.

Shetty, S., & Hans, V. (2018). Women empowerment in India and financial inclusion barriers. International Journal of Management Sociology and Humanities, 9(3), 1–7.

CHAPTER VII

SUMMARY OF FINDINGS, IMPLICATIONS, RECOMMENDATIONS, AND CONCLUSION

7.1 Introduction

This final chapter presents a comprehensive overview and reflection on the study by summarizing the key components, highlighting the major findings, and discussing their broader relevance. It starts with a succinct overview of the goals, methods, and analytical techniques utilized to investigate financial inclusion and financial well-being in Uttarkashi district from a gender perspective. The chapter then outlines the major findings, emphasizing significant patterns and relationships observed between socio-demographic variables and the constructs of financial well-being and economic empowerment. The study's ramifications, which are examined at the theoretical, practical, and policy levels, are informed by these findings. Recommendations are made for stakeholders, including legislators, financial institutions, and community organizations, to improve inclusive financial practices in light of the insights gathered. The chapter also critically reflects on the limitations of the study, acknowledging methodological and contextual constraints. Finally, it identifies potential scope for future research, suggesting areas for further exploration to build upon the current study, before concluding with a synthesis of the overall contributions and significance of the research.

7.2 Summary

The goal of the current study is to find out how financially included men and women are, as well as how this affects their perceived economic empowerment and financial well-being. Recognizing that access to financial services alone may not lead to equitable financial outcomes, especially in rural and hilly regions like Uttarkashi, this study examined the gender-specific patterns and outcomes of financial inclusion. An attempt is made to find out the evidence for (a) To explore the effect of policies of financial inclusion on women financial well-being, (b) To measure the gender gap in the context of financial inclusion and (c) To examine the role of woman’s economic empowerment and financial well-being and the barrier thereof.

The study has been conducted using a quantitative research design, and primary data collected from 400 respondents proportionately distributed to all over the Uttarkashi district among six administrative blocks. A questionnaire has been prepared to achieve the above-mentioned objectives. Primary data on a five-point Likert scale was gathered from the study region using multistage proportional random sampling. SPSS software has been used to code quantitative data and conduct preliminary screening. Additionally, STATA and clever PLS software have been used to examine the theories that have been put out. The first goal is to investigate how financial inclusion policies affect women's financial well-being. To this end, PLS-SEM has been used to examine how financial inclusion affects women's financial well-being. This model has also identified financial literacy, access, usage, affordability, and availability of financial services as key factors that influence financial inclusion. The second objective; To measure the gender gap in the context of financial inclusion has used logit model to identify gender disparities in financial inclusion indicated by borrowing, insurance, saving, digital transactions, ATM transactions, branch-based transactions and holding multiple accounts. The third objective; To examine the role of woman’s economic empowerment and financial well-being and the barrier thereof has been achieved using regression analysis keeping economic empowerment and financial wellbeing as dependent variable and demographic attributes like age, marital status, income, social category, occupation and education as independent variables.

Descriptive statistics were used to compile the respondents' financial and demographic details in order to identify the underlying trends. The associations between outcome factors and measures of financial inclusion were investigated using correlation analysis. Data normality was tested to ensure statistical reliability. The analysis was also conducted from a gender-disaggregated perspective, enabling comparison between male and female respondents across all key indicators.

This study provides understanding of how financial inclusion manifests across gender lines and highlights the extent to which it contributes to improving the financial conditions and empowerment of individuals, particularly women, in rural Uttarkashi. The study highlighted the differences based on demographic characteristics and offered insight into the factors influencing financial inclusion. Researchers, legislators, financial institutions, and development professionals working to advance gender-equitable financial inclusion found this information to be a useful resource. strategy for financial inclusion and inclusive growth.

7.3 Major Findings

The study aimed to explore gender-based differences in financial inclusion and its impact on women financial well-being and economic empowerment. The major findings are summarized below:

- Gender showed a significant negative correlation with most inclusion indicators, reflecting lower financial participation by females.
- Respondents perceived improvements in income, savings, mobility, and financial decision-making after accessing financial services.
- Mean scores for all six economic empowerment items were above 4 on a 5-point scale, indicating strong perceived improvement, especially in income (M = 4.25) and financial knowledge (M = 4.23).
- Despite access to financial services, the financial well-being of respondents was low overall.
- Majority disagreed with statements about being able to meet financial commitments or save for emergencies.
- Mean scores for financial well-being items ranged from 1.93 to 2.26, indicating dissatisfaction and financial insecurity.
- Among the financial inclusion aspects, accessibility was found to be a greater predictor of financial inclusion for females in Uttarkashi district, according to the standardized regression path coefficient and its significant level.

- It is indicating that accessibility is most important determinant of financial inclusion for female. Though other dimensions are also important but accessibility has taken the precedence role over all other factors in context of female financial inclusion.
- The second most important factor influencing financial inclusion for women is the use of financial services.
- Affordability is another important dimension that has significantly determined financial inclusion of female.
- Financial inclusion is also found to be significantly influenced by the financial literacy dimension.
- Availability found insignificant determinant of financial inclusion. It indicates that presence of field worker, business correspondents, and branch staff are not making much difference in making available such services.
- This study also indicated that women's financial wellbeing is significantly impacted by financial inclusion and involving female in financial inclusion will effectively improve their financial wellbeing further impacting their family finance, their own financial conditions and generating income.
- Employment has shown statistically significant result for male indicating that 8 percent of salaried male are more likely to borrow from formal financial institution as compare to only 3 percent salaried women with insignificant results indicating male biased gender gap of 5 percent.
- Income has shown statistically significant result results for male indicating that 17 percent of male in higher income group are more likely to have insurance ownership as compare to only 2 percent female in higher income group with insignificant result indicating a 15 percent male biased gender gap.
- Employment is also playing an important role for women in insurance ownership indicating 9 percent salaried women are more likely to have an insurance as compare to only 3 percent male with insignificant result indicating a female biased gender gap of 6 percent in insurance ownership, contradicting with the theoretical expectation that were formulated before conducting the research.

- Income is a significant determinant of saving for both male and female indicating that 19 percent of higher income males are more likely to do saving in formal financial institutions as compare to 18 percent of higher income female.
- About 9 percent of higher educated male are more likely to do digital transaction as compare to only 3 percent higher educated female with insignificant results indicating a 6 percent of male biased gender gap.
- Age has shown a negative relation with the digital transaction both for male and female. The result indicates that 28 percent aged male are less likely to do digital transaction as compare to aged female where the result shows for 12 percent women.
- Marital status has shown a positive relation with digital transaction indicating that digital transaction increases with marital status of people. In the significant result of male indicates that about 20 percent of married males are more likely to do digital transaction as compare to only 4 percent married female with insignificant results showing a noticeable gender gap of 16 percent biased towards male.
- The relation of income and digital transaction has shown a mixed response, it has shown a positive and negative relationship and for male and female respectively. 5 percent of higher income male are more likely to do digital transaction and 4 percent of higher income female are less likely to do digital transaction.
- Like income, employment has also shown a mixed relationship with digital transaction. It has shown a negative relationship with male and positive relationship with female. In an insignificant result of males, it is indicating that only 1 percent of salaried male are less likely to do digital transactions. However, in a significant statistic of females it is directed that 8 percent of salaried female are more likely to do digital transaction indicating a female biased gender gap.

- In a significant result for male, it is found that 9 percent of higher educated male are more likely to do ATM transactions as compare to only 3 percent of higher educated female with insignificant results.
- Age has shown negative relationship with the ATM transactions both for male and female indicating that as the age increases the chances of ATM transaction decreases. In a significant result of males, it is found that 14 percent of aged male are less likely to do ATM transaction as compare to 8 percent aged women with insignificant result.
- ATM transaction has shown a mixed response with income and employment. ATM transaction is positively and significantly related to income for males, while it has shown negative and insignificant relation for female. 6.3 percent of higher income male are more likely to do ATM transaction as compare to higher income female where 7 percent of higher income female are less likely to do ATM transactions.
- The finding also suggests that 4 percent of salaried males are more likely to do ATM transactions as compare to females where 12 percent of salaried females are more likely to do ATM transactions depicting a female biased gender gap of 8 percent.
- Income has shown positive relationship with multiple accounts for both male and female representing that 13 percent of higher income male are more likely to hold multiple account as compare to only 8.6 percent of higher income female depicting a male biased gender gap of 4.4 percent.
- The result of relationship between employment and multiple account shows mixed response. It has shown positive but insignificant relationship for males and negative but significant relationship with female indicating that 4 percent of salaried women are less likely to have multiple accounts as compare to 1 percent of salaried male are more likely to have multiple accounts.
- Education attainment was observed as a positive predictor of female financial wellbeing and economic empowerment.
- Age was observed as a robust positive predictor of female financial wellbeing and economic empowerment.

- Level of income has been observed as a significant positive predictor of female financial wellbeing and economic empowerment.
- Employment was observed as a robust positive predictor for female financial wellbeing and economic empowerment.

7.4 Policy Implications

By emphasizing significant factors that influence financial inclusion and its impact on financial well-being, gender gap in financial inclusion and barriers to women economic empowerment and financial wellbeing, the study offers policymakers useful insights:

- **Improving Accessibility:** One important factor influencing financial inclusion is accessibility. Expanding digital infrastructure, enhancing internet and mobile connectivity, and guaranteeing fair financial service distribution in underserved and rural areas should be the main priorities of policy maker
- **Encouraging Affordability:** Financial inclusion depends on affordability. To lower transaction costs, account maintenance fees, and other cost-related obstacles that discourage low-income people, governments and regulators should collaborate with financial institutions.
- **Promoting Usage:** Regulations ought to encourage the consistent use of financial services. constant use of financial systems could be promoted by offering incentives like interest subsidies, prizes for constant saving, or lower loan rates for open accounts.
- **Enhancing Financial Literacy Programs:** Financial literacy programs should include more than just information transfer because of the irrational inverse relationship between financial inclusion and financial literacy. Along with teaching useful applications and offering advice on safe financial habits, programs should also address trust in financial systems.
- **Income-Based Financial Inclusion Policies:** Policies that support financial inclusion among low-income groups are necessary due to the substantial association between income and financial habits (such as borrowing, saving, and having numerous accounts). These gaps might be filled by providing incentives for account maintenance or subsidized financial services.

- **Gender-Inclusive Financial Frameworks:** Women's lack of control over their funds or employment limitations are two examples of obstacles that policymakers should overcome when implementing financial services. These gaps can be filled in part by initiatives like the Women's Financial Empowerment Funds.
- **Digitization and Infrastructure Development:** Because digital and ATM transactions are so important, there needs to be a strong investment made in digital banking infrastructure, particularly in underserved or rural areas.
- **Investments in Education:** As a long-term approach to financial and economic empowerment, policymakers ought to give priority to education. To optimize its impact, this means making higher education more accessible and aligning curricula with industry demands.
- **Employment Policies:** Because employment has a significant impact on results, it is crucial to provide high-quality jobs. Reducing unemployment should be the main goal of policy.
- **Creating Inclusive Products:** Financial service providers ought to create goods that address the requirements of underrepresented groups. These products ought to prioritize accessibility via both digital and non-digital channels, affordability, and ease of use.
- **Customizing Financial Products:** Financial organizations want to create goods that are suited to various consumer segments. Simplified and adaptable goods that tackle time restrictions and financial complexity could be advantageous for working women.
- **Reducing Income Inequalities:** Policies should work to lessen income gaps by implementing policies like progressive taxation, minimum wage regulations, and social safety nets, as income plays a crucial part in financial well-being and empowerment.

7.5 Recommendations

- **Increasing usage of financial services:** Financial inclusion is increased when financial services are used. The policy makers should encourage usage of financial service, through targeted credit, insurance and saving. In rural, isolated, and hilly areas, Self Help Groups (SHG) and Microfinance Institutions (MFI) might be crucial to attaining financial inclusion.

- **Customization of financial products:** Financial institutions should develop product and services that can be customized as per the need of women, young, poor and population living in hilly and remote area.
- **Remote reaches:** Financial institutions should think beyond brick-and-mortar branches and increase the density of ATM and service of Banking Correspondents (BC) to reach to the people of this region.
- **Allied infrastructure:** There is a dire need to develop infrastructure like road connectivity, transport facilities internet and mobile tower to make the people to get connected with the financial institution physically and digitally.
- **Income generating schemes:** It has been found significant relation between income and financial service usage, so government should emphasize on income generating scheme in the area.
- **Financial literacy:** Is another dimension of financial inclusion that need to be catered to protect the interest of people towards financial institutions and financial products. Policy makers and stakeholders should promote financial awareness and educational institutions should come together to discuss financial literacy through conference, seminar and workshop. Private companies may conduct financial literacy programs through Corporate Social Responsibility (CSR) and government should inculcate chapter on financial literacy in school curriculum. Dissemination of financial literacy becomes more crucial in the digital era where chances of fraud and mis-selling of financial product is more among vulnerable section, rural and remote area. Financial institutions should develop mechanism to literate customer at branches and through digital mode in vernacular of the region.
- **Accessibility** to financial service is also an important dimension. Access to financial services represents the possibility for individual to use them. The policy maker and financial institutions need to make the financial services accessible to weaker section of the society by removing price and non-price

barrier on financial services and financial products to increase the density of financial inclusion in the area. The proximity of financial institutions and ATM in the remote and hilly terrain like Uttarkashi district is crucial.

