An Ethnographic Study of Financial Inclusion and Economic Inequality among Tribal Population in UT Jammu and Kashmir

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DECLARATION

I, hereby declare that the presented work in the thesis entitled **"An Ethnographic Study of Financial Inclusion and Economic Inequality among Tribal Population in UT Jammu and Kashmir"** in fulfillment of my degree of **Doctor of Philosophy (Ph. D.)** is outcome of research workcarried out by me under the supervision DR. AASIF ALI BHAT, working as Assistant Professor,in the Mittal School of Business (Economics) of Lovely Professional University, Punjab, India. In keeping with the general practice of reporting scientific observations, due acknowledgments have been made whenever the work described here has been based on the findings of other investigators. This work has not been submitted in part or full to any other University or Institute for the award of anydegree.

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CERTIFICATE

This is to certify that the work reported in the Ph. D. thesis entitled **"An Ethnographic Study of Financial Inclusion and Economic Inequality among Tribal Population in UT Jammu and Kashmir"** submitted in fulfillment of the requirement for the reward of degree of **Doctor of Philosophy (Ph.D.)** in the Mittal School of Business (Commerce), is a research work carried out by **Jahangir Ahmad Lone 11816301**, is bonafide record of his original work carried out under my supervision and that no part of thesis has been submitted for any other degree, diploma or equivalent course.

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ABSTRACT

The union territory of Jammu and Kashmir holds political and geographical significance for the country, and its challenging terrain makes it difficult to provide banking services to tribal communities. The study aims to investigate how demographic characteristics influence the level of financial inclusion and explore the relationship between financial inclusion and economic inequality in the tribal community in Jammu and Kashmir. The study measured demographic attributes such as gender, age, marital status, income, occupation, and education. Primary data was collected from the top four tribal districts in the region using a well-structured questionnaire. The logit model and the Partial Least Squares Structural Equation Modeling (PLS-SEM) technique were used to test the hypotheses. The findings from the logistic regression analysis indicate that demographic characteristics significantly contribute to financial inclusion. The results from PLS-SEM analysis demonstrate that financial inclusion has effects on both economicempowerment and economic inequality, Previous research has not examined the impact offinancial inclusion on economic inequality and empowerment specifically for tribal populations. This study seeks to fill this gap by constructing an integrated model that explores the relationshipbetween drivers of financial inclusion and economic inequality and empowerment. By doing so, the study contributes to the development of financial inclusion in Jammu and Kashmir. The implications of this study are significant for various stakeholders, including regional financial institutions, the central government, and the local government in Jammu and Kashmir. Financial policymakers should take into account the demographic characteristics of the tribal population when designing strategies to reduce financial disparities. The large unbanked population in tribal areas presents an opportunity for banks to access new markets. Therefore, it is recommended thatfinancial policies be developed to promote financial inclusion, and banks should actively reach outto low-income households in tribal regions. This not only fulfills their social responsibility but alsotaps into a potential market. Overall, this study provides insights into the factors influencing financial inclusion among the tribal community in Jammu and Kashmir and highlights theimportance of addressing financial disparities based on demographic characteristics. The findings have practical implications for policymakers and financial institutions aiming to promote inclusivegrowth and reduce economic inequality in the region

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INTRODUCTION

1.1 Background

In the past decade, the majority of countries' developmental philosophies have placed a strong emphasis on financial inclusion for inclusive growth. Enhancing the availability and usage of financial products and services has emerged as a significant goal for regulators and policymakers aiming to foster the expansion of the financial industry and accomplish comprehensive financial inclusivity. In pursuit of sustainable development and advancement in this realm, financial inclusion can facilitate a more productive and streamlined approach, leading to substantial advantages. Inspired by successful endeavors in various nations (Demirgüç-Kunt & Klapper, 2012). Financial inclusion involves involving the disadvantaged and marginalized sectors of the economy in the growth process and participating in its benefits. There is evidence to support its significant advantages for fair and sustainable growth. While the economy expands quickly, inclusive growth ensures that all facets of society participate, ensuring equitable opportunities free from regional or sectoral imbalances.

Financial inclusion is a process that leads to inclusive growth. No matter their financial condition, it seeks to include everyone in the financial system for personal development and equality (Choudhary, 2020). Instead of offering services in more developed or lucrative markets, inequality in capital distribution is balanced by an inclusive financial system, thereby decreasing disparities in income and wealth. (Allen et al., 2016; Turvey & Xiong, 2017). Sustainable growth and the emancipation of the underprivileged segments of society are made possible through equitable financial services (Gupta et al., 2014). This, in turn, promotes social stability and reduces the prevalence of poverty (Honohan, 2008; Yang et al., 2022) As the standard of living rises, and poverty decreases; people can make more economic contributions (Ridley et al., 2020). Several empirical studies demonstrate that financial inclusion has a substantial impact on a range of economic factors, such as poverty, inequality, human development, and economic growth (Kuri & Laha, 2011; Park & Mercado, 2015). Additionally, by addressing asymmetric information problems and high transaction costs, financial inclusion can increase boost liquidity and, bring out equitable and long-term development (Beck et al., 2009).

Despite significant advancements in promoting global financial inclusion, roughly 1.7 billion adults continue to lack access to banking services, and this issue disproportionately affects low-income individuals in less-developed nations (Demirguc-Kunt et al., 2018). Emerging nations have significant development disparities, yet neglecting rural areas could hurt societal stability. Financial inclusion programs are required to safeguard households from risks and to improve living conditions by bringing people experiencing poverty into the financial system's purview (WBG, 2013). For economic empowerment in society, it is very essential for the most vulnerable and impoverished citizens. According to research, having access to financial services and goods may help reduce inequality and break the vicious intergenerational cycles of poverty (Beck et al., 2007). Access to an account can significantly improve the quality of life for individuals previously excluded from the banking system, as it facilitates the utilization of supplementary financial services such as lending and insurance. Furthermore, it enables individuals to allocate funds towards crucial areas such as healthcare and education, thereby enhancing their overall well-being. Additionally, having an account can even stimulate entrepreneurial initiatives, providing individuals with the financial tools and resources needed to pursue business ventures and drive economic growth (Demirgüç-Kunt et al., 2022). Conversely, a lack of access to reasonably priced and beneficial financial goods may lead the underprivileged to rely on more shady funding sources, including friends and relatives, pawn shops, concealing cash under mattresses, and payday lenders. Usually, these procedures are expensive, unreliable, and dangerous, and they can push people with lowincomes further into impoverishment (Cull et al., 2014).

Although it is a global objective, achieving financial inclusion is crucial for developing nations because they frequently take official financial services and products less seriously (Demirgüç-Kunt & Klapper, 2013; Demirgüç-Kunt et al., 2015). By cultivating an environment conducive to a more inclusive financial system, underdeveloped countries can expand the reach of traditional financial services to a greater number of impoverished individuals, thereby enhancing their livelihoods and economic prospects. Also, it can promote economic growth, poverty alleviation, and social and economic equality (King & Levine, 1993; Beck & Levine, 1999; Rajan & Zingales, 2003). As well as rising debt that has exacerbated some preexisting inequities, particularly for low-income groups and those who have historically been denied access to mainstream finance (Saegert et al., 2014).

Many countries worldwide have invested significant resources in developing a plan to reduce financial exclusion. 1.2 billion adults acquired access to a bank account between 2011 and 2017. This would equate to 69 percent of adults worldwide being accessible in 2017 (Abdulhakeem, 2021). One of the World Bank Group's main areas of attention has been its ongoing work to assist people in getting access to transaction accounts, and this was the primary objective of the WBG 2020 universal access initiative (Demirgüç-Kunt et al., 2020). The program was completed that year and yielded benefits, but it also provided signals that more work needs to be done (Demirgüç-Kunt et al., 2022)**.** As shown by the findings of Global Findex, 2017, substantial advancements have been made. Furthermore, the low usage of formal financial services, which is 740 million people not using their accounts (20 percent of those with accounts), and the usage of formal credit and formal savings has remained relatively consistent when compared to the year 2014 (27 percent and 23 percent, respectively),raises serious concerns (Demirguc-Kunt et al., 2018).

1.2 Concept and Meaning of Financial Inclusion.

The RBI of India defines Financial Inclusion as the "process of ensuring access to appropriate financial products and services needed by all sections of the society in general and vulnerable groups such as weaker sections and low-income groups in particular, at an affordable cost fairly and transparently by regulated, mainstream institutional players" (Raj & Upadhyay, 2020). For a growing economy, Because it will help bring a significant section of the economically excluded sectors into the established financial system, financial inclusion is very important (Ozili, 2021). Financial inclusion strengthens an individual's ability to accumulate financial assets and generate income. It is important tonote that promoting financial inclusion is not merely an act of charity, but a recognition that individuals with modest incomes are not the problem, but rather the solution. The targeted, disadvantaged segments of the population receive substantial welfare benefits effectively and transparently, which is advantageous to the government as well.

According to the World Bank's definition, financial inclusion means having unhindered access to financial services, free from constraints like cost and other factors (Lenka & Barik, 2018). The definition underscores that financial inclusion does not suggest that every household and business should possess unlimited borrowing opportunities or the unrestricted ability to transfer money internationally at any expense. It drives home the idea that a customer's creditworthiness is crucial when offering financial services.

The contrast between "access to"&"use of" financial assistance is also emphasized in the report since it affects decision-makers. While supply and demand influence use, "access" essentially refers to the availability of services.

As per the findings of the Rangarajan committee, financial inclusion guarantees that disadvantaged, low-income, and other vulnerable groups have access to affordable and timely credit. The committee acknowledges that providing financial products and services, including an official bank account, represents an essential initial step toward achieving financial inclusion. However, comprehensive financial inclusion encompasses a variety of financial services designed to meet the diverse financial needs of the population.

Financial inclusion, for, Chakraborty (2011), ensures that everyone in society, including weaker and lower-income groups that are vulnerable, has access to the financial goods and services that they require from mainstream financial institutions at a reasonable cost fairly and transparently. To offer "alternative," welfare-oriented (as compared to profit-driven), dependable, accessible, and inexpensive financial products and services for all demographic groups, according to

Inclusionary financial systems provide an infrastructure, whereby the information on financial inclusion is sourced, "allowing broad access to financial services, without price or nonprice barriers to their use" (Demirguc Kunt &Klapper, 2012).Financial inclusion is a process that makes

it simpler for people to obtain basic and affordable financial services. It particularly benefits low-income individuals and marginalized groups, such as migrants. These services include various alternative options, including insurance, pensions, remittances, and conventional banking products (Sethi & Acharya, 2018). The World Bank describes the availability aspect of financial inclusion (World Bank, 2018).

By financial inclusion, it means "access to appropriate, low cost, fair and safe financial products and services from mainstream service providers" (Varghese & Viswanathan, 2018).

Financial inclusion empowers individuals who are underserved and marginalized to actively participate in the financial system, providing them with access to financial services that facilitate economic growth and generate opportunities for empowerment (Lenka & Barik, 2018).

Opening a transaction account is a crucial milestone in the journey toward financial inclusion asit empowers the account holder to carry out fundamental economic functions such as money transfer, receipt, and storage. Encouraging the adoption of supplementary financial services like credit, insurance, and investments in healthcare and education, access to an account can substantially improve the overall quality of life for individuals who were formerly excluded from the financial system (Demirgüç-Kunt et al., 2022).

Microfinance has played a pivotal role in promoting financial inclusion, specifically targeting small-scale business owners and individuals without access to traditional banking services. The Grameen Bank in Bangladesh, led by its founder Muhammad Yunus, received the Nobel Peace Prize in 2006 for its commendable work in fostering economic and social development at grassroots levels through microfinance (Bajde et al., 2022). Given this, increasing the financial accessibility of the world's impoverished population has beena key component of the policy to create possibilities for flourishing economies and combat economic inequalities (Demir et al., 2020). Its significant placement amongst the UN SustainableDevelopment Goals for 2030 also reflects this (UN, 2022 A; UN, 2022B).

1.3 Financial Inclusion in India

The cooperative concept first emerged in India in 1904, when the idea of financial inclusion was alreadyin existence. When the lead bank program and 14 of the nation's biggest commercial banks werenationalized in 1969, the movement gained traction (Kumari, 2020). Since that time, branches have been established across the country, including in previously underserved regions. Over the years, the Reserve Bank of India (RBI) has implemented various measures to enhance financial access for the economically disadvantaged sections of society. On October 11, 2012, the Reserve Bank of India established the Financial Inclusion Advisory Group (FIAC) group to lead the charge for increased financial inclusion (Staples, 2019). India's financial inclusion process can be divided into three parts. The goal of the First Phase (1960–1990) was to direct credit towards the underserved areas of the economy. Additionally, the focus was placed particularly on society's poorergroups. As part of reforms to the financial sector, the second Phase (1990–2005) primarily concentrated on bolstering the financial organizations.

During the Third Phase (starting from 2005), significant drivers of financial inclusion entailed the

commencement of the Self-Help Group (SHG)-bank linkage program and the introduction of Kisan Credit Cards (KCCs) aimed at streamlining the procedure for extending credit to farmers. The policy priority of "financial inclusion" was clearly emphasized during this phase, and efforts were made to establishsecure channels for savings deposits through simplified "no frills" accounts (Chattopadhyay, 2011). Growth is envisioned as a primary objective of the 11th Five-Year Plan (2007–12). The Plan document acknowledges that, especially after the mid-1990s, the economic expansion has notbeen adequately inclusive. It is suggested that future changes would also be focused on enlargingwith deepening financial markets and distinctive banking structures. As an interesting 'component'of such financial sector changes, financial inclusion has been incorporated into bigger projects (Ramakrishna, 2015).

The Indian government has taken several actions to create an inclusive financial system. Since 2014, the government has launched numerous successful programs, including Pradhan Mantri Jan Dhan Yojana, Pradhan Mantri Mudra Yojana, Pradhan Mantri Jeevan Jyoti Bima Yojana, and Pradhan Mantri Suraksha. among others, Bima Yojana, Atal Pension Yojana, and Stand Up India Scheme. In India, account ownership increased by more than half in the lastten years, from 35% in 2011 to 78% in 2021, according to the Global Findex Report (2021). Thisresult was partially a result of an Indian government strategy implemented in 2014 that made use of biometric identification cards to increase adult account ownership (Demirgüç-Kunt et al., 2022).

Nevertheless, despite the ongoing efforts of policymakers, a significant portion of the population, especially those from underprivileged segments, still lacks access to financial services provided by formal institutions (Khaki & Sangmi, 2017). This absence of financial inclusion has led to the flourishing of informal banking systems (Sarma & Pais, 2011; Sharma, 2016), which poses a major obstacle to the efficient allocation of funds and ultimately hampers economic development. Furthermore, merely opening bank accounts or obtaining loans is insufficient unless they translate into productive activities that contribute to GDP growth and human development.

The Financial Access Survey, (2017), Current information on India's financial access and use of financial services may be found in the International Monetary Fund (IMF) database. According to IMF data, there were 33 home loan accounts with commercial banks for every 1000 individuals in India, and there were 62 ATMs per 1000 KM. The World Bank team in India conducted a Financial Inclusion Survey in 2021, including face-to-face interviews with 3000 respondents. The survey's

findings indicate that while inactive accountownership varies among developing economies, it is particularly high in India (35 percent), wherethe percentage of persons with inactive accounts was relatively constant between 2017 and 2021 (Demirgüç-Kunt et al., 2022).

The financial inclusion programs that supported them have led to an increase in the number ofrural Indians with bank accounts, but there has been no equivalent improvement in rural Indians' access to banking products and services. This is due to several factors, including the target population's frequent complete financial illiteracy and the fact that banking institutions are still not easily reachable to rural Indians, using the services and products they provide are prohibitively priced, or the accessible financial products and assistance do not adequately address their needs. India accounts for a sizable portion of the 230 million unbanked people worldwide (Demirgüç- Kunt et al., 2022). As a result of these difficulties, just 23 percent of rural Indians with bank accounts consistently utilize them (NAFIS, 2017). The lack of access to physical financialinstitutions, affordable financial products, and suitable services remains a significant challenge forrural Indians, these services are either too costly to utilize or fail to cater to the specific needs of the target population, who often have limited financial literacy (Schuetz & Venkatesh, 2020; Demirgüç-Kunt et al., 2022).

1.4 Tribal population

For a clearer understanding of what the term "tribe" means, consider some significant definitions from academics, Tribe is a social group that typically has a defined region, dialect, cultural homogeneity, and unifying social organization, according to Winick (1956) the Dictionary of Anthropology. A single criterion cannot define a tribe or a tribal group. Each definition is all-inclusive and absolute, and each rule has a more obvious exception. Tribal has been highlighted by Naik (1956):

Within a community, a tribe should be the least functionally independent.

ii) It must be underdeveloped economically, which entails.

- It is not appropriate for its participants to fully comprehend the effects of the monetary economy.

- Primitive methods of utilizing natural resources and a developing economy with various economic endeavors.

iii) Its inhabitants are geographically separated from non-tribals.

iv) Typical dialect with regional differences and the least desire to modify longstanding traditions.

v) locally based political structures, as well as customary legal and judicial structures

In line with this, numerous scholars have classified tribes in various ways. They were referred to as "Backward Hindus" by G.S Ghurye, (1980) and "Submerged Humanity" by Das in 1989, using terms like "Primitive Tribe," "Aboriginals," "Indigenous People," "Vaanyajati," "Vanavasi," and "Adimjati" among others. A tribe typically has a leader, a patron deity, and a shared ancestor. The tribe comprises families or small communities connected by economic, social, religious, familial, or blood ties. Tribes in India are not a homogeneous group, according to Xaxa (2001). They vary concerning the language, geography, physical characteristics, topography, way of life, size of the community, and stage of development at which they are situated.

1.4.1 Characteristics of Tribal Community:

A tribe is defined as a collection of people who live in forests in distant, hilly places, practice primitive occupations, have nomadic lifestyles, speak the same dialect, and enjoy drinking and dancing, among other things. They are also referred to as Adivasi, where "Adi" stands for original and "Vasi" for resident, meaning original resident (Ramotra et al., 2011). The tribal economy's structure typically lacks technology and depends on agriculture and related industries. A family is a unit of production and consumption on an economic and cultural level. The hamlet functions as a cooperative entity, and the tribal communities residing there economically depend on one another (Vidyarthi & Rai, 1985). Since the beginning of time, tribes have called 'Adivasi' or the subcontinent home and have been prohibited by more aggressive colonizers from entering the forests. Tribals developed their identity through endogamy, or their cropping pattern, hunting, and food collecting to prevent total dominance. Above all, they developed perfectly balanced rhythms that may best be defined as interdependent due to their very personal connection with the forest around them (Mehta, 2000). The primary concerns of the tribal economic organization are the production and consumption of these necessities for their daily requirements. These activities are heavily influenced by the tribal members' geographic

Surroundings. The indigenous people typically have to work very hard to meet their financial necessities. The key traits of Indian tribal economic organization are listed below.

i. Tribes are illiterate and live in a primitive environment with labor-intensive production methods that use less technology and produce less. Despite their intense labor, they are nonetheless in poverty.

ii. The tribal people practice magic and superstition together.

iii. The Indigenous people often produce only for consumption.

iv. Tribal communities do not have regular markets.

v. There is no specialization or division of labor.

vi. Any tribal member is allowed to hold personal property, and the tribe believes that the ponds, the land, the forests, etc., are its collective property.

Due to the aforementioned traits, the tribal people remain economically and socially backward. Tribal communities' socioeconomic structure differs significantly from that of non-tribal or technologically sophisticated populations. They employ basic technology that fits with their natural environment. The way they work and live allows them to survive on a meager income. Verma (1996) mentions the following fundamental aspects of tribal economies:

i. The economy is quite small, and trading only occurs in a small portion of the country.

ii. The technique is quite basic and conventional.

iii. Tribes keep their unique cultural history while residing primarily in remote places. They

Indian tribal populations exhibit various cultural patterns, mostly influenced by their racial and ecological contexts. They enjoy residing in natural settings such as lakeshores, riverbanks, hills, and forests, where they can continue practicing their traditional dances, music, art forms, rites, customs, and ritualistic practices (Talesra, 1994).

1.4.2 Tribe Population in India

In Asia, Indigenous peoples are substantial communities that differentiate themselves from the general population and fall under the definition of Indigenous peoples as that has evolved throughout the United Nations system and are thus international topics of concern. (Subramanian, 2006). "Tribal peoples," "scheduled tribes," "hill tribes," "Janajatis," and"Adivasis" are examples of such groups. These groups differ substantially in their traits and relative size compared to the national population and position (Richard & Kate, 2009). According to a World Bank policy brief, indigenous peoples are disproportionately affected by income disparity; they "remain among the poorest of the poor." Although indigenous peoples account for about 5 percent of the world's population, they are believed to account for 15 percent of the world's destitute (Lakshmi & Paul, 2019). Asia continues to be the region with the most significant number of underprivileged people and rising inequality. While income inequality has historically been smaller in Asia than in other emerging countries, it has dramatically increased in the last two decades at the national level in urban and rural areas (Census, 2011). Some of these problems are equally significant for emerging countries like India. The rapid rise in per-capita incomes has been followed by rising inequities across social and economic categories and between labor and capital.

The ILO Indigenous and Tribal Populations Convention, 1957 (No. 107), was ratified by India in 1958. In India, "indigenous peoples" are not recognized or utilized. The Indian government believes that all Indians are indigenous to the country, as defined by the United Nations. However, those classified as "scheduled tribes" are frequently regarded as indigenous people (Dheer et al., 2015). According to India's Ministry of Tribal Affairs, about 84 million people from 698 communities have been classified as Scheduled Tribes (STs) (Agarwal, 2013). There hasn't been a systematic analysis of such variables accounting for economic disparities between indigenous and non-indigenous communities or within the tribal population, which may be a result of factors like lack of market access, insufficient facilities, and lower cost of living in tribal communities given that tribal lands are typically located in rural areas (Leichenko, 2003). Because the vast majority of the tribal people of India live in the hills and forests, they are mostly more susceptible to disease. Illiteracy, a lack of information about personal cleanliness and sanitation, insufficient access to safe drinking water, malnutrition, the distance to medical services, poor roads and transportation,

and financial restraints make their own lives worse than they have ever been (B. Pramila, 2014, Ismail et al., 2017).

In this context, it is important to examine the broad relationship between sociocultural characteristics and demographic information outcomes from the perspective of Indian tribal people, who, due to their distinctive sociocultural characteristics, may demonstrate different demographic behavior from that of the non-tribal population (Maharatna, 2000).

1.4.3 Tribal Development

Development entails improved living conditions, expanded opportunities, and improved access to resources and services for marginalized people, especially the Adivasis, women, and other underrepresented groups (Eswarappa, 2017). Tribal development refers to steadily improving the tribal people's social, cultural, economic, political, personal, and human conditions. The extreme social, educational, and economic backwardness that some communities in India were experiencing warranted special consideration to protect their interests, as was known to those who drafted the Indian Constitution. Tribal development has recently been more important on a national and international scale to improve their socio-economic standing and free them from the shackles of poverty. According to the 2011 census, there are 705 tribes recognized by Article 342 of the Indian Constitution, totaling approximately 104 million people, or 8.6 percent of the country's population. Since the implementation of economic reforms in the early 1990s, more attention has been paid to planning and development to improve human well-being, reduce inequality, and increase per capita income, particularly concerning vulnerable social groups like STs and SCs.In addition to ensuring their civil rights and safeguarding people from atrocities or crimes, this well-being includes each person's achievement in the fields of education, employment, health care, nutritional level, and utilities like power, water supply, sanitation, housing, etc. (Kasi et al., 2021). The primitive way of life, economic and social underdevelopment, low literacy rates, traditional production systems, absence of a value system, limited physical infrastructure in tribal areas, and demographic characteristics collectively highlight the need for a comprehensive and structured development approach for tribes and tribal areas in Jammu and Kashmir (Tabish, 2010).

1.4.4 Tribal Demography in Jammu and Kashmir

India has the most tribal people in the entire globe, making up 8.6% of its 104 million inhabitants, who are divided into 635 groups (Census, 2011). According to the 2011 census, Jammu and Kashmir (J&K), accounts for 10.9 percent (5.7 million) of the country's total tribal population. Although a tiny fraction (Bakerwals) moves between hills and plains following the seasons, this marginalized sub-population with a unique culture, language acquisition, and ethnic background prefers to reside in higher regions of hills (Gujjars) (Sofi, 2014).

1.4.4.1 Bakarwal: The Tribal Affairs Department (2022) describes Bakarwal, one of Jammu and Kashmir's pastoral clans, as goat and sheep herders. The word "bakariwale" is derived from the word "goat herders" or "goat and sheep rearers" (Jan & Khare, 2015). During the late nineteenth century, the Bakarwal community started their migration to Kashmir in search of more favorable grazing lands. (Tribal Affairs Department, 2022). Almost all of the districts in Jammu and Kashmirhave them, however, they are primarily concentrated in Rajouri, Udhampur, Jammu, and Doda (Census, 2011). Although there is no social separation in the town, there is some modest variationbased on economic level, educational attainment, and flock size. Women assist in household work,milking animals, collecting fuel, collecting fodder, bringing potable water, purchasing essential commodities, and looking after wounded cattle. The economy of Bakarwal depends on its livestock(Jan & Khare, 2015). Though they possess agricultural land and are in different allied occupations, these are considered secondary. They also earn money from tourists by carrying their luggage to the valleys of Sonemarg, Gulmarg, Pahalgam, and Bhadarwah (Tribal Affairs Department, 2022).

1.4.4.2 Gaddi: The Gaddi are shepherds who inhabit mostly the mountainous region of Jammu. Most of them are spread around Badherwah, Basoli, Ram Nagar, Udhampur, Bilawar, Ramban, and Batot (Census, 2011). The origin and history are shrouded in mystery as no authentic evidenceexists. According to popular belief, they originally lived in the plains of the united Punjab and Sindprovinces. Moving from one place to another, the Gaddis reached the landlocked region of Bharmour (Himachal Pradesh) and settled there (Tribal Affairs Department, 2022). Women havesecondary status as compared to men in the walk of life, though they participate in all socio-economic activities, they do not compete with

their menfolk on equal terms. Most women participate in agricultural and animal husbandry and other farm-related activities. They act as watercarriers-cum fuel collectors for their households. The major economic resources for the Gaddis are land and forest (Butt & Gupta, 2014). Shepherds by occupation, the Gaddis invariably have to move from one pasture to another and from one region to another with their livestock, which comprises sheep and goats (Kumar, 2019). Settled agriculture and trade in selling livestock are other economic activities pursued by them, Tribal Affairs Department, (2022).

1.4.4.3 Gujjar: Gujjar is a well-known semi-nomadic pastoral community (census 2011). They originated in Gujarat and moved to Jammu and Kashmir from there (Ganie et al., 2020). They aredispersed over Jammu and Kashmir's Srinagar, Anantnag, Pulwama, Doda, Kishtwar, and other districts (2011 Census). The area where they reside and go in search of pasture has a chilly environment with low humidity, little rainfall, sparsely forested areas, and winter snowfall that ranges from moderate to heavy (Manju, 2018). The Pir Panjal and Himalayan ranges encircle the steep terrain. Gujjars speak Gujri, the Gujjar language, as well as Kashmiri, Hindi, and Punjabi while conversing with others. Salwar, beard, kameez (shirt), and dastar (long turban) are the community's traditional clothing items. Women cover their heads with a distinctive form of cap called a "Topi". The majority of the adults wear henna- or Mehdi-dyed beards. There are two groupsof Gujjars in Kashmir: Zamindar and Dodhi. Zamindar Gujjar spends much of his time cultivating,while Dodhi Gujjar makes a living by selling milk and milk products and contract-raising buffaloes(Jan & Khare, 2015). They persist in their nomadic lifestyle, moving between hills of varying altitudes, in pursuit of suitable grazing pastures for their buffaloes, which form the core of their livelihood. When they remain in their natural environment during the winter, they also engage in agriculture as a secondary occupation (Manju, 2018). They let sharecroppers use their land in otherseasons. Although the majority of milk and milk products are sold in urban areas, they are occasionally traded for other necessities during summer pasturage (Dabral et al., 2014). More landis owned by the Zamindar Gujjars compared to the Dodhi Gujjars. Even though they now pursue other traditional vocations like corporate and private jobs and military services, pastoralism is still regarded as their traditional occupation (Ahmed & Ahmed, 2015).

1.5 Financial Inclusion and Tribal Population

Financial inclusion is particularly important for marginalized communities, such as tribal populations, who may have limited access to these services due to various socio-economic factors, including geographic location, lack of education and awareness, and cultural barriers. The Indian government has made initiatives in this regard and various financial institutions to increase financial inclusion among tribal populations. The government has introduced several initiatives to promote financial inclusion, including the Pradhan Mantri Jan Dhan Yojana, intending to ensure banking services reach every household in the country. However, there is still a need to extend financial inclusion efforts to tribal populations. Access to financial services plays a crucialrole in achieving financial inclusion as it enables individuals and households to actively engage inthe formal financial system and reap the benefits of utilizing formal financial services. Various factors, such as income, education, and gender, can limit access to financial services. The usage of financial services among tribal populations has been increasing due to various initiatives promoting financial inclusion. While there is still a long way to go, efforts to expand access to financial services can help to improve the lives of tribal populations and promote economic development. Economic empowerment through financial inclusion can play a crucial important in tribal populations. By providing access to credit, savings, insurance, mobile banking, and financial education, financial inclusion initiatives can help tribal populations build assets, manage financial risks, and invest in productive activities, thereby promoting inclusive economic growth and sustainable development.

Financial inclusion can help to reduce economic inequality among tribal populations, but it is important to implement it inclusively and equitably considering the specific needs and circumstances of different groups. By addressing the factors that contribute to economic inequality, financial inclusion initiatives can promote inclusive economic growth and sustainabledevelopment among the tribal population.

The tribal population of UT Jammu and Kashmir (J&K) faces several challenges in accessing formalfinancial services, including, a lack of financial literacy and geographical barriers. Here are some examples of initiatives and interventions that have been implemented:

1. Banking facilities: The Jammu and Kashmir government has launched several initiatives

to improve banking facilities in remote and rural areas where many tribal communities are located. For example, J&K Bank has established branches and banking correspondents in remote areas to provide banking services to underserved communities.

2. Financial literacy programs: The government of J&K has also launched financial literacy programs to educate tribal communities about financial products and services. These programs aim to increase awareness and understanding of financial concepts like savings, credit, and insurance.

3. Digital payments: India has launched several initiatives to promote digital payments, such as the Digital India campaign and PMJDY (Malladi et al., 2021). These initiatives aim to provide financial services to underserved communities, including tribal populations, through digital channels.

4. Microfinance: Microfinance institutions have also been established in J&K to provide microcredit to tribal communities. These institutions aim to promote entrepreneurship and self-employment among underserved communities by providing access to credit and other financial services.

5. Tribal cooperatives: Tribal cooperatives have also been established in J&K to provide financial services and promote economic development among tribal communities. These cooperatives aim to provide accessibility to credit and other financial goods and services to underserved communities to promote the development of local businesses and industries.

While challenges remain, efforts have been made to promote financial inclusion among the tribal population of Jammu and Kashmir. These initiatives aim to provide access to financial services, improve financial literacy, and promote economic development among underserved communities.

In line with other states, the Jammu and Kashmir Financial Inclusion Programme was launched in 2006 to revitalize financial inclusion efforts. The union territory has experienced consistent and significant initiatives undertaken by banking institutions to work towards the goal of achieving financial inclusion (Sangmi & Kamili, 2010). There is a significant regional variance in the utilization and provision of banking services and products, with Jammu & Kashmir in the north and nearly all of the northeastern states having the lowest penetration. Despite a large increase in financial access between 2006 and 2015, a sizeable portion of the population is still excluded for a variety of reasons, including a heavy reliance on the conventional banking model, difficulty in

expanding reach due to topography, banks' reluctance to construct additional branches,etc. (Khaki & Sangmi, 2012).

1.6 Scope of the Study

Numerous Indigenous communities in developing nations encounter economic hurdles, including limited access to formal employment, restricted market opportunities, and low-income levels. Financial inclusion can play a crucial role in providing these communities with access to credit, savings, and other financial services, thereby fostering economic development and enhancing their quality of life. Tribal populations often find themselves among the most impoverished and marginalized groups within society, facing significant challenges in accessing formal financial services. Financial inclusion can help reduce poverty and improve the well-being of individuals and families by providing financial services to these communities. Many tribal communities have unique cultural and linguistic identities at risk of being eroded. Financial inclusion can empower members of tribal communities by providing them with the tools and resources they need to manage their finances, invest in their businesses, and improve their economic prospects. Tribal communities frequently experience exclusion from mainstream society and encounter barriers to accessing financial services, often due to discrimination. Financial inclusion plays a vital role in promoting social inclusion by granting these communities access to formal financial services and elevating their economic and social standing. It is essential for the economic and social development of tribal communities, as it aids in poverty reduction, stimulates economic growth, preserves cultural identities, and empowers marginalized groups.

CHAPTER 2

LITERATURE REVIEW

2.1 Bibliometric analysis

Bibliometrics analysis is a quantitative method used to evaluate and measure various aspects of scholarly literature, including academic publications, citations, and collaborations among researchers. It serves as a potent instrument in the realm of information science and holds a pivotal position in evaluating the influence and importance of research outcomes within a particular field or spanning diverse academic disciplines. The term "bibliometrics" is derived from the Latin word "biblio" (book) and the Greek word "metrics" (measurement). The analysis involves the systematic examination of bibliographic data, such as authorship, publication year, journal titles, and citation counts. By employing statistical and computational techniques, bibliometrics aims to provide insights into the patterns, trends, and relationships that exist within the academic literature.

