



Research Article

Sowing the Seeds of Trust Norms and Networks for Community Capacity Building and Socio-Economic Resilience

Dheerendra S. Gangwar 

Faculty of Technology, VMSB Uttarakhand Technical University, Dehradun, Uttarakhand, India

KEYWORDS

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ABSTRACT

The necessity of community capacity building has been recognized as a key element in attaining sustained economic growth in rural areas in the post-COVID-19 era. People realized the importance of social capital in the form of cohesion and networking during this tough time and started supporting each other. Social capital is defined as neighbourhood solidarity and social bonding based on trust, norms, and networks. Creation and fostering of social capital play a significant role in the fulfilment of collective human goals. This article describes the role of social capital in ensuring socio-economic resilience through community capacity building. It examines how collaborations, resource sharing, and collective efforts help people in ensuring socio-economic well-being. With the help of the activity theory framework, this case study assessed the impact of social cohesion and mutual assistance on the economic performance of the rural livelihood systems. Data collected and analyzed through personal interviews, interactive sessions, survey forms, workshops, and field observations were found helpful in gaining a deeper comprehension of the socio-cultural characteristics and needs of participants. This study concludes that social capital contributes to the growth of other forms of capitals by fostering interactions for identification of common problems and their potential solutions for developing socio-economic resilience. It also aims to create a shared understanding of social capital in vulnerability assessment and resilience initiatives.

*CORRESPONDING AUTHOR

Dheerendra S. Gangwar; Faculty of Technology, VMSB Uttarakhand Technical University, Dehradun, Uttarakhand, India; Email: dsgangwar@gmail.com

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1. Introduction

Due to the extensive effects and implications of COVID-19 pandemic economic problems have struck every part of the world, plunging millions of people into destitution. All facets of rural life, including household incomes and rural businesses, were impacted, with even more severe consequences for vulnerable rural areas [1-3]. It made community members understand how crucial it is to work together to overcome the bad effects that come with it [4]. Social cohesion, civic involvement, mutual cooperation, and trustworthy relationships all contributed to the development of socioeconomic resilience throughout this pandemic [5,6].

This pandemic has highlighted the need for a better understanding of vulnerability and resilience [7] for developing adaptive responses to environmental, social, and economic changes [8] and how social capital is affecting the rural livelihood system [9]. In the context of the rural livelihood system, it is argued that social capital in the form of bonding (internal ties), bridging (external ties), and linking (institutional ties) fosters trust, cooperation, and social engagement. Various support networks help people work together for common goals while sharing knowledge, experience, and resources [9,10]. Social capital, as the cumulative capacity to work together for common goals, has direct implications for economic development and resilience [11-13].

The term social capital refers to the differential access to opportunities through social connections that enable people to act collectively and generate cultural and economic capital [14-18]. In other words, the core tenet of social capital is that 'being sociable has both economic and cultural benefits.' There exists a large volume of research on the connection between social capital and subjective well-being [19]. The phrase 'Social Capital' was initially described by Hanifan in 1916 as a tool to assess the academic performance of the students [20]. Major conclusions drawn from his work are as follows: goodwill, sympathy, fellowship, and other social attributes have a significant role in improving living conditions and ensuring individual and collective good [21]. Bourdieu (1985) defined Social Capital Theory (SCT) as the aggregate of actual or potential resources linked to the possession of long-term informal networks of mutual acquaintance.

Getting social relations right is a crucial component of community development [22]. During the early 1990s, economists, sociologists, and policymakers expressed their concern for social capabilities, social cohesion, and social infrastructure and found it useful for developmental theory and practice [23-25]. With the help of various empirical, methodological, and theoretical studies, researchers attempted to explain different dimensions of civic engagement, trust, and mutual cooperation in community development and subjective assessment of economic performance [26-30]. The results obtained from these studies confirm that social capital may result in the accumulation of economic capital, reduced costs of transactions, capacity building, skill development, innovations, start-up incubations, and the transfer of technology and information [31,32]. The reported evidence also indicates that social capital is more valuable for underserved communities in developing countries [7,21].

In the coming years, communities and economies will focus on community capacity building and the preservation of resources in order to maintain economic growth and social well-being [33,34]. As far as community capacity building is concerned, it focuses on enabling all people in a community to acquire skills and competencies to have more control over their own lives. It talks about the financial and social inclusion of the poorest and most disadvantaged for inclusive and sustainable development [34,35]. The neoclassical theory of economics also emphasizes on social and institutional dimensions of economic development [36-38]. Social cohesion and resilience towards economic, environmental, and social challenges are essential components of all community capacity-building exercises [39].

