CO-CREATION OF COLLECTIVE VALUES: NURTURING THRIVING RURAL ENTREPRENEURSHIP

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| ABSTRACT

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Background: Collaboration plays a very important role in fostering a thriving entrepreneurial ecosystem, unlike rural areas, which have constraints compared to urban areas and require special efforts to accelerate their economies.

Purpose: This paper aims to explore how actors collaborate to create a prosperous entrepreneurial ecosystem in rural areas.

Design/methodology/approach: We conducted a case study of Koto Mesjid Village, Indonesia, which involved collaboration between academics, government, business, and the community. Our research method involved content analysis of recorded academic reports regarding the case, using a systematic coding technique based on fundamental categories identified through a proposed model. The aim is to elucidate the relational dynamics among the ecosystem's actors, values, co-creation, and objectives.

Findings/result: Our findings highlight the exchange of resources between the actors produced value that reformed the condition of rural entrepreneurial ecosystem. Collaboration led to densification and diversification of the ecosystem's resources, which in turn allowed its actors to discover new opportunities and increase their success in exploiting them.

Conclusion: Building networks has the critical role to exchange knowledge in nurturing rural entrepreneurship. Policy makers can facilitate such networks to develop villages and promote regional economic growth.

Originality/value: This study contributes to the conversation of service-dominant logic in the regional economic context by demonstrating that the co-creation of collective values is achievable and crucial for developing a thriving rural entrepreneurial ecosystem.

Keywords: entrepreneurial ecosystem, service-dominant logic, value co-creation, regional development, rural

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INTRODUCTION

Entrepreneurship is the process of discovering and exploiting business opportunities (Barach and Rider, 2023). This process is influenced by several factors, including the region where the entrepreneur operates (Demirel and Mülazımoğlu, 2022). Regions providing adequate support and resources tend to facilitate the entrepreneurship process better than those not. Urban areas, for instance, offer advantages that encourage their communities to exploit business opportunities (Thees et al. 2020). On the other hand, rural areas face limitations in developing entrepreneurship compared to urban areas. These limitations include limited facilities for production, poor accessibility to markets, and a lack of supportive business networks (Syahza et al. 2023). As a result, rural communities, especially entrepreneurs, are unable to utilize and develop their potential to build and grow businesses (Utete and Zhou, 2024). This low ecosystem support for entrepreneurship performance in rural areas highlights the need to develop a vibrant rural entrepreneurial ecosystem to drive economic growth and job creation in these communities.

Previous entrepreneurial ecosystem inquiries suggest composition of factors, dimensions, components, or elements. The composition of the entrepreneurial ecosystem reflects the ecosystem itself in achieving its goals (Inada, 2024). Likewise, a rural entrepreneurial ecosystem that aims to make the entrepreneurial process successful requires appropriate building blocks (Asmit et al. 2024). Prior studies on rural entrepreneurial ecosystems review the critical composition of ecosystems. These components include networks (Bichler et al. 2020; Galvão et al. 2020), governance (Miles and Morrison, 2020), human capital and knowledge creation (Lyons et al. 2019; Bedő et al. 2020), as well as market (Cunha et al. 2020). The network connects entrepreneurs with other business members, the workforce, and potential markets (Neck et al. 2004). The market is important in rural areas, and this component challenges the remoteness (Xu and Dobson, 2019). Better market accessibility can contribute to the sustainability of the rural entrepreneurial ecosystem (Cunha et al. 2020). Policy, infrastructure, and finance are components that support the ecosystem by providing regulation (Cowell et al. 2018), access to the market and resources, and funding opportunities for entrepreneurs (Ngongoni et al. 2017). In rural areas, natural resources play a crucial role in the entrepreneurial ecosystem, enabling

the specialization and production of typical products from available resources (Miles and Morrison, 2020; Aguilar, 2021). The discussion of essential components of rural entrepreneurial ecosystems encompasses human capital, entrepreneurial culture, environmental resources, infrastructure, network, market dynamics, financial systems, and supportive policies.

The composition of the rural entrepreneurial ecosystem cannot be separated from actors that are attached to knowledge, experience, and culture. Actors in entrepreneurial ecosystems improve human capital by knowledge spillover and exchanging ideas among individuals (Qian, 2018). For instance, the existence of academic actors in the ecosystem helps shift people's intentions toward entrepreneurial activities (O'Brien et al. 2019). Another essential component is entrepreneurial culture (Spigel, 2017), which shapes the knowledge and experience of entrepreneurs and influences the established entrepreneurial values within the actors (Connelly, 2018).