Key concepts and metrics used in bibliometrics analysis include:

Citation Analysis: This involves the examination of how often a particular scholarly work (e.g., a research article or book) is cited by other researchers. The number of citations can be used as a measure of the impact or influence of a publication within its field.

H-index: The Hirsch index, or h-index, is a metric that quantifies both the productivity and impact of a researcher. It is defined as the number of papers (h) that have received at least h citations each.

Journal Impact Factor: A metric used to assess the relative importance of a journal within its field. It is calculated based on the average number of citations received per article published in the journal over a specific period.

Collaboration Patterns: Bibliometrics can reveal the extent of collaboration between authors and institutions, providing insights into research networks and interdisciplinary connections.

Co-citation Analysis: This technique examines the co-citation patterns of two or more works, revealing how often they are cited together by other researchers. It helps identify intellectual connections and thematic clusters within a research field.

Bibliographic Coupling: This method analyzes the similarity in citation patterns between different works, indicating relatedness and potential research collaborations.

Bibliometrics analysis is widely used by researchers, institutions, and policymakers to evaluate the impact of research, identify emerging trends, and make informed decisions regarding funding

allocation and academic promotions. However, it is essential to use bibliometrics alongside qualitative assessment methods to ensure a comprehensive evaluation of scholarly work. Like any quantitative approach, bibliometrics has its limitations and should be employed with caution, considering the unique characteristics of the research field under investigation.

2.2 Main information of bibliometric analysis:

Table 2.1: MAIN INFORMATION ABOUT DATA	
Co-Authors per Doc	Results
Timespan	2005:2022
Sources (Journals, Books, etc)	202
Documents	274
Annual Growth Rate %	25.26
Document Average Age	3.76
Average citations per doc	9.245
References	13446
DOCUMENT CONTENTS	
Keywords Plus (ID)	577
Author's Keywords (DE)	833
AUTHORS	
Authors	642
Authors of single-authored docs	57
AUTHORS COLLABORATION	
Single-authored docs	60
Co-Authors per Doc	2.52
International co-authorships %	26.28
DOCUMENT TYPES	
Article	274

Timespan: Table 2.1 analysis covers the period from 2005 to 2022, which is a total of 18 years. Sources: The data is derived from various sources, including 202 journals, books, and other publications.

Documents: The analysis includes 274 documents in total.

Annual Growth Rate %: The annual growth rate of documents is calculated to be 25.26%. This indicates how the number of publications has increased each year on average over the given timespan.

Document Average Age: The average age of the documents in the analysis is 3.76 years. This suggests that, on average, the papers included in the study are relatively recent. Average Citations

per Document: Each document, on average, has received 9.245 citations. This indicates the impact or influence of the research as measured by the number of times other researchers have cited it.
References: The total number of references cited across all documents is 13,446.
Now, let's move on to the contents of the documents and author-related information:
Keywords Plus (ID): The analysis identifies 577 "Keywords Plus" - these are additional keywords or phrases that have been assigned to documents to enhance their discoverability and relevance.
Author's Keywords (DE): The analysis includes 833 "Author's Keywords," which are specific keywords chosen by the authors to describe their research.
Authors: A total of 642 authors have contributed to the documents analyzed.
Authors of Single-authored Documents: Out of the 642 authors, 57 of them have single-authored documents, meaning they are the sole contributors to those publications.
Single-authored Documents: The analysis includes 60 single-authored documents.
Co-Authors per Document: On average, each document has 2.52 co-authors. This indicates the level of collaboration among researchers for the included publications.
International Co-authorships %: Approximately 26.28% of the documents involve international co-authorships, suggesting collaboration across different countries.
Document Types: The analysis comprises 274 articles. It's possible that other document types were excluded from this specific study.
Overall, this bibliometric analysis provides valuable insights into the publications, authors, collaboration patterns, and research trends within the chosen field over the specified timespan. Researchers and stakeholders can use this information to understand the landscape of research, identify influential authors and works, and gain an overview of the field's growth and impact.

2.3 PRISMA-P

In the context of social science research, "PRISMA" typically refers to a different concept known as "PRISMA-P" (Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols). PRISMA-P is a guideline for reporting protocols of systematic reviews and meta-analyses in the social sciences and other disciplines.
Similar to PRISMA, which focuses on reporting completed systematic reviews and meta-analyses, PRISMA-P provides a structured format for researchers to report the design and methodology of their systematic review or meta-analysis before conducting it. By following PRISMA-P, researchers can enhance the transparency and rigor of their protocols, making it easier for readers

to understand the planned study and assess its potential biases.

Systematic reviews and meta-analyses in social science are valuable because they synthesize existing research on specific topics, providing a comprehensive and evidence-based overview. These types of studies help researchers identify trends, gaps, and consistencies in the literature, leading to more informed and robust conclusions.

In the financial services sector as a whole, diversity and financial inclusion are high priorities in boardroom discussions. A diverse financial ecosystem guarantees that everyone has equal access to resources and opportunities. The ability to foster inclusive cultures and diverse societies will decide the future performance of the financial management business, which depends on diversity and financial inclusion. The intersection of diversity and inclusion has previously been discussed without considering the contribution of racial and religious diversity to financial inclusion. Using data from 187 countries worldwide, this study experimentally investigates the relationship between ethnic and religious diversity and financial inclusion. The results of this study indicate that ethnic or religious diversity, or both, and financial inclusion have a very strong beneficial association. Results for high-, middle-, and low-income nations are also consistent. According to this study, cohesiveness is the only way to guarantee an egalitarian and peaceful society while yet achieving the positive consequences of a diverse population. Future studies can examine these results and validate them by examining the implications of ethnic and religious diversity in financial inclusion for other nations (Amin et al., 2023).

Using data from the second wave of the Indian Human Development Survey, this study investigates the factors that influence low-income households' asset holding. Their preliminary analysis suggests that even low-income households appear to have investment portfolios that are in line with financial objectives like marriage and schooling. This study, which used parametric and non-parametric techniques, discovered that one of the key predictors of household asset ownership is affordability. They also discover that having a higher level of education, being more socially connected, and having faith in financial institutions are all good indicators of owning individual assets and the chance of owning a diverse portfolio. The findings from this study's discussion of policy implications for creating financial products and enhancing penetration (Rampal and Biswas, 2023).

The majority of tea produced in India comes from the northeastern state of Assam. The state's tea garden employees, however, are regarded as one of the underprivileged groups in society. The community of workers has limited access to social assistance programs designed to combat

poverty, including formal financial services. This study investigates the level of financial inclusion among Assamese tea garden workers using primary data. They research insurance, credit, and bank account access as aspects of financial inclusion. The findings of this study show that, albeit not across all aspects, financial inclusion among workers has deepened significantly. They discovered that among Assamese tea garden laborers, education has a significant role in determining financial inclusion. Specific initiatives to implement government-sponsored programs are required to speed up and fully integrate the financial inclusion process for tea garden workers (Dutta, 2023).

The purpose of this essay is to investigate if the banking industry helps to lessen economic disparity and poverty. Using updated data for the years 2000–2018, they analyze dynamic panel data for 46 emerging markets (EMs) and 66 low-income countries (LICs) to evaluate the impact of banks on income inequality while taking into account various banking attributes. Evaluations of the concurrent and non-linear effects of banking attributes were also conducted. According to the study's findings, access to, significance of, and financial efficiency in banking activities help EMs and LICs experience less economic inequality and poverty. The impact of banks on inequality has an optimal level for each of the qualities described, above which it tends to exacerbate rather than decrease income inequality (Moraes and Cruz, 2023).

Financial inclusion strives to offer low-income groups who require financial services at a reasonable price. However, the banking industry's innovative expansion of financial inclusion has been hampered by the lack of accurate credit evaluation information for such populations. To fill in for the absence of credit information, this paper suggests a slack-constrained matrix factorization model. The technique replaces missing data in groups of comparable credit behaviors with known data. They conduct an empirical analysis of this method's performance in both a credit information matrix with additional information and one with less information. They make use of genuine credit information from farmers and herders in very underdeveloped areas as well as from small, medium, and micro businesses in China's National Equities Exchange and Quotations. This study findings, that the performance of conventional credit classification algorithms can be significantly enhanced by the suggested credit evaluation approaches based on sparse credit information. (Zhang et al., 2022).

Positioned as a strategy to alleviate poverty among underprivileged and economically disadvantaged groups, microfinance aims to provide credit. However, the intended primary goal of poverty reduction has not materialized, particularly in developing economies. In this study, the authors employed a Vector Error Correction Model on quarterly time-series data to examine the

impact of microfinance on poverty. The results reveal a robust long-term correlation among poverty, microfinancing, small and medium-sized enterprises (SMEs), and agricultural expansion. Contrary to expectations, the study found that microfinancing ultimately led to an increase in poverty. Long-term poverty levels, on the other hand, were observed to decrease with the growth of SMEs and agricultural development. The establishment of SMEs was identified as a short-term strategy for poverty reduction, and poverty acted as a catalyst for the proliferation of microfinance loans in the nation. The expansion of SMEs emerged as an effective means of poverty reduction, while microfinance institutions expanded in response to prevailing poverty conditions. The study underscores that persistently poor implementation of microfinancing can exacerbate poverty levels. The findings suggest that the expansion of microloans is not being deployed in an efficient and planned manner. Consequently, the study emphasizes that funding alone is not the sole determinant, shedding light on the need for a more comprehensive and strategic approach (Chikwira et al., 2022).

The concept of the 'financialization of remittances' involves the integration of remittances, the money sent by migrants to their home communities, into the global financial inclusion framework. This represents the latest initiative to channel remittances away from perceived 'non-productive' uses towards investments and savings, aiming to stimulate economic growth. Literature supporting this approach often carries an implicit, gendered component, underscoring the individual's responsibility to utilize remittances productively and make wise investments. The narrative suggests that women, in particular, can achieve empowerment and lift themselves out of poverty by connecting remittances to financial services. This research contributes empirical data on the impact of remittance transfers on the daily lives of women, drawing on ethnographic research conducted in an Indigenous hamlet in Oaxaca, Mexico. The study challenges the universalism and abstraction of global development agendas, especially those lacking a gender perspective and originating from the Global North, a critique long voiced by feminist researchers. Contrary to the individualist logics and dichotomies inherent in the financialization of remittances agenda—where remittance spending is categorized as either productive or not, and the empowerment of women hinges on linking remittances to finance or not—the findings bring together critical voices and leverage postcolonial and feminist scholarship to challenge these assumptions (Smyth, A, 2022).

The essential components of financial inclusion are access to and use of banking services. Accessibility is the entrance, but utilization is what determines how well financial inclusion works. The accessibility factor has been covered in a plethora of research, but the authors of this paper

discovered a dearth of empirical analysis of its application. This study explores the utilization aspect of financial inclusion by examining empirical data gathered from rural and tribal areas in the State of Odisha, situated in eastern India. Odisha is identified as one of the least financially included states in the country. The study delves into the function, depth, and frequency of formal financial service usage in this context, employing primary data. Furthermore, the research constructs empirical models aimed at elucidating the factors influencing both the demand and supply sides of financial services. The utilization of accounts for saving and borrowing is not optimal, according to this paper's conclusions. The depth of account use is further constrained by a lack of ICT expertise. Instead of being used for savings, credit, or insurance, bank accounts are typically used for financial transactions to obtain direct benefit transfers and NREGS payments. Understanding the factors that influence financial utilization at the community level can help policymakers make appropriate corrections to encourage usage (Ray et al., 2022).

A global objective, particularly in low- and middle-income nations, is financial inclusion, which is defined as ensuring that all adults have effective access to financial goods, including insurance. The study's findings confirm that inclusive insurance has a favorable effect on income equality and inclusive development. In eastern regions, rural areas, and low-income households, the effect is particularly apparent To demonstrate the validity of the findings, instrumental factors and policy shocks were added. The inclusive insurance policy significantly improves the distribution of income, according to the PSM-DID test. The results are solid, according to a different measure of inclusive insurance and a GMM test including instrumental factors. They also discovered that the effect of inclusive insurance on income has a threshold effect. When the universal insurance index rises above the cutoff point, the income-promoting effect is strengthened (Zheng and Su, 2022).

This study investigates the beneficiaries' perspective on the financial inclusion issue (on the demand side). This study also aims to ascertain the connection between Pakistani households' disposable income and financial inclusion. The study's findings identified four key variables that significantly influence financial inclusion. The findings also showed that financial inclusion has a sizable direct and indirect impact on disposable income. This study underlines how integrating low-income urban households into the formal financial system can increase their disposable income and help them fight poverty. Additionally, this study is one of the first to offer a demand-side viewpoint to gauge the financial inclusion features of the category of those who are "most financially excluded. It makes an effort to appropriately fill the gap in the research by using SEM to investigate the connection between financial inclusion and discretionary income among low-

income urban families (Mahmood et al., 2022).

The integration of finance is a key component of development strategy. Despite financial inclusion involving individual-level changes and intricate interconnected financial activities, many of the prevailing metrics rely on macroeconomic factors. To address this limitation, the authors leverage the World Bank Findex, which is an alternative measure of financial inclusion. They first apply it to an analysis of the socioeconomic factors that affect financial inclusion. Second, we suggest a revised financial inclusion country rating. Three elements make up their findings. They initially found no evidence of a gender gap in low- and middle-income countries. Second, those who are wealthier exhibit higher degrees of financial inclusion. Third, financial inclusion is lower in nations with high rates of self-employment. Their findings imply that the relationship between financial inclusion and income and employment status. Third, financial inclusion is lower in nations with high rates of self-employment. Their results suggest that income and employment status are more significant than gender differences in explaining financial inclusion. This could potentially alter the way policymakers promote the integration of underprivileged individuals into the formal financial system (Balliester, 2022).

In many developing nations, microfinance institutions (MFIs) constitute a significant step toward financial inclusion. However, there is little information available in Zimbabwe about microfinance users, factors that influence how loans are used, and the repayment habits of borrowers. In a nation where the majority of economic activity takes place in the informal sector, it is helpful to show how MFIs assist those who are economically disadvantaged and historically excluded from the official financial system. On 6165 distinct borrowers in Zimbabwe, this study used the Poisson, logit, and zero-truncated Poisson regression models to examine the factors related to the use of microfinance credit and delinquency among microfinance borrowersThe results of the study showed that low-income people were much more likely to use microfinance loans, taking modest loans with relatively high monthly payments. Women were less likely to use microloans, and recurring loans were more likely to go to dependable borrowers. The degree of delinquency among borrowers was described by their income, the number of prior loans they had, and the loan's terms. The majority of the findings point to Zimbabwe's microfinance industry as meeting low-income individuals' demands. But initiatives to increase women's and young people's access to credit continue to be a top goal (Chamboko and Guvuriro, 2022).

Financial services actively aid in the growth of society's economy. Social safety that shields people from financial recession results from this. The current study aims to determine if cycle rickshaw

drivers in West Bengal have bank accounts and explores how various socioeconomic characteristics may affect cycle rickshaw drivers' awareness of bank accounts. The 170 rickshaw drivers who work for this project are from the underprivileged parts of society. In this study, logistic regression is utilized to identify the key variables that significantly influence the opening of bank accounts. The Hosmer-Lemeshow test is used to evaluate the model's quality of fit. A sizable portion of these rickshaw drivers are turned away from banking services. The findings show that the respondents are largely marginalized from society, live in poverty, have poor levels of personal well-being, and earn inadequate salaries. The report offers sensible suggestions to encourage banks and regulators to focus on financial inclusion to bring them into the mainstream of financial services (Maity et al., 2022).

In examining the impact of supply-side characteristics on financial inclusion in low-income nations, this study aims to ascertain whether gender is a predictor of financial inclusion and whether education serves to narrow the gender gap in this context. Employing the most basic measure of financial inclusion, the study's results confirm the existence of a gender gap. However, this gender gap is not substantiated concerning formal savings and credit availability. Furthermore, the findings reveal that education plays a role in diminishing the gender gap in the fundamental aspects of financial inclusion. While men tend to exhibit higher informal savings compared to women, the study did not identify discernible differences between men and women in terms of financial inclusion related to bank savings or borrowing (Pahlevan et al., 2022).

The inclusion of the impoverished and marginalized segments of society is one of the major obstacles to establishing a sustainable financial system in the nation. Microfinance thus becomes the fundamental notion to achieve the goal. This study looks into the causes and factors that influence microfinance in the five districts of Northern Karnataka to determine whether microfinance and joint liability groups are feasible in India. The study's findings suggest that SFBs' microfinance services have improved the socioeconomic circumstances of the disadvantaged population, primarily women. Additionally, it has improved the JLG members' employment chances. However, the study discovers a considerable obstacle in providing financial services to the JLG members from an accessibility, affordability, and operational standpoint. To attain full financial inclusion in India, the report suggests the need-based planned introduction of microfinance in rural regions (Kini et al., 2022).

The 2030 Sustainable Development Goals place a strong emphasis on the value of financial inclusion. This study looks into how financial inclusion affects household borrowing and saving

habits to increase resilience in Nigeria against expected and unplanned life events. The study investigated the primary factors influencing financial inclusion using household data from the World Bank Financial Inclusion Survey 2017 (Findex). The results underscored the significant role of financial inclusion in fostering a culture of saving. The average probability of saving was determined to be 29.3 percent, which is comparatively lower than the likelihood of borrowing from a financial institution (51.8 percent) and informal borrowing from friends and family (30.8 percent). Ownership of financial accounts was found to increase the probability of saving by 37% while having a mobile money account reduced the likelihood of borrowing from a financial institution by 3%. Gender emerged as a factor affecting savings with a financial institution and informal borrowing. Opening an account at a financial institution, using mobile money, and having savings were associated with an increased likelihood of having an emergency fund. However, females exhibited a 5% negative correlation with formal savings at a financial institution. The study emphasizes the importance of considering women in efforts to enhance financial inclusion at the household level. Overall, the findings underscore the necessity for governments to prioritize financial technology services for underbanked and marginalized groups in areas with limited financial access (Akeju, 2022).

Long considered a crucial tool for decreasing poverty and economic inequality, financial inclusion is crucial for inclusive development. The impact of financial inclusion on income convergence has only been partially studied, though. This study examines the potential of financial inclusion as a tool for reducing income disparities using longitudinal data from three survey waves of Nigerian households. The results of instrumental variable linear and quantile regressions, which account for endogeneity problems, consistently demonstrate a close relationship between financial inclusion and per capita income. No matter how the revenue is distributed, all households benefit from this. The decomposition findings indicate that the introduction of financial inclusion initially resulted in income divergence, widening the gap among households with different income distributions. However, in the second wave, the lowest-income families experienced a delay, and income convergence started from the medium to higher-income household categories. In the statistics of the third wave, the lowest-income households gradually caught up. In this regard, it is possible to claim that financial inclusion could be crucial in reducing income disparity (Ibrahim and Aliero, 2022).

Financial inclusion is the process of ensuring that vulnerable groups, such as low-income groups and weaker sections, have access to financial services and appropriate credit at the right time,

wherever they are needed, at a reasonable cost. The primary focus of the financial inclusion initiative is providing safe financial solutions to India's impoverished populations without showing any symptoms of inequality and with fair treatment. The primary objective of the research is to assess the effectiveness of financial inclusion and rural development based on data from Tamil Nadu. The focus of this descriptive research is on the residents of the Tamil Nadu region. The study's sample size consists of 480 citizens, and a non-probability sampling method, specifically judgmental sampling, was utilized to select participants from the study's target group. To gather data through a structured questionnaire, questions using the Likert five-point rating scale are utilized. The results showed that while the level of financial inclusion has increased over time across all of Tamil Nadu's districts, the bulk of them still fall within the category of medium inclusion in rural areas. According to this study's findings, financial inclusion promotes economic growth and prosperity, which in turn fuels activities that raise the standard of living for all societal sectors. This outcome demonstrates that the financial inclusion program has the capacity and capability to change the state of Tamil Nadu's appearance, and it unquestionably works continuously to improve every single person (Shankar and Jeyaprabha 2022).

This essay's goal is to investigate how financial inclusion, as mediated through socioeconomic empowerment, affects the economic growth of underrepresented populations. Purposive sampling was used to gather primary data from 382 bank customers from underserved populations in the Jammu district of Jammu and Kashmir to meet the study's objectives. The information was gathered between April and August of 2020. Scale purification and data analysis were carried out using multivariate statistical methods like EFA, CFA, and SEM. The study's findings show that financial inclusion, through the mediation of social and economic empowerment, has a direct and significant impact on the economic development of underprivileged populations. A lack of education, illiteracy, lack of awareness, bankers' attitudes, and policy directives to the banking sector, which prevent these communities from feeling proud, dignified, confident, and self-reliant to face any financial crisis, are highlighted in the study as reasons why financial institutions refuse to extend credit to marginalized communities despite the government's numerous efforts to promote financial inclusion (Lal, 2021).

The purpose of this study was to investigate the factors that affect financial inclusion. The impact of financial inclusion on India's underprivileged street vendors' financial security is then examined. This study adopts the demand-side technique to measure financial inclusion using a sample of 371 marginalized street sellers. This study uses both exploratory and descriptive research designs. The

structured interview schedule was administered utilizing a convenience sample strategy as the main method of gathering data. To define the latent constructs and their hypothesized relationships with sufficient empirical support, confirmatory factor analysis (CFA) and structural equation modeling (SEM) are used. This study finds that Accessibility, availability, usage, and affordability are found to be important drivers of financial inclusion out of the five dimensions of financial inclusion taken into account for this study; however, the financial literacy factor is determined to be statistically insignificant. The study's findings also support the idea that financial inclusion significantly improves the lives of underprivileged street sellers. Financial inclusion can lead to financial well-being even without the influence of financial literacy, especially for vulnerable street sellers in the unorganized sector (Nandru et al., 2021).

This research examined the determinants influencing financial inclusion in the Afar Region. Two purposefully chosen woredas (Awash and Asaita) and one city administration (Samara-logia) were used to accomplish the study's objectives. To conduct this study, 384 sample households were chosen. The data collected through structured questionnaires were analyzed using a binary logistic regression model. The results reveal a positive and significant correlation between financial inclusion and variables such as age, usage, financial literacy, and mobile banking. Conversely, barriers and income have a negative and substantial impact on financial inclusion. The survey findings indicate that 68.75 percent of households are excluded from formal financial services, while 31.25 percent are enrolled. Furthermore, the study identifies key barriers to financial inclusion in the Afar region, including issues related to credit availability, lack of collateral, high interest rates, illiteracy, internet accessibility challenges, lack of trust in financial institutions, resource constraints, and difficulties in accessing bank branches and ATMs. The study recommends that the government and financial institutions should incentivize financial service providers or mandate financial institutions to support underprivileged and low-income individuals. Financial institutions should use technology like mobile banking that makes financial services more accessible. Additionally, families should improve their saving practices to raise their income and children's reading levels to make the best use of financial services (Abdu, 2021).

A sustained anti-poverty program has been launched in China. Environmental protection and rural poverty alleviation are two objectives that can both be achieved through ecological poverty alleviation, it has become increasingly clear in recent decades. In places with extreme poverty, China is refocusing on forestry-based poverty alleviation. The extent to which impoverished communities benefit from forestry initiatives, their satisfaction with related policies, and the

effectiveness of these policies in mitigating poverty remain unclear. To evaluate the efficacy of forestry-based poverty alleviation policies, an Analytic Hierarchy Process (AHP) approach was employed. Data were collected through a questionnaire survey involving 79 households in the Nujiang and Aba prefectures of southwest China. The results revealed that four poverty reduction strategies—industry, employment, microfinance, and paired aid in villages—significantly increased the incomes of the poorest households, addressing the issue of "Two Worries-free and Three Guarantees." The forestry-based ecological poverty alleviation programs met the needs of the impoverished and proved effective in poverty reduction. However, several shortcomings were identified, including limited community involvement, inaccurate targeting, insufficient funding, and a lack of diverse funding sources for policy implementation. These findings underscore the significance of the forestry sector and its role in public welfare for poverty reduction in economically disadvantaged areas. Through wise forestry-based policies, ecological conservation and poverty reduction can work in harmony. This article suggests five measures to fully achieve the promise of forestry development for reducing poverty and preserving the environment (yaming et al., 2021).

India's national biometric digital identity program, Aadhaar, intends to give each resident of India a 12-digit number. Through this, Aadhaar aims to bring excluded informal workers into the digital financial mainstream. This research focuses on the experiences of two informal worker groups—cab drivers and domestic helpers—in a southern Indian city who utilize their Aadhaar numbers for identity verification on job-seeking websites and gig economy applications. The article introduces a novel theoretical perspective to the realm of "data justice" and ICT4D research. It operationalizes the social, economic, and political dimensions of "abnormal justice," illustrating their interaction with the datafication and surveillance elements of digital identity. The study draws three significant conclusions based on semi-structured interviews and field observations as empirical evidence: Unprotected datafication exploits the newfound digital participation of marginalized individuals, exacerbating economic inequalities; the current use of digital identities reinforces existing cultural inequalities experienced by marginalized workers; and unfair and intricate barriers persist for marginalized individuals using digital identity to express "informed consent" or to seek resolution for security issues (Krishna, 2021).

A crucial component of social inclusion is financial inclusion, which helps marginalized groups of the population unlock chances for advancement that have previously been closed off. To better understand how financial inclusion affects income inequality and poverty reduction in 116

developing nations, this study will look at their causes and conditional consequences. Unbalanced annual panel data from 2004 to 2016 are used for the analysis. These factors include per capita income, the percentage of internet users, the age dependency ratio, inflation, and income inequality. The authors of this research build a novel index of financial inclusion for this aim utilising a wide range of financial sector outreach indicators. Additionally, the outcomes present The findings endorse the need to enhance access to and utilization of formal financial services for marginalized populations, aiming to enhance the overall well-being of society (Omar and Inaba, 2020).

This article discusses the obstacles faced by impoverished and low-income individuals in South Africa concerning financial inclusion. Financial inclusion is defined as the provision of affordable financial products and services to all members of society by the government and/or relevant stakeholders, including financial service providers. The article identifies various barriers hindering complete financial inclusion for low-income South Africans, including unemployment, poverty, financial illiteracy, excessive debt, high bank fees, mistrust of the banking system, lack of proper national identity documents, and a weak legislative framework. Emphasizing the need for intervention from government, financial institutions, and other stakeholders, the essay advocates for legislative measures to address financial exclusion and poverty issues affecting the poor and low-income earners in South Africa resulting from these challenges (Chitimira and Ncube, 2020).

To enhance financial inclusion within low-income communities in Burundi, this study aimed to evaluate the potential of microfinance institutions to serve as effective alternatives to traditional banks. The findings indicate that microfinance institutions contribute to (i) overcoming barriers to financial inclusion, (ii) promoting access to formal financial services for both men and women, married individuals, those with low incomes, and those with education, and (iii) facilitating the use of formal financial services for low-income populations residing in semi-urban areas of Burundi. Logistic regressions (logit) were employed for data analysis in this study. However, it is emphasized that microfinance should not be perceived as the sole solution for helping low-income populations in developing nations like Burundi break free from the cycle of poverty. Instead, it should be regarded as a mechanism for advancing the socio-economic development of low-income individuals, enabling them to gradually increase their participation in community development initiatives (Abel, 2020).

This study's goal is to evaluate the elements of financial inclusion from the beneficiaries' point of

view (demand-side). Additionally the socioeconomic standing of India's primitive tribal groups (PTGs) concerning financial inclusion. For a sample of 520 families who are members of PTGs in India, the dimensions of financial inclusion are determined using an exploratory factor analysis. Confirmatory factor analysis with analysis of moment structures was utilized to establish the dimensions of financial inclusion and socio-economic status factors. In the end, SEM—structural equation modeling—had been used to examine the improbable links. From a demand-side perspective, the study recorded five metrics for gauging financial inclusion. Physical closeness, availability, ease of access, affordability, and usage are the dimensions. The study's findings put the spotlight on aspects of financial inclusion that affect the socioeconomic position of the majority of PTGs in India. One of the first few studies to analyze the financial inclusion features of the "financially most excluded" groups from a demand-side perspective is the current research (Nandru and Rentala, 2020).

Recent data indicates that the South-West geopolitical region of Nigeria achieved an 80% level of financial inclusion in 2016, surpassing the target set for 2020 by the National Financial Inclusion Strategy Group (NFISG). This article explores the factors contributing to this early success and assesses whether the achievements have been sustained. A survey was conducted among 475 low-income earners from six states in Nigeria's South-West geopolitical zone, revealing that 348 respondents held formal bank accounts with institutions, while the remaining 127 did not. Descriptive statistics, sample t-tests, and probit regression analysis were employed to test hypotheses. The results show that male adults between the ages of 20 and 40 who live in cities with high Internet penetration and who are exposed to situations where state governments have active policies. Conversely, factors such as the creation of new employment opportunities, utilizing mobile phones for banking transactions, targeting specific financial products, providing financial literacy training, and ensuring the availability of loans contribute significantly to driving financial inclusion in the researched area. Conversely, obstacles like irregular income or job loss, hidden fees, high maintenance charges, distrust, and long queues at banks present notable challenges to achieving financial inclusion. The study suggests, among other measures, that state-level employment generation initiatives should particularly target low-income groups susceptible to displacement based on their skill levels (Ayopo et al., 2020).

"This research examines the extent of financial inclusion in two southwestern states of Nigeria, namely Lagos and Ekiti." While Ekiti has few financial institutions, Lagos has a huge concentration of them. To demonstrate a significant difference in the penetration of financial

inclusion in the two states and its effects on business performance and citizen well-being, this paper employs a survey research design and logit regression analysis. According to the report, penetration is 60 percent in Ekiti and 81 percent in Lagos. The 80 percent financial inclusion rate attained in the Southwest zone is most at risk from irregular income/job loss, unknown/hidden costs, long bank lines, and costly maintenance The study suggests intervention strategies that take state-level variables into account. Additionally, low-income workers who suffer more during an economic crisis should be the focus of government strategy on employment generation (Babajide et al., 2020).

For sustainable development and progress, emerging economies need to design and put into practice comprehensive financial inclusion policies. The recent Indian attempt to ensure that every Low Income Household (LIH) has a bank account has been a resounding success; nevertheless, the fact that half of these accounts are dormant or have low activity raises questions. This study makes an effort to pinpoint the behavioral and psychological variables that affect LIHs in India's use of formal financial services (FFS). The fundamental theoretical paradigm is the Theory of Planned Behavior, in which "Habit" is a moderating variable that interacts with Behavioural Intention to affect Actual Usage. Using Smart PLS 3.0, data from 253 respondents were gathered and analyzed. This study found that Habit negatively regulated the BI-AU association and that the exogenous variables Subjective Norms, Attitude, and Perceived Behavioural Control positively affected the intention to use FFS. Therefore, in their efforts to increase the use of FFS among LIHs and to reduce the use of informal or alternative financial services, policymakers on the financial inclusion push may consider these highlighted factors (Thomas and Subhashree, 2020).

The goal of this research was to determine how the CSR initiatives of Jababeka's tenants in Indonesia might improve the economic potential of indigenous peoples. Research that using a descriptive qualitative approach was used. In this study, interviews, readings, and casual observations were all used as data-gathering methods. The findings demonstrated that Jababeka employed CSR as a continual process improvement in succession planning to achieve outstanding business performance. Jababeka CSR initiatives in the areas of economics, fellowships, and the environment. The economic pillar deals with community empowerment and economic improvement through the provision of assistance in the form of revolving capital, farm or business equipment, including mentoring. It also deals with improving the quality of human resources through entrepreneurship training and microfinance. This study concluded that the CSR Program of Tenants, particularly in entrepreneurship training and business mentorship, might increase the

economic potential of Indigenous peoples. The program was chosen based on the kinds of goods the tenant held and the practical means of empowering local people economically, such as operating a beauty parlor using L'Oreal products (Yunus et al., 2020).

Since it was introduced in 2014, Ethiopia's financial inclusion policy must be evaluated for its effects. This study evaluates the degree to which the aim has been met in light of that. This study's primary objective is to evaluate Ethiopia's financial inclusion of other East African nations. This study found that Ethiopia's financial inclusion is less successful than that of other East African nations using secondary data. The study also revealed that informal saving clubs are preferred by Ethiopians over professional financial institutions. This preference, along with low income and unemployment, is what prevents the financial inclusion approach from succeeding. According to the results, barriers related to distance, cost, credit, and documentation should be eliminated to identify and treat root issues. The results also demonstrated that by encouraging more people to physically visit financial institutions, access to public transportation can also increase the reach of formal financial institutions. This study suggested formal financial organ access as a fundamental requirement for financial institutions. By expanding financial institutions, access to formal financial institutions should be improved. To encourage more formal saving, it was also suggested that people be educated about their financial situations. The government should create regulatory rules for how financial institutions should operate, according to this paper's other recommendation. Therefore, the fundamental result is that financial institutions might be more predictable and transparent, cut costs, and make the regulations for joining the market simpler (Lakew and Azadi, 2020).

Opening new bank accounts has been emphasized more in conventional studies on financial inclusion. But at the moment, the focus is more on the acts taken within the newly formed bank accounts, which are quantified as "Continued Usage." Since the researchers' target audience in India is made up of semi-literates or illiterates, they require a well-defined, fully competent survey instrument in their vernacular language to get crucial data on the behavioral and psychological elements that influence the usage of accounts A questionnaire for assessing the behavioral and psychological aspects that affect the use of Jhan Dhan Yojana accounts in India will be presented in this study after being carefully translated and empirically tested. Data is analyzed with Smart PLS 3.0 using a sample of 270 low-income households. The findings provide a translated and validated tool for more empirical research as well as insights for future financial inclusion strategies (Thomas and Subhashree, 2020).