Changes in the levels of social capital represented by the norms of mutual trust and reciprocity for solving community problems are directly correlated to changes in social infrastructure. This change in the social environment of the community members improves social cohesion, helps in the alignment of competencies, and provides invaluable social support for addressing their needs and priorities. Some scholars believe that an increase in the number of formal and informal community enterprises tends to reinforce the sustainability of rural livelihood systems [40-42].

Gaining a better understanding of social capital improves the living standards of people and ensures better economic performance for individuals and communities [43]. The social environment around people and their engagement in collective decision-making bring positive changes for the entire community [44]. Increased participation of individuals in community activities tends to reinforce socio-economic resilience, as social capital has direct implications for community capacity building, the configuration of support networks, and the formation of economic and human capital [45]. At the same time, fragile local institutions and low levels of social cohesion and networking, in turn, affect economic growth and community development [46,47].

It is crucial to evaluate social capital at the community level because of its significance for community capacity building and development at the local level [33]. The impact of social capital on rural livelihood systems and community development is illustrated in Figure 1. It clearly indicates that higher levels of social capital and a degree of consensus towards progressive social norms are essentially required for socio-economic wellbeing [48]. Coleman (1988) discussed social capital from the perspectives of the individual and the household [15]. In contrast, Putnam (1993) measured social capital indices at the provincial and federal levels [16]. Entrepreneurial social infrastructure, which has been described by Flora and Flora (1993) as some fundamental social structures within a community, can be considered components of social capital at the community level [49]. Portes (1998) described the methods for measuring social capital at greater social aggregates, such as societies or countries [17].

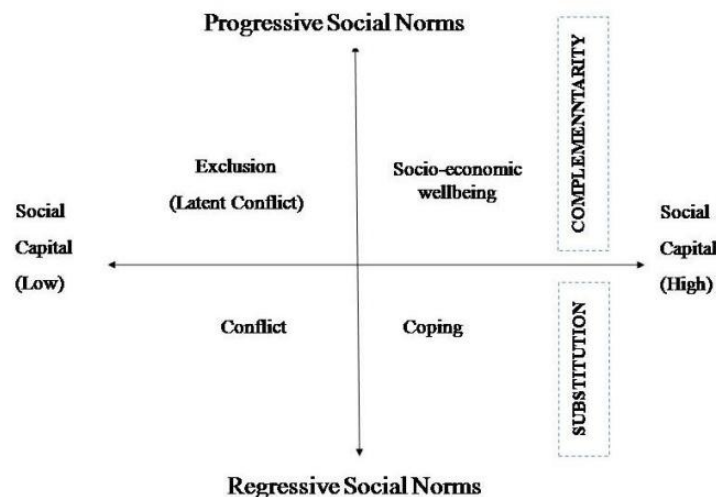


Figure1. Role of social capital in rural livelihood systems and community development (*Source:* Adapted from Narayan (1999)).

It is probably not possible to determine a single, accurate measure of social capital for a variety of reasons. Woodcock and Narayan (2000) identified the complexity associated with the accurate measurement of the multidimensional and comprehensive nature of social capital at various levels [18]. Hong and Sporleder (2007) developed a three-dimensional framework for consistent measurement of social capital: structural, cognitive, and

collective actions [44]. The structural dimension refers to the behaviors and actions of participants within the network that can be observed from the outside, such as patterns of civic engagement. The strength of the networks, as shown by trust, reciprocity, and norms, is indicated by the cognitive component. The collective action is the observation of network behaviors like voting and attending particular meetings, among others. This proposition was modified by Edelman et al. (2009) to have three independent yet definitely related dimensions: structural, cognitive, and relational [50]. The relational components of social capital are interested in the underpinning normative principles that direct behaviors in exchange relationships.

As far as measurement of social capital at the community level is concerned, Bullen and Onyx (2007) considered eight fundamental aspects, such as: participation in local community activities; proactive involvement in social context; feelings of trust and safety; neighborhood connections; connections with family and friends; tolerance for diversity; value of life; and work connections [51]. The authors found that they could predict a person's community just by looking at their social capital score, increasing the likelihood that this instrument may be used to design and track community development initiatives. Researchers are aiming to create social capital resources that serve as diagnostic tools at the community level, building on this work.