- **Affordability** can be referred as service charges that are paid to maintain the account. As per this study large chunk of population in the research area are of low-income category and are either unemployed or casually employed. To protect the public from moneylenders and to foster consumer trust in formal financial services, policymakers and financial institutions must work on financial service fees and credit interest rates.
- **Availability** of field worker, branch staff, procedural ease in getting financial service, availability of quality service and a quality grievances and redressal mechanism. The dimension of availability becomes important for financial inclusion as the population are not use to such services and to gain their confident in the financial institution. It is the responsibility of the financial institution to train their staff and field workers to deal with customer. Regular training programs of staff and sound grievances and redressal mechanism is must to extent the wings of financial inclusion in the untapped area.
- Although it may have converged in account ownership, this study indicated that gender disparities still exist in the field of financial inclusion. But it still exists in various forms of financial inclusion, and governments and policymakers are quite concerned about it. Some of the main issues that have contributed to the gender gap in financial inclusion are education, income, and employment.
- The demographic profile of the individual can help the policymaker to understand their background. This data can be used to create pertinent financial inclusion policies that could improve the financial security and economic empowerment of women, the underprivileged, and other vulnerable segments of society.

7.6 Limitations of the Study

- **Geographic Limitation:** The study is geographically limited to Uttarkashi district, a predominantly hilly and remote region of Uttarakhand. The mountainous terrain, scattered settlements, and limited transportation infrastructure posed challenges in accessing respondents, especially in interior and rural villages. This may have restricted the diversity and representativeness of the sample, particularly for individuals residing in high-altitude or difficult-to-reach areas.

- **Dependency on Primary Data:** Respondent bias, such as underreporting or overreporting financial behaviors, may affect the conclusions, which are based on primary data.
- **Sample Representation:** A small sample size may make it insufficiently representative of the general population, especially in underrepresented, rural, or underprivileged populations.
- **Generalizability:** The results might be context-specific, meaning they might not be as applicable to other areas or nations with distinct socioeconomic and cultural circumstances.
- **Measurement errors:** could result in inaccurate results because variables like digital readiness or financial literacy may not be precisely measured. The literature available on effect of financial inclusion on financial wellbeing is limited. Therefor the items constructed to measure the variables are exhaustive. The relation between dimensions of financial inclusion like financial literacy, usage, accessibility, availability and affordability and financial wellbeing has not been established in this research. The study is restricted to single district due to lack of resources and time availability.
- **Limitations of the Gender Analysis:** Although gender differences are investigated, the sociocultural factors that underlie these differences in financial behavior are not thoroughly investigated.
- **Digital literacy not fully explored:** The precise role that digital literacy and access to technology play in affecting digital financial habits (such as digital and ATM transactions) is not fully explored, despite the fact that education and employment are taken into account.

- **Static Analysis:** The studies do not account for temporal changes, such as the evolving impact of technological advancements or shifts in policy, on financial inclusion.
- **Pandemic Impact:** If conducted post-pandemic, the studies may not fully capture the long-term changes in financial behaviors triggered by COVID-19 disruptions.
- **Limited Stakeholder Analysis:** The studies do not incorporate the perspectives of key stakeholders such as financial institutions, policymakers, or community organizations, which could enrich the findings.

7.7 Scope for Future Research

- The research in each dimension of financial inclusion, financial wellbeing and economic empowerment needs further explanations
- This study's sample size is small for the population; greater sample sizes can be used in future research to demonstrate the validity of the current study's conclusions.
- The scope of the study is confined to establishing the relation between financial inclusion and financial wellbeing. The study of interrelationship of the dimension of financial inclusion has not been included under the present scope of study.
- The earlier studies on financial inclusion are based on either beneficiary perspective including the present study or through service provider perspective. Future research might examine contrasting the two viewpoints.
- To improve the research on financial inclusion and financial wellbeing, the study of how financial inclusion affects financial wellbeing might be expanded to include more underrepresented groups.

7.8 Conclusion

This study has comprehensively examined the multifaceted relationship between financial inclusion and financial well-being from a gender perspective in Uttarkashi district. The findings clearly demonstrate that while financial inclusion initiatives have led to perceived improvements in women’s economic empowerment—particularly in areas such as income, savings, financial knowledge, and mobility—the overall financial well-being of respondents, especially females, remains low. A critical insight from the analysis is that accessibility, followed by usage, affordability, and financial literacy, are key determinants influencing female financial inclusion, whereas availability of services alone was found insufficient in promoting actual participation.

Furthermore, gender-based disparities are evident across various financial activities, such as borrowing, insurance ownership, digital transactions, and account holding, indicating persistent structural and socio-economic barriers that limit women's full participation in the formal financial system. The influence of demographic factors—especially education, income, and employment—on both financial empowerment and well-being underscores the need for integrated policy interventions that address both access and capability.

In conclusion, financial inclusion, while necessary, is not a standalone solution. For it to translate into tangible improvements in financial well-being, especially for women, it must be coupled with targeted efforts that enhance digital literacy, create income-generating opportunities, and address deep-rooted gender inequalities. The study thus contributes to both academic understanding and practical policymaking, offering evidence-based insights to promote inclusive and equitable financial development.

BIBLIOGRAPHY

Ab Hamid, M. R., Sami, W., & Sidek, M. M. (2017, September). Discriminant validity assessment: Use of Fornell & Larcker criterion versus HTMT criterion. In Journal of physics: Conference series (Vol. 890, No. 1, p. 012163). IOP Publishing.

Abdullah, N., Fazli, S. M., & Arif, A. M. (2019). The relationship between attitude towards money, financial literacy and debt management with young worker's financial well-being. Pertanika Journal of Social Sciences and Humanities, 27(1), 361-387.

Adera, A., & Abdisa, L. T. (2023). Financial inclusion and women's economic empowerment: Evidence from Ethiopia. Cogent Economics & Finance, 11(2), 2244864. https://doi.org/10.1080/23322039.2023.2244864

Adetunji, O. M., & David-West, O. (2019). The relative impact of income and financial literacy on financial inclusion in Nigeria. Journal of International Development, 31(4), 312-335.

Aggarwal, R. (2014). Financial inclusion in India: Challenges and opportunities. International Journal of Research, 1(4), 557–567.

Agier, I., & Szafarz, A. (2013). Microfinance and gender: Is there a glass ceiling on loan size? World development, 42, 165-181.

Agier, I., & Szafarz, A. (2013). Subjectivity in credit allocation to micro-entrepreneurs: Evidence from Brazil. Small Business Economics, 41(1), 263-275.

Ali, N., & Shah, P. A. (2019). Financial literacy among peoples in un-organized sectors: Evidence from the state of J&K. Significance, 7(2).

Allen, F., Carletti, E., Cull, R., Qian, J. Q., Senbet, L., & Valenzuela, P. (2014). The African financial development and financial inclusion gaps. Journal of African Economies, 23(5), 614–642.

Allen, F., Demirgüç-Kunt, A., Klapper, L., & Peria, M. S. M. (2014). The foundations of financial inclusion: Understanding ownership and use of formal accounts. Journal of Financial Intermediation, 23(2), 199–228.

Alliance for Financial Inclusion. (2012). The first G20 Global Partnership for Financial Inclusion (GPFI) forum report (GPFI Forum, 1 October 2011). Alliance for Financial Inclusion. https://www.afi-global.org/wp content/uploads/2024/10/120906_GPFI_G20_FINAL_Low.pdf

Alsemgeest, L. (2015). Arguments for and against financial literacy education: Where to go from here? International Journal of Consumer Studies, 39(2), 155–161.

Anand, S., & Chhikara, K. S. (2013). A theoretical and quantitative analysis of financial inclusion and economic growth. Management and Labour Studies, 38(1–2), 103–133.

Anand, S., & Saxena, D. (2016). Financial Inclusion Through On-Line Banking: Impact of Customer Occupation on Awareness and Usage Level. NICE Journal of Business, 11.

Ansar, S., Klapper, L., & Singer, D. (2023). The importance of financial education for the effective use of formal financial services. Journal of Financial Literacy and Wellbeing, 1(1), 28-46.

Antonijević, M., Ljumović, I., & Ivanović, Đ. (2022). Is there a gender gap in financial inclusion worldwide? Journal of Women's Entrepreneurship and Education, (1–2), 79–96.

Antonijević, M., Ljumović, I., & Ivanović, Đ. (2022). Is there a gender gap in financial inclusion worldwide? Journal of Women's Entrepreneurship and Education, (1–2), 79–96.

ANZ. (2017). Financial wellbeing. BlueNotes. https://bluenotes.anz.com/financialwellbeing

Arora, R. U. (2010). Measuring financial access. Griffith Business School Discussion Papers Economics, 1(7), 1-21.

Arora, S., & Meenu. (2012). The banking sector intervention in the microfinance world: a study of bankers' perception and outreach to rural microfinance in India with special reference to the state of Punjab. Development in Practice, 22(7), 991-1005.

Arun, T., & Kamath, R. (2015). Financial inclusion: Policies and practices. IIMB Management Review, 27(4), 267-287.

Azra Batool, S., Ahmed, H. K., & Qureshi, S. N. (2018). Impact of demographic variables on women's economic empowerment: An ordered probit model. Journal of Women & Aging, 30(1), 6–26.

Baber, H., & Zaruova, C. (2018). Religion and banking: A study of Islamic finance in India. International Journal of Innovation and Development and Business, 9(6), 7–13.

Badullahewage, S. U. (2019). Financial inclusion and women's economic empowerment in Northern Sri Lanka. Unpublished Manuscript.

Baluja, G. (2016). Financial literacy among women in India: A review. Pacific Business Review International, 9(4), 82–88.

Barriers to bank access and use around the world. The World Bank Economic Review, 22(3), 397-430.

Batool, S. A., Batool, S. S., & Ahmed, H. K. (2017). Socio-Demographic Determinants of Economic Empowerment of Women. Pakistan Journal of Women's Studies: Alam-e-Niswan, 24(1).

Beck, T., Demirgüç-Kunt, A., & Levine, R. (2007). Finance, inequality and the poor. Journal of Economic Growth, 12(1), 27–49.

Beck, T., Demirgüç-Kunt, A., & Martinez Peria, M. S. (2008). Banking services for everyone?

Bhandari, A. K. (2009). Access to banking services and poverty reduction: A state-wise assessment in India. Unpublished Manuscript.

Bhanot, D., Bapat, V., & Bera, S. (2012). Studying financial inclusion in North-East India. International Journal of Bank Marketing, 30(6), 465–484.

Bharti, R., & Dangwal, R. C. (2023). Investigating The Impact of Financial Inclusion on the Social Status of Rural Women: A Study in Uttarakhand. NICE Journal of Business, 18(1).

Bharti, R., & Dangwal, R. C. (2023). Investigating The Impact of Financial Inclusion on the Social Status of Rural Women: A Study in Uttarakhand. NICE Journal of Business, 18(1).

Bhat, A. A., & Mishra, R. K. (2021). Demographic characteristics and residents' attitude towards tourism development: A case of Kashmir region. Journal of Public Affairs, 21(2), e2179.

Bhatia, S., & Singh, S. (2019). Empowering women through financial inclusion: A study of urban slum. Vikalpa, 44(4), 182-197.

Bhushan, P. (2014). Relationship between financial literacy and investment behavior of salaried individuals. Journal of Business Management & Social Sciences Research, 3(5), 82–87.

Bhushan, P. (2020). Empowering women through financial inclusion: A study of Uttarkashi District of Uttarakhand. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.3681754

Bhuvana, M., & Basantha, S. (2016). Drivers of financial inclusion to reach out poor. Arabian Journal of Business and Management Review, 6(4), 1–6.

Bhuvana, M., & Vasantha, S. (2016). Dimensions for measuring financial inclusion in the rural areas of Tamil Nadu. Indian Journal of Science and Technology, 9(32), 1–8.

Billah, M. M. S., Ahmad, S., & Haq, S. G. (2021). Emergence of i-FinTech in the Contemporary Socio-Economic Reality. In Islamic FinTech: Insights and Solutions (pp. 3-18). Cham: Springer International Publishing.

Bonke, J., & Browning, M. (2009). The distribution of financial well-being and income within the household. Review of Economics of the Household, 7(1), 31–42.

Brüggen, E. C., Hogreve, J., Holmlund, M., Kabadayi, S., & Löfgren, M. (2017). Financial well-being: A conceptualization and research agenda. Journal of Business Research, 79, 228–237.

Bühler, G. (1886). The Laws of Manu. Sacred Books of the East, Vol. 25. Oxford University Press.

Bureau of Consumer Financial Protection. (2017). Financial well-being in America. https://www.consumerfinance.gov/data-research/research-reports/financial-well-being-america/

Burgess, R., & Pande, R. (2005). Do rural banks matter? Evidence from the Indian social banking experiment. American Economic Review, 95(3), 780–795.