Financial inclusion is the process of providing all segments of society, especially at-risk groups like the weaker sector and low-income individuals, with adequate financial goods and services they require at a reasonable price. For developing countries, integrating the populace into the financial system has been a very difficult task. One new paradigm for economic growth that has the potential to significantly reduce poverty in the nation is financial inclusion. In terms of economic development and societal advancement, the government places a high focus on financial inclusion financial inclusion is increasing globally, and between 2014 and 2017, 515 million adults established bank accounts. There has also been a considerable surge in the usage of mobile phones and the Internet for financial transactions. There has been a notable rise in financial inclusion, which is largely due to India. The RBI and government programs allowed people in economically disadvantaged groups and weaker areas of society access to financial services, goods, and credit, among other things. Bank penetration, credit penetration, the number of accounts established, and other fundamental metrics are used to assess financial inclusion. Therefore, the current study's goal is to examine the development of financial inclusion in India through the steps implemented by the Reserve Bank and the Government of India (GOI) (Vincent and Sivakumar, 2019).

This essay examines the relationship between financial inclusion and wealth creation. We discover that an exogenous expansion of bank branches promotes low-income household financial inclusion by taking advantage of the U.S. interstate branching deregulation between 1994 and 2005. Then, we demonstrate how financial inclusion promotes household wealth building. Banked families, as opposed to their non-banked counterparts, accrue assets in interest-bearing accounts, invest more in long-lasting assets like cars, have easier access to financing, and are less likely to experience financial hardship. According to the findings, encouraging financial inclusion among low-income people can boost household wealth accumulation and financial security (Célerier and Matray, 2019).

This study's goal is to determine whether self-help groups (SHGs) can help rural poor people develop inclusively and sustainably. Using secondary and primary data, this has been empirically investigated in the context of India with a focus on SHGs supported by the Shri Kshetra Dharmasthala Rural Development Project (SKDRDP). In the Indian states of Karnataka, Dakshina Kannada, and Madikeri districts, a sample survey was carried out. Factor analysis is used to analyze the data that was obtained. The results indicate that Self-Help Groups (SHGs) facilitated by the SKDRDP significantly contribute to social reform, enhance the capabilities of impoverished rural individuals, and promote their economic well-being and financial inclusion. Consequently,

SHG initiatives play a crucial role in fostering inclusive and sustainable rural development. These findings hold significant implications for policymakers in developing economies, as well as for non-governmental organizations and local governments (Venkatraja, 2019).

This study analyses the relationship between finance and welfare by building a multi-variable financial inclusion index. The findings first demonstrate that household welfare is strongly positively impacted by financial inclusion. The analysis of decomposition demonstrates that, unlike the intended low-income households, those in the middle and high-income brackets experience greater advantages from financial inclusion. Additionally, informal livelihood activities such as farming, livestock raising, and natural resource extraction contribute to a reduction in welfare inequalities across income levels. As a result, there is a need to reorganize rural financial systems to facilitate broader access to credit, particularly for low-income and vulnerable households. This restructuring is crucial for diminishing welfare disparities and ensuring income convergence (sani et al., 2019).

Microfinance refers to the provision of financial services to individuals with limited access to traditional banking, particularly those from low-income backgrounds or affiliated with self-help organizations. Offering services such as savings, credit, and other financial resources to individuals in both urban and rural settings empowers recipients to enhance their quality of life. Poor internal loan repayment by members in this problem raises family responsibility and group member cooperation issues. Poor financial assistance from the family in this problem is a family issue. How the difficulties of SHG leaders are resolved will determine how successful the microcredit program is. For the sample leaders of rural self-help groups, instilling family responsibility has also been a challenge. Family-related issues have also been a significant issue for the sample of rural self-help group leaders in my mobility limits. In the Madurai region of Tamil Nadu, the current study intends to analyze the issues faced by leaders of rural and urban self-help organizations that receive benefits from microfinance institutions (Thangamayan et al., 2019).

For customers without access to essential financial products and services at reasonable prices, financial inclusion offers a remedy. Several challenges faced by low-income and underbanked consumers can hinder their effective access and utilization of banking services and products. This essay investigates the factors influencing how individuals from these groups engage with banking products and services, employing a quantitative research approach. A non-probability sample of 400 respondents was surveyed through self-administered questionnaires, resulting in 307 usable responses. Validity was assessed using exploratory factor analysis, and reliability was measured

through Cronbach's alpha coefficients. Descriptive statistics summarized the sample data, and a multiple regression analysis was conducted to examine proposed associations. The findings revealed that, among the five characteristics analyzed, financial awareness and appropriateness significantly and positively impacted the use of banking products and services. Based on these empirical findings, recommendations were provided to assist banking institutions in enhancing their strategies to attract and retain low-income and underbanked customers, enabling them to effectively utilize the offered goods and services. (Matchaba-Hove., 2019).

"In this research, the authors draw upon data from a randomized controlled trial conducted in Uganda to address two primary questions: (1) whether low-income households, engaged in an economic empowerment program that included workshops, mentorship, and matched savings, reduced spending on essentials; and (2) how varying levels of matching contributions influenced family savings and consumption behavior. The study specifically focused on children with HIV/AIDS enrolled in primary school (N = 1,383) who were randomly assigned to two intervention arms featuring distinct savings-match incentive schemes. The findings indicated that: (1) Children in both the Bridges and Bridges PLUS interventions were more likely to have savings 24 months after the initiation of the intervention compared to children in the control condition; (2) higher match incentives (Bridges PLUS) led to increased deposit frequency but did not result in higher savings in the bank; (3) participation in the intervention did not lead to material hardship; and (4) in both intervention arms, participating family members were more inclined to initiate a family business and diversify their sources of income." (Wang et al., 2019).

The World Bank's recent demand for Universal Financial Access (UFA) by 2020 demonstrates the importance of financial inclusion on a global scale. More than 55 nations have pledged to give economically disadvantaged individuals access to transaction accounts through targeted actions in line with UFA goals. In terms of a wider variety, transaction costs, and risk involved, formal financial services like credit, payments, business, and digital services are significantly more efficient than the informal financial services offered by payday lenders, credit unions, etc. Despite being aware of its drawbacks, Low-Income Households (LIH) choose to employ informal financial services over formal financial services, according to many studies. Commonly cited causes of this tendency include objective characteristics like income and literacy which are based on traditional financial ideas like the Permanent Income Hypothesis and the Life Cycle Hypothesis. In addition, according to behavioral finance theories like the Behavioral Life Cycle Hypothesis (BLCH), regret theory, prospect theory, and others, behavioral and psychological elements should also be taken

into consideration when analyzing the financial behavior patterns of certain households. The early stages of theory development are being pursued by the researchers in this spectrum. Additionally, the majority of the research studies that are now available in this sector are based on Middle- and Upper-Income Households. Therefore, the lack of research on LIH and the contribution of behavioral factors to financial inclusion was the impetus for this study. The study's research goal is to investigate and pinpoint the behavioral and psychological variables that affect the LIH in India's continuous use of formal financial services. The data from the target group was gathered using a practical sampling technique. Descriptive statistics and factor analysis are the statistical methods employed in the investigation. The study's suggested managerial application was to offer policymakers information to help them create policies for financial inclusion, and to help formal financial institutions shape behaviorally informed financial services. (Thomas and Natarajan., 2018).

This study presents empirical evidence regarding the frequency and scale of financial transactions conducted by agents, which are local businesses serving as more convenient and cost-effective alternatives to formal branches, affiliated with the largest microfinance institution operating in the Democratic Republic of Congo (DRC). The authors assert that this represents the inaugural econometric examination of agent activities in a country as underdeveloped as the DRC. The study highlights that more crucial than the personal attributes of agents, transactions are more substantial in low-income, densely populated areas characterized by high commercial development. This suggests that the agent network is most effective in facilitating financial transactions among the urban poor. Moreover, effective branding and liquidity management are identified as strongly correlated with agent activity. The findings underscore the potential effectiveness of agents as providers of essential financial services, particularly among the urban poor who may lack suitable alternatives. (Cull et al., 2018).

In this study, researchers examine experimentally whether financial inclusion reduces income inequality after adjusting for other significant variables including economic growth and fiscal policy. They come to the conclusion that, in contrast to the size of the financial industry, financial inclusion significantly reduces income inequality (Martínez, 2018).

In many nations throughout the world, microfinance is now a widely accepted method for reducing poverty and is a part of the national development agenda. It has proven to be a successful way to increase access to money for some societal groups that are frequently left out of conventional banking, particularly for women microentrepreneurs, and the impoverished. Despite this, there are

still many problems and obstacles that prevent microfinance from running effectively. As a result, many microfinance institutions (MFIs) operate below their potential, failing to meet their goals. By concentrating on Amanah Ikhtiar Malaysia (AIM), one of the largest Islamic MFIs in the world, this study aims to identify the problems and obstacles that face Islamic MFIs and then suggests potential ways to deal with those problems. In terms of methodology, the study asks 402 female micro-entrepreneurs who are now clients of several AIM centers in Hulu Selangor a survey questions on potential problems and difficulties with Islamic microfinance. We further tie those issues to the client demographic profile to gain enlightening insights. Based on the results of this study's findings and the experiences of the women micro-entrepreneurs who participated in it, appropriate recommendations can be made to address the problems that the customers of the Islamic microfinance business face (Kassim, 2018).

This study looked at how cooperative banks can help reduce poverty by promoting financial inclusion. To fulfill the objectives of the study, primary data was collected through purposive sampling from 540 beneficiaries of cooperative banks in Jammu and Kashmir (J&K), Himachal Pradesh (HP), and Punjab during the period from July to December 2015. The process of factor analysis was utilized to condense the complete data into a minimum number of factors. The second-order CFA was carried out to verify the accuracy and dependability of the data. For data analysis, SEM was employed. The findings of the study show that financial inclusion through cooperative banks significantly and directly contributes to the reduction of poverty. The report underscores the positive impact of financial inclusion on the well-being of impoverished individuals, enabling them to break free from the constraints of poverty by granting access to crucial financial services such as savings, loans, insurance, credit, and more. There were not many restrictions on the study's execution. First, due to a lack of resources and time, the study's in-depth examination is only possible for three northern states. Second, the study only considers beneficiaries of financial inclusion; future research may expand to include perceptions of other stakeholders, including bank employees, business associates, and local panchayats (Lal, 2018).

In India, the Self-Help Groups-Bank Linkage Program (SHG-BLP) has grown rapidly and become the preeminent microfinance program. Teams of distinguished researchers, technologists, and practitioners were assembled by the National Bank for Agriculture and Rural Development (NABARD) to assess the effectiveness and consequences of the SHG-Bank Linkage Program. These researchers focused solely on the program's physical components and precisely assessed how SHG microfinance affected the socioeconomic situation of the rural poor. This study aims to

investigate the attitudes of rural women who participate in SHGs in this environment. A multistage random sample of "240" women SHG participants makes up this study. The respondents were given a well-structured interview schedule that included a summarised rating attitude scale. The results show that 26.66 percent of rural women and 43.34 percent of rural women had "very favorable" attitudes regarding SHGs, respectively. The principal component method of factor analysis revealed that the antecedents of attitude are "coping capacity," "personality qualities," "resource usage and building," "entrepreneurial attributes," "organizational governance," "financial inclusion," and "economic upliftment." These seven factors could account for 76.02 percent of the attitude's overall variance. Furthermore, this research recommends that while establishing, promoting, implementing, and assessing any microfinance program, particularly in developing nations, governments, financial institutions, and technocrats may take into account these seven characteristics. The study also offers a solid and valid tool for gauging rural women's attitudes toward SHGs. Researchers from low-income countries, in particular, might employ this Likert-type attitude scale in many future studies to provide more accurate and trustworthy results (Patil, 2017).

To guarantee that micro-takaful services are provided to underprivileged populations in an efficient and long-lasting way, this article looks into the utilization of both zakh and waqf monies as external resources. Additionally, it addresses Shariah-related concerns with the zakh- and waqf-based models. The research being done is qualitative. To collect primary data, locate and analyze pertinent secondary data, and interpret Shariah principles to build the zakh- and waqf-based micro-takful model, this article used both a focus group and a content analysis approach. Researchers have learned through their examination of the characteristics of zak'h and waqf beneficiaries as well as those of micro-takaful scheme recipients that all of them share similarities in terms of providing social security and socio-economic support to low-income households in communities. This study also reveals that the micro-takful model is less efficient and sustainable due to the separation of zakh and waqf, two components of the Islamic ecosystem (Mikail, 2017).

The goal of the study was to look into the situation of tribal people's financial inclusion in two districts in the state of Odisha with high tribal populations, namely Bolangir and Mayurbhanj. In six villages of these two districts where the proportion of tribal population was higher than that of the overall population, field investigations were conducted to determine the status of financial inclusion. A semi-open survey schedule was used to gather primary data from 300 houses. It was shown that 97.7% of households lacked post office savings accounts, 70.7% did not participate in

self-help group activities, and 71.7% had no savings bank accounts. In addition, a logit regression model was employed to determine the numerous factors that affect tribal households' financial inclusion. The findings showed that involvement in the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) and the number of years of schooling attained by the family head were major drivers of financial inclusion among tribal people (Sahoo, 2017).

It is generally acknowledged that India's growth during the current reforms era has been laudable from the perspective of economic metrics, but depressing when it comes to the issue of the system's inclusivity. Regarding the scope of formal sector financial institutions, the lack of inclusivity in the growth process is particularly crucial. In light of this, greater momentum is needed for financial inclusion. Therefore, there is a pressing need to support financial institutions that primarily serve the interests of the poor and other excluded sectors of society, especially those in rural regions, to ensure that the financial system is inclusive. It is the responsibility of cooperative banks and regional rural banks—also known as "Gramin banks"—to cater to such specialized groups. This article compares the service quality provided by Kerala Gramin Bank and Kannur District Co-operative Bank, focusing on one of Kerala's northern districts (Kannur), and offers expansion strategies that emphasize features of service quality (Lakshmi, 2017).

The current qualitative study investigates the effectiveness of microcredit in promoting the socioeconomic advancement of urban women from three different parts of the district of Rawalpindi. It looks at the effects of the chances provided to the women by the microfinance institution Akhuwat to assist them in improving their living situations through effective credit use. The purpose of this work was to examine the assertion that households' use of interest-free microcredit is directly related to the socio-economic empowerment of disadvantaged urban women. Using a questionnaire and in-depth interviews, 90 women were all questioned. The findings of this study show that female borrowers have better access to chances for earning money, grow more self-assured, actively participate in decision-making, build stronger networks, experience less domestic violence, and have greater freedom of movement (Ahmad and Ahmad, 2016).

Millennials with lower incomes make crucial financial decisions that could impact their future financial security. Due to limited resources, this demographic is at risk of accumulating excessive debt or lacking preparation for a financial emergency, potentially pushing them further into poverty and impeding their ability to utilize resources for future economic mobility. The responsible financial behaviors exhibited by millennials may be linked to a financial capability intervention,

which combines financial education with financial inclusion through the utilization of a savings account. This study explores the relationship between financial capability and the financial behaviors of lower-income millennials aged 18 to 34 (N = 2,578), utilizing data from the 2012 National Financial Capability Study. Results indicate that those with financial capability were 171% more likely to afford unexpected expenses, 182% more likely to save for emergencies, and 34% less likely to carry excessive debt, leading to higher overall financial satisfaction compared to financially excluded lower-income millennials (West, 2016).

Poverty and a lack of financial capacity, including opportunities and skills, are closely related. In India, more than 65% of the population lacks access to any financial services. This article uses a qualitative study to examine the experiences of Indians with low incomes regarding their financial capabilities. Data from 658 people were gathered using a purposeful sampling technique using focus groups (n = 566) and in-person interviews (n = 92). According to the study's findings, 97 percent of respondents had the chance to earn a living, and 55 percent did so through financial inclusion initiatives. However, 87 percent of respondents made less than $2 per day in the United States. Even though practically everyone had money saved up and needed to borrow, only 23% of people qualified for formal loans and only 46% for formal savings. The few who had a stable income or had a medium or high income compared to those who had an unstable and low income had greater financial abilities, knowledge, and skills connected to income, savings, and loans. The respondents reported numerous difficulties with their financial capacity, including miscalculated interest rates by banks, political parties affecting access to loans, borrowing to save, dreading formal loans, and a lack of understanding of loans and interest rates. Discussions are conducted about the implications for social policy and social work practice (Banerjee, 2016).

Low-income households that are shut out of the standard banking system may benefit from having access to microcredit. It enables this demographic to get access to reasonably priced financial services that will assist them meet their needs and enhance their quality of life. Microfinance institutions should, however, make sure that their social goal as well as commercial and financial missions are upheld to enable the institution to endure and become self-sufficient to give access to loans. To achieve this, MFIs (microfinance institutions) must use an interest rate that generates revenues while covering their costs and risks. Microbusiness owners must also guarantee the success of their ventures to achieve this goal. This report describes the Moroccan microfinance market. The article then focuses on the interest rate used by Moroccan microfinance firms and offers a comparison of Moroccan interest rates with those in other comparable nations. The essay

concludes with a stochastic model of the interest rate on microcredit that was developed using real data from a Moroccan microfinance institution's loan program and random loan repayment periods. (Bennouna and Tkiouat, 2016).

To promote financial inclusion, microfinance, and its "reinvention as bankers-for-the-poor" strategy have not always been successful. The literature suggests that the social economy and microfinance play a role in supporting disadvantaged business owners, but it often overlooks the impact of political biases that hinder the social economy's ability to achieve equity. While microcredit was designed to achieve a dual bottom line, encompassing both the social benefit of lending to low-income entrepreneurs and the financial sustainability of the lending organization, alternative perspectives on a social economy's role in "helping people" tend to neglect the deep-rooted power structures within. This study reveals that targeted initiatives in downtown Kingston, Jamaica, involving 233 small-business owners relying on development loans due to social marginalization, face challenges due to political entanglements and occasional hazards. Oppressed individuals choose to avoid participating in micro-banking initiatives as a form of resistance against the coercive tactics employed by politicians or gangsters seeking to exert control. Through 307 interviews, the author explores the informal politics of Dons and politicians who manipulate microcredit for their interests. The findings indicate that the social economy, marked by class biases and clientelist practices, discourages qualified entrepreneurs from seeking microloans. The study argues that addressing this issue is crucial for the microfinance sector to effectively continue aiding marginalized individuals (Hossein, 2016).

To encourage financial inclusion of low-income households and provide them the ability to make informed decisions so they can better manage risks, the National Treasury of South Africa has set the improvement of insurance education as one of its priorities. This study's goal was to find any current gaps and point out some areas that would benefit from investment in insurance education. 203 respondents received questionnaires from outreach locations in South Africa. Nearly all of the participants said that the people they worked with lacked insurance and were also startlingly ignorant of what insurance was. Although face-to-face interactions have historically been preferred, the majority of respondents highlighted the need for more literacy techniques. It is also necessary to scale up microinsurance teaching activities to more effectively reach a larger uninsured audience. According to the author, it is challenging for face-to-face gatherings to reach a wide audience quickly or inexpensively. An exploratory factor analysis was undertaken, and the results show that by including group discussions, blended learning, and other promotional

activities, low-income households can be reached more effectively and affordably (Chummun, 2016).

Financial untouchability arises when individuals are unable to access formal financial systems, forcing them to resort to local money lenders who charge exorbitant interest rates due to the absence of an official financial system. This situation not only leads to economic challenges but also contributes to social discrimination. The initiative of ensuring affordable access to financial services and timely, adequate financing for vulnerable groups, including weaker sections and low-income individuals, is termed financial inclusion, serving as a crucial measure to combat the challenges of financial untouchability. Financial inclusion encompasses aspects such as access to financial services, the cost associated with these services, and the actual utilization of such services. The nationwide implementation of the Pradhan Mantri Jan Dhan Yojana (PMJDY) exemplifies the government's mission to promote financial inclusion in India. This program aims to ensure that every household in the country has access to banking services, offering the opportunity to open an account with no initial balance, a complimentary debit card, and integrated accidental insurance. Additionally, the program provides insurance coverage, access to credit, and financial literacy initiatives. To assess the effectiveness of PMJDY, this study focuses on analyzing the financial literacy program and public awareness of PMJDY. The participants in this research comprised employees of the Central University of Rajasthan and residents of the Bandrasindri hamlet in the Ajmer district of Rajasthan. Primary data for this study were collected in 2015 through conversations with the respondents. The secondary information was gathered from a variety of published and unpublished sources. The results of this survey demonstrated that there is still a long road to travel until financial untouchability is truly eradicated from our nation (Verma and Garg, 2016).

The Reserve Bank of India (RBI) and banks have taken several encouraging steps to boost access to bank accounts, but India still only has about 48% of the population with a bank account, compared to close to 100% in certain industrialized countries. This article seeks to explore whether individuals who have bank accounts and access to alternative credit sources effectively employ their bank accounts and whether the possession of bank accounts encourages them to participate in banking activities. To explore this, a study was carried out involving 550 participants in Maharashtra belonging to economically disadvantaged and marginalized segments of society, who were borrowers from microfinance institutions. The authors of the study conclude that borrowers prefer to collaborate with organizations offering more flexible services than traditional banks and

that merely having a bank account does not necessarily result in the utilization of banking services by the borrowers. Opening bank accounts is not sufficient for achieving inclusion. To be able to provide a comprehensive package to this group of people, banks must consider flexibility and responsiveness in their services (Ranjani and Bapat, 2015).

The objective of this study was to investigate the potential of micro-insurance in promoting microcredit in The Gambia, a low-income Anglophone nation in sub-Saharan Africa, utilizing a case study research approach inspired by organizational economics theory. The study aimed to answer two primary research questions: First, what organizational structure for a microfinance institution (MFI) would optimize the financial benefits of microinsurance? Second, what are the financial management and broader economic advantages of MFIs utilizing microinsurance? The authors analyzed the data collected from field cases through semi-structured interviews, guided by organizational economics literature, to address these study objectives. Given the complex and evolving nature of microfinance and microinsurance in low-income nations like The Gambia, the authors considered the case study methodology particularly suitable for this study. Focusing on case studies in a single nation also helps to some extent in controlling for variations in the business environment that could complicate the interpretation of field data collected from multiple jurisdictions. According to this study's findings, credit unions' mutual (cooperative) structure is probably the most economical and efficient organizational structure for lowering information asymmetries, agency issues, and transaction costs. They also point out that micro-insurance can lessen the risk of loan defaults, raising savings returns and decreasing debt expenses. Thus, micro-insurance promotes the supply-demand for financial intermediation in developing nations, thereby assisting in the advancement of economic expansion. (Olaosebikan O; Adams M). The socioeconomic development of rural areas in Nigeria was the main topic of this essay on the role of microfinance institutions. Microfinance institutions have been in existence in Nigeria since before the country gained its independence when the locals' customary activities and systems for saving money and practicing thrift were unable to adequately meet the demands and rapid population growth of the rural population. Additionally, the government's desire to include rural areas in development and conventional banking's failure to address the socioeconomic complexity of rural communities that regularly experience rapid growth and change led to the emergence of micro-finance institutions as a means of assisting low-income people in financing and enhancing their income-generating activities. In this study, key ideas like conceptual overview and fundamental microfinance issues, like the function of microfinance institutions in the

socioeconomic development of rural areas, were studied. To bolster its claim, this paper used the demand-following and supply-leading hypotheses. This study discovered that small-scale business owners, particularly those who operate in rural areas, face ongoing challenges with funding their operations and obtaining the necessary knowledge to maintain and grow those operations (Ojua, 2014).

The enduring pattern of financial marginalization and exploitation of low-income populations in the United States is currently manifested in the rise of predatory financial services, including payday lending and check-cashing services. In the fields of social work and community development, there is an increasing focus on mitigating the harmful effects of predatory lending. This article outlines three distinct strategies that communities utilize, supported by case studies, to promote financial inclusion and protect against the negative consequences of predatory lending: inclusion, societal alternatives, and community advocacy (Caplan, 2014).

Low and unstable income, terrible health, and restricted access to healthcare services are issues that affect poor households. Because of this, they are extremely prone to health shocks, which could have catastrophic results. Heavy medical costs practically wipe away whatever few assets poor households manage to amass over time through labor-intensive work. The dilemma is exacerbated by people's ignorance about health insurance. Families living in poverty frequently put savings before insurance because they do not understand the importance of both. Additionally, current health insurance programs fall short of offering sufficient coverage for serious illnesses. These harsh circumstances are depicted in the tales of Savitha and Suvarna, two impoverished women from rural Tamil Nadu (Kumar, 2013).

Microfinance Institutions (MFIs) frequently assert that saving uncollateralized, low-income borrowers from exclusion has a major positive influence on their dignity, self-worth, social acceptance, future economic prospects, and, consequently, life satisfaction. By assessing whether having access to microloans has a large direct impact on life happiness beyond its indirect impact via changes in current income, this study seeks to confirm the veracity of this assertion. Findings from this study's authors on a sample of low-income borrowers in Buenos Aires' suburbs demonstrate that microfinance membership significantly and favorably affects life satisfaction after adjusting for survival, selection, and interview bias (Becchetti and Conzo, 2013)

This study's goal was to investigate the elements that are significant in affecting the degree of financial inclusion in geographically isolated places. This study also intends to offer banks advice on how to access untapped markets. Primary was used to gather data from 411 homes in the north-

eastern Indian states of Assam and Meghalaya using a structured questionnaire. Using a logistic regression model, significant inclusion-related factors were also found. According to this survey, there is still relatively little financial inclusion in northeast India. Education, self-help groups (SHGs) knowledge, financial information from a variety of sources, and income all played a role in inclusion. The chance of inclusion is increased by proximity to post office banks. This study also discovered that receiving government assistance separately and the geography of the area did not promote integration (Bhanot et al., 2012).

There is a growing concern about the potential impact of health policies and programs on wealth and health disparities within and between households in low-income settings. However, the appropriate combination of actions from both health and non-health sectors to protect the poor remains a subject of debate. Interventions that leverage social resources, particularly crucial for the poor in dealing with disease costs, have shown promise. This study explores how community-based organizations (CBOs) influence households' ability to afford healthcare along the coast of Kenya. Data were collected through individual interviews (n = 24), focus groups (n = 18 in each setting), and cross-sectional surveys (n = 294 rural & n = 576 urban households) in both rural and urban contexts. The study reveals the intricate hierarchy of CBOs operating at the strategic, intermediate, and local levels in both settings and provides recommendations on leveraging them to reach and protect the underprivileged. The authors highlight challenges associated with several interventions currently of international interest, including community-based health insurance programs, microfinance programs, and the elimination of primary care user fees. The study underscores the importance of identifying and expanding organizations with a strong trust base to help households cover treatment expenses and emphasizes the need to reduce the costs of services for the poorest households (Molyneux et al., 2007)

2.4 Bibliometric review

The analysis findings are presented in this part using the described bibliometric analysis approaches. The results of the citation analysis will be reported in the first part, which will then proceed to cover co-citation analysis as well as the co-occurrence of author keywords.

2.4.1 Citation analysis

The results of this analysis would include the study's overall statistics, the number of publications each year, the most often cited papers, the authors and journals with the most influence, the institutions with the greatest influence, and the nations with the greatest influence.

2.4.2 General results

This section analyses a total of 13446 references, which are spread throughout 274 papers published in 202 journals and authored by 642 writers who are connected with 27 universities located in 27 different countries (see Table 2.2). These broad findings provide us with an overview of all of the articles that are being investigated as part of our investigation into the topic of financial inclusion.

Table 2.2: Overall results

Criteria	Quantity
Articles	274
Journals	202
Authors	642
Institutions	27
Countries	27
Cited references	13446

2.4.3 Number of publications per year

The number of publications that are connected to financial inclusion is shown over time in Table 2.3, beginning in 2005 with one publication and continuing through 2022, with 46 articles now being available online. To begin, from 2005 to 2012: these were the early days for theidea of financial inclusion in the context of low-income groups, and there was no publishing in 2009. In 2009, there was also no publication (see Table 2.3). It is easy to see why there were not too many

publications during that period. On the other hand, from 2013 to 2022, there has been a steady increase in the total number of publications. This trend is expected to continue. Theyear 2021 saw the most publications of any year up to that point; however, taking into account thenumber of publications that had already been received by July 2022, it is reasonable to speculate that the year 2022 will see an even greater increase in the number of publications than in years past.

Table 2.3: Number of publications 2005-2022

Year	Articles
2005	1
2006	1
2007	3
2008	5
2009	0
2010	1
2011	3
2012	5
2013	14
2014	11
2015	6
2016	21
2017	21
2018	22
2019	30
2020	37
2021	47
2022	46

2.4.4 Most-cited documents

This section lists the top 10 publications that have been mentioned in Table 2.4. The papers are listed from most cited to least cited, working backward from the most cited document. Table 2.4 contains the names of the authors, as well as the titles of their respective papers and the years in

which they were published. The provided table includes the initial publication journal names along with the average annual number of citations received. The increasing average number of citations over time indicates a growing interest and attention towards the subject, reflecting the rising importance of the topic. The most highly cited article in the analysis contains a total of 144 references to other scholarly works. The authors employ a research methodology known as the difference-in-difference estimator, combining Panel Least Squares and Generalized Methods of Moments. The study highlights the significance of the gender dimension in terms of income changes among individuals with low incomes, especially women. The study effectively identifies disparities in the impact levels based on the gender perspective. The research sought to examine the impact of mobile phone usage in delivering financial services on savings mobilization in select sub-Saharan African countries. The results suggest that a viable approach to encourage savings mobilization, (low-income and those with restricted access to formal financial services), is to broaden and extend the availability of mobile phone-based financial services. The great number of citations that these two papers have earned may be attributed to thefact that they both discuss financial inclusion with low-income groups or disadvantaged families.

2.4.5 Most influential authors

Within this section, the most significant authors in the field of financial inclusion and the tribal community are discussed. The number of publications that each of the authors has published and the number of citations that they have gotten are two ways that their collective effect may be quantified. BIROCHI R and KOOMSON I are the most influential authors in terms of the total number of citations obtained; respectively, they have 101 and 74 citations (see Table 2.5).

2.4.6 Most influential journals

This section provides an overview of the ten most influential journals that have significantly contributed to shaping the discourse on financial inclusion and tribal communities. Based on the number of articles published, "WORLD DEVELOPMENT" stands out as the most influential journal with five published articles and a total of 238 citations. It is closely followed by "TECHNOLOGY IN SOCIETY," which has published five articles and has garnered a total of 123 citations.

Table 2.4: Most cited documents

Paper	TITLE	Total Citations	TC per Year	Normalized TC
Vighneswara Swamy, 2014, WORLD Development	Financial Inclusion, Gender Dimension, and Economic Impact on Poor Households	144	16.00	6.49
Shem Alfred Ouma Teresa Maureen Odongo Maureen Was, 2017, Review of development finance	Mobile financial services and financial inclusion: is it a boon for savings mobilization?	92	15.33	8.12
Eduardo Diniz, Rene Birochi, Marlei Pozzebon, 2012, Electronic Commerce Research and Applications	Triggers and barriers to financial inclusion: The use of ICT-based branchless banking in an Amazon County	92	8.36	3.03
Rizwan Mushtaqa, Catherine Bruneau, 2019, Technology in Society	Microfinance, financial inclusion and ICT: Implications for poverty and inequality	77	19.25	7.70
KIM J-H, 2016, Emerging Markets Finance and Trade	A Study on the Effect of Financial Inclusion on the Relationship Between Income Inequality and Economic Growth	76	10.86	5.93
Isaac Koomson, Michael Danquah 2021, ENERGY ECONOMICS	Financial inclusion and energy poverty: Empirical evidence from Ghana	72	36.00	11.32
Md Abdullah Omar & Kazuo Inaba, 2020, Journal of Economic Structures	Does financial inclusion reduce poverty and income inequality in developing countries? A panel data analysis	64	21.33	8.34
Bruce Ferguson Peer Smets, 2010, Habitat International	Finance for incremental housing; current status and prospects for expansion	61	4.69	1.00
Klaus Deininger YanyanLiu, 2013, World Development	Economic and Social Impacts of an Innovative Self-Help Group Model in India	59	5.90	4.86
Disha Bhanot, Varadraj Bapat, Sasadhar Bera, 2012, International Journal of Bank Marketing	Studying financial inclusion in northeast India	46	4.18	1.51

Table 2.5: Most influential authors

Element	H_index	G_index	M_index	TC	NP	PY_start
SHERRADEN M	3	4	0.5	19	4	2017
ANSONG D	2	3	0.333	14	3	2017
BAPAT V	2	2	0.182	51	2	2012
BARIK R	2	2	0.5	11	2	2019
BIROCHI R	2	2	0.182	101	2	2012
BONGOMIN GOC	2	2	0.333	11	2	2017
FRIEDLINE T	2	2	0.286	25	2	2016
JOHNSON L	2	2	0.333	12	2	2017
KOOMSON I	2	2	1	74	2	2021
LEE YS	2	2	0.333	12	2	2017

Table 2.6: Most influential journals

S. No	Journal	H_Index	G_Index	M_Index	TC	NP	PY_Start
1	WORLD DEVELOPMENT	5	5	0.5	238	5	2013
2	TECHNOLOGY IN SOCIETY	3	3	0.333	123	3	2014
3	ENERGY ECONOMICS	2	2	1	101	2	2021
4	EMERGING MARKETS FINANCE AND TRADE	2	2	0.286	100	2	2016
5	HABITAT INTERNATIONAL	3	3	0.188	99	3	2007
6	ELECTRONIC COMMERCE RESEARCH AND APPLICATIONS	1	1	0.091	92	1	2012
7	REVIEW OF DEVELOPMENT FINANCE	1	1	0.167	92	1	2017
8	JOURNAL OF ECONOMIC STRUCTURES	1	1	0.333	64	1	2020
9	SOCIAL WORK (UNITED STATES)	3	3	0.333	53	3	2014
10	INTERNATIONAL JOURNAL OF BANK MARKETING	2	3	0.182	49	3	2012

2.4.7 Most influential institutions

This section focuses on notable organizations that have made substantial contributions to the research on financial inclusion among tribal populations. After analyzing the total number of published articles, MAKERERE UNIVERSITY BUSINESS SCHOOL emerged as the most productive organization with nine publications. Following closely behind are GLASGOW CALEDONIAN UNIVERSITY and GRIFFITH UNIVERSITY with seven and six publications, respectively.