Several other recent studies have also attempted to quantify social capital and its impact on economic growth and suggested various methods for using social capital as a tool for development, poverty reduction, and community capacity building [1,9,10,33]. Social capital has direct implications for the collective civic capacities of a community [52]. The individual contribution of a person y_i in economic production for a community i [31] is mathematically expressed as:

$$y_i = \left(\frac{K_i}{Y_i}\right)^{\frac{\alpha}{1-\alpha}} \left(\frac{H_i}{L_i}\right) A_i \quad (1)$$

Where K_i is the stock of physical capital, Y_i is the total output production, H_i is the total stock of human capital accumulated by the community in terms of skills, competencies, knowledge, and education, L_i represents the labor cost involved in the production, and A_i is the measurement of technology involved in the entire process of production.

Trusting relations, social norms, and institutional effectiveness in the form of social capital have a direct effect on overall productivity at the community level. Through better management of resources owned as common property, entrepreneurial social infrastructure, the supply of public goods, and the reduction of social costs, social capital can additionally assist in enhancing overall productivity in general. However, social capital may have an indirect impact through enhanced human capital accumulation in addition to its direct impact on productivity [25], as seen in equation (2):

$$y_i = \left(\frac{K_i}{Y_i}\right)^{\frac{\alpha}{1-\alpha}} \left(\frac{H_i, S_i}{L_i}\right) A_i \quad (2)$$

In summary, it can be stated that social capital may assist in capital accumulation, skill enhancement and innovations, the transfer of technology and knowledge, and the lower costs of economic transactions [11]. Additionally, social capital may promote investment, lower the societal costs associated with corruption, crime, and other forms of anti-cooperative behavior, and facilitate the administration of common properties belonging to the entire community and the provision of public goods. Alternately, lower levels of social capital may restrict the range of transactions that are viable, which would obstruct economic activity.

This study attempts to quantify and analyze the role of social capital in participatory capacity building among rural communities and how their digital and financial inclusion helped them develop pandemic resilience [53,54]. With the help of the activity theory framework, the study attempts to assess the impact of social capital on economic performance in the rural livelihood systems. To serve this objective, it investigates the relationship between changes

in levels of social capital within the community and the presence or absence of formal and informal business enterprises that promote sustainable livelihoods for the villagers. The research question for this case study is: How building and strengthening of social capital within a community affect rural livelihood systems by fostering interactions for identification of common problems, consideration of alternatives, and providing feedback on the implementation of potential solutions for developing socio-economic resilience?

This article summarizes the significant structural transitions observed in the targeted communities during and after the COVID-19 pandemic. The rest of the paper is organized as follows: Materials and methods used in this study are described in Section 2, followed by results and discussion in Section 3. Finally, Section 4 concludes the key highlights of the conducted research work and suggests future directions related to rural livelihood systems and social advances.

2. Materials and Methods

In this case study, the authors contest the idea that social capital accumulation has a favorable and proportionate impact on capacity building through enhanced digital and financial connectivity and improves the economic performance of rural community enterprises. The evidence collected from five different villages: Shisambara, Chakmansha, Dhulkot, Rudrapur, and Bhopalpani, situated in the Dehradun district of Uttarakhand state in India, indicates that social capital is important for the collective civic competence of these rural communities, especially for developing socio-economic resilience during and after the COVID-19 pandemic. This study is based on the data collected through personal interactions, workshops, training sessions, feedback forms, and household survey forms from these villages adopted under the Unnat Bharat Abhiyan (UBA) Scheme by Veer Madho Singh Bhandari Uttarakhand Technical University, Dehradun, from October 2020 to September 2025.

Through greater involvement of the community in the management of educational institutions and community learning centers; digital and financial inclusion of villagers for enhancing the access of the community members to credit, knowledge, networks, and institutions; helped in improving the total stock of available human capital and hence the output productivity of community enterprises established as an initiative towards sustainable rural livelihood systems. In addition to the direct influence of social capital on capacity building, the formation of various community enterprises in the form of self-help groups (SHGs) and farmer-producer organizations (FPOs) on the basis of mutual cooperation and trust helped communities observe a higher rate of return on investment in human capital. For achieving the associated objectives, a community learning center was established for a cluster of Shishamwara, Chakmansha, and Dhulkot, and regular meetings to interact with the villagers were held in Rudrapur and Bhopalpani villages.