Cámara, N., & Tuesta, D. (2014). Measuring financial inclusion: A multidimensional index. BBVA Research Working Paper, 14/26.

Center for Financial Inclusion. (2016). Financial inclusion and consumer protection: A focus on Mexico. CFI Working Paper Series.

CGAP. (2016). Financial inclusion: What's it worth? Consultative Group to Assist the Poor. https://www.cgap.org

Chakrabarty, K. C. (2011). Financial inclusion: A road India needs to travel. RBI Bulletin, November.

Chakraborty, G. (2020). A critical commentary on the proposals to reform India's financial system in its 2019–20 union budget. Journal of Public Affairs, 20(3), e2107.

Chakraborty, R., & Abraham, R. (2021). The impact of financial inclusion on economic development: the mediating roles of gross savings, social empowerment and economic empowerment. International Journal of Social Economics, 48(6), 878-897.

Chen, S., Doerr, S., Frost, J., Gambacorta, L., & Shin, H. S. (2023). The fintech gender gap. Journal of Financial Intermediation, 54, 101026.

Chithra, N., & Selvam, M. (2013). Determinants of financial inclusion: An empirical study on the inter-state variations in India. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.2296096

Chowa, G. A., & Despard, M. R. (2014). The influence of parental financial socialization on youth's financial behavior: Evidence from Ghana. Journal of family and economic issues, 35(3), 376-389.

Chowa, G. A., Despard, M. R., & Osei-Akoto, I. (2012). Youth saving patterns and performance in Ghana.

Cole, S., Sampson, T., & Zia, B. (2011). Prices or knowledge? What drives demand for financial services in emerging markets? The journal of finance, 66(6), 1933-1967.

Comerton-Forde, C., De New, J., Salamanca, N., Ribar, D. C., Nicastro, A., & Ross, J. (2022). Measuring financial wellbeing with self-reported and bank record data. Economic Record, 98(321), 133–151.

Comerton-Forde, C., Ip, E., Ribar, D. C., Ross, J., Salamanca, N., & Tsiaplias, S. (2018). Using survey and banking data to measure financial wellbeing. Commonwealth Bank of Australia and Melbourne Institute Financial Well-being Scales Technical Report.

Consumer Financial Protection Bureau. (2015). Financial well-being: The goal of financial education. https://files.consumerfinance.gov/f/201501_cfpb_report_financial-well-being.pdf

CRISIL. (2018). CRISIL Inclusix: Financial inclusion surges, driven by Jan-Dhan Yojana (Vol. IV). CRISIL Limited. https://www.crisil.com/content/dam/crisil/ouranalysis/reports/Research/documents/2018/march/crisil-inclusix-financial-inclusion-surges-driven-by-Jan-Dhan-yojana.pdf

Cull, R., Demirgüç-Kunt, A., & Morduch, J. (2015). Banking the world: Empirical foundations of financial inclusion. MIT Press.

Dabla-Norris, E., Kochhar, K., Suphaphiphat, N., Ricka, F., & Tsounta, E. (2015). Causes and consequences of income inequality: A global perspective (IMF Staff Discussion Note No. 15/13). International Monetary Fund.

Dangi, N., & Kumar, P. (2013). Current situation of financial inclusion in India and its future visions. International Journal of Management and Social Sciences Research, 2(8), 155–166.

Deka, P. P. (2015). Financial literacy and financial inclusion for women empowerment: A study. International Journal of Applied Research, 1(9), 145–148.

Deka, P. P. (2015). Financial literacy and financial inclusion for women empowerment: A study. International Journal of Applied Research, 1(9), 145–148.

Delafrooz, N., & Paim, L. H. (2013). Role of financial stress on relationship between financial problem and financial wellness among Malaysian workers. African Journal of Business Management, 7(20), 1966–1972.

Demirgüç-Kunt, A., & Klapper, L. (2012). Measuring financial inclusion: The Global Findex Database (Policy Research Working Paper No. 6025). World Bank.

Demirgüç-Kunt, A., & Levine, R. (2008). Finance et opportunité économique. Revue d'économie du développement, 16(4), 5-29.

Demirgüç-Kunt, A., Ansar, S., Hess, J., Klapper, L., & Singer, D. (2018). The little data book on financial inclusion. World Bank.

Demirgüç-Kunt, A., Klapper, L. F., & Singer, D. (2013). Financial inclusion and legal discrimination against women: Evidence from developing countries. World Bank Policy Research Working Paper, 6416.

Demirgüç-Kunt, A., Klapper, L., Singer, D., & Ansar, S. (2022). The Global Findex Database 2021: Financial Inclusion, Digital Payments, and Resilience in the Age of COVID-19. Washington, DC: World Bank. https://doi.org/10.48529/JQ97-AJ70

Demirgüç-Kunt, A., Klapper, L., Singer, D., & Van Oudheusden, P. (2015). The Global Findex Database 2014: Measuring financial inclusion around the world (Working Paper No. 7255). World Bank.

Demirgüç-Kunt, A., Klapper, L., Singer, D., & Van Oudheusden, P. (2018). The Global Findex Database 2017: Measuring financial inclusion and the fintech revolution (Working Paper No. 8444). World Bank.

Department of Financial Services. (2014). Pradhan Mantri Jan-Dhan Yojana: National Mission on Financial Inclusion – Comprehensive financial inclusion based on Jan Dhan, Aadhaar and Mobile (JAM) trinity. Ministry of Finance, Government of India. Retrieved from https://pmjdy.gov.in

Directorate of Economics and Statistics, Government of Uttarakhand. (2017). Economic Survey 2016-17 (Vols. & statistical tables). Government of Uttarakhand. Retrieved from https://des.uk.gov.in/files/Economic_Survey_2016-17.pdf

Duflo, E. (2012). Women empowerment and economic development. Journal of Economic literature, 50(4), 1051-1079.

Durai, T., & Stella, G. (2019). Digital finance and its impact on financial inclusion. Journal of Emerging Technologies and Innovative Research, 6(1), 122–127.

Durai, T., & Stella, G. (2019). Digital finance and its impact on financial inclusion. Journal of Emerging Technologies and Innovative Research, 6(1), 122-127.

Dutta, T., & Das, A. (2017). Analyzing data of Pradhan Mantri Jan Dhan Yojana. Indian Institute of Technology Bombay, Mumbai.

Falahati, L., & Paim, L. H. (2011). Gender differences in financial well-being, financial socialization and financial knowledge among college students. Life Science Journal-Acta Zhengzhou University Overseas Edition, 8(3), 173-178.

Fitzpatrick, A., Magnoni, B., & Thornton, R. L. (2011). Microinsurance utilization in Nicaragua: A report on effects on children, retention, and health.

Fletschner, D., & Kenney, L. (2014). Rural women's access to financial services: Credit, savings, and insurance. In M. Corsi et al. (Eds.), Women's empowerment and socio-economic outcomes (pp. 221–243). Springer.

Food and Agriculture Organization. (n.d.). Gender and rural financial services. FAO. Retrieved June 3, 2025, from https://www.fao.org/gender/learning-center/thematic-areas/gender-and-rural-financial-services/2/

Garg, N., & Singh, S. (2018). Financial literacy among youth. International Journal of Social Economics, 45(1), 173–186.

Ghosh, C., & Chaudhury, R. H. (2019). Gender gap in case of financial inclusion: An empirical analysis in Indian context. Economics Bulletin, 39(4), 2615–2630.

Ghosh, S. (2018). Biometric identification, financial inclusion and economic growth in India: Does mobile penetration matter? Information Technology for Development, 24(2), 296–322. https://doi.org/10.1080/02681102.2017.1319496

Global Partnership for Financial Inclusion (GPFI), & International Finance Corporation (IFC). (2011). Strengthening access to finance for women-owned SMEs in developing countries. International Finance Corporation.

Goel, N., & Madan, P. (2019). Benchmarking financial inclusion for women entrepreneurship–a study of Uttarakhand state of India. Benchmarking: An International Journal, 26(1), 160-175.

Goel, S., & Sharma, R. (2017). Developing a financial inclusion index for India. Procedia Computer Science, 122, 949–956.

Gonçalves, V. N., Ponchio, M. C., & Basílio, R. G. (2021). Women's financial well-being: A systematic literature review and directions for future research. International Journal of Consumer Studies, 45(4), 824–843.

Government of India. (2013). Annual report 2012-13. Retrieved from http://164.100.161.239/reports/genrep/annual_report12_13.pdf

Greninger, S. A., Hampton, V. L., Kitt, K. A., & Achacoso, J. A. (1996). Ratios and benchmarks for measuring the financial well-being of families and individuals. Financial Services Review, 5(1), 57–80.

Greninger, S. A., Hampton, V. L., Kitt, K. A., & Achacoso, J. A. (1996). Ratios and benchmarks for measuring the financial well-being of families and individuals. Financial Services Review, 5(1), 57–80.

Grohmann, A., Klühs, T., & Menkhoff, L. (2018). Does financial literacy improve financial inclusion? Cross-country evidence. World Development, 111, 84–96.

Guild, J. (2017). Fintech and the Future of Finance. Asian Journal of Public Affairs, 17-20.

Gupta, K., & Kaur, J. (2014). A study of financial literacy among micro entrepreneurs in district Kangra. International Journal of Research in Business Management, 2(2), 63–70.

Gupte, R., Venkataramani, B., & Gupta, D. (2012). Computation of financial inclusion index for India. Procedia - Social and Behavioral Sciences, 37, 133–149.

Gutter, M., & Copur, Z. (2011). Financial behaviors and financial well-being of college students: Evidence from a national survey. Journal of Family and Economic Issues, 32(4), 699–714.

Gwalani, H., & Parkhi, S. (2014). Financial inclusion–Building a success model in the Indian context. Procedia - Social and Behavioral Sciences, 133, 372–378.

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. Long range planning, 46(1-2), 1-12.

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. European business review, 31(1), 2-24.

Hamida, A., Muhajir, M. N. A., Sukran, M. P., & Paulus, M. (2023). Does Islamic Financial Inclusion Matter for Household Financial Well Being. Jurnal Keuangan Dan Perbankan, 27(1), 2443-2687.

Hasan, R., Ashfaq, M., Parveen, T., & Gunardi, A. (2023). Financial inclusion: Does digital financial literacy matter for women entrepreneurs? International Journal of Social Economics, 50(8), 1085–1104.

Hazarika, B., & Sarma, R. (2015). Financial inclusion and its determinants: Evidence from Uttarakhand, India. International Journal of Financial Studies, 3(4), 547–562

Hermawan, A., Gunardi, A., & Sari, L. M. (2022). Intention to use digital finance MSMEs: The impact of financial literacy and financial inclusion. Jurnal Ilmiah Akuntansi dan Bisnis, 17(1), 171–182. https://doi.org/10.24843/JIAB.2022.v17.i01.p13

Hung, A., Yoong, J., & Brown, E. (2012). Empowering women through financial awareness and education.

Inoue, T. (2019). Financial inclusion and poverty reduction in India. Journal of Financial Economic Policy, 11(1), 21–33. https://doi.org/10.1108/JFEP-07-2018-0104

Jain, S. (2018). Financial inclusion in India–Contemporary issues and challenges. The Institute of Cost Accountants of India, 36.

Kabakova, O., & Plaksenkov, E. (2018). Analysis of factors affecting financial inclusion: Ecosystem view. Journal of Business Research, 89, 198–205. https://doi.org/10.1016/j.jbusres.2018.01.066

Kabeer, N. (2005). Gender equality and women's empowerment: A critical analysis of the third Millennium Development Goal. Gender & Development, 13(1), 13–24. https://doi.org/10.1080/13552070512331332273

Kandari, P., Dobriyal, K., & Bahuguna, U. (2021). Impact of Financial Inclusion on Income Generation and Savings in Mountain Regions: A Case Study of Rural Households of Uttarakhand. Journal of Mountain Research, 35-44.

Kandpal, V. (2020). Financial inclusion in India breaking the myths and challenges: The case of Uttarakhand. Test Engineering & Management, Feb.

Kangle, R.P. (Ed.). (1960). The Kautilya Arthashastra. Bombay University.

Kaur, G., & Singh, G. (2021). Determinants of financial inclusion in rural Punjab. Journal of Agricultural Development and Policy, 31(2), 228-238.

Kaur, J. (2017). Factors affecting financial inclusion: A case study of Punjab. International Journal of Advanced Research and Development, 2(5), 2455–4030.

Kempson, E., & Poppe, C. (2018). Understanding financial well-being and capability. A Revised Model and Comprehensive Analysis. Oslo: Consumption Research Norway (SIFO), Oslo Metropolitan University.

Kempson, E., Finney, A., & Poppe, C. (2017). Financial Well-Being.

Khera, P., Ogawa, M. S., & Sahay, M. R. (2021). Is digital financial inclusion unlocking growth? International Monetary Fund.

Khera, P., Ogawa, S., Sahay, R., & Vasishth, M. (2022). The digital gender gap. Finance & Development, 59(1).