Table 2.7: Most influenced institution

Affiliation	Articles
MAKERERE UNIVERSITY BUSINESS SCHOOL	9
GLASGOW CALEDONIAN UNIVERSITY	7
GRIFFITH UNIVERSITY	6
KIIT UNIVERSITY	6
UNIVERSITY OF CAPE TOWN	6
UNIVERSITY OF NAIROBI	6
ECONOMICS AND DEVELOPMENT RESEARCH CENTER OF NATIONAL FORESTRY-GRASSLAND ADMINISTRATION	5
UNIVERSIDAD DE LOS ANDES	5
WASHINGTON UNIVERSITY IN ST. LOUIS	5
BANARAS HINDU UNIVERSITY	4

2.4.8 Most Influential Countries

This section lists the most significant countries on which some of the country's most frequently referenced works and average citations are based. With 290 citations, the United States leads all other nations in terms of influence. The United Kingdom and India are next with 284 and 228 citations, respectively. In terms of the number of average citations per article that the country earned, Brazil came out on top with 56, followed by France and Korea, each with 26.

Table 2.8: Most influential countries

Country	TC	Average Article Citations
USA	290	12.08
UNITED KINGDOM	284	12.35
INDIA	228	5.30
AUSTRALIA	132	26.40
CHINA	98	7.54
BRAZIL	92	46.00
SOUTH AFRICA	87	9.67
FRANCE	84	28.00
KOREA	84	28.00
BANGLADESH	69	23.00

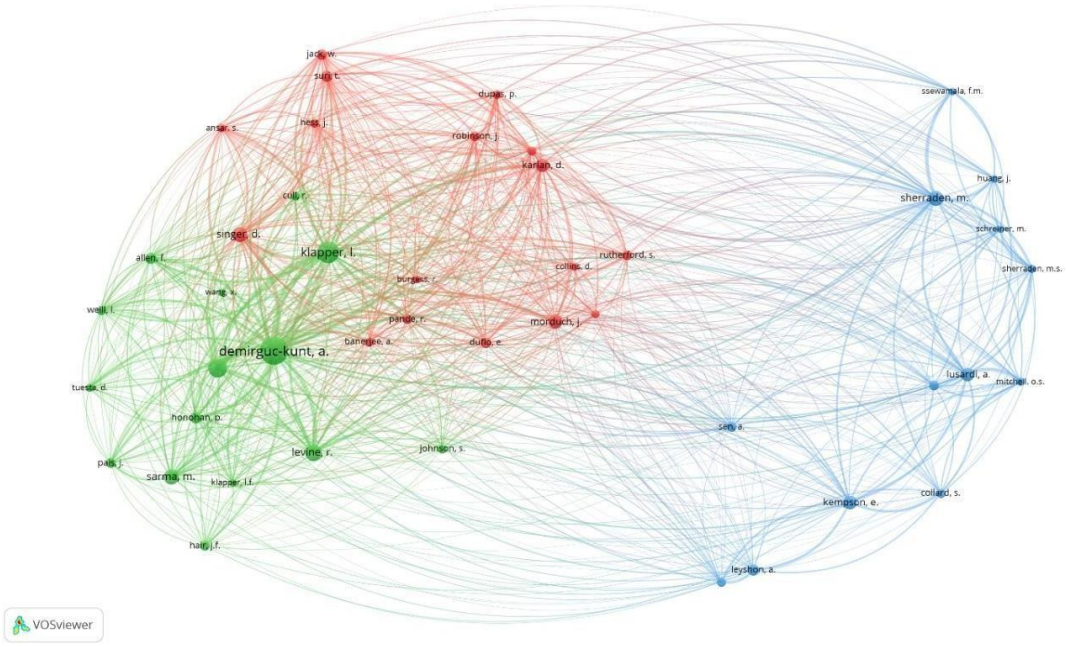
2.4.9 Co-citation analysis

In this study, co-citation analysis was utilized to account for the interconnections between the referenced articles (Das et al., 2018). Co-citation analysis identifies significant co-citations when multiple references are cited similarly across different publications (Bhat et al., 2023). Co-citation analysis measures how often two articles are cited in one another (Pandita et al., 2023).Notable research streams are also mapped through co-citation analysis by identifying important clusters connected to a certain subject (Bhat et al., 2023).

2.4.10 Co-citation analysis (Authors)

With cited authors serving as the fundamental unit of analysis, this section presents the findings of the author co-citation analysis (Mishra et al., 2022). 642 authors have been detected based on a study of the 274 articles' cited references. The larger nodes in Figure 2.1 represent authors who were frequently co-cited, and this information was obtained through co-citation analysis. Figure 6's three clusters, each with 45 authors, serve as a representation of the co-cited authors' network or web. Each cluster corresponds to a group of writers who are often mentioned together in research on the financial inclusion of tribal people.

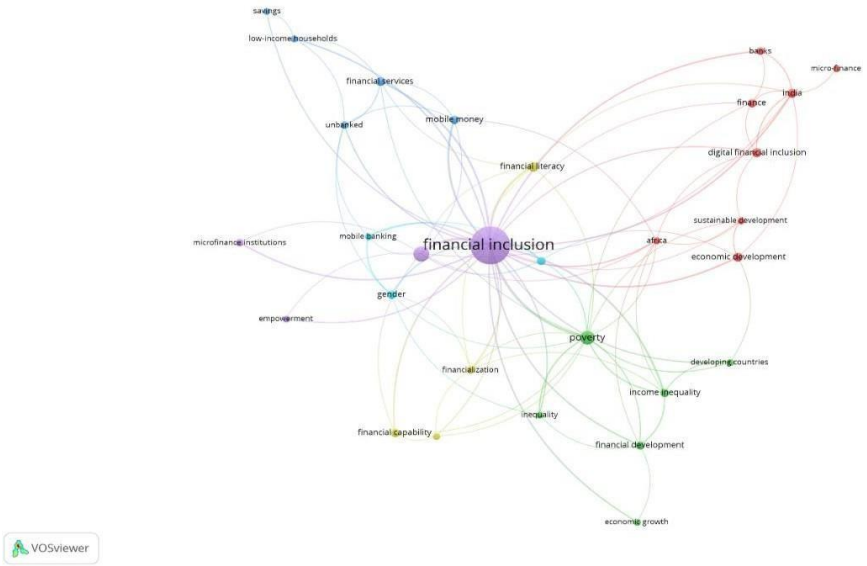
Figure 2.1: Co-citation analysis (authors)



2.4.11 Co-occurrence of author keywords

This research examines prominent keywords, which can provide valuable insights into the main topics covered in the articles. These keywords are presented directly below the abstracts for reference. The results (Figure 2.2) demonstrate that over the last three decades, terms like "low-income population," "microfinance," "financial services," "finance," "India," "banking," and "poverty" have been among the most often used keyword in the research. There are six clusters and thirty keywords in Fig. 2.2.

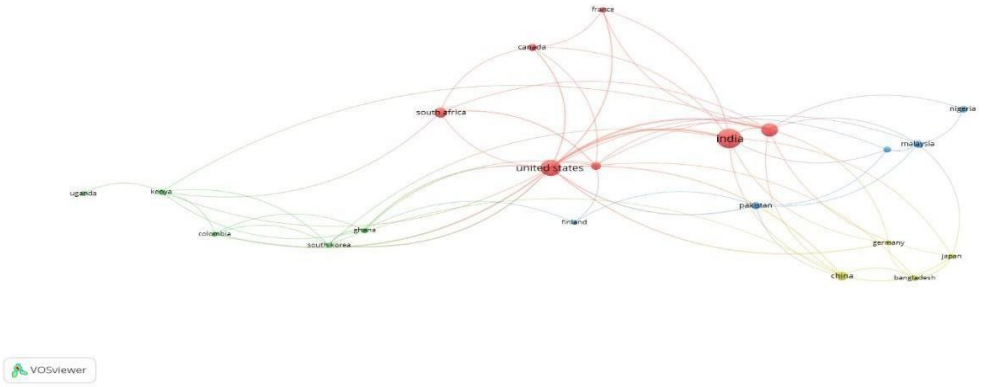
Figure 2.2: Co-occurrence of keywords



2.4.12 Co-authorship countries

In this study, the most significant keywords are analyzed to help identify the key themes addressed in the articles. These keywords are positioned directly below the abstracts. Additionally, author keywords are depicted as co-occurrences (Figure 2.2). The results demonstrate that over the last three decades, terms like "low-income population," "microfinance," "financial services," "finance," "India," "banking," and "poverty" have been among the most often used in the literature on financial inclusion and Indigenous population. There are six clusters and thirty keywords in Fig. 2.2.

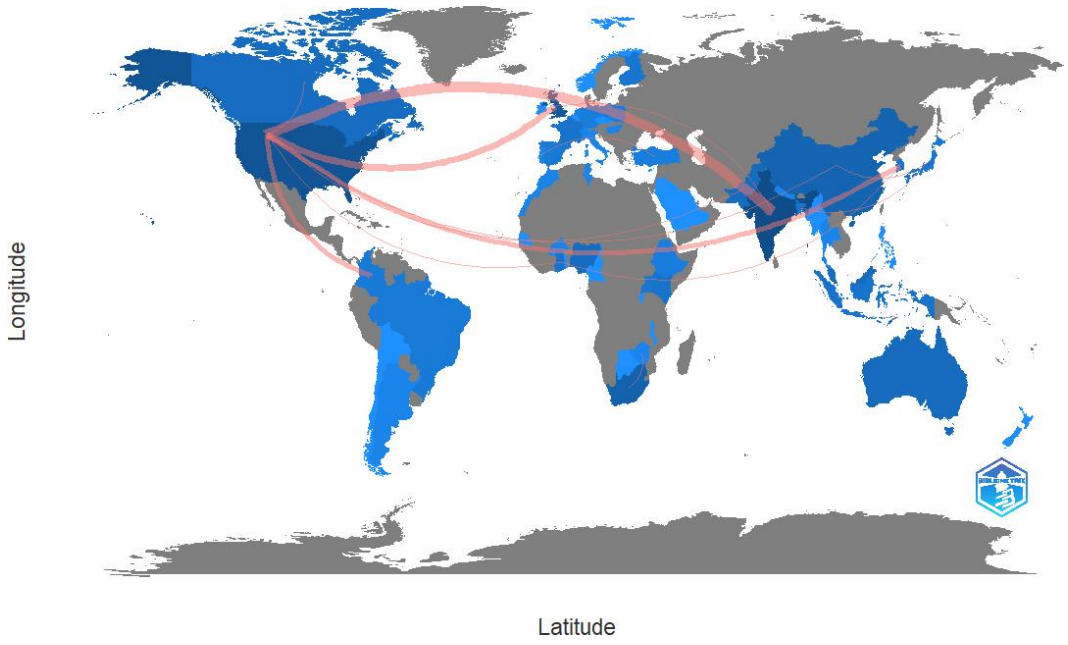
Figure 2.3: Figure country Collaboration



2.4.5 Collaboration world map

The partnership map for the nation is shown in Figure 2.5. The United States, India, and the United Kingdom are the nations with the most comprehensive networks of cooperation in terms of research on tribal populations, and they lead the pack in terms of exceptionally high production. The most significant nations in terms of the volume of publications on the topic are shown in Table 6. With 156 publications, India leads the list. The United States, the United Kingdom, and China follow with 90, 50, and 40 publications each. For further details, Table 6 is available to the readers.

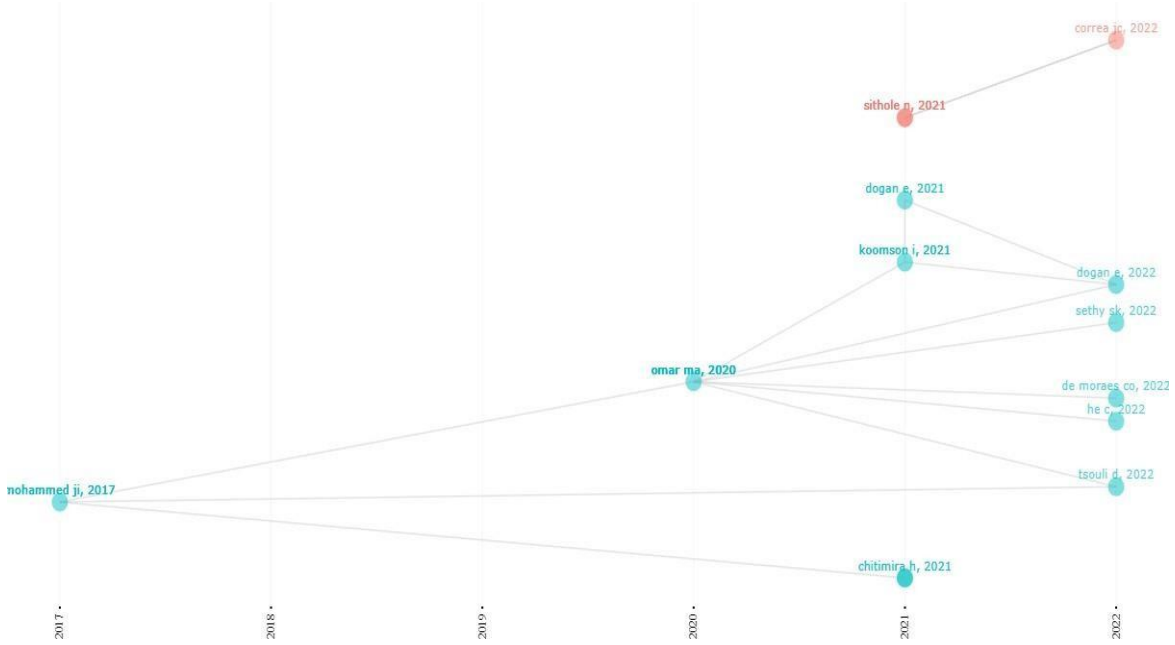
Figure 2.5 Collaboration world map



2.4.6 Historiography networking

To historically map financial inclusion concerning the low-income population, we used a historiographic citation analysis. The chronology and direct citation relationships are shown in Fig. 2.6, along with a complex citation map that features two distinct but linked clusters. The publication "FINANCIAL INCLUSION AND POVERTY REDUCTION IN SUB-SAHARAN AFRICA" by Mohammed et al. (2017), one of the most important works on financial inclusion concerning poverty reduction, served as the foundation for the core cluster (top), which ran from 2017 to 2022. The history also reveals that this important work garnered a lot of attention over time and was first mentioned by (Omar & Inaba., 2020), which was then followed by (Doganet al., 2021), which was followed by many linkages of citations among other writers. The figure also demonstrates that the (Mohammed et al., 2017) paper required some time to establish itself as a key source for financial inclusion in low-income or indigenous population studies.

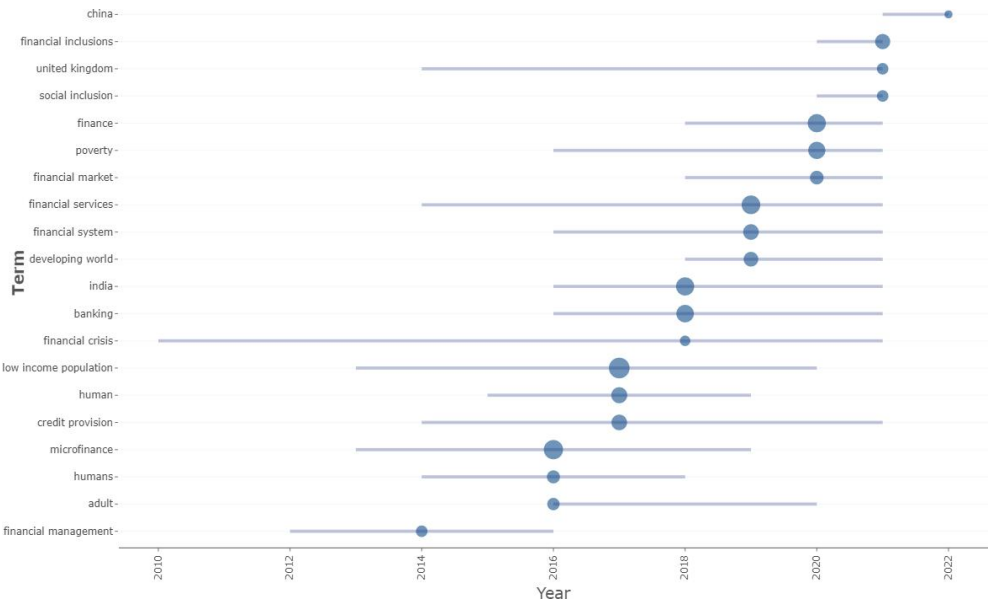
Figure: 2.6 Historiography networking



2.4.7 Trending topic

Regarding the years researched under financial inclusion connected to the Indigenous community, the most significant trending topics are highlighted. The top 20 topics throughout the inquiry period (2010–2022) were also determined using an authors' dominance diagram; they are shown in Fig. 2.7. Low-income populations were the most popular study areas in financial inclusion for Indigenous populations from 2013 to 2020, followed by microfinance, financial services, and India from 2013 to 2014, 2020 to 2019 and 2016 to 2021, respectively.

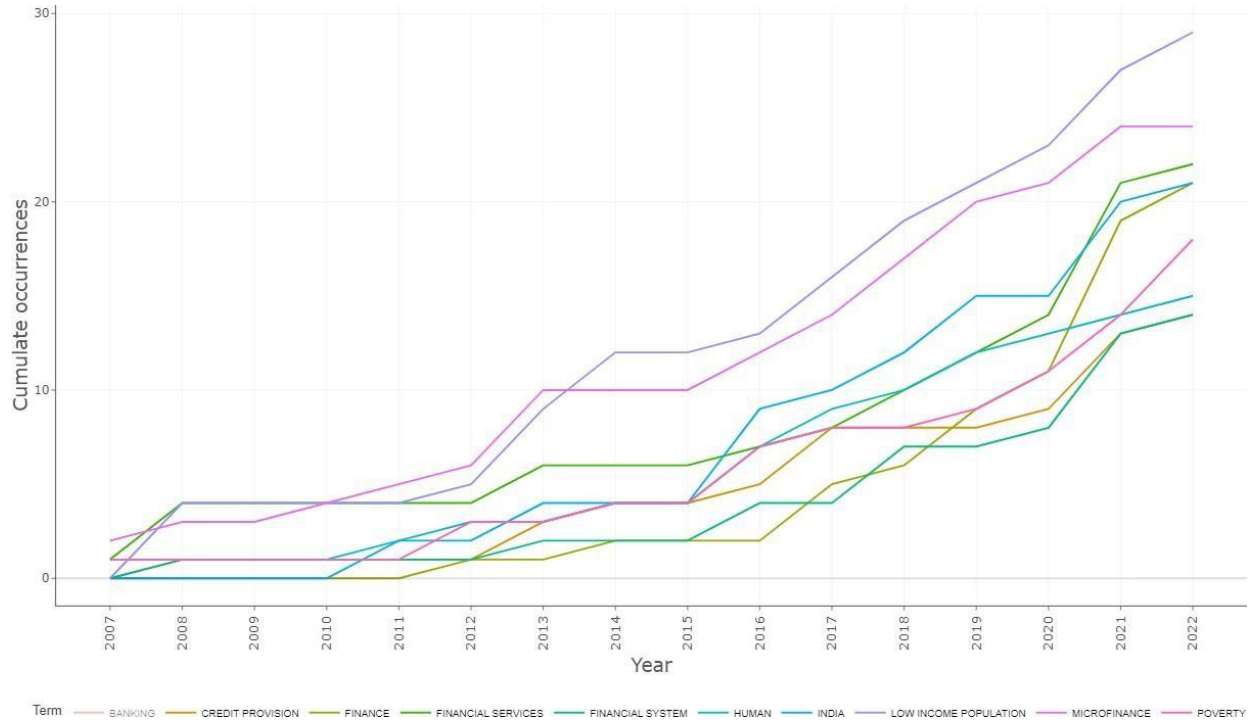
Figure 2.7: Trending topic



2.4.8 World dynamic

Research trends that are on the horizon might be indicated by keywords that suddenly become more popular among academics (Bhat et al., 2023; Pandita et al., 2023; Mishra et al., 2022). In addition to the word cloud study, we also performed a word growth analysis to find potential directions for future research. The yearly scientific output of the terms "financial inclusion" and "low-income population" is shown in Fig. 2.8, "World Dynamic." Low-income populations, microfinance, and financial services were the three most popular topics throughout the introduction phase, which ran from 2007 to 2010. The majority of the research publications were published in the areas of "microfinance" and "low-income population" during the second and third stages from 2011-2014 and 2015-2018. (see figure World dynamic). The last phase, documented from 2019 to 2022, is characterized by an increase in publications and the "low-income population's" emergence, while "India" now attracts more academic interest.

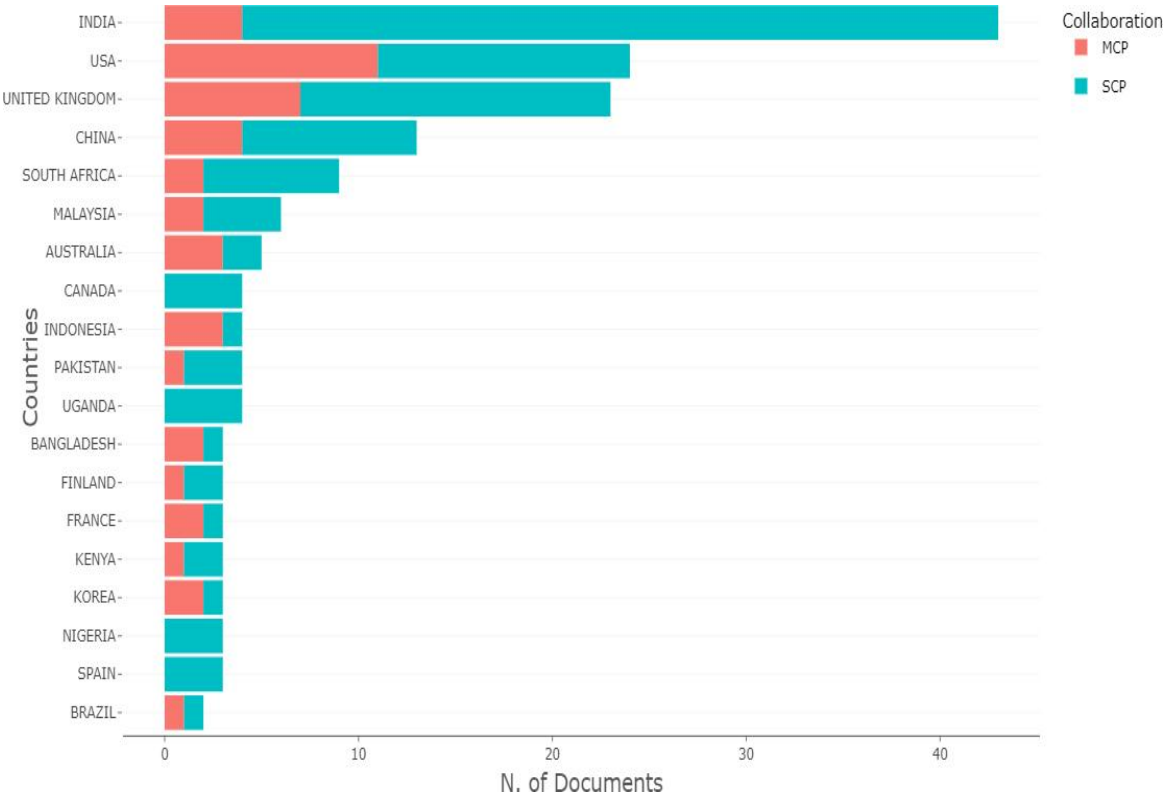
Figure 2.8 World dynamic



2.4.9 Corresponding author's country

The geographical distribution of researchers in this field(Fig. 2.9), which places India at the top with 43 articles and the United States and the United Kingdom at the bottom with 24, and 23 articles, respectively, demonstrates this expansion.

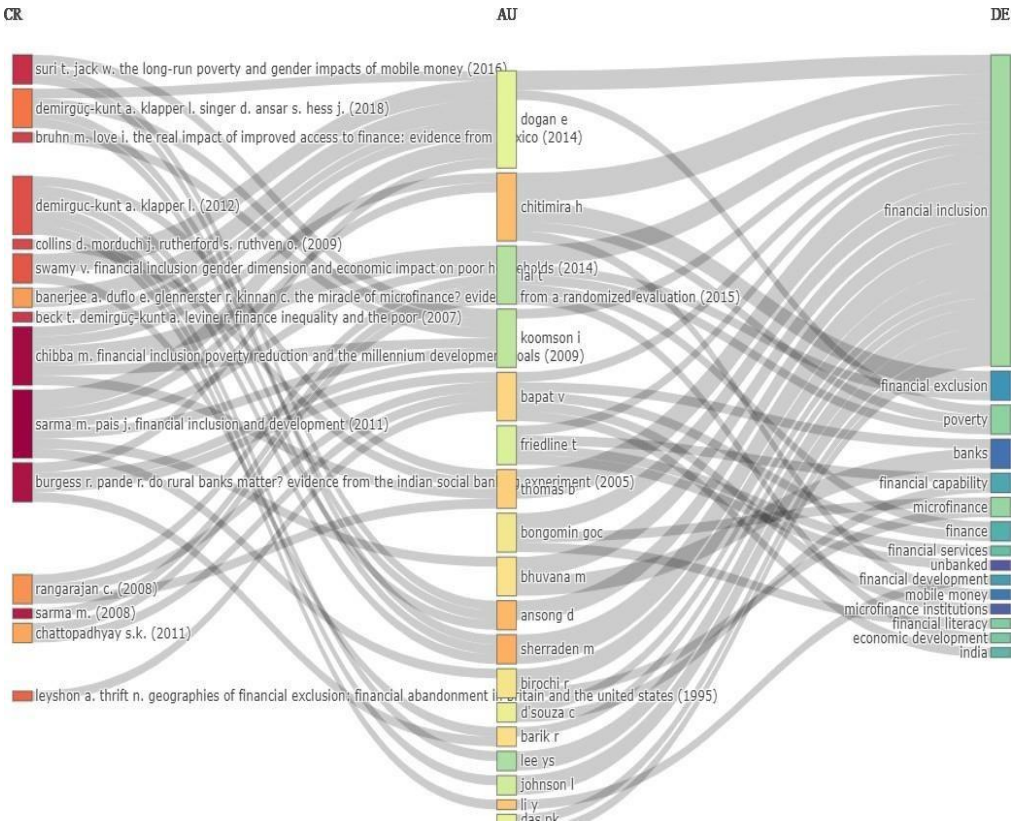
Figure 2.9: Corresponding authors' country



2.4.19 Sankey diagram

Additionally, we used the Sankey diagram to look at how keywords, authors, and referenced publications relate to one another in financial inclusion (see Fig. 2.10). (Sankey, 1898). The figure, also known as a "three-field plot," is an effective tool for illustrating the relationship between entities, with the themes being named according to the keywords that appear most often. The width of the arrows and boxes is dependent on the frequency of publications in Figure 2.10. As can be observed from their edge widths in authors' works, financial inclusion is the term that appears the most often, followed by financial exclusion, poverty, and banks. Additionally, in contrast to other writers, (Dogan et al., 2021) and (Koomson & Danquah, 2019) are the authors who utilized the most diverse terms, demonstrating their extensive degree of field coverage. The researchers primarily focused on a very small number of publications due to their coverage in terms of venues.

Figure 2.10: Sankey diagram



2.5 Thematic Analysis and Hypothesis Development

2.5.1 Access and Financial Inclusion

Having access to financial resources is not only vital for preserving and enhancing one's socioeconomic condition; it is also essential for ensuring that one's requirements are met (Dangi & Kumar, 2013; Maity & Sahu, 2020) A sizeable portion of the population does not have access to the financial services that are accessible (Rafiq & Adewale, 2019). According to Muralidhar, Bossen, and O'Neill (2019). People with access to various financial services are better positioned to weather sudden changes in their financial situation than those who do not (Kumar & Pathak, 2022). According to the (World Bank, 2007), physical access, eligibility requirements, and cost of

Financial services are the primary factors that determine whether or not people with low incomes in emerging nations have access to such services. Access to financial services is essential in low-income communities and rural areas because it improves options for revenue production under hard conditions, which helps to decrease poverty in undeveloped regions (Group, 2013). The financial sector, which provides families with savings accounts, consumer loans, and mortgages, is a crucial part of this cooperative structure. This framework relies on this mechanism. For Demirgüc-Kunt and Klapper (2013) and Group (2013), having access to financial services, also known as having financial inclusion, is a fundamental requirement. According to Thathsarani, Wei, and Samaraweera (2021), having access to credit has good benefits not just on consumption but also on job status and income, as well as on some elements of mental health and perspective.

Access to finance has a relatively significant role in the initial investment in production activities and their later development. As a result, having access to finance may have a beneficial influence on the financial inclusion of a community.

2.5.2 Availability and Financial Inclusion

To achieve financial inclusion, one must first ensure that it is available and then encourage the use of formal financial systems by all economic participants (Shankar, 2013). One definition of availability is the geographical and demographic spread of banking services (Sharma, 2016). However, the Availability dimension emphasizes the geographically widespread reach of the financial sector. This is because the physical distance to financial service providers is regarded as a barrier to financial inclusion (Bank, 2008; Pham & Doan, 2020). Research (Bank, 2008; Pham & Doan, 2020) indicates that the availability of a wide range of financial services is essential for the economic well-being of people with low incomes, particularly in developing economies. Financial inclusion allows them to generate income, build assets, maintain stable consumption, and effectively manage risk (Bank, 2007; Chibba, 2009).

2.5.3 Usage and financial inclusion

At first, "access" to bank accounts was used to refer to that person's capacity to engage in the financialsystem. This idea has grown over time to include the "usage" of different financial services to gauge the extent of financial inclusion in an economy. Before now, merely "access" to financialservices was the main concern (Roy & Patro, 2022). The suggestion put forth is that individuals from all segments of society should actively participate in economic activities and have access toaffordable financial services that are tailored to their specific needs and preferences (Guidance, 2017). It is known as "private agent access to financial services but little or no use of them Whenindividuals in the private sector have access to financial services but choose not to utilize them ordo so sparingly, it can be attributed to various factors such as limited financial literacy or knowledge, insufficient savings, unemployment or low income, lack of trust in financial institutions, fear of debt accumulation, or personal psychological reasons for avoiding debt.

2.5.4 Quality and Financial Inclusion

The concept of "financial inclusion" ought to be predicated on both the enhancement of the standard of financial services for customers who already have access to these services using the application of financial technology and the extension of the provision of fundamental financial services to people who do not have access to such services (Hair et al., 2019). The nature and extent of the relationship between the providers of financial services and their customers is one of the aspects determined by quality. Other aspects include the choices made available to customers and the extent to which customers understand the implications of those choices (Okello Candiya Bongomin & Munene, 2020). Bank and Bank (2014) found that giving poor households in rural areas of developing economies access to high-quality financial services that meet certain criteria, such as being easy to use, affordable, eligible, flexible, reliable, continuous, safe, and respectful of the client's dignity, can reduce the number of poor households in those areas.

2.5.5 Affordability and Financial Inclusion

The word "affordability" refers to how much it costs to keep a minimum balance and how much it costs to get financial services (Beck et al., 2008; Venkataramani, & Gupta, 2012). Becauseof financial inclusion's increased convenience, people and corporations now have easier access to more affordably priced financial goods (Le et al., 2020). It is essential to underline that financial

Inclusion has the characteristics of a public benefit, as it assists more disadvantaged groups in gaining access to financial services and places emphasis on the cost-effectiveness of such services (Beck et al., 2015; Cnaan et al., 2012; Peachy & Roe, 2006) Residents in rural regions have the opportunity to make an income that can be used to assist their homes and society when affordable financial services are made available to both big and small businesses operating in the area. This, in turn, gives those living in remote areas access to acceptable standards.

