

Influence of Social Capital on Promoting Sustainable Livelihood? Mediating Effect of Financial Inclusion

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Abstract

The reason of this research work was to examine the influence of social capital on promoting sustainable livelihood with mediating effect of financial inclusion. By using primary questionnaire, the data was gathered. The questionnaires were distributed to the indigenous people in Bishnupur village rangpur city at Bangladesh. A statistical software named as Smart PLS 4 version was used for analysis. The structural equation modeling was used to empirically examine the impact of social capital in promoting sustainable livelihood among the indigenous people. Initially, 350 questionnaires were distributed out of which 278 valid samples were used for further analysis. The result depicts a positive and significant relationship between social capital and sustainable livelihood which means that social capital is a catalyst for uplifting the standards of poor people living a vulnerable life. Additionally, financial inclusion also positively and significantly mediates the association among the social capital and sustainable livelihood in such a way that it strengthens the relationship.

Keywords: Social capital, Financial Inclusion, Sustainable Livelihood.

Introduction

Achieving sustainable livelihood becomes a prime focus for low and middle income countries (Kumar et al., 2023; Tripathy et al., 2022). The word sustainable livelihood means having good and sufficient resources and economic security which satisfy basic needs of people's like food, clean water, education, health facilities, job opportunities, participation in the society and reducing poverty (Frankenberger et al., 2002; Rahman, 2023).

With the passage of time, the fame of social capital is increasing to the knowledge of development experts. Though, there is still a gap regarding its definition and the strategies used for reporting and evaluating (Gayen et al., 2019). Coleman (2013) claims that community mind eye's consider that its normally linked with the human and social relationships. Social capital addresses a number of developmental problems and scenarios by putting attention towards the abilities, skills and the potential of native communities which arises from grass-root stage (Akram & Routray, 2013). As stated by Nichols (2021) social capital facilitates with an equitable and effective channel designed for sustainable livelihood.

In the global world, numerous prior research works such as Cho et al., (2016) have addressed impact of social capital on the development of living standard of people coming up with

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different results. Winters et al., (2001) examine the crucial significance of social capital in latin america. A framework was developed for the rural livelihoods with the help of social capital theory and created the association among social change, social capital and sustainable livelihood (Lyons & Snoxell, 2005). Researchers Xiong et al., (2021) and Xu et al., (2019) investigated the influence of social capital attaining the capabilities of sustainable livelihood in the china. It explored the effect of social capital attaining the abilities among the rural households. In rural areas having poor infrastructure, the bonding and bridging social capital seems notable, while associating the social capital appears to be valuable in enhancing the sustainable livelihood opportunities (Naithani & Saha, 2021). The scholars also investigates the importance of social capital and sustainable livelihood in the rural area of eastern side of india (Khosla & Jena, 2020).

Research of Datta and Sahu (2022) and Ding et al., (2023) addressed the impact of financial inclusion with sustainable livelihood development and claims that the financial inclusion depicts an optimistic association on sustainable livelihood and also acts as an indicator to reduce the poverty in the long terms. On the other hand, financial inclusion cannot be considered to be only the strategy other than a collective approach. Therefore, specific attention should be given towards the formation of self-help groups (Kuada, 2022; Sethy & Goyari, 2022; Dar & Ahmed, 2021).

Social capital also helps in transfer of funds from contributors towards the recievers (Sharma, 2016) and research study of Lenka and Barik (2018) suggests that social capital significantly participates towards effective, efficient and sustainable financial system. According to Hamad et al., (2023) the financial inclusion has been greatly prioritized as a pivotal component of (SDGs) sustainable development goals. Prior research work of researchers also claimed the negative association of financial inclusion on sustainable livelihood as it does not reach to the needy people of the society (Ozili, 2020; Igwe et al., 2019; Sahu et al., 2021 and Ukanwa et al., 2018). It is noticed that besides the development in the accessibility and availability of services such as financial services, studies fail to achieve sustainable livelihood, specially amongst indigenous individuals.