Kim, N. (2015). Tests based on skewness and kurtosis for multivariate normality. Communications for Statistical Applications and Methods, 22(4), 361-375.

Kodinariya, T. M., & Makwana, P. R. (2013). Review on determining number of Cluster in K-Means Clustering. International Journal of Advance Research in Computer Science and Management Studies, 1(6), 90–95. Retrieved from http://www.ijarcsms.com

Kothari, C. R. (2004). Research methodology: Methods and techniques (2nd ed.). New Age International Publishers.

Krejcie, R., & Morgan, S. (1970). Sample size determination. Business Research Methods, 4(5), 34-36.

Kulkarni, L., & Ghosh, A. (2021). Gender disparity in the digitalization of financial services: Challenges and promises for women's financial inclusion in India. Gender, Technology and Development, 25(2), 233–250. https://doi.org/10.1080/09718524.2021.1909291

Kumar Vaid, Y., Singh, V., & Sethi, M. (2020). Determinants of successful financial inclusion in low-income rural population. The Indian Economic Journal, 68(1), 82–100. https://doi.org/10.1177/0019466220920345

Kumar, A., & Dhir, A. (2021). Role of digital financial literacy in promoting financial inclusion and sustainable development: Evidence from Uttarakhand, India. In Proceedings of the 12th International Conference on Digital Information Management (pp. 1–6).

Kumar, C., & Mishra, S. (2011, February). Banking outreach and household level access: Analyzing financial inclusion in India. In 13th Annual Conference on Money and Finance in the Indian Economy (pp. 1–33).

Kumar, M. K., & Singh, G. Inclusive growth through financial inclusion in Uttarakhand.

Kumar, P., & Shankar, I. (2011). Education and women empowerment in India.

Kumari, T. (2021). Dimensions of financial inclusion: An individual perspective. Journal of Accountancy & Finance, 6(2), 41–60.

Lal, T. (2019). Measuring impact of financial inclusion on rural development through cooperatives. International Journal of Social Economics, 46(3), 352–376. https://doi.org/10.1108/IJSE-05-2018-0249

Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. American Economic Journal: Journal of Economic Literature, 52(1), 5-44.

Maddern, H., Maull, R., Smart, A., & Baker, P. (2007). Customer satisfaction and service quality in UK financial services. International Journal of Operations & Production Management, 27(9), 999–1019. https://doi.org/10.1108/01443570710775838

Magli, A. S., Sabri, M. F., & Rahim, H. A. (n.d.). Review of the factor influencing and measurements of financial well-being.

Mago, S., & Chitokwindo, S. (2014). The impact of mobile banking on financial inclusion in Zimbabwe: A case for Masvingo Province. Mediterranean Journal of Social Sciences, 5(9), 221. https://doi.org/10.5901/mjss.2014.v5n9p221

Mago, S., & Chitokwindo, S. (2014). The impact of mobile banking on financial inclusion in Zimbabwe: A case for Masvingo Province. Mediterranean Journal os Social Sciences, 5.

Mahdzan, N. S., & Victorian, S. M. P. (2013). The determinants of life insurance demand: A focus on saving motives and financial literacy. Asian social science, 9(5), 274.

Mahendru, M., Sharma, G. D., & Hawkins, M. (2022). Toward a new conceptualization of financial well-being. Journal of Public Affairs, 22(2), e2505. https://doi.org/10.1002/pa.2505

Malaysia, P. (2011). Gender differences in financial well-being among college students. Australian Journal of Basic and Applied Sciences, 5(9), 1765–1776.

Malone, K., Pitts, D., Perkins, D., & Ball, J. (2010). Perceptions of financial well-being among American women in diverse families. Journal of Family and Economic Issues, 31(1), 63–81. https://doi.org/10.1007/s10834-009-9172-z

Martínez, C. H., Hidalgo, X. P., & Tuesta, D. (2013). Demand factors that influence financial inclusion in Mexico: analysis of the barriers based on the ENIF survey. BBVA Bank, BBVA Research Working Paper.

Mialou, A., Amidzic, G., & Massara, A. (2017). Assessing countries' financial inclusion standing—A new composite index. Journal of Banking and Financial Economics, 2(8), 105–126.

Ministry of Finance. (2023). Pradhan Mantri Jan Dhan Yojana: Progress report. Government of India. https://financialservices.gov.in

Mishra, D. (2019). Financial Inclusion in Odisha: Issues and Challenges. The Research Journal of Social Sciences, 10(5), 345-350.

Mndolwa, F. D., & Alhassan, A. L. (2020). Gender disparities in financial inclusion: Insights from Tanzania. African Development Review, 32(4), 578-590.

Mokhtar, N., & Husniyah, A. R. (2017). Determinants of financial well-being among public employees in Putrajaya, Malaysia. Pertanika Journal of Social Sciences and Humanities, 25(3), 1241-1260.

Morduch, J. (1999). The microfinance promise. Journal of Economic Literature, 37(4), 1569–1614.

Mossie, W. A. (2023). Financial inclusion drivers, motivations, and barriers: Evidence from Ethiopia. Cogent Business & Management, 10(1), 2167291.

Muhammad, F., Bano, K., Muhammad, K., & Baig, T. (2021). Women empowerment in Pakistan: assessing the socio-economic determinants. Studies of Applied Economics, 39(3).

Muir, K., Hamilton, M., Noone, J. H., Marjolin, A., Salignac, F., & Saunders, P. (2017). Exploring financial wellbeing in the Australian context: Report for Financial Literacy Australia. Centre for Social Impact, UNSW Sydney.

Mukherjee, A., & Chakraborty, S. (2012). Financial Inclusion of the poor and marginalised in Jharkhand: Analysis of the Existing Model. International Journal on Research and Development-A Management Review (IJRDMR), 1(1).

Mundra, S. S. (2016). Financial inclusion in India: The journey so far and the way ahead (No. id:11358).

NABARD. (2016). NABARD financial inclusion report 2016. https://www.nabard.org/auth/writereaddata/tender/1608180417NABARDRepo%2016_Web_P.pdf

Nandru, P., & Rentala, S. (2020). Demand-side analysis of measuring financial inclusion: Impact on socio-economic status of primitive tribal groups (PTGs) in India. International Journal of Development Issues, 19(1), 1-24.

Nandru, P., Anand, B., & Rentala, S. (2016). Exploring the factors impacting financial inclusion: Evidence from South India. Annual Research Journal of Symbiosis Centre for Management Studies, 4, 1–15.

Nandru, P., Chendragiri, M., & Velayutham, A. (2021). Examining the influence of financial inclusion on financial well-being of marginalized street vendors: An empirical evidence from India. International Journal of Social Economics, 48(8), 1139–1158. https://doi.org/10.1108/IJSE-09-2020-0613

Nanziri, E. L. (2016). Financial inclusion and welfare in South Africa: Is there a gender gap? Journal of African Development, 18(2), 109–134.

Negash, G. (2014). To investigate opportunities and challenges of women's empowerment in leadership position in Endamehoni Woreda that found in Tigray regional state of Ethiopia.

Negi, S. K., Jain, H. K., & Singh, V. (2017). Architecture of Uttarakhand and construction techniques for affordable housing. Journal of Environmental Nanotechnology, 6(2), 30-35.

Nguyen, T. T. H. (2021). Measuring financial inclusion: a composite FI index for the developing countries. Journal of Economics and Development, 23(1), 77-99.

NITI Aayog. (2020). Aspirational Districts Programme. Government of India. Retrieved February 8, 2026, from https://www.niti.gov.in/aspirational-districts-programme

Nkuna, O., Banda, M., & Chirwa, E. (2021). Determinants of financial inclusion in Malawi. Malawi Journal of Economics, 2(1), 1-22.

Noor, N., Batool, I., & Arshad, H. M. (2020). Financial literacy, financial self-efficacy and financial account ownership behavior in Pakistan. Cogent Economics & Finance, 8(1), 1806479. https://doi.org/10.1080/23322039.2020.1806479

OECD. (2018). Bridging the digital gender divide: Include, upskill, innovate. Organisation for Economic Co-operation and Development. https://www.oecd.org/digital/bridging-the-digital-gender-divide.pdf

Office of the Registrar General & Census Commissioner, India. (2011). District Census Handbook: Uttarkashi (Series 06, Part XII-B). https://censusindia.gov.in/2011census/dchb/0501_PART_B_DCHB_UTTARKASHI.pdf

Office of the Registrar General & Census Commissioner, India. (2011). Census of India 2011. Ministry of Home Affairs, Government of India. https://censusindia.gov.in/

Owuondo, J. (2023). Fostering financial inclusion and education access in the global south: collaborative stratagem. Available at SSRN 4585295.

Oxford Policy Management. (2019). Women's economic empowerment and financial inclusion: Review of selected literature. Oxford Policy Management Ltd.

Ozili, P. K. (2020). Social inclusion and financial inclusion: International evidence. International Journal of Development Issues, 19(2), 169–186. https://doi.org/10.1108/IJDI-07-2019-0110

Pahlevan Sharif, S., Naghavi, N., Waheed, H., & Ehigiamusoe, K. U. (2023). The role of education in filling the gender gap in financial inclusion in low-income economies. International Journal of Emerging Markets, 18(12), 5755-5777.

Pal, M., Gupta, H., & Joshi, Y. C. (2022). Social and economic empowerment of women through financial inclusion: Empirical evidence from India. Equality, Diversity and Inclusion: An International Journal, 41(2), 294–305. https://doi.org/10.1108/EDI-09-2020-0260

Pandey, T. D., & Gupta, S. (2022). Discourse on the Financial Inclusion of Uttarakhand: An Empirical Analysis on Changing Dynamics of Demography. Indian Journal of Natural Sciences www. tnsroindia. org. in, 12(70).

Paramasivan, C., & Ganeshkumar, V. (2013). Overview of financial inclusion in India. International Journal of Management and Development Studies, 2(3), 45–49.

Patwardhan, A. (2018). Financial inclusion in the digital age. In D. Lee (Ed.), Handbook of Blockchain, Digital Finance, and Inclusion, Volume 1 (pp. 57–89). Academic Press. https://doi.org/10.1016/B978-0-12-810441-5.00003-6

Pereznieto, P., & Taylor, G. (2014). A review of approaches and methods to measure economic empowerment of women and girls. Gender & Development, 22(2), 233-251.

Pesqué-Cela, V., Tian, L., Luo, D., Tobin, D., & Kling, G. (2021). Defining and measuring financial inclusion: A systematic review and confirmatory factor analysis. Journal of International Development, 33(2), 316–341. https://doi.org/10.1002/jid.3538

Piras, C., Presbitero, A., & Rabellotti, R. (2013). Definitions matter: measuring gender gaps in firms' access to credit.

Prakash, N., Alagarsamy, S., & Hawaldar, A. (2022). Demographic characteristics influencing financial wellbeing: a multigroup analysis. Managerial Finance, 48(9/10), 1334-1351.
Prakash, N., Alagarsamy, S., & Hawaldar, A. (2022). Demographic characteristics influencing financial wellbeing: a multigroup analysis. Managerial Finance, 48(9/10), 1334-1351.

Prawitz, A. D., Garman, E. T., Sorhaindo, B., O’Neill, B., Kim, J., & Drentea, P. (2006). The InCharge Financial Distress/Financial Well-Being Scale: Establishing validity and reliability. Financial Counseling and Planning, 17(1), 34–50.

Prendergast, S., Blackmore, D., & Kempson, E. (2018). Financial wellbeing: A survey of adults in Australia. ANZ. https://www.anz.com.au/content/dam/anzcomau/documents/pdf/aboutus/wcmmigration/financial-wellbeing-aus18.pdf

Raccanello, K., Anand, J., & Arroyo Martínez, P. (2009). Social Capital as an Incentive for Participation and Formation of Women-dominant ROSCA. In Economic development, integration, and morality in Asia and the Americas (pp. 407-429). Emerald Group Publishing Limited.

Rachana, T. (2011). Financial inclusion and performance of rural co-operative banks in Gujarat. Research Journal of Finance and Accounting, 2(6).

Rangarajan, C. (2008). Report of the Committee on Financial Inclusion. Government of India. Retrieved from https://www.findevgateway.org/paper/2008/01/report-of-committee-on-financial-inclusion

Rashid, S., Bilal, M., Hussain, A., & Shah, M. A. (2022). Impact of financial inclusion on financial well-being: Moderating effect of orientation towards finance. Journal of Economic Impact, 4(2), 124–133.

Rashid, S., Bowra, Z. A., & Hussain, A. (2022). An empirical investigation of financial inclusion on financial well-being of working women: A mediating role of financial capability. Bulletin of Business and Economics, 11(1), 14–23.

Ratnawati, K. (2020). The impact of financial inclusion on economic growth, poverty, income inequality, and financial stability in Asia. The Journal of Asian Finance, Economics and Business, 7(10), 73–85. https://doi.org/10.13106/jafeb.2020.vol7.no10.073

Rawat, U. (2018). Essays on macroeconomic dynamics, credit intermediation and financial stability (Doctoral dissertation).