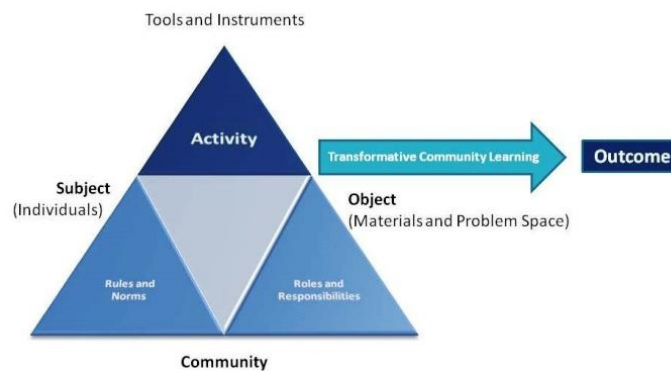


Figure 2. Activity theory framework for transformative community learning.

The first phase of this study was the pre-design research phase. In this phase, an in-depth understanding of the local, cultural, social, technological, educational, and ecological characteristics and demands of the target community was identified [8]. The design, development, implementation, and effective use of ICT and other learning technologies for informal community learning were all influenced by the initial step, which was crucial. In the second phase of this study, formats for various training sessions and survey forms based on the developed theoretical framework in the first phase were designed for the collection of data. The evaluation and assessment of the collected data were carried out in the third phase of this study. A comprehensive analysis helped in the assessment of the effectiveness of various capacity-building exercises by taking into account how they enhance socio-economic resilience as well as the overall economic performance of rural livelihood systems [33].

Table1. Design, implementation and evaluation of community capacity building.

Activity	Objectives	Methods	Sample size
Identification of target communities	Generalised characteristics of communities	Personal interactions, community resource persons	12
Contextual understanding of the community members	Input from the members of the gram panchayats and local organizations regarding target communities	Interviews, Reports, Observations	25
Evaluation of current conceptions survey (SWOT Analysis)	Surveying community members to understand their ideas for community capacity building	Personal Interactions, Survey forms, Questionnaires	100
Capacity building activities	Inputs from experts, trainers, and local community members	Personal Interactions, Feedback forms	200
Base-line survey	Baseline assessment of demographic characteristics, ICT skills, financial access, and knowledge about rural livelihood systems and other issues.	Survey forms, Questionnaires	220
Interventions for capacity building	Quantitative data collection on conducted training programs, workshops and expert talks for the assessment of contribution of capacity building to economic and social resilience.	Registration forms, Questionnaires, Feedback forms	250
End-line survey	Final evaluation of the perception towards rural livelihood systems, comprehending development, and action-motivation	Survey forms, Questionnaires	240
Follow-up survey	Evaluation of follow-up period changes in knowledge, activities taken, and acceptance of community enterprise capacity building measures	Feedback forms, Personal interactions, communication through Whatsapp group	50

Brief descriptions of the data collection methods used for each of these three phases are provided in Table 1. The collected data was analyzed using Activity Theory [55-57] to account for the socio-cultural factors in the process of transformative community learning and capacity building. As illustrated in Figure 2, it serves as a link that connects the subject and the social goals through the mediating activity [58]. This system includes individuals and teams; rules and norms; communities; roles and responsibilities of individuals and teams; mediating activity; tools and instruments; objectives for the activity; and transformative community learning along with the targeted outcomes.

One of the key methodological strategies used by the investigators for this case study is bringing together a team of experts from various organizations and agencies to exchange views, experiences, and best practices with the villagers. Financial, technical, and organizational support for this study was provided by the Veer Madho Singh

Bhandari Uttarakhand Technical University (VMSBUTU), Dhamma Impressions, Unnat Bharat Abhiyan (UBA), Kendriya Khadi and Village Industries Commission (KVIC), National Bank for Agriculture and Rural Development (NABARD), National Rural Livelihood Mission (NRLM), Mahatma Gandhi National Council for Rural Education (MGNCRE), Society for Economic and Social Studies (SESS), and other local volunteer organizations.

Respondents were informed about activities through WhatsApp group messages and telephonic calls. When using intervention for digital and financial inclusion as a mediating tool for transformative community learning, activity theory offers a framework to handle overarching socio-cultural aspects [59,60]. These interventions resulted in the formation of several community enterprises, SHGs, FPOs, etc. in all villages and a Rural Haat in Rudrapur Village. Entrepreneurial forms of social infrastructure helped in the formation of formal and non-formal associations based on mutual trust and reciprocity and, hence, community-level social capital [61]. All these rural business enterprises supported villagers in raising not only their monthly incomes but in improving their health, overall wellbeing, financial security, and civic engagement.