The abovementioned studies confirmed that there are number of studies that shows globally the association of social capital in enhancing socio-economic and development in sustainable livelihood. Nevertheless, there is a huge gap in examining the present context among the indigenous communities residing in extremely remote areas. To the best of my knowledge there are less or no studies done, examining the village areas of Bangladesh such as Bishnupur village in rangpur due to the poor infrastructure of roads. In order to fill this gap, the focal point and novelty of this article is to revisit the research gaps by incorporating mediating role of financial inclusion between social capital and sustainable livelihood of indigenous people of Bishnupur. The structure of the article is organised into five sections in which section one consist of introduction. Section two explores the existing literature globally and hypothesis development. Section three comprises of methodology, data and conceptual model of the study. The fourth section discusses about the results and the last fifth section reveals about the practical implication and conclusion of the study.

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Literature

2.1 Relationship between social capital and financial inclusion

The word social capital encompasses the interpersonal associations within a well defined social unit, providing its constituents to collaborate in accomplishing their objectives (Putnam, 1995). According to Davidson and Sanyal (2017) it provides a real time chance for social relations which enhances communal network. Furthermore, social capital also fosters impulsive network transactions and connections with the group members (Woolcock, 1998). In accordance with Mahato et al., (2022) social capital should be viewed as a communal confidence of people which is formed depending on the wants of affiliated members. Additionally, it gives a supportive framework to the linked members for the purpose of combine goals and achievements. The sustainable livelihood issues of native individuals cannot be resolved by an individual endeavor and thus, it requires a collective and collaborative methodologies. The self-help groups produce a powerful social capital between the individuals of the group and they succeeded in fostering micro-enterprise, self employment and nurturing the living standards and environment of their households (Suprabha, 2014).

As per by Ukanwa et al., (2018) the components like sources of income, education, skills training, active participation, motivation, managerial skills and leadership skills puts a worthwhile value to boost up effectively an enterprise. Establishing interpersonal social capital among the members of the group presents numerous chances like attaining knowledge of the market and increasing performance and growth of the business. The self-help groups integrate the characteristics of social capital as a concealed asset which can maintain long term relations among the members of the group (Roxas & Azmat, 2014). As stated by Bongomin et al., (2018) financial inclusion is the efficiency and facility by which the performer in the economy is permitted the availability for both informal and formal financial services in a system that their tasks and actions are positively associated. Financial inclusion is explored on four basis such as access, welfare, quality and usage of the financial service which are manifested in the context of the study and boosts up for the execution of financial inclusion in the economy.

From the above discussion and association among social capital and financial inclusion, we formulated the following hypothesis:

H1. There is a significant association between social capital and financial inclusion.

2.2 Financial inclusion and sustainability

Number of previous studies has examined the impact of financial inclusion for the eradication of poverty from the society. The outcomes in the previous researches depicts that financial inclusion increases the development of economy, cuts down the level of poverty in order to achieve sustainable economic progress. Availing the services of bank also increases poverty reduction away from just only enabling individuals by livelihood projects (Dwivedi et al., 2015).

A prior research work conducted by Chibba, (2009) which claims that the financial inclusion works as a tool of growth and a method for reducing poverty. The researcher also investigates that the rise in the efforts of financial inclusion also provides a chance to deal with the level of poverty and to foster the comprehensive developmental stages (Abur, 2019). It also

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inspects the levels of financial inclusion and the potential influence towards the inclusive progress with the help of appropriate poverty alleviation indicators and indices, the researcher claimed the primary hurdle set back towards reducing the poverty and the economic growth is non availability of the financial services. Therefore, it is claimed that the accessibility of financial resources remain limited which ultimately lessens the probability of poverty. As per stated by Koomson et al., (2020) financial inclusion is linked with a decrease in households' likelihood of being poor, preventing contact towards the future poverty.

Though numerous studies are conducted on the influence of financial literacy on financial inclusion and financial inclusion on alleviation of poverty for livelihood progress, still there is a gap in understanding the direct impacts of financial literacy on sustainable livelihood. Country level research lends the credibility towards the results. Studies from global nations such as Kenya, India, Egypt, North and Middle East Africa, Ghana and Nigeria, emphasis the significance of financial inclusion for the empowerment of the economy (Abur, 2019; Lyons & Kass-Hanna, 2019).