Reserve Bank of India. (2015). Report of the Committee on Medium-term Path on Financial Inclusion (Dec. 28, 2015). Reserve Bank of India. Retrieved from https://rbi.org.in/Scripts/PublicationReportDetails.aspx?UrlPage=&ID=836

Reserve Bank of India. (2019). Annual report 2018–2019. https://m.rbi.org.in/Scripts/AnnualReportPublications.aspx?year=2019

Reserve Bank of India. (2020). Financial inclusion and development: A roadmap ahead. https://www.rbi.org.in/Scripts/BS_SpeechesView.aspx?Id=1106

Reserve Bank of India. (2020). National strategy for financial inclusion: 2019–2024. https://www.rbi.org.in/Scripts/PublicationReportDetails.aspx?ID=1154

Reshadat, S., Rajabi, G. N., Ghasemi, S. R., & Jamshidinazar, F. (2014). Assessment of rural women empowerment level and its relation with demographic and structural factors in Kermanshah, Iran, 2012. Life Science Journal, 11(4), 86-93.

Riaz, S., & Pervaiz, Z. (2018). The impact of women's education and employment on their empowerment: An empirical evidence from household level survey. Quality & Quantity, 52(6), 2855-2870.

Roa, M. J. (2015). Financial inclusion in Latin America and the Caribbean: Access, usage and quality (Vol. 10). CEMLA.

Sabri, M. F., & Falahati, L. (2012). Estimating a model of subjective financial well-being among college students. International Journal of Humanities and Social Science, 2(18), 191–199.

Sahay, M. R., Cihak, M., N'Diaye, M. P., Barajas, M. A., Mitra, M. S., Kyobe, M. A., ... & Yousefi, M. R. (2015). Financial inclusion: can it meet multiple macroeconomic goals? International Monetary Fund.

Sandada, M., & Mapfuyanzara, R. (2016). An investigation of the causes of financial exclusion in Zimbabwe. AfricaGrowth Agenda, 2016(07), 16-19.

Sarban, V. H., & Hassanzadeh, M. (2014). Survey of barriers to rural women economic empowerment in Iran. European Online Journal of Natural and Social Sciences, 3(3), pp-494.

Sarma, M. (2008). Index of financial inclusion (No. 215). Indian Council for Research on International Economic Relations. https://icrier.org/pdf/Working_Paper_215.pdf

Sarma, M., & Pais, J. (2011). Financial inclusion and development. Journal of International Development, 23(5), 613–628. https://doi.org/10.1002/jid.1698

Sati, V. P. (2015). Climate change and socio-ecological transformation in high mountains: an empirical study of Garhwal Himalaya. Change and Adaptation in Socio-Ecological Systems, 2(1).

Seguino, S., & Were, M. (2014). Gender, development and economic growth in Sub-Saharan Africa. Journal of African Economies, 23(suppl_1), i18-i61.

Selvia, G., Rahmayanti, D., Afandy, C., & Zoraya, I. (2021, May). The effect of financial knowledge, financial behavior and financial inclusion on financial well-being. In Proceedings of the 3rd Beehive International Social Innovation Conference (BISIC 2020), 3–4 October 2020, Bengkulu, Indonesia.

Serrao, M. V., Sequeira, A. H., & Hans, B. (2012). Designing a methodology to investigate accessibility and impact of financial inclusion. Household Finance e-Journal - CMBO.

Sethy, S. K. (2016). Developing a financial inclusion index and inclusive growth in India. Theoretical and Applied Economics, 23(2), 607–618.

Sha'ban, M., Girardone, C., & Sarkisyan, A. (2020). Cross-country variation in financial inclusion: A global perspective. The European Journal of Finance, 26(4–5), 319–340. https://doi.org/10.1080/1351847X.2019.1644365

Shah, P., & Dubhashi, M. (2015). Review paper on financial inclusion—the means of inclusive growth. Chanakya International Journal of Business Research, 1(1), 37–48.

Shah, S. M., & Ali, A. (2022). A survey on financial inclusion: Theoretical and empirical literature review. Journal of Policy Research, 8(4), 310–330.

Shankar, N., Vinod, S., & Kamath, R. (2022). Financial well-being–A Generation Z perspective using a Structural Equation Modeling approach. Investment Management & Financial Innovations, 19(1), 32.

Shankar, S. (2013). Financial inclusion in India: Do microfinance institutions address access barriers. ACRN Journal of Entrepreneurship Perspectives, 2(1), 60–74.

Sharan, M., & Dale, P. (2019). Promoting gender equality and inclusive growth through financial inclusion. International Multidisciplinary Research Journal, 1(1), 25–31.

Sharma, A., & Mehta, V. (2004). Service quality perceptions in financial services: A case study of banking services. Journal of Services Research, 4(2), 205–223.

Sharma, D., Bhattacharya, S., & Thukral, S. (2018). Assessment of financial inclusive policy in Indian economy. International Journal of Ethics and Systems, 34(3), 304–320.

Sharma, R.S. (2005). India's Ancient Past. Oxford University Press.

Sherline, T. I. (2016). Demonetisation as a prelude to complete financial inclusion. International Education and Research Journal, 2(12), 17–19.
Sherline, T. I. (2016). Demonetisation as a prelude to complete financial inclusion. International Education and Research Journal, 2(12), 17-19.

Shetty, S., & Hans, V. (2018). Women empowerment in India and financial inclusion barriers. International Journal of Management Sociology and Humanities, 9(3), 1–7.

Siddik, M. N. A. (2017). Does financial inclusion promote women empowerment? Evidence from Bangladesh. Applied Economics and Finance, 4(4), 169-177.

Singh, D., & Malik, G. (2022). A systematic and bibliometric review of the financial well-being: Advancements in the current status and future research agenda. International Journal of Bank Marketing, 40(7), 1575–1609.

Sinha, S., Pandey, K. R., & Madan, N. (2018). Fintech and the demand side challenge in financial inclusion. Enterprise Development and Microfinance, 29(1), 94–98.

Sioson, E. P. (2019). Closing the gender gap in financial inclusion through Fintech.

Ssewamala, F. M., Alicea, S., Bannon, W. M., & Ismayilova, L. (2010). A novel economic intervention to reduce HIV risks among school-going AIDS orphans in rural Uganda. Journal of Adolescent Health, 46(4), 369–373. https://doi.org/10.1016/j.jadohealth.2009.10.003

Suri, T., & Jack, W. (2016). The long-run poverty and gender impacts of mobile money. Science, 354(6317), 1288-1292.

Swamy, V. (2014). Financial inclusion, gender dimension, and economic impact on poor households. World Development, 56, 1–15. https://doi.org/10.1016/j.worlddev.2013.10.019

Taft, M. K., Hosein, Z. Z., Mehrizi, S. M. T., & Roshan, A. (2013). The relation between financial literacy, financial wellbeing and financial concerns. International Journal of Business and Management, 8(11), 63–75.

Tripathi, V., & Gupta, S. (2017). Financial inclusion in rural Uttarakhand: An assessment of challenges and opportunities. MUDRA: Journal of Finance and Accounting, 4(1), 58–68. https://doi.org/10.17492/mudra.v4i01.9776

UN Women. (2017). Women's economic empowerment in the changing world of work. United Nations Entity for Gender Equality and the Empowerment of Women. https://www.unwomen.org/en/digital-library/publications/2017/3/womens-economic-empowerment-in-the-changing-world-of-work

UN Women. (2017). Women's economic empowerment in the changing world of work. United Nations Entity for Gender Equality and the Empowerment of Women. https://www.unwomen.org/en/digital-library/publications/2017/3/womens-economic-empowerment-in-the-changing-world-of-work

UN Women. (2018). Turning promises into action: Gender equality in the 2030 Agenda for Sustainable Development. United Nations Entity for Gender Equality and the Empowerment of Women. https://www.unwomen.org/en/digital-library/publications/2018/2/gender-equality-in-the-2030-agenda-for-sustainable-development

UN Women. (2018). Turning promises into action: Gender equality in the 2030 Agenda for Sustainable Development. United Nations Entity for Gender Equality and the Empowerment of Women. https://www.unwomen.org/en/digital-library/publications/2018/2/gender-equality-in-the-2030-agenda-for-sustainable-development.

United Nations. (2016). Sustainable development goals. https://www.un.org/sustainabledevelopment/sustainable-development-goals/

Van Praag, B. M., Frijters, P., Diener, E., Kahneman, D., & Schwarz, N. (1999). The measurement of welfare and well-being: The Leyden approach. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), Well-being: The foundations of hedonic psychology (pp. 413–433). Russell Sage Foundation.

Van, L. T. H., Vo, A. T., Nguyen, N. T., & Vo, D. H. (2021). Financial inclusion and economic growth: International evidence. Emerging Markets Finance and Trade, 57(1), 239–263. https://doi.org/10.1080/1540496X.2020.1737680

Vasile, V., Panait, M., & Apostu, S. A. (2021). Financial inclusion paradigm shifts in the post-pandemic period: Digital-divide and gender gap. International Journal of Environmental Research and Public Health, 18(20), 10938. https://doi.org/10.3390/ijerph182010938

Verma, Y., & Garg, P. (2016). Pradhan Mantri Jan Dhan Yojana (PMJDY): A step towards eradicating financial untouchability. Indian Journal of Finance, 10(1), 56-64.

Vlaev, I., & Elliott, A. (2014). Financial well-being components. Social Indicators Research, 118(3), 1103–1123. https://doi.org/10.1007/s11205-013-0462-0

Vosloo, W. (2014). The relationship between financial efficacy, satisfaction with remuneration and personal financial well-being (Doctoral dissertation, University of Pretoria). http://hdl.handle.net/2263/40855

Washington, DC: World Bank. https://doi.org/10.48529/JQ97-AJ70

Were, M., Odongo, M., & Israel, C. (2021). Gender disparities in financial inclusion in Tanzania (No. 2021/97). WIDER Working Paper. https://doi.org/10.35188/UNU-WIDER/2021/049-2

Woodyard, A., & Robb, C. (2012). Financial knowledge and the gender gap. Journal of Financial Therapy, 3(1), 1–16. https://doi.org/10.4148/jft.v3i1.1485

World Bank. (2014). Global Financial Development Report 2014: Financial inclusion. World Bank Group. https://doi.org/10.1596/978-0-8213-9985-9

World Bank. (2014). Women, business and the law 2014: Removing restrictions to enhance gender equality. World Bank Group. https://openknowledge.worldbank.org/handle/10986/16239

World Bank. (2015). Empowering women through financial inclusion. https://www.worldbank.org/en/news/feature/2015/08/05/empowering-women-through-financial-inclusion

World Bank. (2015). Empowering women through financial inclusion. https://www.worldbank.org/en/news/feature/2015/08/05/empowering-women-through-financial-inclusion

World Bank. (2018). The little data book on financial inclusion. https://data.worldbank.org/products/data-books/little-data-book-on-financial-inclusion

World Bank. (2019). Financial inclusion and women's economic empowerment: Theory and evidence. World Bank Group.

World Bank. (2022). Global Findex database. https://globalfindex.worldbank.org/

World Bank. (n.d.). Financial inclusion overview. https://www.worldbank.org/en/topic/financialinclusion/overview

Wu, W., Hon-Wei, L., Yang, S., Muda, I., & Xu, Z. (2023). Nexus between financial inclusion, workers' remittances, and unemployment rate in Asian economies. Humanities and Social Sciences Communications, 10(1), 1-10.

Yeyouomo, A. K., Asongu, S. A., & Agyemang-Mintah, P. (2023). Fintechs and the financial inclusion gender gap in Sub-Saharan African countries. Women's Studies International Forum, 97, 102695. https://doi.org/10.1016/j.wsif.2023.102695

Yorulmaz, R. (2013). Construction of a regional financial inclusion index in Turkey. BDDK Bankacılık ve Finansal Piyasalar Dergisi, 7(1), 79–101.

Zemtsov, A. A., & Osipova, T. Y. (2016). Financial wellbeing as a type of human wellbeing: Theoretical review. The European Proceedings of Social & Behavioural Sciences EpSBS, 7, 385–392. https://doi.org/10.15405/epsbs.2016.02.52

Annexture I

QUESTIONNAIRE

We seek your cooperation in a PhD. study on "Financial inclusion and financial wellbeing: A comparative study based on gender perspective ". We are currently conducting a survey that aims to study the extent of financial inclusion and financial wellbeing in the Uttarkashi district of Uttrakhand, India. This study is supervised by Dr. Aasif Ali Bhat, Assistant Professor, Mittal School of Business, Lovely Professional University, Punjab, India. This study is confidential and exclusively for academic purpose.

We thank you in advance for your contribution to this research work.

