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*Research Article*

# A Systemic Perspective on Community Innovation Practices in Advancing Inclusive Entrepreneurship and Sustainable Livelihood Outcomes

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**Abstract:** This study explores the systemic perspective on community innovation practices and their impact on inclusive entrepreneurship and sustainable livelihood outcomes. By adopting systems thinking, this research provides a comprehensive framework for understanding the interdependencies among various actors, practices, and outcomes within community-driven innovation systems. The study highlights how local innovation practices, driven by collaboration and participatory methods, contribute to addressing social, economic, and environmental challenges in rural communities. Key findings reveal that community innovation practices foster inclusivity by empowering marginalized groups such as women, youth, and persons with disabilities, creating opportunities for entrepreneurial activities and economic growth. Furthermore, the interconnections between social, economic, and environmental dimensions ensure that these practices contribute to sustainable development. Through empirical data collected from community-based innovation initiatives, the study showcases successful examples of grassroots innovation, such as sustainable farming projects and eco-tourism initiatives, which promote long-term resilience, resource management, and socio-economic development. This research offers valuable insights for policymakers, community leaders, and development practitioners, emphasizing the importance of adopting a systemic approach to foster inclusive entrepreneurship and sustainable livelihoods. It also calls for further research on the integration of grassroots and social innovation and the exploration of cultural and regional differences in innovation practices. Overall, the study contributes to the growing body of literature on community innovation, providing a holistic understanding of its role in achieving sustainable development goals.

**Keywords:** Community Innovation; Grassroots Innovation; Inclusive Entrepreneurship; Sustainable Livelihoods; Systems Thinking.

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## 1. Introduction

Community innovation practices play a pivotal role in addressing the challenges of inclusive entrepreneurship and sustainable livelihoods. These practices align with the Sustainable Development Goals (SDGs) by fostering systemic change and resilience through local solutions that are socially, economically, and environmentally beneficial (Jareh, 2025). Community enterprises, especially in disadvantaged regions, capitalize on local resources, cultural heritage, and traditional knowledge to drive economic development, ensuring that these practices contribute not only to immediate benefits but also to long term sustainability (Ruan & Song, 2025). Such practices enhance the resilience and competitiveness of local systems, ensuring that communities thrive in the face of global challenges (Sheik et al., 2023).

However, despite their potential, community innovation practices often suffer from fragmentation and limitations that hinder their effectiveness in achieving sustainable outcomes. One key challenge is the lack of systematic knowledge and comprehensive strategies for implementing inclusive innovation, particularly in regions like sub Saharan

Africa (Grama-Vigouroux et al., 2024). This fragmentation is further compounded by the absence of legal recognition and policy frameworks for social purpose driven businesses, which restricts their ability to foster inclusivity and build inclusive economies (Rodrigues & Teles, 2023). Moreover, the gap between the rhetoric of sustainability and inclusiveness and the actual outcomes of community led innovations underscores the need for place based policies that can drive inclusive innovation practices on the ground (Hooli et al., 2024).

Several challenges also impede the success of community innovation practices, including limited financial resources, inadequate infrastructure, skill gaps, and market isolation, particularly in rural areas (Christodoulou-Volos, 2025). Additionally, the absence of collaborative platforms and resources restricts the diffusion of sustainable innovations, further hindering the potential for widespread, impactful change (Sheik et al., 2023). These barriers emphasize the need for more robust, inclusive innovation frameworks that can overcome the systemic challenges faced by communities striving for sustainable development.

Community innovation practices are increasingly recognized as critical drivers of inclusive entrepreneurship and sustainable livelihood outcomes. At the grassroots level, local innovation ecosystems foster entrepreneurial opportunities by leveraging community driven approaches, which help address social, economic, and environmental challenges. The primary objective of this study is to develop a systemic perspective that explains how these community innovation practices contribute to inclusive entrepreneurship and sustainable development. This study aims to investigate the role of local innovation systems, explore their key components and functions, and examine the impact of community based entrepreneurship on sustainable livelihood outcomes (Christodoulou-Volos, 2025; Stott et al., 2019).