According to a research conducted in southern Africa by Chibba, (2009) claimed that financial inclusion also supports in boosting up the individuals from the poverty zone. In addition, a study by (Fanta et al., 2017). Establishes the association among the social grants and the financial inclusion and discusses the digitization of social grant extends financial inclusion for those in the secure network in southern part of Africa. Furthermore, limited research work has been done in exploring the effect of financial inclusion as a mediator between the social capital and sustainable livelihood. Hence, this study posits the following hypothesis:

H2. There exists a significant relationship among financial inclusion and sustainable livelihood.

2.3 Social capital, financial inclusion and sustainability

According to Carradore (2022) social capital has significantly increases the financial situation of the poor's life such as skills and the capacity building with the members of the group. The relationship between social capital and socio-economic development was conducted by (Swain & Varghese, 2011) and it depicts there exists a positive and significant association among the variables. Social capital boost up the entrepreneurial gains and shows a productive influence on eradicating the poverty (Mahato et al., 2022). It has the capabilities to drive up the women owned enterprises and subsequently, it impacts the employment site, professional status and the living standards of the respondents (Nichols, 2021). According to Grohman et al., (2018) for business welfare and sustainable development, policy makers employ financial inclusion as an economic tool.

The author Pomeroy et al., (2020) claims that financial inclusion have the abilities and capabilities to mitigate the vulnerabilities of poor people and the communities and recover economic resilience. It can also serve as a bridge point that increases the goals of sustainable development. A study conducted by Cabeza-García et al., (2019) explored the impact of female financial inclusion in ninety one developing and non developing nations and the outcome reveals that higher the usage of financial inclusion in women in perspective of owning bank accounts and utilisation, significantly increases the economic development. The study of Lindvert et al., (2017) suggests that social capital has both direct and indirect impact in developing the socioeconomic livelihood to backward households. Additionally, the

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researchers conclude that financial inclusion drops down the vulnerability of rural household poverty greater than in cities. Scholars such as Sharma et al., (2014) declared that sustainable livelihood and addressing long standing challenge of eradicating the poverty go away from the economic progress, inserting the financial inclusion as a catalyst in distributing the prosperity and wealth.

Different studies suggest the considerable assistance in order to to know the main reason and implications for various individuals who are cut out from financial services, especially in developing countries. The research study of Lyons and Kass-Hanna (2019) revealed that the population which are economically worse or at risk are considerably not a part of financial systems. The literature of finance and economics has come up with number of definitions of financial inclusion such as research work of Sarma (2012) bring forth an inclusive definition which knocks to a huge population's serious problems, like the availability, utilization and the accessibility in financial services. Financial inclusion pertains people and the businesses efficiently utilizing and accessing, convenient, high quality, affordable and long term financial services from the recognized suppliers, may decrease the level of poverty and gain the economic sustainability (Philipp, 2005).

On the basis of abovementioned literature, the following hypothesis was formulated:

H3. There is a significant relationship between social capital and sustainable livelihood.

H4. Financial inclusion mediates the association between the social capital and sustainable livelihood.

Methodology

This study used a qualitative and quantitative method to scrutinize how social capital helps in boosting up sustainable livelihood with mediating effect of financial inclusion among the indigenous individuals. The study is empirical in nature and the technique of data collection used is a multistage random sampling. The participants of the study were indigenous people of village namely, Bishnopur who are associated with self-help groups (SHG) in order to develop social capital among themselves intending to accomplish sustainable livelihood. Initially 350 sample of questionnaires were distributed, out of which 278 were reliable and further used for data analysis in the study. The data analysis consists of four sections such as demographics, social capital, financial inclusion and sustainable livelihood. The independent variable in this study is social capital, dependent variable is sustainable livelihood and financial inclusion act as a mediator. The primary data were collected from indigenous individuals by interviewing the people. To measure the variables, a five point likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) were used. The social capital was measured by using four item scales (Nugraha et al., 2021), financial inclusion was measured by using five structured item (Gerald et al., 2022) and six structured items were used to measure the sustainable livelihood (Ozili, 2020; Ukanwa et al., 2018; Kumar et al., 2023; Sahu et al., 2021 and Datta & Sahu, 2022). The figure 1 shows conceptual model of the proposed study.