Your faithfully
(Pramod Kumar Ojha)
Research Scholar (PhD)
Mittal School of Business
Lovely Professional University
Punjab, India

Section I

Demographic Information

Location detail

Block/ Tehsil ____

Village ____

Respondent profile

Name of respondent ____

Mobile No. ____

Demographic profile

Gender	1. Male	2. Female	3. Other	
Social category	1. Gen	2. OBC	3. SC	4. ST
Age(years)	1. 15 to 34	2. 35 to 59	3. 60 above	
Education	1. Illiterate	2.No formal education		3. Primary
	4. secondary	5. Higher secondary		6. Graduation
Marital status	1. Single	2. Married		3. Widow
Income (INR)	1. Below 7000	2. 7001-13999		3. 14000-20999
	4. Above 21000			
Occupation	1. Unemployed	2. Casual labour		
	3. Self-employed / farmer			4. Salaried

Section II

Information on dimensions of financial inclusion, financial wellbeing, economic empowerment

On a scale of 1 to 5, kindly mark your extent of agreement and disagreement with the following statements.

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
Financial Inclusion					
I access the insurance service through my bank account					
I access the pensions scheme through my bank account					
I access small saving schemes through my bank account (PPF/SSA/SCSS)					
I use multiple accounts for financial services					
Receive government benefits (DBT) in my account					
I access credit facilities through my bank account					
Financial literacy					
I know about benefits of the scheme PMJDY					
I know about digital payment method					
I know the use of ATM/debit card					
Knows the procedure of depositing and withdrawing money from account					
I am capable of evaluating terms and conditions of insurance product					
I am capable of evaluating terms and conditions of loan product					
Risk can be reduced by saving in more accounts					
Higher return investment involves higher risk					
Financial Usage					
I save/deposit money in bank frequently					
I use ATM regularly					

I use bank account for credit facilities					
I use mobile payment app regularly for transactions					
I use internet/mobile banking for transactions					
I use cheques for financial transactions					
I use banking correspondents (BC) for my financial services					
I visit bank branches regularly					
Access					
Opening bank acct is easy					
Getting loan through bank is easy					
Bank employees are cooperative and respond well					
Bank branch is located conveniently					
ATM is located conveniently					
Accessing information on financial product is easy					
I am comfortable with the language used by financial institution					
Bank provide correct and accurate information					
Affordability					
Interest rates on loan is acceptable					
Minimum balance charges to maintain an account is reasonable					
Bank lending rates is comparatively lower than money lender rates					
Different service charges are acceptable					
Satisfied with the interest rate on saving/deposit					
Satisfied with the insurance product offer in banks					
Availability					
Field worker/business correspondent are available to guide customer					
Sufficient bank employees and support staff are available for help					

Grievances and redressal mechanism is customer friendly					
Friendly and courteous bank staff					
Service delivery of banks is prompt					
Loans from banks are promptly available					
Financial wellbeing					
I am able to fulfil my family financial commitment					
I am able to generate income by accessing required finance					
My current financial situation is good					
I am confident about my financial conditions for next 12 months					
I am practicing saving to cover unexpected expenditure					
Financially secured for my old age					
I have backup for unexpected expenditures					
I am on track of adequate money for future financial need					
Economic empowerment					
My income has improved after financial inclusion					
My saving and investment have improved after financial inclusion					
My personal asset has improved after financial inclusion					
My mobility from house has increased after financial inclusion					
My financial skill and knowledge have increased after financial inclusion					
My household financial decision making has improved due to financial inclusion					
Financial inclusion has increased my status in society					
My standard of living has improved after financial inclusion					

Annexture II

LOVELY PROFESSIONAL UNIVERSITY

Transforming Education Transforming India

LIST OF PAPER PUBLICATIONS

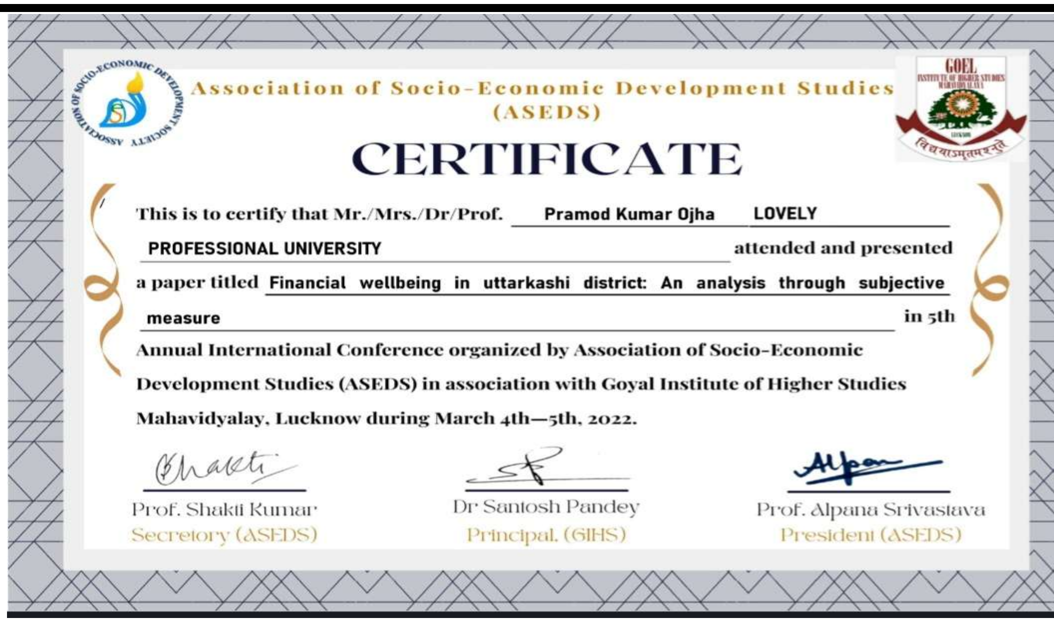
Sl No.	Types of paper (Journal/Conference proceeding/Book chapter)	Journal Indexing (Scopus/UGC/Web of Science)	Title of paper with Author name	Published Date	Volume & issue number /ISSN/ISBN number
1	Book chapter Emerging trends in business and economics	Laxmi publication private limited, New Delhi	Financial inclusion in India-A review of progress and achievements so far Dr. Vijay Srivastava and Pramod Kumar Ojha	2020	Vol 1
2	Journal World focus	Peer reviewed /refereed research journal	Navigating Non-Alignment Movement in twenty first century: Initiate the voyage from India Ocean Pramod Kumar Ojha and Dr. Vijay Srivastava	2021	ISSN2230-8458
3	Book chapter Socio-economic development of India Deceleration to unsustainability	Allied publication, New Delhi	Pandemic Covid-19: Challenges and Opportunities Pramod Kumar Ojha and Dr. Vijay Srivastava	2021	
4	Journal Shodh Sanchar Bulletin	UGC	Covid-19 and its impact on aggregate financial wellbeing: An analysis in	2020	Vol. 10 Issue 40

			context of economic factors in India Pramod Kumar Ojha and Dr. Shailendra Kumar Singh		ISSN22293 620
5	Journal Bank Quest Journal of India institute of Banking and finance	UGC	Monetary policy transmission in India: Analysing the framework and impediments with special focus on financial inclusion Pramod Kumar Ojha	2021	Vol. 92 No. 3 ISSN00194 921
6	Journal Bank Quest Journal of India institute of Banking and finance	UGC	Fintech: Financial inclusion or Banking disruption Pramod Kumar Ojha	2022	Vol-93 No. 3 ISSN00194 921
7	Journal Tuijin Jishu/Journal of Propulsion Technology	SCOPUS	Only Bank account is not sufficient: An Empirical evidence of gender gap in financial inclusion in remote hilly India Pramod Kumar Ojha and Dr. Aasif Ali Bhat	2023	ISSN1001-4055
8	Journal African Journal of Biomedical Research	SCOPUS	Assessing financial Inclusion's impact on women financial wellbeing: Insight from India Pramod Kumar Ojha Dr Devinder Kumar	2024	ISSN 1119-5096
9	Book Chapter Research Methodology for Social Science	Devyani Publisher and Distributors	Activity mapping Methodology in public policy Dr Vijay Srivastava Pramod Kumar Ojha	2024	

10	Journal International Research Journal of Multidisciplinary Scope	SCOPUS	Inclusive Finance: Bridging Gender Gaps in India Pramod Kumar Ojha Dr Devinder Kumar	2025	ISSN(O) 2582-631X
11	Journal Bank Quest Journal of India institute of Banking and finance	UGC	Financial Inclusion 2.0: AI-Driven Solutions for Closing the Credit Gap among MSMEs Pramod Kumar Ojha	2025	Vol-96 No. 4 ISSN00194921

Annexture III

LIST OF CONFERENCE



Association of Socio-Economic Development Studies (ASEDS)

CERTIFICATE

This is to certify that Mr./Mrs./Dr/Prof. Pramod Kumar Ojha LOVELY PROFESSIONAL UNIVERSITY attended and presented a paper titled Financial wellbeing in uttarkashi district: An analysis through subjective measure in 5th Annual International Conference organized by Association of Socio-Economic Development Studies (ASEDS) in association with Goyal Institute of Higher Studies Mahavidyalay, Lucknow during March 4th—5th, 2022.

Prof. Shakti Kumar
Secretory (ASEDS)

Dr Santosh Pandey
Principal, (GIHS)

Prof. Alpana Srivastava
President (ASEDS)

LPU MITTAL SCHOOL OF BUSINESS

Certificate No. 214352

Certificate of Recognition

This is to certify that Dr./ Mr. / Ms. Pramod Kumar ojha of Mittal School of business, Lovely Professional University has participated and presented a paper titled COVID-19 and its Impact on aggregate financial well being: An Analysis in Context of Economic Factors in Indian in the International Conference on "Rethinking Business : Designing Strategies in the Age of Disruptions" held on December 19, 2020 organized by Mittal School of Business, Lovely Professional University, Punjab.

Date of Issue : 14-01-2021
Place of Issue: Phagwara (India)

Prepared by
(Administrative Officer-Records)

Organizing Secretary
Dr. Rajesh Verma

Conference Director
Dr. Sanjay Modi

ASEDS

4th Annual Conference of Association of the Socio-Economic Development Studies (ASEDS)

"Issues and Challenges faced by Global Economy owing to Pandemic"

Certificate

This is to certify that Prof./Dr./Mr./Ms./Mrs. ***PRAMOD KUMAR OJHA*** *of* ***LOVELY PROFESSIONAL UNIVERSITY*** *has participated in the 4TH Annual Conference of ASEDS organized at Dr. Ram Manohar Lohia National Law University, Lucknow on March 19-20, 2021.*

Dr. Mitali Co-Convener	**Prof. Vinod** Convener	**Prof. Alpana Srivastava** Vice-President, ASEDS	**Dr. N.M.P. Verma** President, ASEDS

LPU MITTAL SCHOOL OF BUSINESS

Certificate No. 239673

Certificate of Participation

This is to certify that Dr./ Mr. / Ms. **Pramod Kumar Ojha**

of **Mittal School of Business, Lovely Professional University**

has participated in the International Conference on **"INDUSTRY 5.0: HUMAN TOUCH, INNOVATION AND EFFICIENCY"** *held on January 28, 2022 organized by Mittal School of Business, Lovely Professional University, Punjab.*

Date of Issue : 08-03-2022
Place of Issue: Phagwara (India)

Prepared by **(Administrative Officer-Records)**	**Organizing Secretary** **Dr. Rajesh Verma**	**Conference Director** **Dr. Sanjay Modi**

Annexture IV

LIST OF BOOK CHAPTER

Financial Inclusion in India – A review of progress and achievement so far

Dr. Vijay Srivastava[1] Pramod Kumar Ojha[2]

1(Assistant Professor Mittal School of Business, Lovely Professional University, Jalandhar, Punjab, India)

2(Research Scholar Mittal School of Business, Lovely Professional University, Jalandhar, Punjab, India)

Abstract

This paper analyses the journey of financial inclusion in form of initiative, challenges, achievements and scope in India. Financial inclusion has become a buzz word of every inclusive policy all over world. Various institutions of the world and in India has given definitions of financial inclusion as per their choice but crux of all these definitions is that it is providing adequate and appropriate financial service to vulnerable group in society at affordable cost in fair and transparent manner on time. India being one of the fastest growing economies requires financial inclusion immensely as it stabilizes economy and creates employment. RBI and GOI have taken many path breaking steps to bring unbanked and underbanked under formal financial system. However, India being a geographically large and culturally diverse country has its own demand and supply side challenges. India has started the journey of financial inclusion after independence but financial inclusion in its policies were initiated after the recommendations of the Rangrajan Committee 2008. India has travelled a long distance so far and has done commendable job after 2014 PMJDY scheme launch. Its achievements are counted as one of the successful stories of financial inclusion. But still there is a long distance to travel and we have to find new approach which should holistically involve all stakeholders of financial inclusion, after all financial inclusion is not limited to increase the count of bank account but to enhance the quality of life of financially excluded population through formal financial system.