2.5.6 Financial Inclusion, Economic Empowerment, and Economic Inequality.

Numerous decision-makers have adopted the concept of financial inclusion as a crucial means for enhancing economic empowerment and addressing the growing issue of poverty levels since there is emerging evidence that it offers significant advantages for the excluded population, particularly for impoverished people, in many countries (Ozili, 2021). The ability to participate in growth processes that value their efforts and fairly distribute their wealth to increase access to economic resources is known as economic empowerment (Ferrante & Thim, 2019). Economic empowerment includes financial knowledge, fiscal self-sufficiency, and economic independence (Postmus, 2010; Postmus, Plummer, McMahon, & Zurlo, 2013). Economic empowerment entails enhancing their access to economic resources and opportunities, including employment, financial services, property ownership, productive assets, skill development, and market access. This is particularly significant in the context of growing economic inequality. The linkages between finance and the distribution of wealth and income have received considerable attention, as has the established connection between the growth of the financial sector and overall economic activity. (Levine, 1997; Sahay et al., 2015). According to J.-H. Kim (2016), financial inclusion plays a role in strengthening the relationship between income inequality and economic growth. Multiple studies have examined the connection between financial inclusion, poverty, and income inequality in different countries, employing various methodologies and drawing diverse conclusions. Some argue that financial inclusion has the potential to reduce income inequality. (Beck et al., 2007; Brune et al., 2011; Dixit & Ghosh, 2013; Le et al., 2020; Neaime & Gaysset, 2018; Sanjaya, 2014; Boukhatem, 2016; Park & Mercado, 2015; Schmied & Ana, 2016).

From the discussion above, the following hypotheses have been formulated;

H1: There is a positive relationship between access and financial inclusion.

H2: There is a positive relationship between availability and financial inclusion.

H3: There is a positive relationship between usage and financial inclusion.

H4: There is a positive relationship between quality and financial inclusion.

H5: There is a positive relationship between affordability and financial inclusion.

H6: There is a positive relationship between financial inclusion and economic empowerment.

H7: There is a negative relationship between financial inclusion and economic inequality.

2.6 Literature Review on Demographic Attributes

The supply of financial services at a fair price to substantial populations of disadvantaged and low-income groups is called "financial inclusion." is effective and ongoing for all demographic groups (Triki & Faye, 2013). Financial inclusion has the potential to narrow the income disparity between the Indigenous community and the broader society by improving their access to financial services and creating opportunities for income generation. Financial inclusion is crucial for economic empowerment in rural regions because it makes it possible for less fortunate people to successfully develop their economies (Oji, 2015). Financial inclusion plays a vital role in the lives of Indigenous people, particularly those residing in remote and rural areas, as it addresses the limited access they have to formal financial services (Ozili, 2018). Financial inclusion may improve Indigenous people's overall economic well-being and quality of life. Financial growth is one of the factors affecting social inequality, specifically the disparity of financial inclusion of individuals. Increasing financial inclusion might help reduce poverty to the desired level (Chibba, 2009; Neaime & Gaysset, 2018). Research indicates that financial inclusion can serve as a means to attain financial development, decrease income inequality, and uplift individuals out of poverty (Chibba, 2009; Demirguc-Kunt, Klapper, Singer, & Ansar, 2018; Beck, Demirgüç-Kunt & Klapper, 2012). Access to finance may help indigenous people build and maintain their enterprises, invest in healthcare and education, and improve the quality of their lives. Financial inclusion could also help tribal tribes save money to sustain their life level through adversity, such as crop failure or medical emergencies. Financial inclusion may increase the financial literacy of tribal people,

empowering them to make smart financial and investment decisions. To increase financial inclusion among tribal populations, it is essential to invest in financial infrastructure and digital technology, powered financial education and literacy programs, and develop financial productsand services specifically tailored to the needs and circumstances of the tribal population. These steps may aid in the creation of a more inclusive financial system by ensuring that all social groupscan use financial services and products.

Demographic characteristics significantly influence a population's level of financial inclusion. Financial inclusion was determined by gender, education, age, income, place of residence, work status, and marital status, according to the majority of researchers (Bhanot et al., 2012; Dar & Ahmed, 2021; Soumare et al., 2016; Tuesta et al., 2015). Age, gender, marital status, degree of education, and religion are demographic variables that affect financial inclusion (Llanto & Rosellon, 2017). According to studies by Demirgüç-Kunt and Klapper (2012), Demirgüç-Kunt, Klapper, and Singer (2013), Efobi, Beecroft, and Osabuohien (2014), Fungáová & Weill (2015), Graham Saunders, Bendixen, and Abratt (2007), and Sinclair (2013), demographic factors like income, employment, and education are significantly associated with owning a bank account.

2.6.1 Gender

A key psychological characteristic that distinguishes males from females is the distinctive gender look that each individual possesses. In the literature on financial inclusion, gender differences, and resident views have been analyzed (Cheronoh, 2019). For scholars investigating financial inclusion, gender has become an essential category crucial for developing marketing strategies, formulating regulations, and conducting human resource studies. Although men and women face the same barriers to financial inclusion, these barriers are often more difficult for women (Cheronoh, 2019). Because women's considerable contribution to economic advancement would be lost if they were barred from economic activity, the gender gap is troubling (Fanta & Mutsonziwa, 2016). Female applicants are less likely to get a loan when a loan officer is a man (Becket al ., 2011). Even after accounting for various individual characteristics like age, education, employment status, and living in rural areas, the gender gap in financial inclusion persists (Demirgüç-Kunt et al., 2015). The only significant indicator proven to harm financial inclusion was gender (women); all other pertinent characteristics had a positive impact (Mhlanga, 2020). Women are often excluded from financial services due to social and cultural

Barriers such as limited access to education, discrimination, and constrictive gender norms (Alafeef, Singh, & Ahmad, 2012; Ammar & Ahmed, 2016; Johnson & Arnold, 2012; Mndolwa & Alhassan, 2020; Mossie, 2022; Potnis, 2014). Women may also struggle to get loans due to poor collateral and property rights (Sethy, Mir, Gopinathan, & Joshi, 2023). Financial inclusion and gender substantially affect ownership and use (Demirgüç-Kunt et al., 2013; Shabir & Ali, 2022). Gender is not a significant determinant in account ownership, saving, or borrowing, according to several researchers (Nugroho & Purwanti, 2017; Soumare et al., 2016).

2.6.2 Age

The age group determines financial inclusion (Johnson & Nino-Zarazua, 2011; Kombo, 2021). Who holds a bank account depends on their age (Fanta & Mutsonziwa, 2016). Age matters and is advantageous for official accounts (Mndolwa & Alhassan, 2020). Financial inclusion is positively related to age (Abdu et al., 2015). Younger individuals see financial inclusion more favorably than older people do. Nevertheless, several research concerning age have shown contradictory results. Age is the demographic factor that influences financial inclusion most as older people are more likely to use bank accounts than younger people (Johnson & Arnold, 2012). Financial inclusion for younger individuals, particularly those under the age of 25, may be limited by their lack of financial literacy. On the other hand, older persons, particularly those over 60, may only have limited access to financial services due to retirement, a lack of computer literacy, and mobility issues. Desalegn and Yemataw (2017) assert that older age is associated with greater financial inclusion. Both young and older people are grappling with financially challenging market conditions (Dell'Ariccia & Pence, 2009). Age is still a significant factor in the utilization of financial services (Demirgüç-Kunt et al., 2013).

2.6.3 Marital Status

The respondents' marital status is another element that affects their opinions on financial inclusion. Marital status also appears to be a significant factor in financial inclusion (Soumare et al., 2016). If you are married, you can open a bank account (Fanta & Mutsonziwa, 2016). Marital status influences financial inclusion (Kombo, 2021). Marital status influences financial inclusion; the two are positively and significantly related (Kombo, 2021; Mhlanga, 2020). Increased chance of marriage increases account ownership (Fanta & Mutsonziwa, 2016). Males who are married and older people have greater financial involvement (Kombo, 2021). In a global analysis of individual

characteristics, According to Allen et al. (2016)

2.6.4 Income

Income affects financial stability (Fanta & Mutsonziwa, 2016). The use of formal accounts and formal credits is significantly impacted by higher income (Fungáová & Weill, 2015). Based on global analysis of individual characteristics, Allen et al., (2016) discovered that individuals with greater wealth display a higher tendency to possess an account with a recognized financial institution. Financial inclusion encourages macroeconomic expansion, which benefits the underprivileged and those with low incomes (Cull, Ehrbeck, & Holle, 2014; Group, 2013). Demirgüç-Kunt et al., (2013) claim that, despite various factors, there remains a substantial and significant correlation between the utilization of financial services and income. Both Allen et al., (2016) at the global level and Cano-Sánz, Esguerra-Umaa, Garca-Bohórquez, Rueda-Gil, and Velasco-Martnez, (2013), Djankov, (2008), Kedir, (2003), and Murcia Pabón, (2007) show a direct relationship between higher incomes and financial inclusion. This is in addition to taking income levels into account. Those with lower earnings may only have limited access to formal financial services due to their inability to meet the eligibility standards for financial products. They often have little choice but to utilize basic financial services, which may be costly and risky. Per capita income and financial inclusion are significantly related (Park & Mercado, 2015). Significant research demonstrates that socioeconomic factors like higher income levels and literacy favor financial inclusion.

2.6.5 Occupation

The profession impacted the increase in access to financial services to the people (Yang, Huang, & Gao, 2022). (Botri and Tomi, (2016) assert that having a job is essential for one to engage in the financial system. Employment status continues to have a significant association with the usage of financial services (Demirgüç-Kunt et al., 2013). If they have jobs in the tertiary sector, those who work there will increase their understanding of and usage of financial products and services. Occupation significantly influences financial inclusion (Dabla-Norris, Ji, Townsend, & Filiz, 2015; Noor, Fourqoniah, & Aransyah, 2020). There is a relationship between occupation and financial inclusion (Berhanu Lakew & Azadi, 2020; Teka, Nahusenay, & Asmare, 2020; Timbula, Mengesha, Mekonnen, & Kebede, 2019). The empirical results suggest that a decrease in

Developing nations' unemployment rates are related to increased financial inclusion (Mehry, Ashraf,& Marwa, 2021). Employment and participation in the financial system are closely related (Cull et al., 2014; Zulfiqar, Chaudhary, & Aslam, 2016). Financial inclusion allows underprivileged groups, low-income families, and unregistered businesses to accept payments, acquire assets, increase revenue, and better manage their financial risks (Mugo & Kilonzo, 2017). The chance ofhaving an account at a formal financial institution is higher among employed people (Allen et al.,2016).

2.6.6 Education

Financial inclusion largely depends on education, which also plays a significant role in obtaining it (Fungáová & Weill, 2015). Researchers on financial inclusion have found that people's attitudes toward financial inclusion are significantly influenced by their level of education (Kaur & Kapuria, 2020; Mhlanga, 2020; Tuesta et al., 2015). The Indigenous educated class views financial inclusion more favorably than the less educated class, which is one factor that works against it (Kuri & Laha, 2011; Wolbers, 2003). Higher education is linked to a higher likelihood of getting a loan from a traditional financial institution (Llanto & Rosellon, 2017). A person's level of education greatly increases the likelihood that they will own an account (Fanta & Mutsonziwa, 2016). Due to this, education is considered one factor that determines financial inclusion (Kombo, 2021; Demirgüç-Kunt & Klapper, 2012), and it appears to be crucial to achieving financial inclusion (Dar & Ahmed, 2021). Greater levels of education are linked to a higher chance of being banked (Beck et al., 2009). Higher education recipients often have better financial literacy, increasing the likelihood of using formal financial services. Additionally, they are more likely to earn larger wages, increasing their chances of being approved for other financial products and services.

2.7 Research Gaps

1. No empirical studies have examined the impact of financial inclusion on economic inequality and empowerment among tribal populations, as most prior research has primarily focused on the factors determining financial inclusion rather than its effects.
2. No research has investigated how access to credit, savings, and ownership may help development among tribal groups in general and in Jammu and Kashmir in particular, nor hasone evaluated the influence that financial inclusion has on the economic empowerment of tribal communities.

3. The currently available research has not conducted a comprehensive investigation of the variables that restrict their access to financial services and their ability to participate in decision-making processes. In the studies that have been done up to now, no assessment of the gender-specific obstacles that stand in the way of financial inclusion among Indigenous groups has been uncovered. In light of this, there is an immediate and serious need to investigate the efficiency of gender-sensitive finances in Indigenous communities.
4. This study intended to construct an integrated model to examine the linkages between drivers of financial inclusion and economic inequality and empowerment to fill a gap in the existing research and make a contribution to the development of financial inclusion in Jammu and Kashmir.

CHAPTER 3

METHODOLOGY

3.1 Objectives of the study

1. To examine the developmental gap between tribal and non-tribal populations.
2. To measure the financial inequality between tribal and non-tribal populations.
3. To explore the relationship between financial inclusion and economic inequality concerning the tribal population.
4. To identify the factors for intra-group disparities with reference to financial inequality.

3.2 Hypotheses of the study

H1: There is a positive relationship between access and financial inclusion.

H2: There is a positive relationship between availability and financial inclusion.

H3: There is a positive relationship between usage and financial inclusion.

H4: There is a positive relationship between quality and financial inclusion.

H5: There is a positive relationship between affordability and financial inclusion.

H6: There is a positive relationship between financial inclusion and economic empowerment.

H7: There is a negative relationship between financial inclusion and economic inequality.

3.3 Research design

For social sciences research, creating a suitable study design is essential. This is because how the researcher develops the best research design for the study completely determines howthe research will turn out. There are numerous research approaches used in social science, including exploratory, descriptive, explanatory, and evaluative research. Combining descriptive and explanatory research, the current study. Understanding the frequency with which specific explanatory aspects of a population occur is the goal of descriptive analysis (Black, 1999). Cross-sectional and longitudinal descriptive studies are two types of descriptive research; the former describes a population at a specific time while the latter describes information about a population over time. Cross-sectional research is used in the present study. Additionally, the current work is

Explanatory in that it delves deeply into the topic of "why is it going" and the tribal population to test theories regarding various factors that affect the process of financial marginalization of the tribe households.

3.4 Study area and sampling unit

Jammu and Kashmir (J&K) have a large tribal population, accounting for 11.9 percent. The Gujjar and Bakarwal communities have around 1093852 people, accounting for roughly 69 % of J&K's entire tribal population (Census, 2011). In the UT of Jammu and Kashmir, including the Ladakh, the following communities have been declared as scheduled tribes Balti, Beda, Bot, Bota, Brokpa, Drokpa, Dard, Shin, Changpa, Garran, Mon, Purigpa, Gujjar, Bakerwal, Gaddi and Sippi, (Tribal Affairs Department, 2022). Gujjar, Barkerwal, and Gaddi are the three tribes mentioned above that are present in UT Jammu and Kashmir, while other tribes are in UT Ladakh, which are Balti (the Balti is the majority group among Muslims of Ladakh), Bodh, Beda (the ladaki Bodh), Brokpa, Drokpa, shin (they are Muslim Dards, found in Kargil and Suru valley), Changpa, Garran, Dokhpa/Drokpa: (found in Ladakh and Kargil), Gara (Ladakh), Mons, Puriga, and Shippi (Census, 2011). Although Gujjars are not native to Jammu and Kashmir, whose name comes from the State of Gujarat, from which they travel to Jammu and Kashmir (Ganie et al., 2020). Gujjars' income mostly comes from cultivation, milk, milk product sales, and buffaloe rearing on a contract basis (Suri, 2014). While Bakrawal is a nomadic pastoral tribe whose primary source of income is cattle rearing (Trak & Giri, 2017, Nanda & Sharma, 2018). They are the second-largest tribe in Jammu and Kashmir. Some major tribes in Jammu and Kashmir include the Gujjar, Bakarwal, Pahari, and Balti (Census 2011).

Among the Tribal population of Jammu and Kashmir, Poonch and Rajouri districts have the largest concentration of Gujjars, followed by Anantnag, Udhampur, and Doda districts. Anantnag and Bandipora districts contain the most significant concentrations of Bot, Bakarwal, and Brokpa tribes, respectively (Census, 2011). Most of Jammu and Kashmir's tribal people have poor socioeconomic standing and live in deplorable conditions; most of their housing sites are still filthy (Manju, 2018; Sofi, 2013). Scheduled Tribe status is accorded to the Gujjar and Bakarwal people under India's Constitution and are entitled to certain constitutional safeguards and benefits (Butt & Gupta, 2014). However, these communities have faced several challenges, including discrimination and displacement, due to conflicts and political instability in the region. The Pahari and Balti communities, on the other hand, are not officially recognized as Scheduled Tribes but

are considered as "Other Backward Classes" and are entitled to certain affirmative action programs. The tribal population of Jammu and Kashmir has a unique culture and way of life, which is closely linked to their environment and natural resources (Abdullah, 2014). However, these communities' traditional lifestyles and livelihoods are under threat due to climate change, urbanization, and changes in land use patterns. Efforts are being made to promote and preserve the culture and traditions of the tribal communities in Jammu and Kashmir while addressing their socio-economic needs and ensuring their participation in the development process.

3.4.1 Anantnag

Anantnag district is located in the southern part of the Indian UT of Jammu and Kashmir. The district headquarters is located in the town of Anantnag. The district covers an area of 3,984 square kilometers and has a population of approximately 1,078,692 people, according to the 2011 Census of India. Anantnag district is known for its beautiful natural scenery, including the Lidder and Jhelum rivers, forests, and mountains. It is also known for its rich cultural heritage, with numerous historical and religious sites such as the Martand Sun Temple, the Amarnath Temple, and the Aishmuqam Shrine. The district is also an important education center with several colleges and universities. The main languages in the Anantnag district are Kashmiri, Urdu, and Hindi. Anantnag district had a total tribal population of 116006,and a significant portion comprises the Gujjar and Bakarwal tribes (Census, 2011). The Gujjar and Bakarwal tribes are nomadic and pastoral communities found in the Himalayan region of India and Pakistan.

3.4.2 Bandipora

Bandipora is a district situated in the northern part of the state and covers an area of 398 square kilometers. The district headquarters is located in the town of Bandipora. Bandipora district is bordered by Kupwara district to the west, Baramulla district to the south, and the Line of Control with Pakistan-administered Kashmir to the north. The district has approximately 225,000 people (Census, 2011) and is divided into three tehsils: Bandipora, Sumbal, and Gurez. The district is known for its scenic beauty, with snow-capped mountains, pristine lakes, and lush green forests. Some popular tourist destinations in the district include the Wular Lake, the largest freshwater lake in Asia, and the Nishat Bagh, a beautiful garden on the banks of the Jhelum River. The district is also home to the Kishanganga Hydroelectric Project, a major hydroelectric power plant that generates electricity for Jammu and Kashmir. Bandipora district in Jammu and Kashmir has a tribal

population of 37705 people (Census, 2011).The district has a diverse population, with a mix of different ethnic and religious groups. The tribalcommunities in the district are primarily Gujjars and Bakarwals, who are pastoralist communitiesthat traditionally lead a nomadic lifestyle and depend on their livestock for their livelihood. The Gujjar and Bakarwal communities in the Bandipora district have distinct cultures, languages, and traditions and are known for their hospitality and friendly nature. They are also skilled in the art of wool weaving and produce high-quality woolen shawls and carpets that are sold in local markets. The district administration has taken various steps to promote the welfare of the tribal communities in Bandipora district, including providing access to education, healthcare, and otherbasic amenities.

3.4.3 Poonch

Poonch district is located in the Indian state of Jammu and Kashmir. This district covers an area of 1,674 square kilometers and a population of approximately 476,835 people (Census, 2011). It is located in the Pir Panjal Range of the Himalayas, and the district is known for its beautiful natural scenery, including mountains, forests, and rivers. This district is also rich in culture and history, with several historical and religious sites, such as the Poonch Fort, Gurudwara Nangali Sahib, and the Noori Chamb Shrine. Poonch district is primarily a rural area, with agriculture being the main occupation of the people. This district is known for handicrafts like carpet weaving, shawl making, and embroidery. The main languages in the Poonch district are Pahari, Dogri, and Urdu.

The population of Gujjar and Bakkarwal ST of Poonch district is 1 76 101 (Census, 2011),. The percentage of the ST population in the district is 36.9 %. They are primarily nomadic and pastoral communities that move from one place to another with their livestock in search of pastures (Ahmed, 2021). The Gujjar and Bakerwal communities are mainly concentrated in the highland areas of the district, such as the Pir Panjal range (Dutta et al., 2021). Apart from these tribes, the Poonch district is also home to people from other communities, such as Pahari, Dogra, and Kashmiri (Census, 2011).

3.4.4 Rajouri

Rajouri district is located in the Indian state of Jammu and Kashmir. It is in the Pir Panjal range and shares its borders with Pakistan-administered Kashmir. Rajouri district covers an area of 2,630 square kilometers and has a population of approximately 642,000 people (Census, 2011). This

District is divided into six tehsils: Rajouri, Sunderbani, Nowshera, Darhal, Kalakote, and Thanamandi. This district is known for its scenic beauty, with picturesque landscapes and natural attractions such as waterfalls, lakes, and forests. Some popular tourist destinations in the district include the Shahdra Sharief Shrine, Dehra Ki Gali, and Tatta Pani hot springs. This district is also known for its rich cultural heritage, with a mix of Hindu, Muslim, and Sikh communities living in the area.

The Gujjar and Bakerwal communities are the major tribes in the Rajouri district.They are primarily nomadic and pastoral communities who move from one place to another with their livestock in search of pastures. The Gujjar and Bakerwal communities are mainly concentrated in the hilly areas of the district. Apart from these tribes, the Rajouri district is also home to people from other communities, such as Pahari, Dogra, and Kashmiri. The Pahari community in the Rajouri district is one of the most populated ethnic groups and consists of various sub-groups, such as Rajputs, Brahmins, and Thakurs.

3.5 Sample size selection

Sample size selection is an important step in the research design process. It involves determining the number of individuals or units included in the study to ensure that the results are statistically and practically significant. The sample size depends on, the population size, the level of precision required, the effect size, and the desired level of statistical power. When selecting a sample size, it is crucial to consider the following factors:

Population size: The larger the population size, the larger the sample size needed to ensure representativeness and statistical significance.

Level of precision required: The greater the level of precision required, the larger the sample size needed. Precision is usually measured by the margin of error, which is the amount of error that can be tolerated in the sample estimate.

Effect size: The larger the effect size, the smaller the sample size needed. Effect size refers to the magnitude of the difference or relationship between variables.

The desired level of statistical power: The greater the desired level of statistical power, the larger the sample size needed. Statistical power refers to the probability of detecting a true effect or difference between groups.

Various statistical methods and formulas can be used to determine an appropriate sample size, such as power analysis, confidence interval calculation, or the formula for determining the minimum

detectable effect size. Researchers mostly used Krejcie & Morgan (1970) to calculate sample size; it is based on a statistical formula for calculating sample size, which considers the population size, desired level of precision, and estimated population proportion or means.

The formula for determining sample size (Krejcie & Morgan, 1970)

S= $X^2NP(1-P) \div d^2(N-1) + X^2P(1-P)$

S required sample size.

^{2}= The chi-square value for 1 degree of freedom at the specified level of confidence (3.84).

N= The population size.

P= The population portion (0.50).

d= The degree of accuracy (.05).

Based on the above sampling formula (Krejcie & Morgan (1970), the total minimum required to sample for this study was 384 from the tribal and 384 from the non-tribal population. Keeping in view the margin of error (Bhat et al., 2021), 500 respondents were questioned in both communities. We received 416 samples from the tribal and 439 from the non-tribal population. Jammu and Kashmir has two divisions; four districts were selected based on the concentration of the tribal people in the districts of UT Jammu and Kashmir. Anantnag and Bandipora from the Kashmir division, while Poonch and Rajouri from the Jammu division. The concentration of tribal as well as non-tribal population was taken from census 2011. Primary data was gathered in this study from four selecteddistricts in Jammu and Kashmir; because these tribal people live in the forests (Bakarwals) or thefoothills (Gujjars), farming in these hilly terrains is complex and we have collected the data from March 2021 to December 2022.

Data collection involved sampling across four districts in Jammu and Kashmir, covering a variety of Tehsils, Villages, and Blocks. Below is a structured summary:

Anantnag District

Tehsils/Villages:

Pahalgam: Arrow, Laripora, Srachan, Lehendajan, Sallar, Lewar, Langanbal, Hapatnad, Shumhall,

Amad Wagad, Kathsu, Srigofora, Adlash Magma, Aishmuqam.

Kokernag: Akin Gam , Hillar, Sagam, Booch, Bahali, Nagam, Ikramoo, Soaft Shalii, Lar Noo, Breng

Changes: Chhatargund, Tunjmulla, Chogam, Uttarsoo, Kot Hair, Hardpora, Pgie Balan

Dooru: Sadora, Nursoo, Vesu, Lewodra, Zol Dora, Bona Gund, Tunjlu, Bragam, Oojru, Kaprin, Verinag

Bandipora District

Tehsils/Villages :

Gurez: Gulshanpora, Dawar, Barnia, Dangithal, Niru, Qazipora, Patushi

Bandipora: Arindardpora, Garoora, Kanipora, Gundramzan, Nowgam, Zaipora, Hajin Ghat Sonawari

Poonch District

Tehsils/Villages:

Haveli: Madhar, Shahphur, Aslamabad, Saral, Polas, Dalan, Banpat, Dhakri, Bandi Checkiyan, Nangli, Jhulas, Dara Dullan, Mangnar, Hari Budha

Mandi: Dedar, Balnai, Gali, Gali Nag, Piera, Raj Pur, Dhara, Ghani

Mehdar: Chungan, Chitral, Kala Ban, Sanghiot, Nar, Galhuta, Dharatti, Gohlad

Surankot: Malhan, Phagia, Harri, Dodi, Marthote, Potha, Kalar Kattal, Fazalabad, Chabndi Marg, Bafliaz

Rajouri District

Tehsils/Villages:

Thanamandi: Sadhra, Majhur, Azmatabad, Hasploot, Alal, Dara, Bataihli, Dadarsanpain

Darhal: Dahnor, Hiyatpura, Dudaj, Thana Nang, Kothra, Nadian, Chokian, Kathra

Rajouri: Goverdhan Bala, Dani Dhar, Thodi, Thokrian, Nagrota, Ladot, Arghi, Soker, Budhal, Panhad, Rajnagar, Dandwat, Kewal, Rehean, Barsala, Jaglanoo, Larkoti, Dodha

Budhai: Dangot, Kora, Nowshera, Lam, Rajpur Kamila, Laroka, Lambehri, Nmunial, Sehot, Hathal

Nowshera: Lagar, Nuinial, Dabbar, Sehot, Tareru, Kari, Gharak

Kalakote: Gharak, Brehvi, Anand, Peri, Khabar, Siunderbani, Chehni, Sehia, Thandapani, Bakhar, Kangri, Bajwal, Kaldubi, Manikah, Bakhar.

Table 3.1 demonstrates the sample size in the four districts.

Table 3.1 Sample size						
District	Total Population (Tribal)	Required Sample Size	Collected Sample Size	Total Population (Non-tribal)	Required Sample Size	Collected Sample Size
Anantnag	116006	74	80	962686	185	195
Bandipora	75374	48	55	316858	63	76
Rajouri	232815	150	155	409600	77	88
Poonch	176101	112	126	300734	59	80
	600296	384	416	1989878	384	439

Source: census 2011

3.6 Methods of data collection and Sampling Technique

Social science research often uses two sorts of approaches: quantitative methods and qualitative methods. While the latter is used to interpret things in words instead of in terms of data and to shed a greater spotlight on various aspects of the research problem, the former is used when the research requires exact information on variables that need to be stated in quantitative terms to clarify specific phenomena (Miller, 1983). It is preferable to use both methodologies sparingly when researching social groupings like tribal people, where attention must be paid to the ethnographic dimension. It may not always be easy to collect quantitative data from tribes becausethey are often socially and functionally illiterate. Furthermore, if information on the study's subject matter is provided by such groups, reliability must be guaranteed.

Additionally, to gather reliable information when investigating issues about tribes,the researcher needs to interact with the tribes, which is only achievable with the aid of qualitative research. On the other hand, it is generally known that in the instance of quantitative research, theresearcher appears to be merely a spectator once the respondent receives the questionnaire or that the researcher's role ends with the interview procedure. Thus, using a quantitative approach to gather data leaves little room for thoroughly examining a tribal issue. The social and cultural makeup of the tribal system are intertwined with many tribal issues. Focus group discussions and case study methodologies are two examples of qualitative research techniques that must be used to delve deeply into these complicated features. It is simple to create links and associations between

economic variables using quantitative approaches, but it is far more difficult to pinpoint the underlying causes of these associations. Here, qualitative research saves the day by enabling the identification of the driving forces behind the link among financial variables (Remenyi, 1998). Research that is both qualitative and quantitative is therefore essential for understanding tribal issues. For the research, the current study uses a quantitative investigation that mostly entails data collecting, analysis, and focus group discussions (along with some qualitative components). Mixing two or more research methodologies is known as triangulation (Creswell, 2003). Primary data have been used in this investigation. The Convenient Sampling Method is used to gather primary data. Convenience sampling is a non-probability sampling method where individuals are selected based on their availability or accessibility to the researcher. In the case of tribal populations, convenience sampling can be advantageous in several ways:

Accessibility: Tribal populations are often located in remote or hard-to-reach areas, making it difficult to use probability sampling methods. Convenience sampling can help researchers to access these populations more easily and efficiently.

Cultural sensitivity: Tribal populations often have unique cultural beliefs, practices, and customs. Researchers familiar with the culture and who have established relationships with community leaders or members may be better equipped to conduct research using convenience sampling.

Cost-effective: Convenience sampling can be a cost-effective way to collect data, particularly for researchers with limited resources. This method may require less time, money, and effort than probability sampling methods.

Feasibility: Probability sampling methods, such as simple random sampling, may not be feasible for small or isolated tribal populations due to their small sample size. Convenience sampling may be a more practical and feasible method for such populations.

3.7 Construct Measurement

Our study is based on primary data, and we have collected samples through questionnaires. Our questionnaire is divided into two parts: the first is associated with demographic attributes (Table 3.2), and the second is associated with financial inclusion (Table 3.3).

3.7.1 Demographic attributes

A thorough review of the literature on demographic traits led to the creation of the first part of the questionnaire (Table 3.2), (Bhat & Mishra, 2020; Célerier & Matray, 2019; Chattopadhyay, 2011; Cheronoh, 2019; Divya, 2013; Johnson & Arnold, 2012; Joseph, 2014; Kuri & Laha, 2011; Mindra & Moya, 2017; Moder & Bonifai, 2017; Murari & Didwania, 2010; Nandru, Anand, & Rentala, 2015; Ouma, Odongo, & Were, 2017; Park & Mercado, 2015; Ramakrishna & Trivedi, 2018) and financial inequality (Allen et al., 2016; Fowowe & Folarin, 2019; Bhanot et al., 2012; Demirgüç-Kunt & Klapper, 2012; Ozili, 2018; Demirgüç-Kunt et al., 2013; Fungácová & Weill, 2014; Leeladhar, 2005). Gender, age, marital status, education, income, and employment were the demographic parameters that were questioned. Gender was divided into "female" and "male." Five age ranges were taken into consideration: "18 to 24 years," "25 to 34 years," "35 to 44 years," "45 to 54 years," and "55 and above years." There were two options for marital status: "married" and "unmarried." The kind of profession was classified into four categories: "government employed," "self-employed," "student," and "unemployed." There are four levels of education that people prefer: "no schooling," "less than high school," "high school," and "college." The monthly income was calculated in Indian Rupees and was divided into five categories: "less than 5,000," "5,000 to 10,000," "100,000 to 15,000.," "15,000.," and "20,000 and above." STATA was used to code the whole set of replies for estimate. The gender codes for males and females were '1' and '0,' respectively. The age groupings were classified from "1-5", youngest to oldest. Married people were labeled as "1," whereas unmarried were marked as "0." Four occupational groups were classified from "1-4" from government employment to unemployment. Income levels were also coded from "1 to 5" while levels of education were coded from "1 to 4," ranging from no formal education to a college degree. Financial inequality was the dependent variable, and the items were quantified between 0 and 1, 0 indicates "No," and 1 means "Yes".

Table: 3.2 Demographic attributes	
Gender	Beatrice Cheronoh (2019), ECB (2017), Nandru et al. (2015)
Age	Johnson and Arnold (2012), Joseph (2014), Beatrice Cheronoh, (2019)
Marital Status	Ouma et al (2017), Mindra (2017), Claire Célerier and Adrien Matray (2019)
Income	Mercado (2015), Sarma and Pais (2011), Divya (2013), Ramakrishna & Trivedi (2018), Nandru et al. (2015), Didwania (2010)
Occupation	Joseph (2014), Chattopadhyay, Sadhan Kumar (2011), Daniela Gabor and Sally Brooks (2016)
Education	(Cámara and Tuesta, 2015), Kuri and Laha, (2011), Ramakrishna & Trivedi (2018), Nandru et al. (2015), Joseph (2014)
Ownership	Peterson Kitakogelu Ozili (2021), Allen et al (2015)
Savings	Demirguc-Kunt & Klapper (2013), Leeladhar, (2005), Ranjani & Bapat, 2015),
Borrowings	Zuzana & Weill (2014), Sreelakshmi (2016),

3.7.2 Financial inclusion instruments

The second part of our questionnaire includes 49 items for eight constructs (see Table 3.3). All the scale items for this study were adopted from previously validated studies and instruments. The measures of perceived access comprise eight variables (Access to a bank branch? Access to ATM services? Rate your experience with the requirements of documents needed for opening a bank account. "How would you rate your experience with the process of opening a bank account under PMJDY/SHGs? Is the location of your bank branch convenient for you? Rate your experience with your access/reach to your respective bank. Rate your experience with the convenience of using the banking services. Rate your experience about reaching/accessing your bank?) which were adapted from Kumar et al. (2020), Prabhakar et al. (2020), Amidžic et al. (2014), Rajani Gupta et al. (2012), and Nandru et al. (2021). Seven variables are used to measure the concept of availability (Availability of SHGs loans in your bank branch? Availability of bank employees to create awareness about using banking services in your bank branch? Availability of locker facility in your bank branch? Availability of crop loans in your bank branch? Availability of no-frills or zero-balance accounts in your bank branch? Availability of fieldworkers/BCs in your bank branch?