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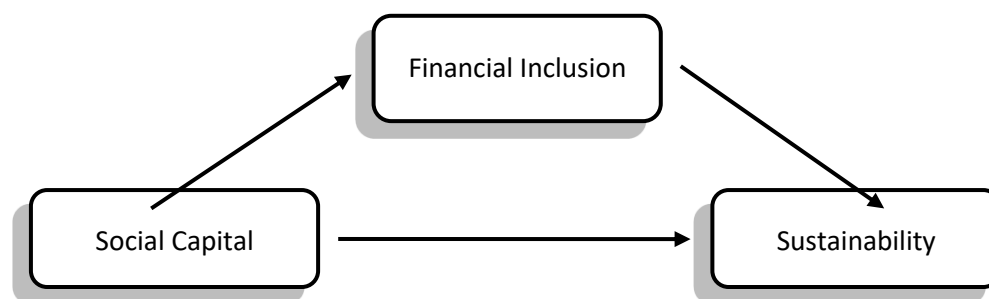


Fig.1: Conceptual model

Data analysis and results

To analyze the relationship between the constructs, structural equation modelling was used for examining the formulated hypothesis (Ali et al., 2018). A statistical software named as IBM SPSS and Smart PLS 4.0 version was used to analyze the data which were collected from the respondents. First of all, the study examines the reliability and validity of the study key variables by convergent validity and reliability test using PLS-SEM algorithm. Additionally, bootstrapping was conducted to check out the association between the variables to accept or reject the proposed hypothesis (Magno et al., 2022).

Demographics of the participants

In the following Table 1, the demographics of the participants are explained such as age, education, marital status, income and association with self-help groups. It illustrates that 42.8% are 18-25 years of age, 56.5% people having primary level education, 59.4% people are married and 49.2% people are associated with self-help group members from 5 to 10 years and 67.6% of the respondents earn a monthly income of 5000-10000 Bangladeshi taka.

Table 1. Demographics

Particulars	Categories	Frequency(N=278)	Percentage%
Age(years)	18-25	119	42.8%
	25-35	95	34.2%
	35-45	49	17.6%
	45 and above	15	5.4%
Education	Illeterate	98	35.3%
	Primary	157	56.5%
	Middle	23	8.3%
Marital Status	Unmarried	85	30.6%
	Married	165	59.4%
	Widow	13	4.7%
	Divorced	15	5.4%
Income	Up to 5000	47	16.9%

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	5000-10000	188	67.6%
	10000-15000	33	11.9%
	15000 and above	10	3.6%
Self-help Group	0-5 years	109	39.2%
	5-10 years	138	49.2%
	Above 10 years	31	11.2%

Reliability and Validity

For reliability and validity of the data, five tests were undergone namely as factor loadings, average variance extracted, composite reliability, cronbach's alpha and the discriminant validity. The discriminant validity further encompasses two tests such as fornell and larckers (Fornell & Larcker, 1981) and HTMT ratio (Henseler et al., 2015). The figure 2 illustrates the confirmatory factor loadings having threshold level of >0.60. As we can see all the values meets up the threshold level (Gefen & Straub, 2005). The table 2 shows the value of loading, cronbach's alpha, composite reliability and average variance extracted. Threshold level for cronbach's alpha and composite reliability is >0.7 and for AVE is >0.5 respectively (Ringle et al., 2020). Therefore, it is accomplished that this study develops internal consistency, composite reliability and convergent validity.