Key words: Financial Inclusion, Financial Exclusion, Financial deepening

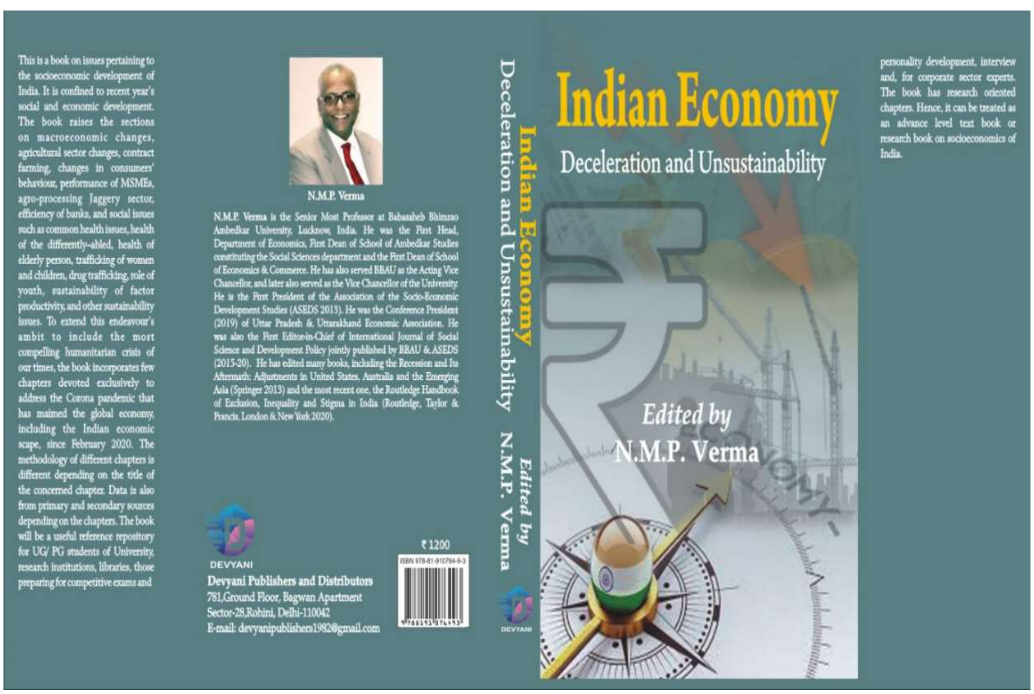
27

Pandemic Covid-19: Challenges and Opportunities

—Pramod Kumar Ojha, Vijay Srivastava

'It was not only Ganga but all rivers in India were clogged with dead bodies because there was no firewood to cremate them. The situation became worse due to failure of monsoon that year which led to the condition of drought and famine. In such condition people were forced to move towards cities to feed themselves making the cities congested and ideal for the virus to spread' (Biswas, 2020). This is not tragic movie scene but the real situation of Spanish Influenza or Bombay Fever which was faced by world and India exactly a century back.

It seems that time has replicated itself after a century and we are again in the world of virus and pandemic which is swallowing up the people with each day passes, but to be sure there are many things has changed between then and now but still there are some salient similarities between the Spanish influenza and the Novel Corona virus disease 2019. COVID-19 as it is called by the WHO is caused by the virus SARS-CoV-2(severe acute respiratory syndrome coronavirus-2). It has infected more than One Crore people and has caused more than Five lakhs fatalities till date. It has spread



CHAPTER-19

ACTIVITY MAPPING METHODOLOGY IN PUBLIC POLICY

Vijay Srivastava, Pramod Kumar Ojha

In the domain of public policy and social science there is a need of strong methodology, based on inter disciplinary perspective, to do a quality research. In rural development researcher must know the methodology of an activity mapping and devolution index. This chapter discusses the concept of activity mapping and devolution index in detail with reference to Public Policy Research (PPR) and research in governance. Activity mapping methods is based on the principles of public finance. This method is very useful for research related to issue of decentralization. A similar kind of research approach was adopted by Lant Pritchett and Varad Pande in year 2006. In India evaluative studies in social science are very popular among new researchers and public policy makers. To

Annexture V

LIST OF JOURNAL PUBLICATION

ISSN - 2229-3620
APPROVED UGC CARE
KKS

SHODH SANCHAR BULLETIN
Vol. 10, Issue 40, October-December 2020
Page Nos. 140-146

AN INTERNATIONAL BILINGUAL PEER REVIEWED REFEREED RESEARCH JOURNAL

COVID-19 AND ITS IMPACT ON AGGREGATE FINANCIAL WELL-BEING:AN ANALYSIS IN CONTEXT OF ECONOMIC FACTORS IN INDIA

Pramod Kumar Ojha*
Shailendra Kumar Singh**

ABSTRACT

Covid-19 has manipulated the socio-economic condition of the people around the world and in India. It has altered the setting of people's financial well-being by impacting at its core. This paper is attempting to define and makingto understand the concept of financial well-beingand implementing this understandingtoanalyse the impact of COVID-19 on financial well-being in India. This study has used economic factors (employment, economic growth, inflation and interest rate), a subfactor of contextual wing of financial well-being. These influencers have a large stake in deciding financial well-being of people and study of these factoralso becomes important during COVID as they have received the maximum brunt of the crisis.

Keywords : COVID-19, Financial well-being, Unemployment, Inflation, Interest rate

INTRODUCTION

The pandemic COVID is one of the most catastrophic events in the past few decades that the present generation has ever witnessed. It spread all overthe world impacting the political, economic and societal aspects by inducing a permanent change in life style of people all over the world.Originated as a health crisis, COVID-19 has now turned as an economic crisis. It has led the people to lose their job, impacted GDP growth, accelerated inflation and has impacted financial market, indirectly snatching financial well-being of people all over the world. India being the second most populous country has become one of the hotspots of severe economic crisis. This paper will analyse the impact of COVID-19 on financial well-being of people in India through its economic factors.

Financial well-being has been studied in various academic fields,however there is no universally agreed definition or measurementbut it is very important for overall well-being of an individual, and economic factor like economic growth, employment, inflation and interest rate play a prominent role in individuals financial well-being(Bruggen et al, 2017). As per Kempson et al, (2017)consumption,saving, debts,income variation and own housealso influence financial well-being andaccording to Muir et al., (2017) income, stability of income, source of income and status of employment impacts financial security financial stress,ability to make end meets and finally financial well-beingof an individual. According toPrendergast et al.,(2018) financial well-being can be defined as, able to meet financial commitments, have source to enjoy life and ability to cope with unexpected financial shocks including a sense of satisfaction with the present financial situation while having a pessimistic view and plan for one's financial future

IMPACT ON EMPLOYMENT AND INCOME

The pandemic pushed the world into the unprecedent crisis and ambiguity and India was not untouched from this peril. The restriction created by lockdown raised unemployment rate up to 24 percent (Fig-1) and also registered a fall of 45.7 percent in household income in India (Statista, 2020). The instant brunt of pandemic was faced by the working class and as

*Research scholar, Mittal School of Business, Lovely Professional University, Jalandhar, Punjab, India
**Assistant Professor, Government College,Bhatronkhan, Almora, Uttarakhand, India

Monetary Policy Transmission in India: Analysing the framework and impediments with special focus on financial inclusion

Pramod Kumar Ojha*

Monetary Policy is an important instrument for Economic management of the country. Reserve Bank of India is the central authority and responsible for maintaining price stability and economic growth of the country. This paper will analyse the mechanisms and channels through which monetary policy transmission works in India and will also study the framework under which monetary policy is working currently, its recent performance and the factors that are challenging swift and adequate transmission of monetary policy in India. This paper has also focused on the role of financial inclusion in monetary policy transmission and its effectiveness.

Introduction

Today, when hospitals and doctors in India are at ease relatively as the vaccination has started reaching to the masses, however, the dent which the pandemic has left on the Indian economy in form of price instability, unemployment, and decline in economic growth rate will take some time to fill. The institutions and economic warriors are storming their brains to bring back the Indian economy on track. It has become the priority for the government agencies, institutions and economic warriors to recentre their agenda and planning which was disturbed by the pandemic. Stakeholder are trying their best to bring back the economy back on track.

The pandemic was no less than a dissolution for the Indian economy which resulted in high unemployment, GDP decline and price instability (Ojha and Singh, 2020). These are the real situations for what the Reserve Bank of India (RBI) Act was amended in 2016 to establish Monetary Policy Committee (MPC) with primary objective of price stability and growth (Acharya, 2017). The Reserve Bank's Monetary Policy Department (MPD) assists MPC in framing monetary policy and deciding policy repo rate. Monetary policy is the action taken by the RBI to regulate money supply, achieve macroeconomic goals and sustain economic growth. As per the RBI Act 1934, the Apex bank is set to regulate issue of bank notes and keeping reserve to secure monetary stability. As per Mohan, (2016) though it is not mentioned in this Act but the twin objective of monetary policy is price stability and provisioning adequate credit to productive sector of economy to support sustainable economic growth and among this, the former has been given more priority as it is the low inflation that creates environment for sustainable growth. Monetary policy transmission is the process through which the monetary policy action of the RBI is transmitted to the final objective of price stability and sustainable economic growth (Acharya, 2016). This paper will discuss the mechanism, trend, impediments in monetary policy transmission in India and also attempt to find a role of financial inclusion in monetary policy transmission.

Monetary policy transmission mechanism

Monetary transmission is the entire process (Fig:1) from changing of the policy rate by RBI to adoption of the rate by money market to disseminating it to economic agents like households, firms and government, finally resulting in price stability, economic growth and employment. The changes in policy rates reaches to various economic agents through various channels. It is very important for the transmission that how these economic agents react to these changes. The economy is impacted by the change in policy rate through various channels, five major among them are interest rate, credit, exchange rate, asset price and expectation (Acharya, 2016).

*SWO 'A', Punjab National Bank.

FinTech: Financial inclusion or Banking disruption

Pramod Kumar Ojha*

Abstract

In the present scenario, the landscape of financial system has seen a fundamental transformation. Financial innovation in the form of FinTech has increased the options of delivery channels as well as increased the population of bankable leading to financial inclusion to a great extent. However, it has also breached into the territory of traditional banking institutions resulting in the disruption of their normal working making the financial environment uncertain, raising new challenges for financial regulators and supervisors. This article also suggests way forward in the form of mnemonic 'SECURE' that incorporates points like Security, Education, Customer, Undertaking, Regulation and Evolution to make the incumbent financial institutions more secure.

Introduction

Financial technology, it is better known as FinTech, can be define as the new technology that seeks to improve and automate the delivery and use of financial services. It is a union of financial services and information technology. In simple terms, it can be explained as the industry that uses technology to make financial system and delivery of financial services more efficient. The relation of finance and technology is quite old, however, the word has gained relevance in past decade after the 2008 financial crisis.

It is working efficiently for the agenda of financial inclusion by providing financial services in cost effective, accessible, speedy, transparent to those who were neglected by banks due to constrains of resources and geography. Present demographic conditions of India with young and tech savvy population are providing prepared ground for FinTech to evolve. India is one of the fastest growing FinTech market in world with six thousand plus FinTech startups.

It has challenged the business model of conventional banking and has blurred the boundaries between conventional banking and other financial technology industries. It has raised the concern for the financial regulators and law enforcement. The rise of digitalization of financial system is also raising the concern for public fund and data. Financial fraud, cybercrime, issues related to data piracy and unregulated financial agent have also increased along with developments in FinTech landscape.

This article explains the historical background of FinTech followed by emergence of FinTech in India, relevance of FinTech for financial inclusion and the disruption caused by FinTech in conventional banking business model. This article is trying to establish a tradeoff between financial technology and banking with the suggestions as way forward.

*SWO 'A', Punjab National Bank.

ISSN: 1001-4055
Vol. 44 No. 4 (2023)

Only Bank Account is Not Sufficient: An Empirical Evidence of Gender Gap in Financial Inclusion in Remote Hilly India

Pramod Kumar Ojha[1], Aasif Ali Bhat[2]

[1]*Research Scholar, Mittal School of Business, Lovely Professional University, Jalandhar, Punjab, India*

[2]*Assistant Professor, Mittal School of Business, Lovely Professional University, Jalandhar, Punjab, India*

Abstract: **Purpose-**The study attempts to explore the determinants of demand side of financial inclusion; it examines the gender gap in financial inclusion in the hilly remote of India.

Design/methodology/approach- the study has used demand side determinant of financial inclusion to measure gender gap using 400 samples in the hilly remote district of Uttarkashi in India. This research has used both descriptive and exploratory research design. The primary data has been collected using structured questionnaire using multistage stratified random sampling. Logistic regression is performed to describe the gender gap and impact of other independent variable on usage determinant of financial inclusion.

Findings- Out of ten logistic regression models to determine gender gap in financial seven were statistically significant to explain the gender gap. In addition to gender the other factors like income, education, employment and density of financial institutions were statistically significant for the financial inclusion in remote hilly region in India.

Research limitations/implications- the outcome of research will assist the stakeholders, policy makers and researchers to reorient their views towards financial inclusion and its relationship with gender and other variables. It will also help them to enact policy guideline towards gender in financial inclusion initiative

Originality/value-Density of financial institution do play an important role in financial inclusion. This paper has also given more weightage to digital aspects of financial inclusion. This study will thus add a new dimension in determining financial inclusion and will enhance the literature of financial inclusion.