One of the central questions guiding this research is how community innovation practices contribute to inclusive entrepreneurship. Previous studies have highlighted the potential of grassroots innovations in empowering local communities by creating entrepreneurial opportunities, particularly in rural areas (Patnaik & Bhowmick, 2019). These innovations not only contribute to local economic development but also foster social inclusion and environmental sustainability (Gibellato et al., 2024). Furthermore, this study aims to identify the structural components and functions of inclusive innovation systems that contribute to their effectiveness, especially in low income and marginalized communities (Grobbelaar et al., 2017).

Additionally, the study examines how community based entrepreneurship impacts sustainable livelihood outcomes. By exploring the interplay between innovation, entrepreneurship, and sustainability, the research will assess how these practices contribute to long term economic, social, and environmental stability (Dote-Pardo et al., 2025). Lastly, the study seeks to identify the challenges and barriers that hinder the scalability of community innovation practices, particularly in developing countries. These barriers include limited access to finance, inadequate infrastructure, and the lack of policy frameworks that support social purpose driven businesses (Husein et al., 2026; Patnaik & Bhowmick, 2020). Addressing these barriers is crucial for scaling community innovations and maximizing their potential for inclusive development and sustainability.

## 2. Literature Review

### Defining Community Innovation

Community innovation is a crucial process that focuses on solving local problems by leveraging collective actions and the resources available within a community. It is often driven by the need to address the challenges posed by globalization and financial crises, particularly in rural areas. Community innovation emphasizes the importance of social relations and interactions within the community, fostering cooperation among local actors to create resilient and sustainable solutions (Bosworth et al., 2020). Through these collective efforts, community driven innovations help address pressing issues such as environmental conservation, cultural preservation, and gaps in service provision (Patnaik & Bhowmick, 2019). The success of community innovation lies in the active involvement of local stakeholders who share common goals of improving the quality of life and fostering social, economic, and environmental sustainability (Grobbelaar et al., 2017).

Community innovation also plays a significant role in promoting development and sustainability. By integrating local knowledge, resources, and traditions, community

innovations can lead to the empowerment of marginalized groups and foster inclusive economic development (Stott et al., 2019). These innovations have the potential to bring about lasting change by addressing local needs and creating opportunities for economic growth, particularly in disadvantaged regions. In this context, community innovation can bridge the gap between global challenges and local realities, creating sustainable models for development that can be replicated in other communities facing similar issues (Gibellato et al., 2024).

### Inclusive Entrepreneurship

Inclusive entrepreneurship seeks to integrate social inclusion into the process of entrepreneurship, aiming to create economic opportunities for marginalized or underserved groups. The concept revolves around the idea that entrepreneurship should not only focus on economic growth but also on mitigating inequality and promoting social mobility. By developing new business models, products, and services, inclusive entrepreneurship provides pathways for individuals from disadvantaged backgrounds to improve their socio economic conditions (Yeboah et al., 2025). The goal is to create environments where all individuals, regardless of gender, age, or socio economic status, have the opportunity to participate in entrepreneurial activities (Bvochora & Galavotti, 2025). This approach emphasizes the importance of creating systems that support the economic participation of groups such as women, youth, and persons with disabilities.

However, several barriers hinder the success of inclusive entrepreneurship, particularly in rural or marginalized settings. Structural inequalities, cultural norms, and limited access to resources are significant obstacles that prevent many individuals from fully participating in entrepreneurial ventures (Vargas-Zeledon & Lee, 2024). These barriers are exacerbated by systemic gaps in institutional support, which often fail to recognize the needs of marginalized entrepreneurs. On the other hand, enablers such as informal networks, community based support systems, and tailored educational programs can play a pivotal role in overcoming these barriers (Krueger, 2021). By fostering inclusive ecosystems that connect informal and formal support structures, communities can enhance the entrepreneurial potential of marginalized groups and create more equitable opportunities for growth (Chaudhry et al., 2025).