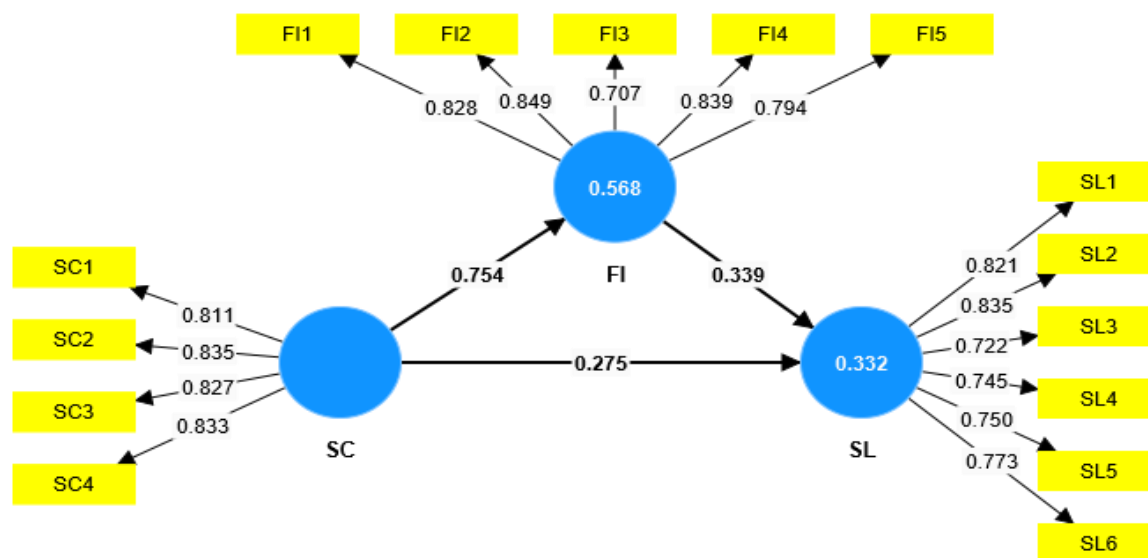


Figure 2. Confirmatory factor analysis

Table 2: Factor loadings and convergent validity

Constructs	Items	Loadings	Alpha	Composite reliability	Average variance extracted
FI	FI1	0.828	0.863	0.902	0.648
	FI2	0.849			
	FI3	0.707			

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	FI4	0.839			
	FI5	0.794			
SC	SC1	0.811	0.846	0.896	0.683
	SC2	0.835			
	SC3	0.827			
	SC4	0.833			
SL	SL1	0.821	0.867	0.900	0.601
	SL2	0.835			
	SL3	0.722			
	SL4	0.745			
	SL5	0.750			
	SL6	0.773			

Source: Smart PLS

Discriminant Validity

For the discrimination of the study variables fornell's and larcker's and HTMT tests are used to identify the uniqueness and differentiation of the variables from each other before going for further analysis. The table 3 illustrates the formell and larcker's test in which the threshold value should be less than 0.85 for the validity of the test. Whereas, the table 4 describes the HTMT ratio test in which all the inclining values should be greater than to the non-inclining values.

Table 3: Fornell's and Larckers criteria

Variable	1	2	3
FI	0.805		
SC	0.754	0.827	
SL	0.547	0.531	0.775

Source: Smart PLS

Table 4: HTMT Ratio

Variable	1	2	3
FI			
SC	0.878		
SL	0.630	0.613	

Source: Smart PLS

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Structural Model

According to Tenenhaus et al., (2005) structural model encompasses of two analysis such as path coefficient analysis and the bootstrapping analysis which enables the experts to determine the association of each coefficient. Both tests were conducted and showed in the figure 3 path hypothesis and figure 4 bootstrapping respectively. The R^2 value among the social capital (explanatory variable) and sustainable livelihood (criterion variable) is 33.2% which illustrates that change in social capital causes a change of 33.2% in sustainable livelihood.