Keywords- *Financial Inclusion, Gender Gap, Usage, Financial Literacy, Logistic Regression.*

1. Introduction

The word development is one which cannot be neglected in a civilized society. There is no corner on this earth that does not aspire to be in developed league. It is the buzz word that every policy maker, institutions and researcher peeks into and sustainable development goal is one such initiative at global level to see this world at higher platform. Thinking of development without financial inclusion is like sailing a boat without rudder in fact financial inclusion has been recognized as an enabler of around forty percent of sustainable development goal and World Bank has acknowledge that poverty cannot be reduced without enabling financial inclusion.Having a transaction account is the first step towards financial inclusion as a transaction account opens all other door for financial services. However, having only a transaction account cannot be the bliss point of financial inclusion. Financial inclusion is a continuous process that need to inculcate all other service that improves individual and business financial status. Sustainable development goal also include gender equality and gender inequality in financial inclusion is one of the major concerns for the world today. Though the gender gap in transaction

account has reduced but there are huge gaps in availing other services relating to financial inclusion and this scenario the gender gap became more prominent in the region which are remote and hilly. This paper is quite unique in its approach as it is including the study of financial inclusion in remote hilly region of India in the gender perspective by collecting primary data from the respondent already holding at least a bank account. This paper will add to literature of financial inclusion and attempt to find gender gap in other services of financial inclusion excluding account ownership.

This research paper has been shaped into eight sections namely introduction, review of literature, research design and hypothesis formation, research methodology, data analysis and result, discussion, research implication and finally pointing out limitations and future research directions.

https://africanjournalofbiomedicalresearch.com/index.php/AJBR
Afr. J. Biomed. Res. Vol. 27(4s) (November 2024); 1482 - 1493
Research Article

Assessing Financial Inclusion's Impact On Women Financial Wellbeing: Insights From India

Pramod Kumar Ojha[1*], Devinder Kumar[2], Dr. Sakshi[3]

[1*]Research Scholar, Mittal School of Business, Lovely Professional University, Jalandhar, Punjab, India
[2]Assistant Professor, Mittal School of Business, Lovely Professional University, Jalandhar, Punjab, India
[3]Assistant Professor, Mittal School of Business, Lovely Professional University, Jalandhar, Punjab, India

***Corresponding Author:** Pramod Kumar Ojha
[*]Research Scholar, Mittal School of Business, Lovely Professional University, Jalandhar, Punjab, India

Abstract
This research paper aims to explore the determinant of financial inclusion and subsequently examine the effect of financial inclusion on women financial wellbeing. The financial inclusion has been measured from customer perspective with 192 samples. The data has been collected through structured questionnaire based on stratified random sampling. Smart partial least square path modelling is performed to describe the latent construct and their hypothetical relationships. Finding of the study harmonises with earlier studies. Financial inclusion dimensions like accessibility, usage, affordability and financial literacy found significant determinant of financial inclusion. It has been also confirmed that financial inclusion contributes to financial wellbeing of women. The outcome of this study will channelize the stakeholders, financial institutions and policy makers in enacting policy that facilitate financial wellbeing of women through financial inclusion.

Keywords: financial inclusion, financial wellbeing, women, usage, affordability, financial literacy, availability, accessibility

***Author for correspondence:** *pramod1983ojha@gmail.com*

Received: 11/10/2024 *Acceptance: 13/11/2024*

DOI: https://doi.org/10.53555/AJBR.v27i4S.3856

1. Introduction

Inclusion is the process of making sure that everyone in the society has access to resources and opportunities. In financial inclusion it is to provide adequate and appropriate financial service to the excluded individuals or businesses at affordable cost, on time and in transparent manner through formal financial institutions, (Srivastava and Ojha, 2020). Thinking of inclusion without the finance will be like sailing a boat without rudder. Financial inclusion has become a buzz word for government, policy makers, central banks, researchers and socioeconomists all over the world (Allen *et al*, 2012; Camara and Tuesta, 2014; Gupte *et al*, 2012; Arora, 2010). Financial inclusion has been recognised as a basic tool for inclusive economic growth with equity through poverty alleviation (Serrao *et al*, 2012; Nandru *et al*,2016). Financial inclusion has been recognized as an enabler of around forty percent of sustainable development goal and World Bank has acknowledge that poverty cannot be reduced without enabling financial inclusion. Financial inclusion is positively and significantly associated with GDP per capita, human development, government integrity banking system condition and internet usage (Sha'ban *et al*, 2019).

International Research Journal of Multidisciplinary Scope (IRJMS), 2025; 6(4):238-248 IRJMS

Original Article | ISSN (O): 2582-631X DOI: 10.47857/irjms.2025.v06i04.08125

Inclusive Finance: Bridging Gender Gaps in India

Pramod Kumar Ojha, Devinder Kumar*

Mittal School of Business, Lovely Professional University, Phagwara, Punjab, India. *Corresponding Author's Email: pramod1983ojha@gmail.com

Abstract

This study examines the demand-side factors of financial inclusion and the gender disparity that persists in remote hilly regions of India, with empirical evidence drawn from 400 respondents in the Uttarkashi district of Uttarakhand. Data were collected using a structured questionnaire and a multistage stratified random sampling approach to ensure representation across diverse demographic groups. Logistic regression analysis was applied to evaluate the influence of key socio-economic determinants on levels of financial inclusion. The findings indicate the presence of significant gender-based differences in financial participation, with women encountering greater barriers to access and usage of formal financial services compared to men. Beyond gender, variables such as age, education, income, employment status, and marital status emerged as important predictors shaping financial inclusion outcomes. Notably, the study underscores the increasing role of digital financial services and transaction modes in altering financial behaviour, even within geographically challenging and underserved regions like Uttarkashi. These results not only enrich the growing body of literature on financial inclusion but also offer practical insights for policymakers, financial institutions, and development agencies striving to create inclusive and gender-sensitive financial ecosystems. The evidence suggests that targeted interventions, enhanced financial literacy, and customized delivery mechanisms are essential for bridging existing gaps. By focusing on a remote and marginalized hilly district, this research contributes a unique perspective to the discourse on inclusive finance and highlights the urgent need for context-specific strategies to promote equitable financial inclusion.

Keywords: Borrowing, Digital Transaction, Financial Inclusion, Gender Gap, Logistic Regression.

Introduction

In fostering economic development, reduce poverty, and social equity, it is imperative that all people and enterprises have access to affordable and useful financial services. The growing importance of financial inclusion has prompted a series of policy measures designed to expand financial access. It is claimed by researchers that nations with greater financial inclusion rates typically have stronger economic growth (1). Financial services, especially credit and savings, enable people to budget their money more wisely, control their spending, and make profitable investments. Increased access to banking services in rural India dramatically decreased poverty and raised income levels (2). Offering a broad range of banking services, including advances, savings, payments, and insurance products, to a sizable section of the population requires a stable financial system (3). Furthermore, savings accounts offer a secure location to keep money, lowering the risk involved with haphazard savings techniques. Because it diversifies the financial sector and distributes risks more fairly, a financial system that is more inclusive can result in increased financial stability (4). Promoting financial inclusion is crucial to achieving gender equality and empowering women. Access to financial services for women can help them become more independent economically and have more influence over household decisions. Women's access to financial services improves the health and academic performance of their offspring, underscoring the wider social advantages of gender-inclusive financial systems (5). India's economic strategy has placed a strong emphasis on financial inclusion, particularly since the Pradhan Mantri Jan Dhan Yojana (PMJDY) was executed in 2014 with the intention of providing banking services to all. The larger objectives of social justice and economic development are hampered by the notable gender gaps in financial services access that still exist in spite of these efforts (6). The proportion of adult Indians who own a bank account has increased significantly (7). Because it

(Received 15th July 2025; Accepted 29th September 2025; Published 20th October 2025)

FINANCIAL INCLUSION 2.0: AI-DRIVEN SOLUTIONS FOR CLOSING THE CREDIT GAP AMONG MSMES

Pramod Kumar Ojha*

Abstract

Financial inclusion is the key pillar of developmental policies and India is a pioneer country in financial inclusion bringing about fifty crore individuals in the ambit of formal financial institution with the help of Pradhan Mantri Jan Dhan Yojana (PMJDY). However, credit inclusion part of financial inclusion shows a gloomy picture for individuals and specifically among Micro, Small and Medium Enterprises (MSMEs). Credit inclusion is a win-win for both individual and banking industry. There are both demand-side and supply-side challenges of credit inclusion which can overcome by use of technologies. To address this credit gap, the role of Artificial Intelligence (AI) can prove catalytic effect in initiating the part two of financial inclusion with emphasis on credit inclusion among MSMEs. It can unlock the new era of credit delivery that enhance accessibility, affordability, credit appraisal, transparency, risk management, recovery and governance. Though use of AI in banking sector is not free from risk but using it with ethics and responsibility can ensure inclusion, resilience and financial stability, positioning AI as an enabler of sustainable and inclusive credit rather than a substitute for human judgment.

Keywords: *Financial inclusion, Credit inclusion, Artificial Intelligence, Credit gap, MSME*

Introduction

Financial inclusion is the process of providing basic financial services to underserved or unserved individual or business entities at the affordable rates, on time and in transparent manner. In the last decade, India's banking system has exhibited a tremendous improvement in the area of financial inclusion. India's financial inclusion policies like providing banking services, affordable credit, digital payment, insurance and pension products and financial literacy have culminated into many initiatives like Pradhan Mantri Jan Dhan Yojana (PMJDY), Priority Sector Lending (PSL), Pradhan Mantri MUDRA Yojana, Stand up India, Unified Payments Interface (UPI), Aadhar Enabled Payment Service (AEPS), Pradhan Mantri Suraksha Bima Yojana (PMSBY), Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY), Atal Pension Yojana (APY) and National Centre for Financial Education (NCFE). RBI's financial inclusion index also indicates a steady rise from 53.9 in 2021 to 67.0 in 2025 (RBI, 2025). Despite this progress in access to basic accounts and payments, a persistent credit gap continues to constrain the potential of individuals, small enterprises, farmers and underserved groups. Traditional credit assessment models, which rely heavily on collateral and historical data, often exclude those lacking formal financial footprints. Though we have improved a lot in many dimensions of financial inclusion, however, we need to travel a long distance in credit inclusion. MSME sector, the backbone of India's Gross Domestic Product (GDP), lack access to formal credit.

In this context, Financial Inclusion 2.0 signifies a new

*Special Customer Service Associate, Punjab National Bank.

Annexture VI

LIST OF WORKSHOPS

HUMAN RESOURCE DEVELOPMENT CENTER

[Under the Aegis of Lovely Professional University, Jalandhar-Delhi G.T Road, Phagwara (Punjab)]

Certificate No. 248350

Certificate of Participation

This is to certify that **Mr. Pramod Kumar Ojha** S/o Sh. Gupteshwar Ojha participated in **Workshop on Data Analysis Using SPSS for Social Sciences** organized by Lovely Professional University w.e.f. **June 06, 2022** to **June 14, 2022** and obtained "**A**" Grade.

Date of Issue:14-06-2022
Place : Phagwara (Punjab), India

Prepared by
(Administrative Officer-Records)

Checked By
Program Coordinator

Head
Human Resource Development Center

NATIONAL WORKSHOP
ON
APPLIED SPSS AND RESEARCH METHODOLOGY

S.N.-09

E-CERTIFICATE

This is to certify that PRAMOD KUMAR OJHA, Ph.D. Scholar Institute- LOVELY PROFESSIONAL UNIVERSITY, JALANDHAR, PUNJAB has participated in the Online National Workshop on "*Applied SPSS and Research Methodology*" held on *November 23 to 29, 2020* **Organized by Government Degree College, Bhatronjkhan (Almora) Uttarakhand in Collaboration with KISNO Foundation, New Delhi.**

Seema Srivastava

Dr. Shailendra Kr. Singh
Convenor & Organising Secretary

Dr. Urvashi Pandey
Organising Secretary &
Member of KISHNO Foundation

Prof. Seema Srivasatava
Patron & Principal

Annexture VII

LIFE MEMBER CERTIFICATE

ASSOCIATION OF THE SOCIO - ECONOMIC DEVELOPMENT STUDIES, LUCKNOW, INDIA

Association of the Socio-economic Development

Registered Under The Society Registration Act 21, 1860

Regd. No.2691-2012-2013, Dated March 11,2013

This is to Certify that Dr./ Prof./Mr./ Mrs. / Others Pramod Kumar Ojha

of Research Scholar, LPU, Punjab. C/O Rajesh

Address Pandey Devlok, Colony, Shimla Bypass, Dehradun.

Has been Admitted as a Life Member / Donor Member / Corporate Member / Institutional Member of ASEDS the above Membership No.

is 0462

Alpana Srivastava
Vice-President (ASEDS)

Vinod Kumar Srivastava
Secretary (ASEDS)

Rashi k Sinha
Treasurer

Annexture VIII

NURTURING FINANCIAL INCLUSION FOR FINANCIAL WELL-BEING: A GENDERED PERSPECTIVE

CLIMBING UNEQUAL LADDERS: A GENDERED JOURNEY TO FINANCIAL INCLUSION IN UTTARKASHI