Availability of credit counseling facilities to create awareness about availing credit facilities, in your bank branch?,) which were derived from Vaid et al. (2020), Nandru and Rentala (2020), Beck et al., (2007), Gupta et al. (2012), and Nandru et al. (2021). The six items of usage (use your bank account to save money?, Use your bank account to borrow money, save money in your bank account regularly, and Visit your bank branch to withdraw money. Use the locker facility to safeguard your valuables, Use your ATM/Debit card to withdraw money) which were adopted from Nandru & Rentala (2020) and Nandru et al. (2021), while the seven items of quality(Expensiveness of fees and other charges charged for carrying out financial transactions? The quality and sufficiency of information you received at the start of the loan contract about the financial services, the comfortability and time spent while standing and waiting in queues in your bank branch? The mistreatment of consumers of your bank branch by the staff? Contacting a consumer protection authority to solve your problem regarding financial services, Detailed transactional information provided by your bank branch, Prepare a monthly budget for yourself?) were retrieved from Thorat (2010)**,** World Bank (2014), Khan et al. (2023), and Beck et al. (2009). For affordability which was measured using 7 questions (Affordability of interest rates under SHGs loans? Affordability of the cost incurred for opening a bank account? Affordability of the cost incurred for using banking services? Affordability of the minimum balance required for maintaining a bank account? Affordability of cost incurred for using ATM/Debit card services? Is the minimum balance requirement for maintaining a bank account reasonable?, Bank lending rates are comparatively lower than that of moneylenders?) was developed and modified by Nandru & Rentala (2020) and Nandru et al. (2021) that were adopted and used to measure affordability. The measurement of financial inclusion wasconducted by utilizing five questions (Current level of access to formal banking services (e.g., savings accounts, loans, credit cards)? Utilized mobile banking or digital payment platforms? , Government initiatives or programs aimed at promoting financial Inclusion?, Using technology for financial transactions, such as online banking or mobile payments?, Greater financial inclusion could positively impact the overall economic development and well-being of your community?) that were adapted and adjusted based on prior research Rastogi & E, R. (2018). Demirgüç-Kunt, et al. (2015), and Okello et al. (2016). Economic empowerment was measured using 7 questions

(Role of FI in enabling you to meet/face emergencies in your life?, Role of FI in promotion of your saving and investment practices? , Role of FI in increasing your source of income?, Role of FI in your increased standard of living? Role of FI in your increased better medical facilities? Role of FI in your increased position in your family?, How would you rate your experience about the role of FI in your increased productivity?) developed and altered by Lal (2020), Senyo et al.(2021), and Bhatia and Singh (2019). Lastly, economic inequality was tested using two items (Income and Earnings) retrieved from Budría (2010). To get replies from the respondents, the questions used to measurethe variables in this study were placed on a 5-point Likert scale which included five categories: strongly disagree, disagree, neutral, agree, and highly agree. It ranged from 1 to 5.

Table 3.3: Financial Inclusion and financial inequality

Factors	items	sources
Access	8	Vaid et al. (2020), Nandru, and Rentala (2019), Amidžić and Goran (2014), Rajani et al. (2012), and Nandru et al. (2021).
Affordability	7	Nandru and Rentala (2019) and Nandru et al (2021)
Availability	7	Vaid et al. (2020), Nandru, and Rentala (2019), Beck et al. (2007), Rajani et al. (2012), and Nandru et al. (2021)
Economic Empowerment	7	Tarsem Lal (2020), P. K. Senyo et al (2021), and Bhatia and Singh (2019)
Economic Inequality	2	Santiago Budría (2010), Gul and Chaudhry (2015)
Financial Inclusion	5	world bank 2014, Mindra et 2017, Rastogi and Ragabiruntha (2018), Singh and Misra (2020) and Singh et al. (2021).
Quality	6	World Bank (2014), AFI (2016), Anum Khan et al. (2020), and Beck et al. (2009).
Usage	6	Marrakech and Morocco, (2017), Prabhakar Nandru and Satyanarayana Rentala, (2019), and Nandru and Prabhakar et al (2021)

3.8 A pilot study of the questionnaire

The researcher can confirm whether the sample unit replies to the survey with the aid of the pilot survey, which is essential. It is also necessary to check whether the current interview schedule allows for the objective-based interpretation of the data. Additionally, in studies involving tribal groups, pilot surveys are essential since the researcher may not be able to predict how the tribe will respond to the survey upfront. To conduct this study, a pilot survey was conducted in four districts, each of which is home to a different tribe community, in October 2020. For the Pilot Survey, samples were collected using the convenience sampling technique. Discussions were held with tribal officers, knowledgeable tribe members, tribal promoters, banking authorities, and all other parties involved in tribal development before setting the time frame for interviews for a pilot survey to get their feedback on how the questions would be designed to achieve the study's goal. Before they were used in the pilot survey, the interview schedule was written and revised based on their suggestions. The results of the pilot survey also gave the researcher the information she needed to adjust her approach to interviewing the tribes. Even before the survey itself began, the researcher was able to build relationships with the tribes through visits to the survey fields and conversations with the tribe males, particularly the young men. Wherever it was required, the researcher enlisted the aid of tribal promoters to interact with the tribes. The questionnaire was created using a literature review, and content and language validation was performed by six specialists in our research field. A pilot survey was conducted for 50 respondents to test the reliability of the questionnaire. The reliability test of questionnaire items was checked through Cronbach’s alpha. In our pilot study, all the constructs’ Cronbach alpha scores were greater than 0.70 shown in Table 3.4, which is acceptable.

Table 3.4: Reliability test		
Factors	items	Cronbach's alpha
Access	8	0.83
Affordability	7	0.85
Availability	7	0.91
Economic Empowerment	7	0.75
Economic Inequality	2	0.89
Financial Inclusion	5	0.78
Quality	6	0.87
Usage	6	0.79

3.9 Data Process and statistical methods used

3.9.1 Descriptive statistics.

Descriptive statistics describe the characteristics of a dataset. They can concisely summarize the data, identify patterns and trends, and make comparisons between groups. In research, descriptive statistics are often used as a preliminary step in the analysis process. This helps researchers in understanding the data clearly and to identify any potential problems or issues with the dataset. They can also be used to generate hypotheses for further analysis. Descriptive statistics can be used to describe both quantitative and categorical data. For quantitative data, measures of central tendency. For categorical data, frequency distributions and percentages are widely used. Descriptive statistics can also be used to compare groups or subgroups within a dataset. It is important to note that while descriptive statistics can provide a useful data summary, they do not test hypotheses or make inferences about the larger population. For this, inferential statistics are required. Therefore, descriptive statistics should always be accompanied by appropriate inferential statistics when making conclusions about the data. Descriptive statistics is an important tool in research for summarizing and describing data and generating hypotheses for further analysis.

3.9.2 Reliability and Validity

Reliability and validity are two important concepts in research used to assess the quality of measurement instruments and the accuracy of their results. The consistency and stability of a measurement tool throughout time and in various environments or conditions is referred to as reliability. Using the same measurement tool to measure the same variable repeatedly should result

in consistent results, in other words. Several methods for assessing reliability include test-retest reliability, inter-rater reliability, and internal consistency reliability. On the other hand, validity refers to the extent to which a measurement instrument measures what it intends to measure. In other words, if a measurement instrument is intended to measure a specific construct or concept, it should be able to capture that construct or concept accurately. Construct, criterion, and content validity are a few examples of the numerous types of validity. Content validity refers to how well a measurement tool captures each important aspect of the construct or idea being measured. Criterion validity refers to how a measurement instrument can predict an external criterion.

Construct validity refers to the extent to which a measurement instrument measures the intended construct or concept, as demonstrated by the relationships between the instrument and other variables. Ensuring reliability and validity in research is essential because inaccurate or inconsistent results can lead to erroneous conclusions and incorrect decisions. Researchers can use statistical methods and tests to assess reliability and validity and ensure their measurement instruments are reliable and valid. Reliability and validity are essential research concepts that help ensure that measurement instruments are accurate and produce consistent results. Researchers should aim to provide reliability and validity in their research to deliver high-quality and reliable results.

3.9.3 Correlation and multiple regression analysis

Two statistical methods that are frequently used to look at the relationship between variables are correlation and multiple regression analysis. The direction as well as degree of the linear link between two variables are examined through correlation analysis. The correlation coefficient, which runs from -1 to 1, is a typical representation of it and measures how closely two variables are associated. A perfect, positive, and neutral correlation is represented by a correlation of -1, 1, and 0 respectively.

Multiple regression analysis, in contrast, is a statistical method employed to investigate the correlation between a dependent variable and several independent variables. By considering the influence of other variables, it allows researchers to assess how effectively one or more independent variables can predict the dependent variable. The fact that multiple regression analysis enables researchers to investigate the distinct impacts of each independent variable while adjusting for the effects of other variables is one of its key advantages. It is an effective technique for examining the connections between several different variables and can be applied to a variety of

research areas, including psychology, the social sciences, and business. Overall, correlation and multiple regression analysis are valuable tools for examining relationships between variables in research. Correlation analysis provides a helpful summary of the strength and direction of the relationship between two variables. In contrast, multiple regression analysis allows researchers to examine the relationship between a dependent variable and multiple independent variables while controlling for the effects of other variables.

3.9.4 Partial Least Squares Structural Equation Modelling (PLS-SEM)

(PLS-SEM) is a statistical technique for analyzing relationships between multiple variables. PLS-SEM is a two-stage approach, wherein in the first stage, the relationships between the observed variables and their respective latent variables are estimated using a method called Partial Least Squares Regression. In the second stage, the relationships between the latent variables are estimated using Structural Equation Modeling (SEM) techniques. When the data is small or non-normal PLS-SEM is mostly very useful to use. It allows for the simultaneous estimation of multiple models in a single analysis. It also provides for assessing complex models with numerous indicators per latent variable and can handle both reflective and formative measurement models. One of the critical advantages of PLS-SEM is its ability to handle a wide range of data types, including categorical and ordinal data. It is also well-suited for modeling complex relationships with many variables, and the sample size is relatively small.

Additionally, PLS-SEM can handle missing data and is less sensitive to outliers than traditional SEM. It is commonly used to model and test complex theoretical models, such as those involving multiple mediating and moderating variables. Overall, PLS-SEM is a powerful tool for modeling and analyzing complex relationships between variables and can help researchers gain insights into the underlying processes that drive complex phenomena.

It is a series of ordinary least squares regressions with more statistical power than covariance-based SEM (Hair et al., 2019). The primary statistical approach utilized to evaluate Structural equation modeling (SEM), a sophisticated second-generation data analysis technique that is frequently used to test complex models utilizing data (Hair et al., 2019), serves as the hypothetical model in this investigation. It combines the features of factor analysis with multiple regression, which enables the simultaneous investigation of direct and indirect effects of exogenous and endogenous variables. Thus, PLS-SEM permits the construction of complicated models (Bhat et

al., 2020). The path model is computed using Smart PLS 4 in this investigation. Additional bootstrapping was utilized to assess the importance of the loadings. To solve research issues, researchers might use the SEM approach to concurrently model interactions between several independent and dependent variables. For evaluating models with complicated latent variables, PLS-SEM is helpful (Hair et al., 2019). Hair et al. (2019) state that studying complex higher-order models has a strong predictive capacity. PLS-SEM offers the benefit of analyzing latent constructs using path analysis and stressing the explanation of variation in dependent variables while assessing a structural model. PLS-SEM is advantageous when dealing with complicated models, including composites, without assuming goodness-of-fit estimates due to its casual-predictive character (Chin, 2010). As a non-parametric analytic technique, PLS-SEM overrules multivariate normality in the data (Hair et al., 2019; Bhat et al., 2021). The PLS-SEM enables researchers to use non-normal and small datasets. PLS-SEM suggests a two-step analyticapproach for data analysis. In the first step, the model was measured to determine the reliability and validity of the study's constructs (Hair et al., 2019). Measurement models are developed usingPLS-SEM to identify the construct, content, convergent, and discriminant validity of the observedmeasures and the underlying components for all variables under consideration (Bhat et al., 2021).In the second step, investigations were carried out into the relationships between the structural model and the research hypotheses, using significant levels (Bhat et al., 2021; Chin, 2010). In thesecond stage of analysis, known as the structural model, various measures are employed to assessits effectiveness. These measures include determining the value of R square, which indicates the proportion of variance explained by the model, evaluating the effect size, examining the predictiverelevance of the model, assessing the Goodness of Fit of the model, and calculating the path coefficient (Bhat et al., 2021; Hair et al., 2019). To test the research hypotheses, bootstrapping is utilized to obtain robust results and validate the findings (Hair et al., 2019; Bhat et al., 2021).

The general form of PLS-SEM can be represented by the following equations:

Measurement Model Equations:

For each observed variable (indicator) i of a latent construct j:

$X_i = \lambda_j * \xi_j + \varepsilon_i$

Where:

X_i: Observed variable i

λ_j: Loading of observed variable i on latent construct j (Factor loading)

ξ_j: Latent construct j (Latent variable)

ε_i: Error term for observed variable i

The loading λ_j represents the strength of the relationship between the observed variable and the latent construct. The error term ε_i captures the unexplained variation in the observed variable i that is not accounted for by the latent construct j.

Structural Model Equations:

For each latent variable j and its relationship with another latent variable k:

ξ_j = β_jk * ξ_k + η_j

Where:

ξ_j: Latent construct j

β_jk: Path coefficient representing the effect of latent construct k on latent construct j

ξ_k: Latent construct k

η_j: Error term for latent construct j

The path coefficient β_jk indicates the strength and direction of the relationship between latent construct k and latent construct j. The error term η_j represents the part of latent construct j that is not explained by other latent constructs in the model.

Model Assessment:

PLS-SEM aims to maximize the explained variance in the observed variables (R-squared values) and to identify significant path coefficients between latent constructs. The model fit is typically assessed through various criteria, such as the goodness-of-fit (GoF) index, the average path coefficient size, and others.

Bootstrapping:

In PLS-SEM, bootstrapping is often used for estimating the standard errors and t-values of path coefficients. Bootstrapping is a non-parametric resampling technique that helps in assessing the significance of the relationships in the model.

It's important to note that PLS-SEM has several variants, such as PLS-PM (Partial Least Squares-Path Modeling) and PLS-POS (Partial Least Squares-Predictive Orientation). The specific procedures and details may vary slightly based on the variant used and the software used to conduct the analysis. Additionally, the literature on PLS-SEM provides more advanced topics such as

moderating and mediating effects, multicollinearity treatment, and other model extensions.

3.9.5 Logit Model

The logit model, also known as logistic regression, is a statistical method used in research to model the relationship between a binary dependent variable (e.g., a "yes" or "no" response) and one or more independent variables (e.g., age, gender, education level, etc.). In the logit model, the dependent variable is assumed to follow a Bernoulli distribution, where the probability of success (i.e., the occurrence of the event of interest, such as a "yes" response) is modeled as a function of the independent variables. The logit function is commonly used to transform the predicted probabilities into the log-odds scale, making the variables' relationship linear and interpretable. The dependent variable in a logit model takes on only two possible values, typically coded as 0 or 1, representing the absence or presence of a specific event or outcome. The independent variables can be either continuous or categorical. The logit model estimates the probability of the dependent variable is equal to 1, given the values of the independent variables. The model does this by fitting a logistic curve to the data, which is a type of S-shaped curve that transforms the linear combination of the independent variables into a probability between 0 and 1

The logit model is widely used in research to analyze binary outcomes. In analysis, the logit model estimates the probability of the binary outcome. The independent variables can be categorical or continuous and include demographic characteristics, attitudes, behaviors, and other factors that are hypothesized to be related to the outcome. Logit models can also be used to test hypotheses about the direction relationship between the independent variables and the binary outcome and to identify which variables are most important in explaining the variation in the result. Overall, the logit model is a powerful tool for analyzing binary results in research and can help researchers gain insights into the factors that drive essential decisions and behaviors. The main advantage of the applying logit model is that it allows for estimating the effect of multiple independent variables on the probability of the event of interest while controlling for the effects of other factors. It is also a flexible model that can be adapted to handle different data types, such as continuous, categorical, or ordinal variables.

The equation for the logit function ( ) is provided below, which applies to a binary variableY

that takes values of 1 and 0.

$$L_i = 1n\left(\frac{P_i}{1-P_i}\right) - \alpha + \sum_{=1}^{=} \beta X + \varepsilon$$

Where "odds ratio" refers to the proportion of the chance that the event occurs to the proportion of the probability that it does not occur. In the form of an equation, the Odds Ratio is represented as follows:

$$\frac{}{1-Pi} = e^{\alpha+\sum_{j=1}^{P} \beta_j X_j, i=1,2,\ldots,nj=1,3,\ldots,P}$$

In this context, the probability of an event occurring ($= 1$) can be expressed using the following formula, where represents the number of observations and represents the total number of explanatory variables.

The below selection of the explanatory variables that will be included in the model is the stage of the modeling process that is most crucial. At this stage, a solid grasp of the concept of interaction is vital. When the explanatory variable ( ) impacts on response variable ( ) alerts depending on the value of an additional explanatory variable , an interaction effect has occurred (Barron & Kenny,1986). Regression models with interaction terms can be used to express the conditional interactionsamong two or more variables (Brambor et al., 2006). Instead of just determining if there is an association between X and Y, the conditional hypothesis seeks to understand the circumstances and nature of that relationship, accurately representing social reality in the course of the investigation.

$$P(Y = 1|X_1, \ldots . XP) = \frac{1}{1 + {}^{-\alpha-\Sigma^{P}}_{=1}}$$

CHAPTER 4

DEVELOPMENTAL GAP AMONG TRIBAL AND NON-TRIBAL COMMUNITIES IN JAMMU AND KASHMIR

4.1 Introduction

Developmental gaps among tribal and non-tribal groups or populations are heavily influenced by geographic coverage. It is vital to identify "Tribal" and "Non-Tribal" to examine the disparities between them. The issue of what constitutes a "Tribal" or "Non-Tribal" group is not new. People are aware of whether they are tribal or not, but researchers, politicians, and demographers are not satisfied with this perception. Tribal and non-tribal areas are defined very differently depending on the country. Consequently, without any definite agreed-upon definition, it is difficult to compare specific Tribalregions. In Jammu and Kashmir, for example, the official classifications of tribal and non-tribal populations or areas are leftovers from the socialist era and are based on a legal distinction between"Tribal settlements," which are localities that have been granted "non-tribal" status, and "Tribal settlements," which are localities that do not. In the modern world, there is still an increasing gender, racial, and family economic status inequality, an expanding technical split, and disparity in country-to-country economic trends. All efforts to improve productive capacities and maximizeresources for productive outputs face increasing obstacles due to this diversity. Sustainable development would be much more likely to be accomplished with a stable global population. On the other hand, a high rate of population growth necessitates more food and social services likeemployment, training, and education as well as better health and leisure, and when these needs arenot met, a drop in the standard of living frequently occurs (Fien, 2016). The growing wealth disparity breeds unsustainable behavior. The wealthy continue to abuse resources, leaving the poorunprotected extravagantly. Additionally, the idea that the indigenous population's lack of growth resulted from their seclusion won out. The claim that inadequate resources are allocated for tribaldevelopment is frequently made after this (Xaxa, 2016). The current study aims to identify developmental differences between tribal and non-tribal populations. Therefore, it has empirically examined the disparity between tribal and non-tribal respondents from four Districts of Jammu and Kashmir regarding the economic position, assets, sanitation facility, healthcare facility, and education.

Table 4.1: Descriptive statistics				
	Tribal Population		**Non-tribal population**	
Attributes	**Frequency**	**Percent**	**Frequency**	**Percent**
Gender				
Female	124	29.8	119	27.2
Male	292	70.2	320	72.8
Age				
18-24	82	19.7	112	25.5
25-34	103	24.8	130	29.6
35-44	79	19	81	18.4
45-54	106	25.5	84	19.1
55 or older years	46	11.1	30	6.83
Marital Status				
Unmarried	100	24	140	31.9
Married	316	76	299	68.1
Income				
Less than 5000	92	22.1	30	6.8
5000-9000	150	36.1	66	15
10000-14000	84	20.2	134	30.5
15000-20000	76	18.3	119	27.1
More than 20000	14	3.4	90	20.5
Occupation				
Govt employed	93	22.4	136	30.9
Self-employed	143	34.4	199	45.33
Student	124	29.8	60	13.6
Unemployed	56	13.5	44	10
Education				
No schooling	77	18.5	45	10.2
Less than high school	251	60.3	76	17.3
High school	39	9.4	199	45.33
Collage	49	11.8	119	27.1
Ownership				
Yes	218	52.4	429	97.7
No	198	47.6	10	2.2
Savings				0
Yes	156	37.5	399	90.8
No	260	62.5	40	9.1
Borrowings				
Yes	107	25.7	249	56.7
No	309	74.3	190	43.2

4.2 Results and Analysis

Table 4.2 developmental gap			
	Tribal Respondents (in %)	Non-Tribal Respondents (in %)	Sig. (2-tailed)
Economic status			
Ration Card			0.00
Antyodaya Anna Yojana (AAY)	47.30%	3.00%	
Priority Household (PHH)	23.90%	5.20%	
Below Poverty Line (BPL)	26.80%	19.60%	
Above Poverty Line (APL)	1.90%	72.20%	
Assets			
Piped water			0.00
Yes	35.30%	97.00%	
No	64.70%	3.00%	
Latrine			0.00
Yes	27.50%	100.00%	
No	72.50%	0%	
Computer/Laptop			0.00
Yes	12.30%	50.80%	
No	87.70%	49.20%	
Mobile phone			0.00
Yes	67.10%	97.90%	
No	32.90%	2.10%	
The main source of light			0.00
Not electricity(mains)	0%	21.00%	
Electricity	100.00%	79.00%	
The primary source of cooking			0.00
Stove	0%	4.30%	
Chula	0%	62.10%	
Gas chula	97.30%	33.60%	
Induction Stove	2.70%	0%	
Medical care facility in your locality			0.00
Yes	19.80%	97.30%	
No	80.20%	2.70%	
Distance for the medical facility			0.00
Less than 1 KM	18.10%	81.30%	
1-5 KM	16.90%	15.50%	
5-10 KM	31.20%	3.20%	
10-15 KM	32.60%	0%	
More than 15 KM	1.20%	0%	
Educational institutions in your area			0.00
Yes	42.50%	94.50%	
No	57.50%	5.50%	
Distance of education institution			0.00
Less than 1 KM	27.50%	94.10%	
1-5 KM	17.60%	5.00%	
5-10 KM	20.00%	0.90%	
10-15 KM	25.80%	0%	
More than 15 KM	8.90%	0%	

4.2.1 Economic status

A ration card is an important document issued by the state government to households that entitles them to purchase essential food items at subsidized rates from the Public Distribution System (PDS) or Fair Price Shops (FPS). Ration cards are classified into different categories based on the economic status of the household, and the benefits and entitlements vary accordingly. As of September 2021, the Jammu and Kashmir government had a well-established Public Distribution System in place to ensure food security for its residents. The ration card types in Jammu and Kashmir include:

Above Poverty Line (APL) Ration Card: Issued to households that do not fall under the poverty line criteria. APL cardholders are eligible to purchase food grains and other essential commodities from FPS at non-subsidized rates.

Below Poverty Line (BPL) Ration Card: Issued to households that meet the poverty line criteria set by the government. BPL cardholders are eligible to purchase food grains and other essential commodities from FPS at subsidized rates.

Antyodaya Anna Yojana (AAY) Ration Card: This card is issued to the most economically vulnerable households. AAY cardholders receive additional benefits compared to BPL cardholders.

Priority Household (PHH) Ration Card: This category might have applied to specific situations, providing priority in the allocation of certain food items.

Table 4.1 demonstrates that 47 percent of respondents from the tribal population have Antyodaya Anna Yojana (AAY) ration cards, compared to 3 percent of the non-tribal population when we first tried to look at the economic position of STs or non-tribes. Priority Household (PHH) ration cards were held by 5.0% of non-tribal respondents and 23.90% of tribal respondents. In terms of respondents with a Below Poverty Line (BPL) ration card, tribal respondents make up 26.80 percent of the total, compared to non-tribal respondents who make up 19.60 percent. People who fall under the PHH and AAY categories are considered to be impoverished. Only 1.90 percent of respondents from the tribal community had an APL ration card, compared to 72.20 percent of non-tribal respondents.

4.2.2 Asset, sanitation, and access to safe drinking water

There are 892 million people who still use open defecation worldwide. Inequities frequently have a regional focus, and rural, poor, and vulnerable households have particularly limited access to basic facilities. Disadvantaged populations are disproportionately impacted by inadequate access, but women and girls suffer the most from poor access to Water and sanitation facilities. The revised 2030 Agenda for Sustainable Development establishes targets for 2030 that build upon and surpass the Millennium Development Goals and was adopted by more than 150 world leaders in 2015. (MDGs). By 2030, SDG 6 seeks to "ensure the availability and sustainable management of water and sanitation for all" (UN Water, 2018). Half of the population without sustainable access to clean water was one of the Millennium Development Goals (MDGs) targets (Fukuda et al 2019). To completely grasp sustainable development, water and health have once more risen on the international policy agenda (Cook, 2016). People without access to clean drinking water continue contributing to ailments like nausea, vomiting, diarrhea, and stomach pain (Medema, 2003). Only 3.0 % of respondents who belong to the non-tribal population do not have a piped water facility, compared to 64.70 percent of respondents from tribal respondents who do not have a cleandrinking water facility or a piped water connection to their homes. All non-tribal respondents havelatrine facilities close to their dwellings, compared to 72 percent of tribal respondents who don't. Regarding technology, the study's findings indicate that 87.90 percent of respondents from tribal populations do not own computers or laptops, compared to 50.80% of respondents from non-tribal populations with laptops/computers. 32 percent of respondents from the tribal community do not own a cell phone, compared to 97.90 percent of respondents from the non-tribal population.

4.2.3 Electricity and Source of Cooking

Access to clean cooking fuels and technologies is crucial since dependence on polluting cooking fuels will have serious negative effects on the environment, economic development, and health, particularly for women and children (Stoner, 2021). It has been discovered that different populations' choices for household fuel consumption vary according to their level of development (Yongolo, 2023). Development experts have been troubled by the connection between energy and poverty for decades (Sah 2006). Since modern economies cannot function without energy, it has been suggested that the usage of energy, particularly more modern forms like electricity, is somehow tied to economic progress (Besant-Jones, 2006). The data in table 4.1 reveals that, of the 416 respondents from the tribal population, 21% do not have a main electric facility in theirhomes,

compared to all non-tribal respondents who had a main electric facility.

4.2.4 Medical care facility

The growth of social infrastructure, particularly in education and health, reflects the standard of living of the populace in a given area (Kumari & Raman, 2011). Better health is crucial for the process of social development. Greater inputs to resource generation and economic expansion result from healthier populations. Analysis of the relationship between health and economic growth unequivocally demonstrates a large positive association. According to Table 5.1 value for medical care facilities for tribal and non-tribal respondents, 80.20 percent of tribal respondents do not have medical care facilities in their locality, compared to non-tribal respondents, 97.30 percent who have medical care facilities in their locality. Looking at the distance between tribal and non-tribal respondents' medical care facilities, table 5.1 value shows that for tribal respondents, 32.60 percent have medical care facilities at 10-15 KM distance, 31.20 percent have medical care facilities at 5-10 KM distance, and only 18 percent have medical care facilities in the neighborhood. In the local area, 81.30 percent of non-tribal respondents reported having access to medical facilities.

4.2.5 Education

Education significantly and favorably impacts these development outcomes (Gyimah, 2011). Education is a crucial area of national development since it promotes all-around growth and significantly improves a person's quality of life (Rupavath 2016). Education raises the standard of living and has significant positive social effects on both people as well as for society (Ozturk 2008). Health, fertility decisions, children's education, the capacity to create, learn, or adapt new technology to the local environment, as well as the development of institutions and a sense of national identity, are all associated with development outcomes (Gyimah, 2011). Table 5.1 value shows that 57.50% of respondents from tribal respondents do not have educational institutions in their respective locality, while 94% of respondents from tribal respondents have educational institutions within their locality. For the tribal population, 25.80 % of respondents have education institutions at 10-15 KM, and 20% have educational institutions at 5-10 KM. Only 27.50% of respondents from the tribal population have educational institutions within their community. Compared to the non-tribal population 94.10% of respondents have educational facilities within their location or dwellings. This gap is commonly observed in various socio-economic indicators

and can be attributed to a combination of historical, geographical, political, and socio-cultural factors. Some of the key factors contributing to the developmental gap are as follows:

Geographical and Infrastructure Challenges: Many tribal areas in Jammu and Kashmir are located in remote and difficult-to-reach regions, which hampers access to basic services like healthcare, education, and transportation. The lack of proper infrastructure in these areas can limit economic opportunities and development.

Economic Disparities: Tribal populations in Jammu and Kashmir often rely on traditional livelihoods like agriculture, pastoralism, and forest-based activities. These traditional economies might face challenges due to changes in land use, climate variability, and market integration. In contrast, non-tribal populations may have access to a more diverse range of economic opportunities.

Educational Disparities: The literacy rates and educational attainment levels among tribal communities are often lower compared to non-tribal populations. Limited access to quality education and a lack of educational infrastructure in tribal areas can contribute to this gap.

Healthcare and Nutrition: Tribal populations may face challenges in accessing adequate healthcare facilities and nutrition, leading to poorer health outcomes compared to non-tribal populations.

Social Discrimination and Exclusion: Historically, tribal communities have experienced social discrimination and exclusion, which can have long-lasting effects on their socio-economic status and development.

Land Rights and Forest Governance: Land rights and forest governance issues can impact tribal communities' access to natural resources, affecting their livelihoods and overall development.

Government Policies: The implementation of government policies and developmental programs may not effectively reach and benefit tribal populations due to various administrative and logistical challenges.

Addressing the developmental gap between tribal and non-tribal groups in Jammu and Kashmir requires a comprehensive and multi-faceted approach. It involves targeted policies and programs aimed at improving educational opportunities, healthcare access, infrastructure development, livelihood opportunities, and addressing socio-economic disparities. Ensuring equitable distribution of resources and empowering tribal communities to participate in decision-making processes are crucial steps towards reducing the developmental gap and promoting inclusive

growth in the region.

4.3 Conclusion

The developmental gap between tribal and non-tribal communities is often rooted in historical and structural factors such as colonial legacies, displacement, marginalization, and discrimination. These factors have contributed to disparities in access to resources, opportunities, and basic services. Tribal communities often face socio-economic challenges like limited access to education, healthcare, and employment opportunities. Poverty, lack of infrastructure, and geographical remoteness can further exacerbate the developmental gap. The developmental gap should not solely be seen as an economic or material disparity. It also includes the preservation of cultural identity and heritage. Efforts to bridge the gap should consider the importance of preserving indigenous knowledge, languages, and traditional practices, as they are integral to the well-being of tribal communities. Bridging the developmental gap requires targeted policies and interventions that address the specific needs and aspirations of tribal populations. It is important to involve tribal communities in designing and implementing these strategies to ensure their active participation and ownership.

Addressing the developmental gap requires a holistic approach that considers various dimensions of development, including education, healthcare, livelihoods, land rights, governance, and cultural preservation. It is crucial to recognize the interconnectedness of these factors and develop comprehensive interventions that address them simultaneously. Empowering tribal communities and fostering their self-determination is essential to bridge the developmental gap. This involves supporting their agency, providing opportunities for capacity building, and ensuring their meaningful participation in decision-making processes that affect their lives and resources.

CHAPTER 5

FINANCIAL INEQUALITY AMONG TRIBAL AND NON-TRIBAL COMMUNITIES IN JAMMU AND KASHMIR

5.1 Introduction

With its great range of languages, cultures, and social identities, Indian society has a wonderful history that has brought both blessings and serious difficulties from the past (Rashmi & Paul, 2022It is important to note that Indian banking institutions in rural areas are strongly linked to a setting that makes it easier for them to give financially excluded people access to basic financial services and products (Singh et al., 2021). There are many socially disadvantaged communities in India, but tribal communities are the most at risk (Saha & Sil, 2019). schedule tribe or tribal population is one marginalized community in India; they have been in long periods of isolation and deprivation in terms of development and living conditions (Pelz et al., 2021). Indigenous or tribal population refers to those people whose language and cultural background is much different from the mainstream, they are generally socially as well as economically backward (Jannat et al., 2021). Due to ongoing economic exploitation by non-tribals, the Scheduled Tribe people frequently failed to meet their necessities (Shah, 2002; Rashmi & Paul, 2022). They live in small-scattered habitats in remote and inaccessible terrain, devoid of required infrastructure,such as road networks, communication facilities, electricity, health, and educational amenities (Biswal & Jha, 2022). Compared to non-tribal communities, tribal populations lack socialconnections. (Sachana & Anil Kumar, 2015).