The entrepreneurial ecosystem provides the services the actor needs to liven up entrepreneurial activities. As the active components, the actors need a suitable ecosystem so that they can benefit from it to revive rural entrepreneurship (Roundy and Burke-Smalley, 2022). Reciprocally, the ecosystem needs the actors' contribution to develop entrepreneurial condition (Kuckertz, 2019). Both ends can contribute to shaping the entrepreneurial ecosystem (Hruskova, 2024), forming and developing it in a bottom-up process (Thompson et al. 2018) or initiated by the strategic level actors (Connelly, 2018).

Various approaches have been taken to discussing rural entrepreneurial ecosystems and have contributed to enriching knowledge of, for instance, the ecosystem's structure (Muñoz and Kimmitt, 2019), activities (Galvão et al. 2020; Guerrero and Santamaría-Velasco, 2020), and output (Bakas et al. 2019). However, little is known about how entrepreneurial ecosystems have historically grown from the founding of entrepreneurial platforms to the latest conditions in rural areas. Therefore, to address this knowledge gap, this paper aims to explore how collaboration founded and reformed rural entrepreneurial ecosystems.

This paper delineates the concept of the rural entrepreneurial ecosystem, focusing on the interactions among actors and the cultivation of entrepreneurial values within rural areas. To address this inquiry, we present a case study of the entrepreneurial ecosystem in Koto Mesjid Village, Indonesia. Through this case study, we demonstrate how actors collaboratively co-create and co-develop components of the entrepreneurial ecosystem. Finally, the article spotlights the pivotal role of actor-driven co-creation and proposes potential research directions for rural entrepreneurial ecosystems.

METHODS

The case study can achieve the research objective of seeing how co-creation works in a rural entrepreneurial ecosystem. So, it is necessary to select a case with specific criteria, namely the possibility of collaboration between actors exists, components of the entrepreneurial ecosystem, and has records of accomplishments in entrepreneurial growth. In this way, this study can prove the contribution of co-creation to these achievements. Koto Mesjid Village is the proper case to explore the involvement of actors in building an entrepreneurial ecosystem. This village is active in conducting entrepreneurial activities. Moreover, the involvement of actors in this village often occurs, not only academics from higher education that do research and community services, but there are government and enterprises also involved (Zulkarnain et al. 2021). The information obtained for the case of Koto Mesjid Village is gained from published academic works, either journal articles or report documents. We utilize Google Scholar for this specific content because it indexes scholarly documents from any source, addressing the limited coverage found in other databases. The scope of the analysis specifically focuses on the text within the results, discussion, and conclusion sections. We only seek the author's original statements regarding their work. Subsequently, the acquired text data is scrutinized, with an emphasis on the focal points that align with the current study's research questions.

The search protocol starts with "koto mesjid" as search keyword in title and abstract with no published year restriction. The initial selection process was confined to open full-text access and English language. Then we select documents presenting field report findings with topics of knowledge transfer, institutional arrangements, governance, and inter-actor networks. We filter out papers that were literature reviews or secondary analyses. The search protocol above creates a dataset of ten documents (Table 1).

Table 1. Summary of content analysis on actors' involvement in value co-creation

Document	Involved actors	Co-creation	Created value
Karimi et al. (2005)	The community participates in the resettlement planning along with the government.	Co-planning of the resettlement increased the Koto Mesjid Village's economy after the resettlement.	There was public consensus that reaching the collective purpose within the ecosystem is essential.
Karimi and Taifur (2013)	The government provides compensation for the community and infrastructure that boosts productive capacity at resettlement. The improving economy of Koto Mesjid village attracts other business actors who see it as a new emerging market.	Actors' interaction can improve the community facilities and infrastructure. Together, they define the needs for productive living, which includes electricity, water, health, and education. Utilization of local potential, that is, water for fish farming, for the communities' new source of income. This leads to the forming of a fish marketing network between fish farmers, food industries, and markets outside the village.	The improving productive capacity of Koto Mesjid Village is necessary to guarantee the success of the resettlement program for a better economy in the new place.