### Sustainable Livelihoods

The concept of sustainable livelihoods focuses on the ability of communities, particularly in rural areas, to utilize their natural, human, social, and economic resources to sustain and improve their well being over time. Sustainable livelihoods are built on a combination of different types of capital natural, human, financial, physical, and social which together form the foundation for livelihood security. This approach emphasizes the importance of community driven initiatives in ensuring that local resources are managed in ways that contribute to both the immediate and long term well being of individuals and communities (Fanany et al., 2017). Sustainable livelihoods are not solely about economic growth but also about enhancing social equity and environmental conservation, thus aligning with broader development goals such as the Sustainable Development Goals (SDGs).

Community participation is key to the success of sustainable livelihood strategies, as it ensures that local knowledge and priorities are central to development efforts (Chen & Wan, 2023). When communities actively participate in the decision making and implementation of development projects, the outcomes are more likely to be sustainable and reflective of local needs. However, achieving sustainable livelihoods is not without its challenges. External interventions often struggle to incorporate community level practices, particularly when these practices conflict with top down development approaches (Yeboah et al., 2025). Effective policy interventions, such as watershed development and community based tourism projects, can significantly improve livelihoods, but success depends on ensuring that interventions align with local contexts and priorities (Matiku et al., 2021). Thus, sustainable livelihoods require a balance between external support and local autonomy, with policies that enhance community capacity to manage resources and create opportunities for economic and social development (Ma & Wang, 2023).

## Systems Thinking in Innovation

Systems thinking has become a critical approach in addressing the complexity of community based innovation and sustainable development. It provides a comprehensive framework that helps understand the interconnections and interdependencies between various components within a system. This approach has been particularly beneficial in social design and innovation, where it is used to organize design activities aimed at enhancing social and cultural values through participatory methods (Chon, 2020). Systems thinking supports the development of replicable models for social enterprises by promoting sustainable community practices. These models are built on an understanding of how different components within a community interact, ensuring that innovative solutions are sustainable and adaptable to various local contexts (Maldonado-Mariscal, 2023).

Another significant application of systems thinking is in the field of Education for Sustainable Development (EfSD), where it is integrated into educational programs to foster an understanding of the dynamics between natural, social, and economic systems. This approach is vital for developing competencies in sustainable development, as it encourages students to think critically about the complex systems they are part of and how they can influence positive change (Schuler et al., 2018). Systems thinking also aligns with the achievement of Sustainable Development Goals (SDGs) by promoting stakeholder collaboration and transitioning from ego centric to ecosystem centric perspectives, which are essential for achieving long term sustainability (Weaver et al., 2026).

Systems thinking has a profound impact on community engagement and innovation, especially within higher education settings, where it supports the development of collaborative learning ecosystems. These ecosystems engage multiple stakeholders, such as students, faculty, and community members, to co create innovative solutions to local challenges. Through these collaborative efforts, systems thinking helps navigate the complex structural and systemic challenges that arise in community involved work (Lake et al., 2022). This approach encourages interdisciplinary learning and fosters a culture of innovation that is grounded in community needs and priorities, making it a valuable tool for advancing social innovation in community based contexts.

However, while systems thinking offers numerous benefits for community engagement, there are still significant gaps in the literature. One of the most notable gaps is the integration of grassroots innovation with broader social innovation frameworks. While grassroots innovation emphasizes local, community driven solutions, social innovation often involves larger scale, social enterprise models. Understanding the complementarities and practical applications of these concepts remains an underexplored area (Maldonado-Mariscal, 2023). Further research is needed to examine how these two types of innovation can work together more effectively to create systemic change and promote sustainable development at both local and global levels.

## Gaps in Literature

Despite the widespread application of systems thinking in community innovation and sustainable development, several gaps persist in the literature. One such gap is the lack of longitudinal studies that assess the long term impact of systems thinking based educational programs on community engagement and social innovation. Research focusing on the long term effects across multiple stakeholder perspectives and contexts could provide valuable insights into the sustainability of these approaches (Lake et al., 2022). Additionally, although frameworks like the Systemic Sustainability Framework (SSF) have been proposed, there is a lack of empirical research examining their effectiveness and real world applications (Weaver et al., 2026). Further studies are necessary to validate these frameworks and explore their potential in diverse community settings.