3. Results and Discussion

Human capital, which is represented by an individual's acquired skills and knowledge, is influenced by social capital [15] in many ways. A community with higher levels of human capital further contributes towards the building and strengthening of social capital in the form of active involvement in collective actions and co-learning activities. The educational background of the individuals helps them realize the significance of collective actions for fostering socio-economic resilience. Social capital is basically a bottom-up phenomenon and originates when people form connections and networks to address their socio-economic needs, like employment creation, social cohesion, adaptive responses to unprecedented situations, local economic development, etc. These networks and connections are usually based on mutual trust, reciprocity, and norms [62-65].

A person's life is valued just because of its humanness and his strong commitment to shared social values and established norms for collective actions. High levels of social trust led to positive social outcomes and control the level of crime and corruption. Individuals in high-trust societies see no personal advantage in cheating others [60]. Measuring social capital is of vital importance for the future of our communities. Maintaining higher levels of social capital is often debated among progressive communities. This study measures social capital for the assessment of socio-economic resilience in five communities from five different villages in Dehradun District.

This case study was a collaborative effort that received support from many people and organizations. Basic information regarding the socio-economic background of community members was assessed through the village-level survey form and the household survey form provided under the Unnat Bharat Abhiyan scheme. Through the Village Level Survey Form, data regarding village infrastructure and basic amenities, connectivity via roads, land, forest, and horticulture profiles, as well as the need for energy for public buildings, was gathered. The Household Survey Form, on the other hand, asked about a household's participation in several government programs, its access to water and energy, its landholdings and agricultural practices, and its income sources. In order to answer specific questions on rural livelihood systems, additional methods of data collection were also employed.

Table 2. Key highlights of the case study on participatory capacity building.

ACTIVITY	OUTCOME	INDICATOR	Definition	Baseline	Target	Actual
			How is it calculated	What is the value at project inception	What is the target value?	Value at project close.

Participation in Entrepreneurship Awareness Programs	Awareness about community enterprises	Number of Participants in such programs	Workshops and skill training sessions.	0	180	160
Interactive sessions for Professional Networking	Digital, technical and financial inclusion	Interactive sessions with professionals	Coordinated collective actions and network formation for experience sharing.	2	10	12
KVIC Training Programs	Targeted skill training sessions	Number of Participants	Organised targeted workshops and skill training sessions.	0	5	3
COVID-19 vaccination and personal wellness	Public health and sanitation	Vaccinated population in percentage	Vaccination record	10	100	97
Building and strengthening social capital.	Collective actions and resource sharing	Events for social interactions for community level activities.	Social cohesion and associability	5	15	12
Formation of community enterprises	Self Help Groups and Farmers Producer Organizations	Number of SHGs and FPOs formed in the villages	Established community enterprises in the adopted villages	8	20	20

The collected data from the villages during capacity-building seminars, workshops, training sessions, personal interactions, questionnaires, survey forms, and feedback forms helped investigators identify appropriate and relevant best practices and transformative community learning models. Key highlights of this case study are summarized in Table 2, focusing on the effectiveness of various community capacity-building exercises to assess socio-economic performance in areas like professional networking, building and strengthening social capital, public health and sanitation, civic engagement of community members in various local activities, and the formation of cooperative units as community enterprises.

The productive potential of a community largely depends on characteristics of social organizations like mutual trust, norms of mutual aid and reciprocity, and networks. In other words, obligations and expectations, social norms, and information channels play a crucial role in determining the overall productivity of that community [15]. The civic engagement of community members is a key identifier for prosperity and abundance. Progressive communities became rich because they were civic, not the other way round [51]. A summary of the case study is described in Table 3. The highest participation in conducted activities was recorded from Rudrapur and Chakmansha Villages. Similar trends were recorded for socio-economic performance. Conversely, the lower level of participation of villagers from Dhulkot led to fewer transformational changes.

Table 3. Comparative analysis of participating communities.

Activity	Shishamwara	Chakmanshah	Dhulkot	Rudrapur	Bhopalpani
Household Participation	40	50	10	30	30
Total no of attendees	70	80	20	90	40
Conducted activities	10	12	4	7	5
Number of graduates in village	20	30	10	40	20
Smart phone users in percentage	75	85	60	90	65
Institutional bank accounts	3	4	0	4	4
Community Enterprises	5	6	1	5	4

Average household income (Base-line) INR per month	16000	19000	12000	20000	16000
Average household income (End-line) INR per month	21000	24000	14000	25000	19000

Community capacity-building exercises resulted in the formation of community enterprises and a rural haat. These community enterprises started producing various homecare products, such as insect sticks, detergents, packaged food items, etc. The rural haat of Rudrapur village provided an appropriate platform for the villagers to sell their produce and processed goods. Higher levels of human capital and the support of elected panchayat members and sarpanchs in Rudrapur and Chakmanshah villages positively affected the process of capacity building, the creation of livelihood opportunities, and the development of adaptive responses to the pandemic [4,46]. These villagers could benefit the most from the KVIC and the NABARD programmes. Their increased resilience enabled them to fully benefit from the KVIC and NABARD programs.