5.1 Results and Analysis

Table 5.1: Logit regression results

	Ownership				Savings				Borrowings			
	Tribal Population		Non-Tribal Population		Tribal Population		Non-Tribal Population		Tribal Population		Non-Tribal Population	
Variables	Logit coefficient	Margins (dy/dx)	Login coefficientnt	Margins (dy/dx)	Logit coefficient	Margins (dy/dx)	Logit coefficient	Margins (dy/dx)	Logit coefficient	Margins (dy/dx)	Logit coefficient	Margins (dy/dx)
Gender	0.54	0.08	0.11	0.11	1.81***	0.28***	1.05***	0.12***	2.11***	0.34***	0.95***	0.12***
	-0.37	-0.05	0.38	0.04	-0.39	-0.06	0.32	0.04	-0.40	-0.06	0.32	0.04
Age	-1.41***	-0.20***	0.60***	0.06***	-1.81***	-0.28***	0.41**	0.09**	-1.88***	-0.30***	0.41**	0.05**
	-0.30	-0.04	0.23	0.02	-0.30	-0.04	0.20	0.02	-0.27	-0.03	0.19	0.02
Marital status	3.08***	0.44***	-0.85	-0.08	3.41***	0.53***	-0.42	-0.05	3.13***	0.50***	-0.42	-0.05
	-0.48	-0.05	0.57	0.05	-0.49	-0.06	0.51	0.06	-0.49	-0.06	0.50	0.06
Occupation	-0.48**	-0.07**	0.002	0.0002	-0.82***	-0.13***	-0.37**	-0.04***	-1.18***	-0.19***	-0.33**	-0.04**
	-0.19	-0.03	0.17	0.02	-0.18	-0.03	0.15	0.02	-0.19	-0.02	0.15	0.02
Education	-0.24	-0.03	0.49***	0.05***	-0.36	-0.06	0.48***	0.06***	-0.63***	-0.10***	0.41***	0.05***
	-0.22	-0.03	0.18	0.02	-0.23	-0.03	0.15	0.02	-0.24	-0.04	0.15	0.02
Income	1.43***	0.20***	0.88***	0.85***	1.86***	0.29***	0.22*	0.02*	1.96***	0.31***	0.35***	0.04***
	-0.32	-0.04	0.17	0.01	-0.32	-0.04	0.12	0.01	-0.31	-0.04	0.12	0.01
Wald $\chi 2$ (6)	111.65***		98.21***		93.08***		73.94***		102.57***		83.89***	
Pseudo R2	0.23		0.27		0.28		0.18		0.30		0.19	

Gender: Our findings, which are summarized in Table 5.1, indicate that the gender of respondents has a favorable impact, although one that is negligible. That is to say, gender is not a statistically significant driver of financial Inclusion when it comes to ownership of a bank account in formal financial institutions in tribal as well as non-tribal respondents. At the same time, the gender gap in savings and borrowing from financial institutions is a positive and substantial driver of financial Inclusion for both tribal and non-tribal populations. The logit results show that the male respondents in tribals and non-tribals are more likely to have savings and borrowings from formal financial institutions. Gender disparities matter in financial choices. Therefore, we considered gender and concluded that it is not a statistically significant driver of financial Inclusion when it comes to bank account ownership.

Age: According to Table 5.1, the results suggest that individuals in older age groups are less likely to be associated with financial inclusion compared to those in younger age brackets. This is the case when compared to all respondents. The first thing that emerges from an analysis of our data is that the age of tribal respondents harms their ownership of bank accounts, savings, and

borrowing behaviors within formal financial institutions. This is because tribal having limited awareness and education, traditional financial practices, low income and unemployment, technological barriers, and social and cultural factors. In terms of respondents' ownership of bank accounts, savings, and borrowings from formal financial institutions, the findings align with the theoretical expectationsthat were formulated before conducting the research. The findings indicate that respondents in older age brackets are less likely to own a bank account, savings, or borrow from formal financialinstitutions than respondents in younger age brackets. As individuals age, they might face barriers in adopting new financial behaviors, accessing formal financial services, and adapting to technological advancements. Moreover, the influence of traditional practices, lower income or retirement status, and a potential lack of awareness or trust in formal financial institutions can further contribute to the lower likelihood of financial inclusion among older respondents in tribal communities. This is the case for all three measures. Thatis, older respondents are less likely to have ownership of a bank account in a formal, financial institution (that is, 20% of older respondents are less likely to have bank account ownership), and older respondents are also less likely to have savings at the formal, financial institutions (that is, 28%). In a similar vein, 33% of older respondents are less inclined to borrow from official financial organizations. As in the non-tribal population, 6%, 9%, and 5% of older respondents are more likely to have ownership, savings, and borrowings respectively in financial institutions.

Marital status: It has also been shown that marital status and income are favorable and important factors. That is,marital status and income have a significant role in determining financial Inclusion. After marriage, there is a 44 percent increase in the likelihood of having ownership, a 53 percent increase in the likelihood of saving, and a 49 percent increase in the likelihood of borrowing money. The findings for the tribal population show a significant and positive correlation between marital status and ownership, savings, and borrowing from regulated financial institutions; in other words,after marriage, there is an increase in ownership likelihood of 43%, savings likelihood of 53%, and borrowing likelihood of 50%. The results also reveal no correlation between marriage and ownership, savings, or borrowing in a financial institution for the non-tribal population.

Occupation: For tribal respondents, occupation is negatively related to ownership, savings and borrowings, financial inclusion indicators, or financial inequality. While for the non-tribal population, occupation, and borrowings are negatively associated with financial Inclusion or financial inequality, the further result shows that there is an insignificant relation with ownership in a formal financial institution. The results suggest that the unemployed are less likely to have

ownership, savings, and borrowings from financial institutions for tribal respondents. In other words, among tribal respondents, 70% of unemployed respondents are less likely to have a bank account in a formal financial institution. This finding highlights a potential disparity in financial inclusion between the employed and unemployed segments of the tribal community. Several factors may contribute to this observed trend, including the income constraints faced by the unemployed, which make it challenging to maintain a bank account or engage in saving activities. Additionally, the lack of a stable income source and limited access to credit might deter the unemployed from utilizing formal financial services for borrowing purposes. Addressing the financial inclusion challenges of the unemployed within tribal communities requires targeted interventions, such as providing access to financial literacy programs, offering tailored financial products, and fostering employment opportunities that can contribute to improving their financial well-being and overall economic empowerment. At the same time, as for the non-tribal population, the result shows an insignificant relationship between ownership and occupation of respondents. Compared to the non-tribal population, tribal respondents who are unemployed are less likely to have funds in a formal financial institution (13%) than non-tribal respondents who are unemployed (4%). The results further suggest that 19% of unemployed respondents are less likely to have borrowings from established financial organizations in the tribal population, and 4% are less likely to have borrowings from a formal financial institution in non-tribal respondents.

Education: Likewise, education shows an adverse correlation with ownership, savings, and borrowing from formal financial institutions among tribal respondents, while it exhibits a positive association with non-tribal respondents. The analysis reveals contrasting trends in the relationship between education and financial behaviors among tribal and non-tribal respondents. For tribal respondents, education shows a negative relationship with ownership of bank accounts, savings, and borrowings from formal financial institutions. This suggests that higher levels of education within the tribal community are associated with a lower likelihood of engaging with formal financial services. Several factors could explain this finding, including limited awareness or cultural norms that might discourage formal financial participation among more educated tribal individuals. With a marginal impact parameter estimate of roughly 0.10, tribal respondents with higher education levels are 10% more likely to borrow money from a financial institution. In contrast, non-tribal respondents having higher education levels are 5% less likely to borrow money from financial institutions.

Income: The results further state that the higher the monthly income, the higher the probability of

the household or respondents being financially included. The relationship between income and ownership, saving, and borrowing from regulated financial institutions is also favorable. The result aligns with a study conducted by Kombo (2021), which underscored a positive correlation between income and the ownership of a bank account in a formal financial institution. According to the results, a one-unit increase in income increases respondents' chances of having a bank account at a formal financial institution by 85% for non-tribal respondents and 20% for tribal respondents. For tribal and non-tribal respondents, the probability of saving with a formal financial institution was 29% and 2%, respectively. The likelihood of borrowing money from the financial institution was 21%for tribal respondents and 4% for non-tribal respondents.

5.2 Conclusion

This chapter's goal was to investigate how demographic factors affect how financially included tribal and non-tribal populations of Jammu and Kashmir are. Gender, age, marital status, income, occupation, and education were all considered while measuring demographic characteristics. Using a carefully constructed questionnaire, the primary data were gathered from the top four tribal districts in the Jammu and Kashmir area. According to the logit regression results, demographic attributes significantly impact financial inclusion for both tribal as well as for non-tribal populations. However, the result shows also a significant disparity in terms of financial inequality or inter-group disparity or gap between these two.

Chapter 6

FINANCIAL INCLUSION IMPACTS ON ECONOMIC EMPOWERMENT AND ECONOMIC INEQUALITY ON TRIBAL POPULATION: A CASE OF JAMMU AND KASHMIR.

6.1 Introduction

In India, the issue of financial exclusion is pervasive among traditionally oppressed groups such as scheduled castes (SCs) and scheduled tribes (STs). India is home to more than 104 million indigenous and tribal people, making up about one-third of the world's total indigenous and tribal population. One of the primary goals of India's banking system has been the extension of institutional credit to rural India, where most of the country's poor population resides. Access to credit may make it easier to meet the first Sustainable Development Goal (SDG) to end extreme poverty by allowing individuals to finance investments that will lead to businesses that generate income, further education and skills training, or improved housing. In other words, it may make it easier to achieve SDG 1.

The populace in rural areas lacks access to sufficient financial services and is less aware of the advantages of banking services (Kaur & Abrol, 2018). Geographically and politically, Jammu and Kashmir is an important union territory for the nation. Its location and challenging terrain make it challenging to provide access to banking services. Additionally, internet connectivity is poor in rural areas. It is essential to have an understanding of the vulnerability of tribal people because, in comparison to the mainstream population, they have fewer assets and are illiterate (Karmakar et al., 2011). Because they have been cut off from the rest of society for such a long time and have been denied basic economic opportunities. It is vital to have such a comprehensivemeasure to monitor the success of policy actions that have made financial inclusion very effective. This is because monitoring the inclusion of more people is a goal of the United Nations.In addition, the research community needs to have access to such a measure to test theories about financial inclusion offered in the academic literature. These hypotheses may be found in the research literature. Most of the previously conducted research studies primarily focused on the factors that determine financial inclusion; however, none examined the effects of financial inclusion on economic inequality or the economic empowerment of tribal populations. In addition,in the context of Jammu and Kashmir, there have been no empirical studies conducted to

Investigate the perspectives of tribal people about economic inequality and empowerment. This study aimed to formulate a comprehensive model for exploring the connections between the drivers of financial inclusion, economic inequality, and empowerment. It sought to address gaps in existing research and contribute to the advancement of financial inclusion in Jammu and Kashmir.

6.2 Results and Analysis

6.2.1 Results of Skewness and Kurtosis

Before looking at the results of the PLS-SEM analysis, normality tests were performed in this study. To determine whether or not the data were normal, the Kolmogorov-Smirnova andShapiro-Wilk tests were carried out. The data do not adhere to a normal distribution because it was found that the findings were significant at the level of 5 percent. However, the formulation of these two tests only permits the acceptance or rejection of the null hypothesis whengiven regularly distributed data (Hair et al., 2010). The other two statistical measures — skewness and kurtosis — are computed to determine the degree of data deviation from normality. For skewness and kurtosis, the acceptable value is "<± 3" (Hung et al., 2011; Kim et al., 2015, Bhat etal., 2023). All of the items in this study had skewness that fall within the range of "<± 3" except five items of access, three items from affordability, one item from availability, all items from economic empowerment and financial inclusion, and two items from usage demonstrated kurtosisover the band of "<± 3" (Table 6.1), minor non-normality being displayed. The excess kurtosis variables were kept for future analysis rather than converted or eliminated in the present study thisbeing the right thing to do (Tabachnick et al., 2007). Theoretical rationale and additional norms have been carefully considered, and it has been determined that PLS-SEM is the most appropriate approach for the current study (Baht et al., 2021; Hair et al., 2019). PLS-SEM does not need any assumptions on the data distribution since it is non-parametric (Hair et al., 2019; Bhat et al., 2021).PLS-SEM is the best method to analyze non-normal difficult qualitative data with so many components, demonstrating enhanced resilience (Hair et al., 2019; Bhat et al., 2021). Consequently, PLS-SEM is an acceptable approach for this study since it does not rely on data distribution assumptions.

Table 6.1: - Results of skewness, kurtosis and factor loadings				
	Excess kurtosis	Skewness	Loadings Before	Loadings After Deleted Items
Access				
Access to a bank branch.	3.137	-1.353	0.937	0.936
Access to ATM services.	3.225	-1.383	0.969	0.973
Requirements of documents needed for opening a bank account.	3.223	-1.373	0.966	0.971
Is the location of your bank branch convenient for you	3.531	-1.323	0.913	0.918
Access/reach to your respective bank.	3.174	-1.248	0.887	0.888
Convenience of using the banking services.	2.712	-1.689	0.253	Deleted
Process of opening a bank account under PMJDY/SHGs.	2.523	-1.632	0.229	Deleted
Reaching/ accessing your bank.	2.219	-1.554	0.178	Deleted
Affordability				
Affordability of the cost incurred for opening a bank account.	2.598	-1.015	0.806	0.841
Affordability of the cost incurred for using banking services.	2.65	-1.074	0.716	0.772
Affordability of the minimum balance required for maintaining a bank account.	3.978	-1.308	0.773	0.796
Affordability of cost incurred for using ATM/Debit card services.	4.094	-1.359	0.714	0.741
Affordability of interest rates under SHG loans	2.728	-1.137	0.683	Deleted
The reasonability of the minimum balance requirement for maintaining a bank account	2.805	-1.227	0.859	0.855
Bank lending rates are comparatively lower than those of moneylenders.	4.446	-1.491	0.91	0.892
Availability				
Availability of SHGs loans in your bank branch.	2.776	-1.184	0.369	Deleted
Availability of bank employees to create awareness	2.927	-1.034	0.895	0.97

about using banking services in your bank branch?				
Availability of locker facility in your bank branch?	1.947	-0.936	0.883	0.953
Availability of crop loans in your bank branch?	3.511	-1.196	0.866	0.932
Availability of no-frills or zero-balance accounts in your bank branch?	1.911	-0.871	0.881	0.971
Availability of fieldworkers/BCs in your bank branch?	1.969	-0.829	0.906	0.986
Availability of credit counseling facility to create awareness about availing credit facilities.	0.968	-0.685	0.424	Deleted
Economic Empowerment				
Role of FI in enabling you to meet/face emergencies in your life	5.37	-1.937	0.922	0.936
Role of FI in the promotion of your saving and investment practices	5.95	-1.969	0.927	0.933
Role of FI in increasing your source of income	5.89	-1.895	0.917	0.923
Role of FI in your increased standard of living	5.894	-1.882	0.952	0.965
Role of FI in your increased better medical facilities	4.957	-1.392	0.542	Deleted
Role of FI in your increased position in your family	3.407	-0.976	0.52	Deleted
Rate your experience with the role of FI in your increased productivity.	1.301	-0.582	0.5	Deleted
Economic Inequality				
Income	1.725	1.622	0.965	0.965
Earnings	2.034	1.613	0.957	0.957
Financial Inclusion				
The current level of access to formal banking services (e.g., savings accounts, loans, credit cards)?	89.417	5.726	0.768	0.768
Utilized mobile banking or digital payment platforms	3.537	-1.686	0.951	0.951
Government initiatives or programs aimed at promoting financial Inclusion	3.332	-1.645	0.949	0.949
Using technology for financial transactions, such as online banking or mobile payments	3.748	-1.726	0.949	0.949
Greater financial inclusion could positively impact the overall economic development and well-being of your community	3.748	-1.726	0.951	0.951

Quality				
Prepare a monthly budget for yourself.	3.712	-1.682	0.861	0.884
The quality and sufficiency of information you received at the start of the loan contract about the financial services	6.306	-1.995	0.901	0.909
About the comfortability and time spent while standing and waiting in queues in your bank branch	6.119	-1.936	0.903	0.913
Detailed transactional information is provided by your bank branch, Prepare a monthly budget for yourself	6.328	-1.929	0.903	0.923
The mistreatment of consumers of your bank branch by the staff	3.03	-0.847	0.454	Deleted
Expensiveness of fees and other charges charged for carrying out financial transactions	3.053	-0.916	0.485	Deleted
Contacting a consumer protection authority to solve your problem regarding financial services	3.113	-1.008	0.398	Deleted
Usage				
Use of your bank account to save money	0.162	-0.117	0.824	0.824
Use of your bank account to borrow money	0.132	-0.179	0.828	0.828
Save money in your bank account regularly	0.174	-0.099	0.859	0.859
Visit your bank branch to withdraw money	6.942	-1.406	0.834	0.834
Use of our ATM/Debit card to withdraw money	3.521	-0.897	0.794	0.794
Use your bank account to receive wages under the MGNREGS scheme	1.818	-0.54	0.72	0.72

6.2.2 Evaluation of the measurement model.

Cronbach's alpha is a way to figure out how reliable a model is. For the factor-based approach,The values of CR and Cronbach's alpha are similar (Kock, 2015). Most of the time, its value is between 0 and 1. If the alpha value gets closer to 1 (Bhat et al., 2021), the data sets on a scale become more reliable from the inside. Based on the criteria, all of the values in this study are morethan 0.8, which is a pretty good score. The CR coefficient measures construct reliability (Bhat et al., 2021; Hair et al., 2019; Kock, 2015). Construct dependability must be demonstrated when theCR coefficient is larger than 0.7. (Bhat et al., 2021). Table 6.2 shows the CR values that were found for this study. Table 6.2 shows that the coefficient of reliability (CR) for each construct is more than 0.9. These numbers tell us how reliable the measurement model can be (Bhat et al., 2021). The AVE is often used to determine whether convergenceis valid (Bhat et al., 2021; Hair et al., 2019). For convergent validity to be consideredgood, AVE should be greater than 0.5. (Bhat et al., 2021; Bagozzi & Yi, 1988; Hair etal., 2019).

For the model's reliability to be evaluated, the maximum allowed loading for each item on the latent variable it is related to should be greater than 0.7. (Hair et al., 2019). If the result is lower than 0.4, the item in the situation should be removed; similarly, if a loading of 0.4-0.7 items raises theCR & AVE to a level that is higher than the threshold, the item in the situation should be removed(Hair et al., 2019). Except for the 12 items, every item of aid for financial inclusion, economic empowerment, and economic inequality has a loading of greater than 0.7, as indicated in Table

6.1. Because their values ranged from 0.4 to 0.7, the 12 factors supporting access, affordability, availability, and quality of financial goods and services and economic empowerment were deleted. As seen in Table 6.2, once these 12 items were eliminated, the CRs and AVEs values for those items increased, indicating good reliability.

Table 6.2: Reliability and validity

	Before Cronbach's alpha	After Cronbach's alpha	Before Composite reliability	After Composite reliability	Before Average variance extracted (AVE)	After Average variance extracted (AVE)
Access	0.90	0.97	0.89	0.97	0.57	0.88
Affordability	0.93	0.92	0.92	0.92	0.62	0.67
Availability	0.94	0.98	0.91	0.98	0.61	0.93
Economic Empowerment	0.90	0.90	0.91	0.93	0.61	0.74
Economic Inequality	0.92	0.92	0.96	0.96	0.92	0.92
Financial Inclusion	0.95	0.95	0.96	0.96	0.84	0.84
Quality	0.86	0.93	0.88	0.95	0.54	0.82
Usage	0.90	0.90	0.92	0.92	0.66	0.66

In a model, discriminant validity refers to the degree to which one latent variable (LV) is distinguishable from the other latent variables present in the model. (Bhat et al., 2021). The discriminant validity can be assessed by comparing the square root of the average variance extracted (AVE) for each variable in the model with the variables present in other models (Bhat et al., 2021. The square root of the AVE for each variable in the model has to be higher than the strongestcorrelations that variable has with any of the other variables in the model (Bhat et al., 2021; Hair et al., 2019). The correlations between the LVs and the square roots of the AVEs for the LVs are shown in bold font in Table 6.3, which illustrates Table 6.2. According to the findings, the square roots of the AVE for each variable in the model have a higher value than their strongest correlations with the other variables. According to the findings of the first stage of the PLS-SEM analysis, the model's validity & reliability have been validated. Taking out the phase involving structural analysis in the second stage is appropriate.

Table 6.3 Discriminant validity

	Access	Affordability	Availability	Economic Empowerment	Economic Inequality	Financial Inclusion	Quality	Usage
Access	**0.938**							
Affordability	-0.029	**0.818**						
Availability	-0.011	0.008	**0.963**					
Economic Empowerment	0.337	-0.055	-0.048	**0.863**				
Economic Inequality	-0.014	-0.018	-0.05	0.078	**0.961**			
Financial Inclusion	0.224	0.058	-0.058	0.232	-0.249	**0.916**		
Quality	-0.047	0.069	0.038	-0.017	-0.198	0.341	**0.907**	
Usage	-0.028	-0.03	0.012	-0.069	-0.085	0.207	0.232	**0.811**

6.2.3 Evaluation of the structural model

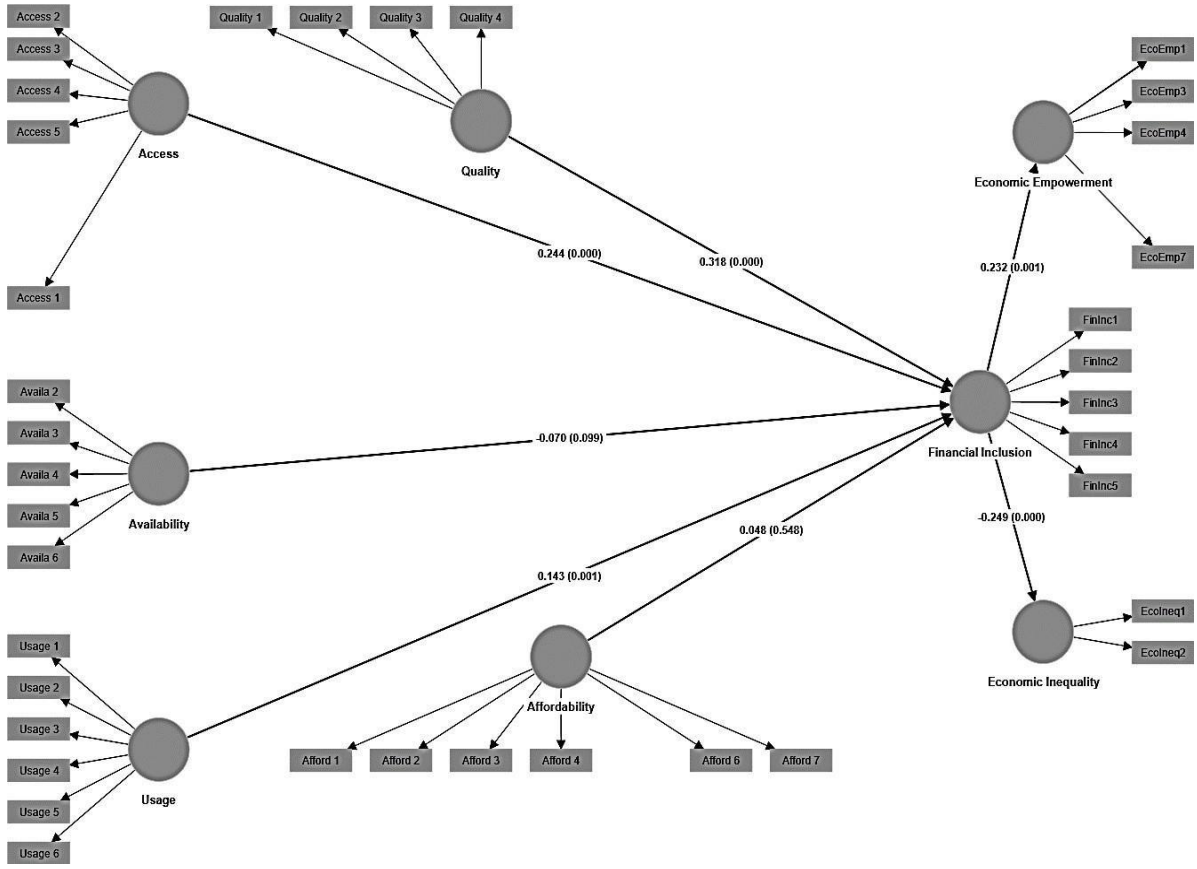
Two tests are required to evaluate the structural model: path coefficient importance and R2 (Bhat et al., 2021; Hair et al., 2019). R2 might vary based on the study topic (Bhat et al., 2021). R2 values of 0.67, 0.33, and 0.19, respectively, indicate extensive, moderate, and poor levelsof R2 (Bhat et al., 2021; Chin, 2010). In behavioral research, however, an R2 of 0.20 is pretended tobe adequate (Hair et al., 2019) In this research, the R2 values for economic empowerment, economic inequality, and financial inclusion were 0.05, 0.06, and 0.20, respectively. Each predicted association in the model has an estimated path coefficient and accompanying *p*-value. The R2 coefficient for financial inclusion in our model for the endogenous construct is 0.19, whichis a reasonable value for behavioral studies.

The second step of PLS-SEM, also known as the evaluation of the SM and the outcomes of hypothesis testing (Bhat et al., 2021), is shown in Table 6.4 and Figure 6.1. Both Hypothesis 5 (β5 = 0.05, p = 0.55) and Hypothesis 2 (β2 = -0.07, p = 0.10) had associated p-valuesthat were more than 0.05, as seen in Table 6.4. Because of this, the hypotheses were shown to haveno meaningful relationship and were thus rejected. It was expected that H1 (β1 = 0.24, p = 0.00), H6 (β6 = 0.23, p = 0.00), H4 (β4 = 0.32, p = 0.00), and H3 (β3 = 0.14, p = 0.00) would all be positive, and the data supported these hypotheses considerably. The related p-values of H7 (β= -0.25, p = 0.00) were less than 0.01, however, the sign is negative, which varies from the predicted association (Bhat et al., 2021). Although it was predicted that the interactions outlined in H7 would have a favorableeffect, the findings show that they have a substantial adverse effect instead.

Table 6.4 **Results of path relationships**

Hypotheses	Coefficient	Standard deviation	*t*-statistics	*p*-values
H1: Access -> FinancialInclusion	0.24	0.06	3.96	0.00
H2: Availability -> Financial Inclusion	-0.07	0.04	1.65	0.10
H3: Usage -> Financial Inclusion	0.14	0.04	3.21	0.00
H4: Quality -> Financial Inclusion	0.32	0.06	5.16	0.00
H5: Affordability -> Financial Inclusion	0.05	0.08	0.60	0.55
H6: Financial Inclusion -> Economic Empowerment	0.23	0.07	3.37	0.00
H7: Financial Inclusion -> Economic Inequality	-0.25	0.06	4.38	0.00

Figure 6.1 Path model



6.3 Discussion

According to Hypothesis 1, there is a positive association between access and financial inclusion. This implies that while the introduction of innovative practices and technological advancements in banking services have not ultimately been helpful from a development perspective here we are viewing it as one side of the coin, its success is also dependent upon the accessibility of these financial services by the targeted population, which primarily consists of local masses including low-income, marginalized, and tribal groups in terms of awareness, reach, and interest to participate. Consequently, we may infer that an increase in the access rate to financial services by targeted clients such as low-income, disadvantaged, and indigenous groups leads to an increase in financial inclusion.

The second hypothesis asserts a positive linkage between availability & financial inclusion; but, the result of the path coefficient reveals that the opposite—a negative relationship—exists in this research. These people live in extremely backward areas where there are nearly no resources to facilitate or support banking services like a lack of electricity, communication, transportation, internet connection, and bank branches or banking institutions. The findings show that low-income, marginalized, and indigenous communities lack access to financial services. This is so because these folks don't have access to many resources that could support or enable banking services where they live. Even though the government makes numerous efforts to promotefinancial inclusion, at the same time due to, illiteracy, lack of understanding, banker's initiatives, and policy instructions to the financial institutions or financial system prevent these populations from taking advantage of financial goods and services. This ultimately has the effect of decreasing financial inclusion.

According to hypothesis 3, there is a positive association between usage and financial inclusion. Developing cutting-edge technology in the banking industry has simplified the processes and procedures for everyone to access financial services, resulting in less paperwork since nearly everything is quickly moving to paperless. Additionally, we may see a very high reaction and degree of customer satisfaction for adopting cutting-edge financial services. Consumers' use of banking services on the ground, particularly low-income, marginalized, and Indigenous groups, has multiplied, which may also be seen as a significant indicator of expanded financial inclusion. Therefore, we may conclude that greater use of financial services is favorable for the socio-economic development of low-income populations, especially for tribal communities.

According to hypothesis 4, there is a positive relationship between quality and financial inclusion. The findings demonstrate that as times change, the general public uses new and advanced technology to apply financial services in an increasingly advanced manner. This has the effect of streamlining eligibility requirements and facilitating universal access to banking services, which in turn encourages the provision of financial services of higher quality. Therefore, it can be said that the improvement in financial or banking services can be seen as encouraging low-income or tribal groups to participate more actively at the local level. That is because the processes for receiving services have become simpler, leading to increased financial inclusion.

Hypothesis 6 shows a positive link between financial inclusion and economic empowerment. That means that government and private institutions are making more people aware of the need for local banking services, which will help the country's people and economy. Their main goal is to get everyone connected to banking services so that financial inclusion can be promoted on a large scale. That will help low-income, marginalized, and tribal groups in backward areas become more economically stable and secure. So, we can say that economic empowerment is positively related to financial inclusion because if economic empowerment goes up, financial inclusion will go up, and vice versa.

According to hypothesis 7, Economic inequality and financial inclusion are statistically inversely correlated. This suggests that when financial inclusion in tribal communities develops, there is little economic disparity. This suggests that income gaps contribute to economic inequality, and low-income people's engagement in economic activities is still relatively constrained due to their widespread poverty. This becomes the main cause of their inadequate level of financial activity engagement, which harms their financial inclusion. The substantially diminishing financial inclusion rate among low-income, excluded, and ethnic communities may thus be attributed to economic inequality.

6.4 Conclusion

Geographically and politically, Jammu and Kashmir is an important union territory for the nation. It is challenging to give the tribal people access to banking services because of their geographical location and challenging terrain. None of the existing studies examined the effects of financial inclusion on economic inequality and economic empowerment of tribal populations. Our study aimed to develop an inclusive model that investigates the connection between financial inclusion tools and economic inequality and empowerment. The aim was to address a research gap and make a meaningful contribution to the advancement of financial inclusion, in the region of Jammu and Kashmir. The current research relied on data acquired from top tribal districts of the Jammu and Kashmir (India) regions through a questionnaire method. PLS-SEM is applied for hypothesis testing. Results demonstrated that financial inclusion affected economic empowerment and economic inequality.

CHAPTER 7

IMPACT OF DEMOGRAPHIC ATTRIBUTES ON FINANCIAL INCLUSION AMONG TRIBAL POPULATION IN JAMMU AND KASHMIR

7.1 Introduction

According to estimates from the World Bank, Around 1.7 billion population have no accessto financial services (Demirguç-Kunt et al., 2017). In contrast, more than two-thirds of the adult population has access to these services. These are often poor demographic segments, and vulnerable groups including women, families with low incomes and, mostly rural residents,who greatly benefit from fundamental financial services like saving, borrowing, payment, and insurance (World Bank, 2014). Poverty reduction and social cohesion depend on poor and vulnerable groups of the economy having access to financial services (Sahoo et al., 2017). Financial inclusion has a greater impact on rural than urban regions in reducing poverty and poverty vulnerability (Koomson et al., 2020). For lowering poverty and achieving socioeconomic growth at the individual level financial inclusion is a crucial phenomenon (Niaz, 2022). The objectives of financial inclusion are to ensure that vulnerable communities, such as low-income groups, have access to financial services and are financially included (Tay & Tan, 2022).

Giving underprivileged people access to financial services is one way to empower them (Sahoo et al., 2017). The most marginalized or indigenous populations globally are tribal peoples (Busch et al., 2022). India has one of the world's biggest populations of indigenous people (10.2 crore) (Negi & Singh, 2019), which make up 8.6% of India's population (census, 2011). One of the most socioeconomically impoverished segments of society is tribal communities (Negi & Singh, 2019). One of India's most vulnerable tribal groups is the Scheduled Tribes (Xaxa, 2014). More than 60% of people in the country live in poverty (Jha et al., 2017). They have not benefited fromthis economic expansion (Nandru & Rentala, 2020). Due to their lack of participation in national socioeconomic activities, tribal people often experience difficulties such as low literacy rates, limited access to public facilities, and geographical isolation (Kumar et al., 2020). The idea of financial inclusion has long been popular in India intending to reach out to the unbanked people, bringing banking services to all members of society, and eliminating economic and social

Inequities (Nandru & Rentala, 2020). Numerous regions with sizable indigenous populations have poor infrastructure (Vyas et al., 2019).

The effects of financial inclusion on various demographic groups have received little attention. While there is some evidence that demographic variables like age, gender, and educational attainment impact financial behavior, few research go in-depth into these relationships. To develop efficient financial education and literacy programs as well as promotefinancial inclusion across all facets of the population, it is essential to comprehend how demographic characteristics influence financial behavior. Attempts to develop tailored policies and initiatives to encourage financial inclusion among these populations are hampered by this vacuum in the research. Financial inclusion has been one of the top most priority for the governments of many developing and developing nations (Allen et al., 2016). Our purpose of thisstudy is to investigate how demographic factors affect financially included tribal populations in Jammu and Kashmir.