Another critical gap is the limited attention given to cultural and regional differences in innovation practices. Much of the existing research on community based innovation tends to overlook the influence of local cultures and regional contexts. A framework that categorizes innovation studies based on cultural differences could help tailor innovation strategies to specific settings, ensuring that innovations are relevant and effective within their unique cultural contexts (Valero-Silva, 2023). Addressing this gap would enhance the applicability and impact of community driven innovations globally, ensuring that solutions are both contextually appropriate and sustainable.

## 3. Proposed Method

This study uses systems thinking analysis to examine how community innovation practices contribute to inclusive entrepreneurship and sustainable livelihoods. It focuses on understanding the interconnections within community driven innovation systems, emphasizing the roles of local actors, resources, and their dynamics. Empirical data were gathered from diverse community based initiatives, including agricultural projects and social enterprises, to explore their impacts on social, economic, and environmental outcomes. Data collection involved interviews, observations, and surveys, while analysis utilized thematic methods and systems mapping to identify key components, feedback loops, barriers, and enablers within the innovation processes. This approach aims to provide a comprehensive understanding of how community innovation fosters resilience and inclusivity, and how these practices can be scaled for broader sustainable development (Putranti et al., 2024).

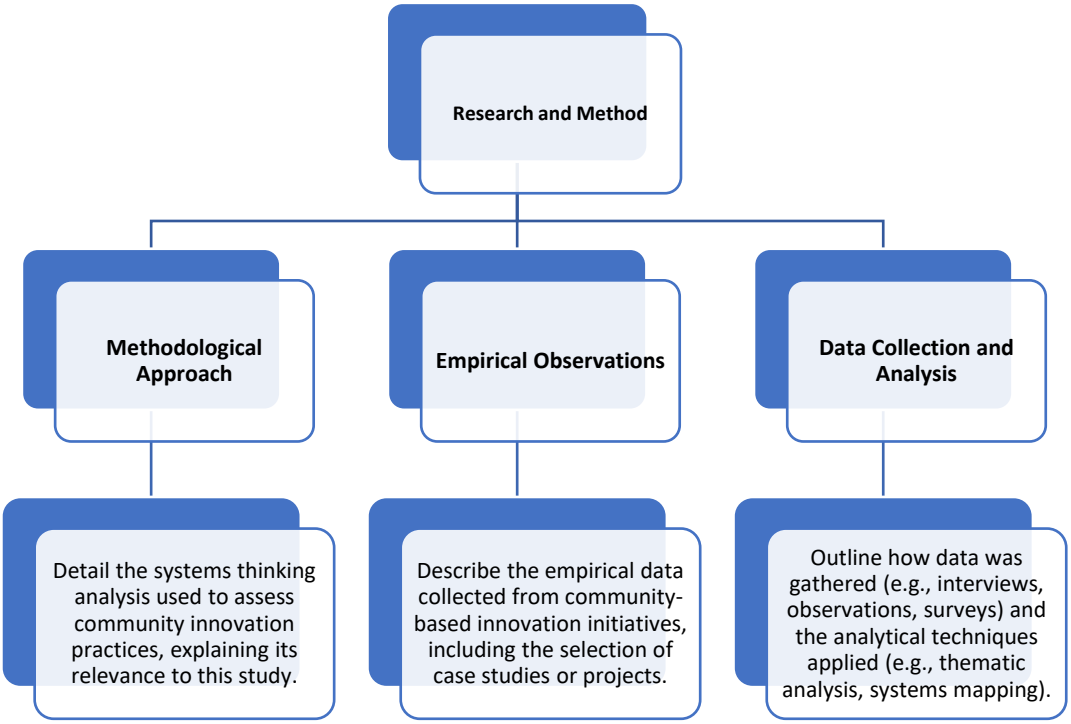


**Figure 1.** Research Methodology Flowchart Structure.

### Methodological Approach

This study employs systems thinking analysis as the primary methodological approach to assess community innovation practices and their contribution to inclusive entrepreneurship and sustainable livelihood outcomes. Systems thinking is particularly relevant for understanding the complexity and interconnections within community driven innovation systems. It provides a holistic framework that accounts for the various components and actors involved in community innovation, highlighting the interdependencies that drive sustainable development. By focusing on the dynamic relationships between local innovation practices, social actors, and the environment, systems thinking allows for a deeper understanding of how community based innovations foster resilience, inclusivity, and sustainability. This approach is essential for examining the systemic nature of community innovation and for identifying effective strategies that can be scaled to foster broader development outcomes.

### Empirical Observations

Empirical data for this study were collected from several community based innovation initiatives, selected for their relevance to inclusive entrepreneurship and sustainable livelihood outcomes. The case studies include projects from rural areas that emphasize local innovation and the integration of grassroots solutions. These initiatives were chosen for their successful

application of community led approaches in solving complex social, economic, and environmental challenges. By selecting diverse cases, the study aims to explore how different community contexts influence the outcomes of innovation practices. These community driven initiatives provide rich insights into the functioning of inclusive innovation systems and their ability to foster both short term improvements and long term sustainability. Examples include local agricultural projects, social enterprises, and sustainable resource management initiatives that demonstrate how communities leverage their resources and knowledge to drive innovation and improve livelihoods.