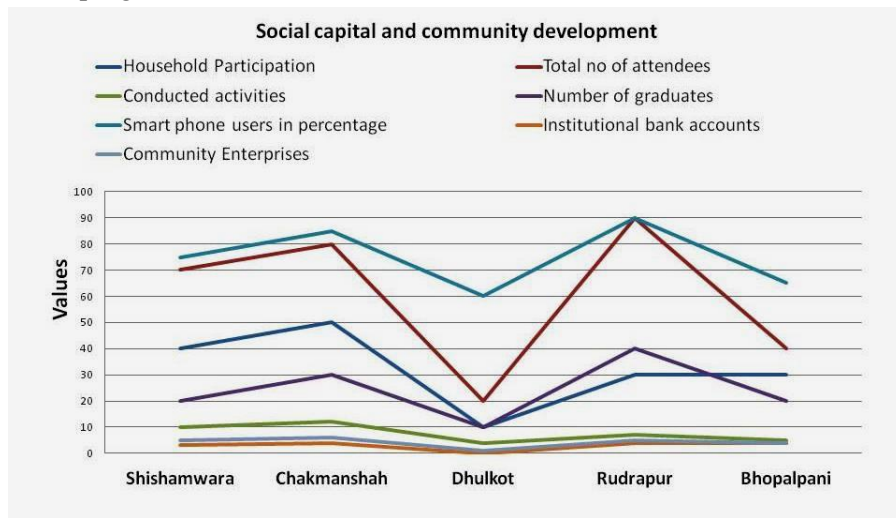


Figure 3. Social capital in capacity building exercises.

Transformational developments recorded in Rudrapur and Chakmanshah villages, as indicated in Figure 3, make it evident that an increase in rural community enterprises has a multiplier effect on the local economy [39]. It leads to a parallel rise in the number of supporting commercial firms and increases the purchasing power of community members to increase their business transactions with other local business owners, transferring a greater share of the productive value of available local resources [33,40,49].

4. Concluding Remarks

Various capacity-building exercises helped in improving the economic performance of the rural livelihood systems by fostering interactions among the community members (bonding and trust) for identification of common problems, consideration of alternatives, and providing feedback on the implementation of potential solutions for their socio-economic wellbeing. They were able to share and exchange ideas, knowledge, and innovation through their interactions with members of other communities and business owners from nearby markets (bridging and norms), which helped to forge consensus among the groups representing various interests. Digital and financial inclusion of the villager and interactions with formal institutions like NRLM, KVIC, and NABARD (linking and networking) provided access to new opportunities in the local economy. Hence, sowing the seeds of *social capital* in the form of

trust norms and networks helped people in their pursuit of developing socio-economic resilience during and after the COVID-19 pandemic.

With the help of the activity theory framework, this case study assessed the impact of social capital on the social cohesion and economic performance of the rural livelihood systems in the villages of Dehradun district. It also demonstrated the benefits of trusting relationships among community members for reaching the goal of sustainable livelihood. In conclusion, it can be said that social capital contributes to the growth of other forms of capitals, the improvement of skills and innovations, the transfer of technology and information, and the reduced costs of transactions in the local economy. Therefore, investments in the creation of social capital helped local community members to observe transformational changes by fostering interactions for identification of common problems, consideration of alternatives, and providing feedback on the implementation of potential solutions for developing socio-economic resilience.

This investigation opens up a wide range of possibilities for future studies. The methodological framework used to conduct this study could be examined in various other empirical contexts. Different dimensions of social capital may further be investigated to examine factors affecting barriers and impediments to the adoption of technological innovations. The negative shades of social capital may also be examined for their role in addressing existing global crises like migration, global warming, food safety, sustainable development, future energy requirements, and others.

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Conflicts of Interest

The author states that there is no conflict of interest.

Ethics Approval

In this research, investigators followed the ethical standards of the institutional and/or national research committee and were in compliance with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. This research work does not contain any studies with animals performed by the author or his team.

Availability of Data and Material

Data related to this study is recorded and can be provided if required.

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