7.2 Estimated models

Financial inequality which is our dependent variable, was examined through three dimensions of financial inclusion to measure financial inequality which are ownership of bank accounts, savings, and borrowings from financial institutions (Fowowe & Folarin, 2019). The binary or dichotomous dependent variables are denoted by 0 or 1. Due to its widespread usage in estimating the choice model, the logit model was used for this investigation (Sanderson et al., 2018). The linear probability, logit, and probit models may be used to explore the factors that determine financial inclusion since the dependent variable is binary (Ai & Norton, 2003; Caudill, 1988). The linear probability model broadens the applicability of the linear regression model when dealing with cases that involve qualitative dependent variables. Given that probability should be between zero and one, the linear probability model's value exceeding or falling below one is an unrealistic possibility. Its error term, or variance, is thus not constant (Collins & Green, 1982). Adopting the linear probability model was avoided because of the aforementioned flaws. The probit model or the logit model was an alternative. Nevertheless, the researcher opted to utilize the logit model due to its advantageous characteristics in comparison to the probit model (Mhlanga, 2020). Compared to the probity model, the Logit model is easier to calculate and explain (Maddala et al., 2001;

Mhlanga, 2020; Rao et al., 1973). The logit model is preferable to the probit model as we are working with survey data (Potrich et al., 2015; Sanderson et al., 2018).

The equation for the logit function ( ) is provided below, which applies to a binary variableY that takes values of 1 and 0.

$$L_i = 1n\left(\frac{P_i}{1-P_i}\right) - \alpha + \sum_{=1}^{=} \beta X + \varepsilon$$

Where "odds ratio" refers to the proportion of the chance that the event occurs to the proportion of the probability that it does not occur. In the form of an equation, the Odds Ratio is represented as follows:

$$\frac{}{1-Pi} = e^{\alpha+\sum_{j=1}^{P} \beta_j X_j, i=1,2,\ldots,nj=1,3,\ldots,P}$$

In this context, the probability of an event occurring ($= 1$) can be expressed using the following formula, where represents the number of observations and represents the total number of explanatory variables.

$$P(Y = 1|X_1, \ldots . XP) = \frac{1}{1 + {}^{-\alpha-\sum_{=1}^{P} \beta X}}$$

The selection of the explanatory variables that will be included in the model is the stage of the modeling process that is most crucial. At this stage, a solid grasp of the concept of interaction is vital. When the explanatory variable ( ) impacts on response variable ( ) alerts depending on the value of an additional explanatory variable , an interaction effect has occurred (Barron & Kenny,1986). Regression models with interaction terms can be used to express the conditional interactionsamong two or more variables (Brambor et al., 2006). Instead of just determining if there is an association between X and Y, the conditional hypothesis seeks to understand the circumstances and nature of that relationship, accurately representing social reality in the course of the investigation.

7.3 Results and Discussion

7.3.1 Data Normality

The maximum departure from normality is evaluated for 2 statistical variables, skewness and kurtosis (Hair et al., 2011). The accepted value for skewness & kurtosis is "<±3" (Bhat & Mishra, 2021). For all nine variables in our analysis, skewness and kurtosis fall within the range of '<±3' (table 7.1).

Table 7.1: Data normality

Attributes	Skewness	Kurtosis
Gender	-0.89	-1.22
Age	0.08	-1.19
Marital Status	-1.22	-0.52
Income	0.41	-0.78
Occupation	0.15	-0.97
Education	0.86	0.34
Ownership	-1.12	-0.76
Savings	-0.52	-1.74
Borrowings	0.10	-2.00

7.3.2 Profile of Respondents

The demographic details of the residents who participated in our survey are shown in Table 7.2. For sample representative results, the statistically significant findings are displayed in Table 7.2, which shows the uneven distribution of gender characteristics among the 416 respondents (29.8% female; 70.2% male). Most respondents (25.5%) fell into the 45–54 age range. Regarding marital status, married respondents outnumbered single respondents by a significant margin (24% unmarried; 76% married). 36.1% of those polled make between 5000 and 1000 Indian rupees monthly. Regarding occupation, 34.4% of the sample unit is classified as self-employed, followed by 29.8% of respondents who are students and 13.5% who are unemployed. 60% of the sample units only have a high school education. 74.3% of respondents were found to be bank account owners in financial institutions, while 25.7% do not have or own bank accounts. 62.5% of respondents save money in official financial institutions, whereas 37.5% do not. 52.4% of the sample's respondents did not borrow money from formal financial institutions, compared to 47.6% of the respondents who did.

Table 7.2: Descriptive statistics (Tribal population)

Attributes	Frequency	Percent
Gender		
Female	124	29.8
Male	292	70.2
Age		
18-24	82	19.7
25-34	103	24.8
35-44	79	19
45-54	106	25.5
55 or older years	46	11.1
Marital Status		
Unmarried	100	24
Married	316	76
Income		
Less than 5000	92	22.1
5000-9000	150	36.1
10000-14000	84	20.2
15000-20000	76	18.3
More than 20000	14	3.4
Occupation		
Govt employed	93	22.4
Self-employed	143	34.4
Student	124	29.8
Unemployed	56	13.5
Education		
No schooling	77	18.5
Less than high school	251	60.3
High school	39	9.4
Collage	49	11.8
Ownership		
Yes	218	52.4
No	198	47.6
Savings		
Yes	156	37.5
No	260	62.5
Borrowings		
Yes	107	25.7
No	309	74.3

7.3.3 Correlations between financial inclusion and demographic attributes of Respondents

The level of association between the variables is illustrated in the correlation matrix displayed in Table 7.3. Positive correlations exist between gender and age, marital status, savings, and borrowing. In contrast, the correlation between gender and income is negative. Age positively correlates with marital status, income, occupation, education, ownership, and savings. But negatively correlated with education (Table 7.3 also demonstrates a positive correlation between marital status and income, occupation, ownership, and savings. Additionally, it has a negative correlation with borrowing and education. Income favorably corresponds to occupation, ownership, saving, and borrowing but adversely to education. With ownership, the occupation has a positive correlation and correlates negatively with education. Meanwhile, findings indicate a negative association between education and ownership, saving, and borrowing. In comparison, findings demonstrate a positive correlation between ownership with savings and borrowing. Last but not least, savings have a positive correlation with borrowing.

Table 7.3: Correlations results

	Ownership	**Savings**	**Borrowings**
Gender	0.013	.125*	.137**
Age	.170**	.137**	0.069
Marital Status	.428**	.424**	.345**
Income	.254**	.225**	.169**
Occupation	.135**	0.039	-0.08
Education	-.293**	-.270**	-.234**

**. At the 0.01 level, the correlation is significant. Level (2-tailed); *. Correlation is significant at the
0.05 level (2-tailed).

7.3.4 Logit Model of tribal respondents' demographic attributes and financial inclusion

Logit regression was used since we were aware that the dependent variables were binary. The results are shown in Table 7.4. However, to simplify our study, we used Stata 14's margin functionto assess the impacts of the marginal variables. We decided to evaluate the margin estimates since,technically speaking, they were less complicated and were more in line with probability theory. Inother words, margins provide a derivative of the chance that a conditioning variable would cause the dependent variable to equal one. The correlation between the two variables serves as the basis for this likelihood. The estimated marginal coefficients for each variable indicate the likelihood of

The variable is dependent, and this remains valid as none of the other variables have undergoneany changes.

Table 7.4: Logit regression results

	Ownership		Savings		Borrowings	
Variables	**Logit coefficient**	**Margins (dy/dx)**	**Logit coefficient**	**Margins (dy/dx)**	**Logit coefficient**	**Margins (dy/dx)**
Gender	0.535699	0.076232	1.812123***	0.283566***	2.110958***	0.336009***
	(0.367804)	(0.051849)	(0.390716)	(0.056319)	(0.403513)	(0.057465)
Age	-1.41013***	-0.20067***	-1.80748***	-0.28284***	-1.87608***	-0.29862***
	(0.297297)	(0.039121)	(0.299636)	(0.040358)	(0.272511)	(0.034514)
Marital status	3.083869***	0.438845***	3.41428***	0.534276***	3.127592***	0.497831***
	(0.475632)	(0.055435)	(0.49121)	(0.059621)	(0.490091)	(0.063018)
income	1.426652***	0.203018***	1.85711***	0.290606***	1.959477***	0.311897***
	(0.323364)	(0.043007)	(0.322082)	(0.043989)	(0.307638)	(0.040626)
occupation	-0.47944**	-0.06823**	-0.82445***	-0.12901***	-1.18194***	-0.18813***
	(0.191404)	(0.026663)	(0.183152)	(0.026077)	(0.192445)	(0.02525)
education	-0.24528	-0.0349	-0.35731	-0.05591	-0.63204***	-0.1006***
	(0.219765)	(0.031131)	(0.228857)	(0.035425)	(0.241693)	(0.037434)
Wald χ^2 (6)	111.6526***		93.08071***		102.5693***	
Pseudo R^2	0.2263		9.2793		0.2992	

Note(s): Robust standard errors in parentheses; ***p < 0.01, **p < 0.05, *p < 0.1

Our findings, which are summarised in Table 7.4, indicate The logit coefficient in logistic regression quantifies the association between the predictor Gender and the probability of the dependent variable manifesting (e.g., Ownership, Savings, or Borrowings) by denoting the logarithm of the odds ratio (log-odds). A positive logit coefficient signifies that an increase in the predictor variable corresponds to an increase in the odds of the dependent variable occurring, whereas a negative coefficient denotes a drop in the odds. In the context of Savings, the gender variable indicates that males (or the reference group) are much more likely to save than females, evidenced by a positive logit coefficient of 1.81* for tribal populations. The statistical significance of the coefficient, indicated by asterisks (e.g., *** at the 1% level), verifies that the observed association is improbable to have arisen by coincidence. A coefficient of 2.11* for Borrowings among tribal groups signifies that gender exerts a substantial and statistically significant influence

on borrowing behavior. Logit coefficients may alternatively be interpreted as odds ratios, facilitating a more lucid comprehension of the effect's size. Analyzing tribal and non-tribal populations reveals significant behavioral disparities, as indicated by the elevated logit coefficients for tribal populations in the Borrowings category (2.11***) relative to non-tribal populations (0.95***), implying that the influence of gender on borrowing is more significant within tribal groups. Likewise, the marginal effects (dy/dx) offer a clearer comprehension of how the probability of the dependent variable fluctuates with a one-unit alteration in the predictor variable. The marginal effect of 0.34* for tribal groups regarding Borrowings signifies a substantial increase in the probability of borrowing.

Several factors might contribute to this observed trend. Cultural norms and traditional gender roles within the tribal society may influence financial decision-making and opportunities, leading to differential access to formal financial services between males and females. Additionally, limited access to education and financial literacy among females in tribal areas might contribute to their lower awareness and understanding of formal financial services and their benefits. Moreover, economic factors such as access to income and formal employment opportunities might be skewed towards males, giving them greater financial independence and more significant participation in formal financial systems. In contrast, females may face challenges related to resource control and ownership within households, impacting their ability to engage more actively with formal financial institutions. Addressing this gender disparity in financial inclusion is of utmost importance for promoting gender equality and empowering females within the tribal community. Implementing targeted interventions to increase financial literacy among females, providing them with equal access to education and employment opportunities, and creating an inclusive and supportive financial environment can play a crucial role in bridging the gender gap in financial behaviors. By breaking down cultural barriers and fostering policies that ensure equal access and opportunities, we can work towards a more equitable and economically empowered tribal population, where both males and females have an equal chance to benefit from formal financial services and participate fully in the economic growth of their community.

Table 7.4 implies that older respondents are less likely to be connected to financial inclusion than those in lower age groupings. This is the case when compared to all respondents. The likelihood of home ownership, savings, and borrowings will all drop by 20 percentage points, 28 percentage points, and 30 percentage points, respectively, for each additional year of age, assuming all other factors remain constant. It has been discovered that this negative coefficient is statistically

significant, but only a little so. The first finding from the analysis of our data is that respondents' aging negatively affects their borrowing, saving, and ownership behaviors in establishedfinancial institutions. The results are consistent with the theoretical predictions that were made before completing the research concerning respondents' having ownership of accounts with banks, savings, and borrowings from formal financial institutions. According to Table 7.4, the findings indicate that respondents in older age brackets are less likely to own a bank account, savings, or borrowings from formal financial institutions than respondents in younger age brackets.This is the case for all three measures (that is, 20% of older respondents are less likely to have bank account ownership), and older respondents are also less likely to have savings in formal, financial institutions (that is, 28%). In a similar vein, 33% of older respondents are less inclined to borrow from official financial organizations. The findings revealing that respondents in older age brackets within the tribal population are less likely to own a bank account, have savings, or engage in borrowing from formal financial institutions compared to younger age brackets can be attributed to several reasons.

Firstly, older individuals in the tribal community have been less exposed to formal financial services throughout their lives. They may have grown up in an era when such services were not as prevalent or accessible in their remote or rural areas. As a result, they might be more accustomed to traditional financial practices and have developed a preference for informal methods of saving and borrowing. Secondly, limited financial literacy among older tribal respondents could contribute to their lower participation in formal financial systems. A lack of knowledge about the benefits and opportunities provided by formal banking institutions may lead to apprehension or reluctance to adopt these services. Thirdly, older individuals within the tribal population may have already established financial habits and networks based on traditional community practices. These practices could involve informal lending systems within the community or reliance on family and social networks for financial support. Furthermore, older age is often associated with retirement or reduced earning opportunities. As a result, older tribal respondents might have less disposable income to invest in formal financial services, leading to lower ownership of bank accounts and limited savings. Additionally, geographical constraints and limited accessibility to formal financial institutions in rural or remote tribal areas can be a barrier for older individuals to avail of these services. The lack of nearby bank branches or ATMs might discourage them from engaging with formal financial systems.

It has also been shown that marital status and income are favorable and important factors. Financial

inclusion is greatly influenced by variables including marital status and income. The likelihood of owning property, saving money, and borrowing money all increase by 43 percent, 53 percent, and 49 percent, respectively, after marriage. Property ownership, savings, and borrowing from regulated financial institutions all showed a strong and favorable link with marital status. For example, a higher proportion of married individuals (43 percent) compared to unmarried individuals (27 percent) are inclined to possess a bank account at a respected financial organization. Despite married respondents making up 53% of the sample, they are more prone to have their funds deposited in reputable financial institutions. Likewise, our research revealed that married respondents had a 49% increased likelihood of securing a loan from a conventional bank or another official financial institution.

The findings also indicate that as household income rises, it increases the probability of being financially included. The relationship between income and ownership, saving, and borrowing from regulated financial institutions is also favorable. The finding backs up a study by Kombo (2021), who emphasized a favorable relationship between income and bank account ownership in a formal financial institution. The findings indicate that a one-unit increase in income improves the probability of owning a bank account by 20% in a formal financial institution, the probability of saving with a formal financial institution by 29%, and the probability of borrowing from a financial institution by 21%.

Occupation is negatively related to ownership, savings, borrowings, financial inclusion indicators, or financial inequality. The results also suggest that the unemployed are less likely to have ownership, savings, and borrowings from financial institutions. In essence, unemployed individuals are 68% less likely to possess a bank account in a formal financial institution, and they are also 12% less likely to have funds deposited in such an institution. According to this, 18% of respondents who are unemployed are less likely to borrow money from established financial organizations.

Similarly, education has negative relations with financial instruments. The educated respondents are less likely to be inclined toward borrowing from financial inclusion. With a marginal impact parameter estimate of roughly 0.1006, respondents with higher education levels have a 10% higher likelihood of borrowing money from a financial institution. In other words, if the proportionof educated respondents rises by one, there is a 10% chance that people will borrow money from financial institutions.

7.4 Conclusion

This chapter aimed to examine how demographic characteristics influence the degree of financial inclusion among Jammu and Kashmir's tribal communities. Demographic characteristics were measured by gender, age, marital status, income, occupation, and education. The primary data have been collected from the top four tribal districts of the Jammu and Kashmir region through a well-structured questionnaire. The logit regression results imply that demographic attributes significantly contribute to financial inclusion. The study has significant implications for regional financial institutions, central government, and local government in Jammu and Kashmir. Financial policymakers for these tribal people should be aware that eliminating financial disparity depends on demographic characteristics. The substantial unbanked population in these tribal areas allows banks to access new markets. To encourage financial inclusion among these groups, financial policies should be developed and it is advised that banks make an effort to reach out to low-income households in tribal areas because doing so is both part of their social responsibility and a potential market for the banks. Even though the study uses data from four districts in Jammu and Kashmir, the results can also be used for other tribal regions.

CONCLUSION

Summary and Conclusion

The current research relied upon data acquired from tribal and non-tribal populations of the Jammu and Kashmir regions of Anantnag, Bandipora, Rajouri, and Poonch. These are the most prominent tribal districts in Jammu and Kashmir. The objectives of this study were 1) To measure the financial inequality between tribal and non-tribal populations. 2) To examine the developmental gap between tribal and non-tribal populations and 3) To explore the relationship between financial inclusion and economic inequality concerning the tribal population. 4) To identify the factors for intra-group disparities regarding financial inequality. The questionnaire was used to acquire primary data. Krejcie and Morgan's (1970) approach is used to select the sample. The criterion forthe present study was determined to be 380 respondents (Krejcie & Morgan, 1970). Taking into consideration the margin of error, a convenient sampling strategy was used to survey 900 residents.This data-gathering approach has a high response rate. The complete responses from 855 respondents were obtained. 855 sample sizes were considered of which 416 were from the tribal and 439 were from the non-tribal population, sample sizes were collected by using a convenient sampling technique which was carried out using a previously tested questionnaire. To quantify thefinancial disparity between tribal & non-tribal respondents, the logit model was employed forthe first objective of our study. Descriptive statistics were used for objective 2nd, while for objective third PLS-SEM was employed, and the Logit model was used for our study's fourth objective.

Results from our first objective's logit regression analysis show that demographic features for both tribal and non-tribal respondents significantly affect their financial inclusion. However, considerable disparity in financial inequality between the populations of tribes and non-tribes was found. Current studies have shown that tribal people are less familiar with different economic services and amenities. This is concerning because financial inclusion may make it harder for them to save money and invest in things like their daily needs, education, and health, which could negatively affect their quality of life as they age.

Results from the second objective's descriptive analysis showed that there is a significant disparity between tribal and non-tribal populations' access to sanitation, health care, safe drinking water, asset ownership, and educational opportunities. Between tribal and non-tribal populations, the non-tribal population has access to better basic infrastructure, educational opportunities, and healthcare services. Compared to those who reside in tribal areas, they are performing better in these fields.

The findings from the third objective of our research led to the development of an integrated model that includes aspects of economic inequality, financial inclusion, and economic empowerment. It was revealed that financial inclusion affects both economic empowerment and economicinequality. The most important finding of this research was that financial inclusion has a significant impact on economic inequality. This finding can play a significant part in the inclusivegrowth of the economically underprivileged parts of the economy by increasingthe amount of money that can be spent easily in tribal households. Inclusion in the financial systemsignificantly and negatively impacts economic inequality.

This study's fourth objective was to explore the significance of demographic factors that are significant in influencing the degree of financial inclusion of the tribal community in Jammu and Kashmir. The outcomes of the logit regression indicate that demographic characteristics play a significant role in determining financial inclusion. Furthermore, the findings indicate that a higher household income is linked to an elevated likelihood of a family engaging in financial activities. According to the findings, there is little evidence that jobless people take out loans from financial institutions. The literature review indicates that demographic characteristics have a significant role in determining financial behavior. Our research supports these conclusions. The results of this study are useful in understanding how different demographic factors affect tribal people in Jammu and Kashmir's access to banking services. The study has significant ramifications for regional financial institutions, the central government, and local governments in Jammu and Kashmir.

Policy Implication

These findings have immediate implications for policymakers, banks, and other service providers, and they also have significant implications for researchers working in the field of financial inclusion. The tribal population has a particularly significant manifestation of inverse financial inclusion and income inequality.

Financial education-based policies may be designed by the government and financial service providers to address the issue of economic inequality. These policies are intended to enhance the socioeconomic situation of the tribal community in Jammu and Kashmir. Inclusion in financial markets and empowerment in economic decision-making has been shown to have a strong and beneficial link. Because of this, appropriate financial decisions may lead to moreefficient operation of business activities. However, the choices that tribal populations make abouttheir finances are more likely to include the application of financial resources to their businesses,which eventually results in a better degree of financial well-being. As a result, authorities and thebanking industry may be able to bring more individuals who do not even have a basic understanding of finance into the formal banking system. It has been shown once again that financial inclusion may be improved by increasing both the people who have access to and the qualityof the financial services they use. The amount of initiatives that are now being planned to enhancefinancial inclusion for individuals who are currently excluded from accessing financial resources suggests that these findings should be of significant relevance to policymakers in developing nations.

It is advised that banks make an effort to reach out to low-income households in tribal areas because doing so is both part of their social responsibility and a potential market for the banks. Financial policymakers for these tribal people should be aware that eliminating financial disparity depends on demographic characteristics. To encourage financial inclusion among these groups, financial policies should be developed.

The authorities should also investigate other financial services including saving, borrowing, and having bank accounts with recognized financial institutions. It has been noted that financial schemes are forcing tribal members to open bank accounts, particularly in the tribal community, but that these accounts are rarely used or never opened due to travel distances or other factors. Therefore, the tribe members should be encouraged to do a few bank account transactions.

By focusing the field worker's attention on community health, especially the provision of clean drinking water and sanitation, health initiatives need to be internalized. It will undoubtedly open the door for social advancement and the empowerment of underprivileged and disenfranchised Jammu and Kashmir populations.

All districts with a large Indigenous population should be allocated Hill Development Councils because they have performed better overall in UT Ladakh.

Bridging the developmental gap between tribal and non-tribal populations requires a multi-faceted approach that addresses historical, socioeconomic, cultural, and policy-related factors. It demands concerted efforts from policymakers, researchers, civil society organizations, and the community itself to create inclusive and equitable development opportunities for tribal populations. By recognizing and addressing the unique challenges faced by tribal communities, we can work towards a more just and inclusive society where no one is left behind.

Limitations of the Study

This study was limited to determining relationships between economic empowerment, and economic inequality with financial inclusion; however, the interrelationships between the determinants of financial inclusion, economic inequality, and economic empowerment were not investigated.

This study does not include financial literacy, which the government currently stresses as a means of increasing financial inclusion.

The cost of banking services is not considered when calculating among the tribal community, which restricts the scope of financial inclusion.

As the study is limited to the tribal population, a second indicator of the prevalence of mobile banking/internet banking that may be added in the case of non-tribal population areas is purposefully not taken.

Future scope of research

1. Socio-economic empowerment: Research can focus on understanding the socio-economic challenges faced by tribal communities in Jammu and Kashmir and identifying strategies for their empowerment. This may include studying their access to education, healthcare, employment opportunities, and basic amenities. Research can also explore ways to enhance their livelihood options and income generation activities.

2. Cultural preservation and heritage: Tribal communities have rich cultural traditions and indigenous knowledge systems. Research can delve into documenting and preserving their cultural heritage, traditional practices, folklore, and oral histories. This can contribute to the promotion of cultural tourism while ensuring the protection and appreciation of tribal identities.
3. Land rights and resource management: Investigate land ownership, land rights, and resource management issues among tribal populations. Research can explore their historical relationship with land, analyze current policies and legislation, and identify ways to address land-related disputes and conflicts. This may involve studying the impact of development projects, land encroachments, and displacement on tribal communities.
4. Health and well-being: Research can focus on the health and well-being of tribal populations in Jammu and Kashmir. This can involve understanding their unique healthcare needs, access to healthcare services, and traditional healing practices. It may also include studying the prevalence of specific health conditions, and nutritional challenges and developingculturally sensitive healthcare interventions.
5. Education and skill development: Investigate the educational status and challenges faced by tribal communities in Jammu and Kashmir. Research can explore factors influencing school enrollment, dropout rates, and educational attainment among tribal children. Additionally, research can assess the effectiveness of existing educational programs and propose interventions to improve education access, quality, and relevance for tribal populations.
6. Political representation and governance: Study the representation of tribal communities in local governance structures and political processes. Research can examine their participation in decision-making processes, representation in elected bodies, and the effectiveness of policies aimed at promoting tribal political empowerment. This research can contribute to enhancing political inclusivity and ensuring the protection of tribal rights.
7. Climate change and adaptation: Examine the effects of change in climate on tribal communities in Jammu and Kashmir. Research can focus on understanding their vulnerability to climate change, community adaptation strategies, and potential measures to build resilience. This can help develop sustainable and climate-resilient practices among

tribal populations.

8. There are 12 designated tribes in Jammu and Kashmir, however, this study solely considers the Gujjar and Bakerwal. Therefore, one might incorporate more tribes to better understand tribal progress.
9. The investigation discovered certain differences among the district's tribal groups. Socioeconomic and cultural aspects might be examined to understand the reasons forexclusion within the excluded.

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APPENDIX 1

INDEX

ABBREVIATION

SCG	Self-Help Group
KCC	Kisan Credit Card
IMF	Internal Monetary Fund
GDP	Gross Domestic Product
KM	Kilometers
ST	Schedule Tribe
UT	Union Territory
PLS-	Partial Least Squares Structural
SEM	Equation Modelling
SEM	Structural Equation Modeling
GoF	Goodness of fit
BPL	Below Poverty Line
AAY	Antyoda Anna Yojana
APL	Above Poverty Line
PHH	priority Household
CR	Convergent Reliability
AVE	Average Verance Extract
LV	latent Variables

APPENDIX 1

QUESTIONNAIRE

Section 1- Information related to the Respondent
Name of respondent: -
Division:
District:
Region/Tehsil/Sub-
Mobile No.:
Date of Visit:

1.1: Demographic profile of the households

1. Gender

(1) Male ☐ (2) Female ☐

2. Age (in years)

(1) 18-24 ☐ (2) 25-34 ☐ (3) 35-44 ☐ (4) 45-54 ☐ (5) 54 and above ☐

(2) Marital status

(1) Married ☐ (2) Unmarried ☐

(3) Economic status:

(1) Antyodaya Anna Yojana (AAY) ☐ (2) Priority Household (PHH) ☐ (3) Below Poverty Line (BPL) ☐

(4) Above Poverty Line (APL) ☐ Annapoorna Yojana (AY) ☐ (5) Other, please specify……

7. What is the main source of lighting for the dwelling?

(1) Not electricity (mains) ☐ (2) Electricity (mains) ☐

11. Do you have a medical care facility in your Locality?

(1) Yes ☐ (2) No ☐

12. What is the distance of the health care facility from your place?

(1) Less than 1 KM ☐ (2) 1-5 KM ☐ (3) 5-10 ☐ (4) 10-15 ☐ (5) more than 15 ☐

16. Occupation:

(1) Govt. employed ☐ (2) Self-employed ☐ (3) Student ☐ (4) Unemployed ☐

1.2 Literacy

17. Level of Education

(1) No schooling (2) Less than high school ☐ (3) High school ☐ (4) College ☐

18. Did your Locality have educational institutions?

(1) Yes ☐ (2) No ☐

19. What is the distance of educational institutions?

(1) Less than 1 KM ☐ (2) 1-5 KM ☐ (3) 5-10 ☐ (4) 10-15 ☐ (5) more than 15 ☐

1.3 Income

21. What is your Monthly income?

(1) Less than 5000 ☐ (2) 5000-10000 ☐ (3) 10000-15000 ☐ (4) 15000-20000 ☐

(5) More than 20000 ☐

21. What is your Monthly Earnings?

(1) Less than 5000 ☐ (2) 5000-10000 ☐ (3) 10000-15000 ☐ 15000-20000 ☐ More than 20000 ☐

1.4 Assets

26. What types of houses do you have?

(1) Kachha house ☐ (2) Semi-pucca house ☐ (3) Pucca house ☐ (4) Bricks ☐ (5) Tent ☐

Assets owned by the household **Sr. No.** **Assets**	**1. Yes**	**2. No**
1 Television		
2 Bicycle		
3 Computer/laptop		
4 Fan		
5 Piped water		
6 Latrine		
7 Mobile phone		
8 Pressure cooker		
9 Two wheeler		
10 Four wheeler		
11 Not having any of the above items		

Section 2 Financial inclusion					
Do you borrow from a formal financial institution? (1) Yes ☐ (2) No ☐					
Do you save from a formal financial institution? (1) Yes ☐ (2) No ☐					
Do you have ownership of a bank account in a formal financial institution? (1) Yes ☐ (2) No ☐					
Financial inclusion indicators	**Strongly disagree (1)**	**Disagree (2)**	**Neutral (3)**	**Agree (4)**	**Strong Agree (5)**
Do you have access to a bank branch?					
Do you have access to ATM services?					
How would you rate your experience with the requirements of documents needed for opening a bank account?					
How would you rate your experience with availing bank loan through SHGs?					
How would you rate your experience about the process of opening a bank account under PMJDY/SHGs?					
According to you, Is the location of your bank branch is convenient for you?					
How would you rate your experience about the cooperation, response, and work-friendly behavior of bank employees?					
How would you rate your experience with your access/reach to your respective bank?					
How would you rate your experience with the the convenience of using the banking services?					
Do the available banking services and schemes suit/satisfy your needs?					
How would you rate your experience about reaching/accessing your bank?					
Affordability					
How would you rate your experience regarding the affordability of interest rates under SHGs loans?					

How would you rate your experience regarding the affordability of the cost incurred for opening a bank account?					
How would you rate your experience regarding the affordability of the cost incurred for using banking services?					
How would you rate your experience regarding the affordability of the minimum balance required for maintaining a bank account?					
How would you rate your experience regarding the affordability of cost incurred for using ATM/Debit card services?					
How would you rate your experience regarding the acceptability of interest rates for SHGs loans?					
How do you assess your experience in terms of the reasonableness of the minimum balance requirement for maintaining a bank account?"					
Do you agree that bank lending rates are comparatively lower than that of moneylenders?					
Usage					
Do you use your bank account to save money?					
Do you use your bank account for the purpose of borrowing money					
Do you save money in your bank account on regular basis					
Do you visit your bank branch for the purpose of withdrawing money					
Do you use the locker facility for safeguarding your valuables					
Do you use your ATM/Debit card for the purpose of withdrawing money					
Do you use your bank account for the purpose of availing crop loans?					
Do you visit your bank branch to transfer money					
Do you visit your bank branch on a regular basis to repay the loan amount					
Do you use your bank account for the purpose of receiving wages under the MGNREGS scheme					

Do you visit your bank branch on a regular basis to repay the loan amount					
Do you use your bank account for the purpose of availing SHG loan					
Quality					
How would you rate your experience with the expensiveness of fees and other charges charged for carrying out financial transactions?					
How would you rate your experience with the quality and sufficiency of information you received at the start of the loan contract about the financial services					
How would you rate your experience regarding the comfortability and time spent while standing and waiting in queues in your bank branch?					
How would you rate your experience withthe mistreatment of consumers of your bank branch by the staff?					
How would you rate your experience with contacting a consumer protection authority to solve your problem regarding financial services					
Do you know about the definition of some basic financial terms like-rate, risk, inflation, and diversification					
How would you rate your experience about having your detailed transactional information provided by your bank branch					
Do you prepare a monthly budget for yourself?					
How would you rate your experience with having administrative units with at least three different branches of formal financial institutions in urban areas?					
Availability					
How would you rate your experience about the availability of SHG loans in your bank branch?					
. How would you rate your experience with the availability of bank employees to create awareness about using banking services in your bank branch?					

How would you rate your experience with the availability of locker facilities in your bankbranch?					
How would you rate your experience about the availability of crop loans in your bank branch?					
How would you rate your experience withthe availability of no-frills or zero-balance accounts in your bank branch?					
How would you rate your experience with the availability of field workers/BCs in your bank branch?					
How would you rate your experience with the availability of credit counseling facilities to create awareness about availing credit facilities, in your bank branch?					
How would you rate your experience about the availability of credit/loan facilities, in yourbank branch					
How would you rate your experience about the size of loan facility availability based on the size of income or loan-income ratio?					
How would you rate your experience with the availability of SHG loans, in your bank branch?					
How would you rate your experience withthe availability of bank employees/support staff to fill deposit/withdrawal forms in your bank branch?					
How would you rate your experience with the availability of field workers/BCs to guide you about various new schemes, in your bank branch?					
How would you rate your experience with the procedure of availing loan facility, in your bank branch?					
How would you rate your experience with the availability of services and facilities to cater to your banking needs, in your bank branch					
How would you rate your experience with the availability of bank employees/support staff for help throughout banking processes, in your bank branch					

How would you rate your experience about the availability of ATM services near you?					
How would you rate your experience withthe availability of Bank branches in your area/locality?					
Economic Empowerment					
. How would you rate your experience about the role of FI in enabling you to meet/face emergencies in your life?					
How would you rate your experience with the role of FI in the promotion of your savings and investment practices?					
How would you rate your experience about the role of FI in increasing your source of income?					
How would you rate your experience about the role of FI in your increased standard of living?					
How would you rate your experience with the role of FI in your increased medical facilities?					
How would you rate your experience withthe role of FI in your increased position in your family?					
How would you rate your experience about the role of FI in your increased productivity?					
How would you rate your experience with the role of FI in the promotion of greater access to start-up capital?					
How would you rate your experience about the role of FI in your increased employment opportunity?					
How would you rate your experience withthe role of FI in your improved financial management?					
How would you rate your experience with the role of FI in enabling you and your family in enjoying a better economic status?					
How would you rate your experience with the role of FI in increasing your purchasing power?					
How would you rate your experience about the role of FI in raising the living standard of your family?					

How would you rate your experience about the role of FI in boosting your confidence to face financial crises in your life?					
How would you rate your experience with the role of FI in enabling you to face any the contingent situation in your life?					
How would you rate your experience withthe role of FI in leading a generation of self-employment among the youth?					
How would you rate your experience with the role of FI in increasing your savings and income?					
How would you rate your experience about the role of FI in enabling you to purchase your livestock?					
How would you rate your experience about the role of FI in enabling you to purchase your household equipment?					
How would you rate your experience with the role of FI in increasing your purchasing power?					