### Data Collection and Analysis

Data were gathered through a combination of qualitative methods, including interviews, observations, and surveys, which provided comprehensive insights into community innovation practices. Interviews were conducted with key stakeholders, such as community leaders, innovators, and project participants, to capture their perspectives on the challenges, enablers, and impacts of the innovation processes. Observations were made during community meetings and project activities to understand the dynamics of community collaboration and innovation in real time. Additionally, surveys were administered to community members and beneficiaries to assess their experiences with the innovation initiatives and their perceived impacts on livelihoods and inclusivity (Danang et al., 2025).

The analytical techniques used in this study include thematic analysis and systems mapping. Thematic analysis was employed to identify recurring patterns and themes across the data, focusing on the key components and functions of community innovation systems. This method helped to uncover the underlying mechanisms that drive successful innovation in community settings. Systems mapping, a technique grounded in systems thinking, was used to visualize the interconnections between the various actors, resources, and outcomes involved in each initiative. This allowed for the identification of feedback loops, barriers, and enablers that influence the scalability and sustainability of community innovation practices. Through these analytical methods, the study aims to provide a comprehensive understanding of how community innovation practices contribute to inclusive entrepreneurship and sustainable development.

## 4. Results and Discussion

The study highlights the interdependence among innovation actors, practices, and outcomes in community driven innovation systems, showing how local networks foster inclusive entrepreneurship and sustainable livelihoods. By engaging community members, innovators, and external stakeholders, these practices promote economic growth, social inclusion, and environmental sustainability. Key practices like participatory design and knowledge sharing enhance resource accessibility and job creation, while ensuring long term development goals are met. The empirical data from case studies, such as sustainable agriculture and eco tourism projects, demonstrate how grassroots innovations lead to tangible improvements in livelihoods, highlighting the potential for scalable solutions that balance social, economic, and environmental needs.

### Results

The key findings of this study reveal a strong interdependence among innovation actors, practices, and outcomes within community driven innovation systems. The community innovation practices are interconnected through collaborative networks that engage local actors such as community members, innovators, and external stakeholders. These networks form the foundation of local solutions to challenges such as poverty, environmental degradation, and social exclusion. Through participatory methods, community members actively engage in creating innovative solutions, which, in turn, foster social cohesion and inclusivity. The study also identified key practices, such as participatory design and knowledge sharing, that allow these systems to thrive. These practices are instrumental in enhancing economic opportunities, improving resource accessibility, and ensuring that innovation contributes to long term development goals.