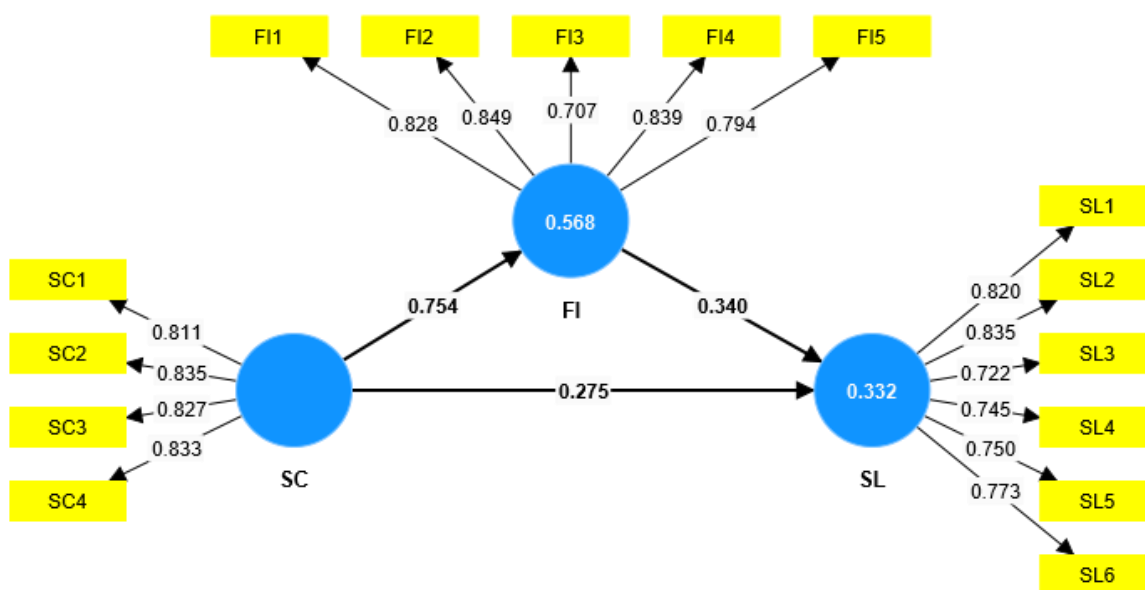


Figure 3. Path hypothesis structural model

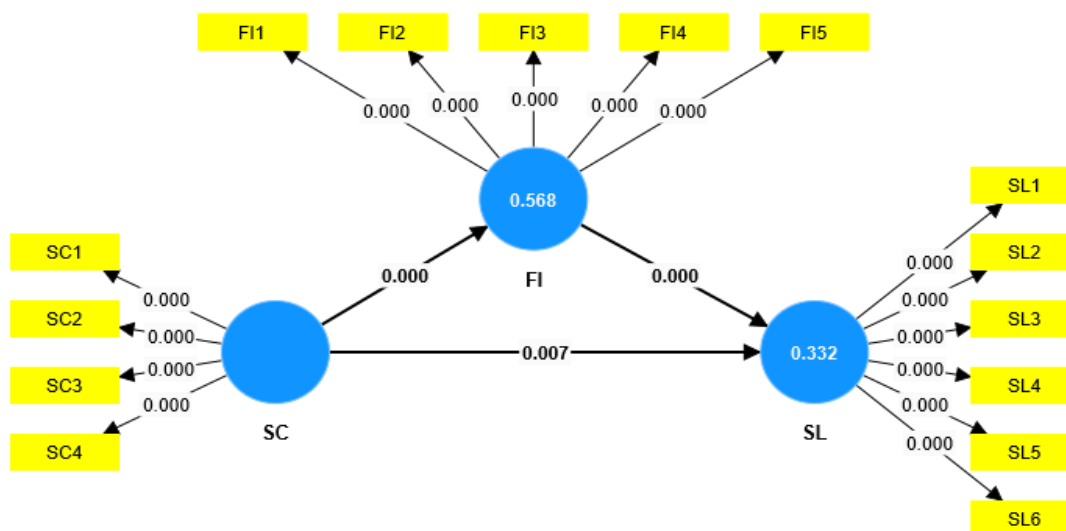


Figure 4. Bootstrapping structural model

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Mediation Analysis

The mediation analysis describes how stronger or weaker the connection among social capital and sustainable livelihood is with respect to its direct effects. The outcomes are showed in the below table 5, depicting the association among the social capital and sustainable livelihood scoring a beta and p value of ($\beta = 0.275, P < 0.01$). The outcomes of the study shows that there is a positive and significant association among the social capital and sustainable livelihood. Social capital also develops a positive and significant relationship with the financial inclusion with beta and p value of ($\beta = 0.754, P < 0.001$). Additionally, financial inclusion shows an optimistic association with the sustainable livelihood with a beta and p value of ($\beta = 0.340, P < 0.001$). Finally, it can also be seen that financial inclusion is positively and significantly mediating the relationship among the social capital and sustainable livelihood scoring a beta and p value of ($\beta = 0.256, P < 0.01$). Thus, all the hypothesis such as H1, H2, H3 and H4 are accepted.