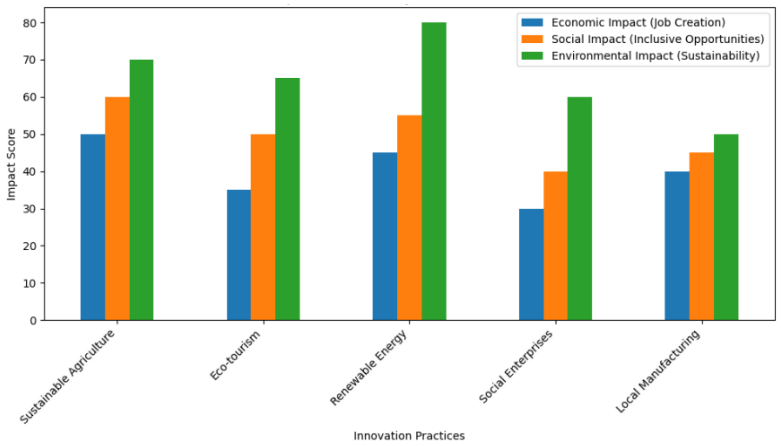


**Figure 2.** Impact of Community Innovation Practices.

The graph above illustrates the impacts of various community innovation practices in terms of economic, social, and environmental outcomes. Each practice ranging from sustainable agriculture to social enterprises demonstrates varying levels of impact across these dimensions. For instance, sustainable agriculture has the highest environmental impact, while social enterprises show notable gains in social inclusivity and job creation. This data supports the discussion on how community driven innovations not only foster economic growth but also promote social equity and environmental sustainability.

The study further revealed that the outcomes of community innovation practices extend beyond economic growth, fostering inclusivity and resilience. Local innovation efforts lead to tangible benefits such as job creation, improved livelihoods, and strengthened social ties within the community. Importantly, the research showed that these outcomes are interlinked with environmental sustainability, as many community innovation initiatives prioritize sustainable practices like organic farming, renewable energy, and eco tourism. The ability of local communities to drive these changes through grassroots innovation suggests a model that is not only inclusive but also adaptable, providing a path to sustainable livelihoods for future generations.

## Discussion

The interdependencies identified in this study are critical in advancing inclusive entrepreneurship and fostering sustainable livelihoods. By involving multiple stakeholders, community innovation practices create opportunities for marginalized groups, including women, youth, and persons with disabilities, to participate in entrepreneurial activities. This inclusivity is a significant driver of economic growth, as it broadens the base of participants in the economy and creates a more diverse and resilient business ecosystem. The collaborative nature of these systems ensures that community members actively contribute to the design and implementation of innovation projects, which enhances the sense of ownership and long term commitment to sustainability. Moreover, these initiatives integrate local knowledge and resources, making them more adaptable and relevant to the unique challenges faced by each community.

Sustainability is embedded within these community driven innovation practices, as they balance social, economic, and environmental needs. Initiatives such as sustainable agriculture projects, eco tourism, and renewable energy solutions demonstrate how local communities can manage their resources effectively to achieve sustainable development. These practices show that economic growth does not have to come at the expense of the environment or social equity. Instead, by prioritizing inclusivity and environmental stewardship, community innovation contributes to long term resilience, fostering an ecosystem where innovation supports both social and environmental sustainability.

Insights from empirical data further support the idea that community innovation practices can serve as models for inclusive entrepreneurship and sustainable development. Case studies from rural areas, such as a sustainable farming initiative and an eco tourism project, highlight how community driven innovation leads to tangible improvements in livelihoods and environmental conservation. These initiatives demonstrate that grassroots

innovation can offer scalable solutions to local problems while promoting sustainable practices that benefit both the community and the broader environment. These findings underscore the importance of community engagement in driving innovation that is not only inclusive but also sustainable, providing a blueprint for other regions facing similar challenges.