Table5: Mediation Analysis

H	Relation	OS	SM	S.D	T.S	P.V
H1	SC – FI	0.754	0.755	0.039	19.172	0.000
H2	FI – SL	0.340	0.344	0.094	3.599	0.000
H3	SC – SL	0.275	0.275	0.102	2.703	0.007
H4	SC-FI-SL	0.256	0.261	0.078	3.297	0.001

Source: Smart PLS

Discussion

The rationale of this research work was to explore the effect of social capital on sustainable livelihood with a mediating effect of financial inclusion. The outcomes of this research work shows and confirmed that there exists a positive and significant association among the social capital and sustainable livelihood which means social capital is directly and positively effecting and enhancing the living standards of the indigenous people residing in bangladesh. The result is also supported with previous research work of (Mahato & Jha, 2024) claimed that social capital is a tool in uplifting the standards of the poor people living a vulnerable life. Social capital plays a crucial part in raising the life of indigenous individuals and providing them financial resources towards the development and growth which will ultimately reduces the poverty. Social capital also shows a positive and significant relationship with financial inclusion which illustrates that increase in social capital also enhances financial inclusion. Similarly, financial inclusion also effects the sustainable livelihood. The results are supported by a research study of (Lontchi et al., 2022; Mahato & Jha, 2023) indicating that financial inclusion promotes sustainable livelihood by having access towards the resources that fulfills basic needs such as food, clean water, good health services and educational chances. The present study also reveals that financial inclusion positively mediates the relationship between social capital and sustainable livelihood. The finding of the study is also supported by the research work of (Akande et al., 2022) claims that FI is pivotal analyst of sustainable

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livelihood. Thus, access and usage to finance may make possible economical, environmental and social development.

Implications of the study

The current study has not been explored previously among the indigenous individuals in Bangladesh. The results of the study are going to be beneficial to the indigenous individuals in the country. The theoretical implication of the study suggests that social capital promotes cooperation and trust between the members. This unity boosts up society resilience and the capability to tackle the stress and shocks that is necessary for the sustainability of the individuals. This study also promote and focuses on achieving various sustainable development goals such as SDG's 11 related to disaster resilience, SDG's 17 for social impact investing and SDG's 1 reducing the poverty level in the economy. Providing access towards the various access by social networks pertaining knowledge, support and information. The social capital provides advocacy and collective action for the practices and policies which support sustainabilities in the society. The societies having strong social networks are betterly positioned for their access towards the resources, rights and environmental conservation measures. The practical implication inferences members with high degree of social capital that are more resilient to environmental, social and economic challenges. By mobilizing the resources and supporting each other during ups and downs helps in mitigating risks to sustainability. Combining financial inclusion with social capital can provide inclusive progress by empowering the communities. With the help of financial inclusion, communities and people can influence social capital for accessing financial services which ultimately provide investment for productive tasks, managing risk and improve their standards of living.

Conclusion and limitations of the study

This research work scrutinizes the role of social capital in promoting sustainable livelihood with the mediating effect of financial inclusion. The SEM structural equation modeling has been used for analysis of 278 sample of the study. The results revealed that social capital has both direct and indirect effects on scoring sustainability among the indigenous individuals. The analysis also point out the financial inclusion mediates the association between social capital and sustainable livelihood. This research work is conducted in the region of rangpur city such as bishnopur village, for further analysis it may conduct on other regions of Bangladesh or comparative study may also be conducted among the members of self-help groups and nonmembers of self-help groups. In addition, this study uses financial inclusion as a mediator; however, another mediator may also be examined in future for further studies. For future analysis, it is highly recommended to expand the size of the data by increasing the sample.

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