## 5. Comparison

In community innovation research, reductionist approaches often focus on isolated elements or individual components of innovation, such as specific practices, actors, or outcomes. These approaches tend to examine parts of the system without considering the broader context or interconnections that exist among them. In contrast, the systemic perspective applied in this study offers a more comprehensive view by recognizing the complex interdependencies between various actors, practices, and outcomes. Rather than treating community innovation as a series of discrete events or interventions, the systemic approach examines how different elements influence one another and how they work together to produce sustainable and inclusive outcomes. This broader approach challenges the limitations of reductionist models, which may overlook critical factors such as collaboration, social dynamics, and environmental sustainability, all of which play a crucial role in the success of community innovation initiatives.

The systemic perspective provides a more holistic understanding of community innovation by emphasizing the interconnectedness of social, economic, and environmental dimensions. While reductionist approaches often isolate these aspects, the systemic approach integrates them, recognizing that community driven innovation cannot be fully understood without considering the relationships between various factors. For instance, this study demonstrated how community innovation practices foster inclusivity and sustainability by addressing local economic challenges while promoting environmental conservation and social cohesion. By considering the interdependencies between actors, practices, and outcomes, the systemic approach provides a more nuanced understanding of how community innovation contributes to long term, sustainable development. This approach enables researchers and practitioners to identify leverage points within the system that can amplify positive impacts and mitigate challenges, offering a more comprehensive framework for supporting community driven change.

The systemic perspective has important implications for future research on community innovation and sustainable development. By focusing on the interactions between different system components, future studies can explore how different actors and practices contribute to the overall success of community based innovation initiatives. Additionally, this approach encourages longitudinal studies that assess the long term impacts of community innovation on entrepreneurship and livelihoods, offering insights into the sustainability of these initiatives over time. Future research can also explore how systemic frameworks can be applied to various contexts, considering cultural, regional, and socio economic differences that may influence the effectiveness of community driven innovations. By shifting from a reductionist approach to a more holistic, systems oriented framework, future studies can develop more robust strategies for fostering inclusive entrepreneurship and sustainable livelihoods in diverse community settings.

## 6. Conclusions

This study highlights the critical role of a systemic perspective in understanding community innovation and its contributions to inclusive entrepreneurship and sustainable livelihoods. Key findings indicate that community innovation practices operate within a complex system where various actors, practices, and outcomes are interdependent. By emphasizing collaboration, local knowledge, and participatory methods, these practices foster inclusivity and sustainability. The study demonstrated that community driven innovations not only address local economic challenges but also contribute to environmental conservation and social cohesion. The interdependencies between social, economic, and environmental dimensions, as revealed through this systemic approach, offer a comprehensive understanding of how innovation in community settings can lead to long term, sustainable outcomes.

The findings of this study have significant implications for policymakers, community leaders, and development practitioners. Policymakers should consider adopting a systems

oriented approach when designing and implementing policies that support community innovation. This approach encourages the integration of social, economic, and environmental goals, ensuring that innovations are inclusive and sustainable. Community leaders and development practitioners can benefit from recognizing the interconnected nature of community innovation systems, as this understanding will guide the development of more effective strategies that promote collaboration, build capacity, and address systemic challenges. Additionally, fostering supportive ecosystems for innovation through appropriate legal frameworks, resource allocation, and capacity building initiatives is essential for empowering marginalized communities and scaling successful innovation practices.

Future research should focus on expanding the understanding of community innovation through a systemic lens. Longitudinal studies are needed to assess the long term impacts of community driven innovation practices, particularly in relation to inclusive entrepreneurship and sustainable livelihoods. Research can also explore how the systemic perspective can be applied to different cultural, regional, and socio economic contexts, providing valuable insights into the adaptability and scalability of community innovation practices. Additionally, further exploration of the integration of grassroots innovation with broader social innovation frameworks would help identify how these concepts can complement one another to create more impactful and sustainable community driven solutions. By advancing research in these areas, future studies can contribute to the development of more effective policies and practices that foster inclusive and sustainable community innovation globally.

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