Document	Involved actors	Co-creation	Created value
Fujikura and Nakayama (2013)	Community involved in conducting new income source. The government gave cash compensation for new job opportunities.	The government compensates the community with cash to exploit the new opportunities upon resettlement. The community makes new income sources from the exposed opportunities. The new jobs raise the success of the regional economy.	Exploiting business opportunities shows the growth of the village's entrepreneurial culture. The policy of compensating cash supports the early stage of the entrepreneurship process. New demand (market) emerges as the economy grows.
Adianto et al. (2018)	The government intervened by sending extension workers who had expertise in fish farming. Extension workers helped the community adopt fish breeding and feeding practices. The community benefited from the extension workers' guidance and shared their experience in fish production with other farmers.	The extension worker conducted a participatory assessment of the community's needs, resources, and practices. The worker provided recommendations for improving fish farming. The community adopted the proposed innovation, which resulted in lower operational costs in aquaculture.	The fish farming system benefits from natural resources and shared resources of community businesses. Collective knowledge and experience (human capital) about the fish farming system led to the village's competitive advantage.
Andrianus et al. (2019)	After 20 years of resettlement, the welfare of the second generation decreases because the amount of family assets decreases with the number of family members.	Suggest an empowerment program for the second generation, and it can involve other actors (university, government, and business entities) to contribute. In addition, this generation's economic potential can be the key factor for rural economic development.	The empowerment of the second generation and the supportive policy to encourage the economy.
Zulkarnain et al. (2021)	The government and PT Telkom have contributed to empowering the Koto Mesjid Village. A network of fish farmers formed and shared values. The shared values of the fish farmers network are the characteristics of knowledge, education, and pond management (natural resources).	Fish farmers' characteristics make them comfortable communicating and fulfilling their needs in the aquaculture business together.	The parity of human capital of the local business actors can reach the collective purpose within their ecosystem.
Savitri et al. (2021)	The village government transparently manages the Allocated Village Fund (AVF), and the community can supervise it.	Together with the village government, the community monitors the AVF for the progress of village infrastructure, which is helpful for the village business productivity. Openness and transparency improve the local government's accountability and management of the AVF.	Better management of funding for village productivity and infrastructure development.
Adianto and Vani (2022)	Inherited from their ancestors, the village community values family bonds and collective solidarity. An extension worker, an expert in the fisheries sector, proposes a viable solution to enhance the villagers' livelihood and provides evidence to support it.	Community trust in the extension worker, and together, the community adopts the innovative technology of fish breeding and feed to achieve a competitive advantage in the fish farming business.	Favorable business ecosystem (network) for fish farming. Innovation adoption among the village community (entrepreneurship culture).

Table 1. Summary of content analysis on actors' involvement in value co-creation (continue)

Document	Involved actors	Co-creation	Created value
Muthmainnah et al. (2023)	The government builds the village by empowering the community and growing the community's existing businesses. Fish farmers benefit from local resources to run their businesses.	Government and community co- create an advantageous business ecosystem of aquaculture and fish processing (sustaining the market, resources availability, and network),	Business network of fish farming. Supportive policies and infrastructures to sustain the fish farming business.
Zainal et al. (2023)	The village government disseminates the program of tourism village to the community. Shared knowledge by academics about tourism. Community forms tourism awareness group.	Exchanging resources among private, academic, and government to co-develop fishery tourism.	Collaborative network between actors to develop tourism in the village.

Table 1. Summary of content analysis on actors' involvement in value co-creation (continue)

This study involves content analysis to gather data and qualitatively interpret the result (Tunison, 2023). Content analysis requires data related to actors' involvement, co-creation, and its benefits for the entrepreneurial ecosystem within the rural context. The main steps of this method (adopted from Luo, 2022) are selecting the content to analyze, defining the units of analysis, developing a coding protocol, coding the text, analyzing the result, and finally drawing the conclusion.

The coding schema is derived from fundamental categories identified through the previous model (Figure 1). The primary objective is to address the research questions pertaining to the components of the entrepreneurial ecosystem (comprising both actors and shared values), "co-creation", and "created value". The coding for actor groups encompasses "academia", "business", "government", and "community". While codes for shared values are "market", "entrepreneurship culture", "environmental resource", "infrastructure", "network", "human capital", "financial system", and "policy". The coding process is succeeded by a qualitative interpretation that aims to elucidate the relational dynamics among the ecosystem's actors, values co-creation, and the ecosystem's objectives. At this stage we analyzed the data for the possible pattern regarding the research objective. We consider the document's published year and theme connection with other documents. For instance, papers discussing the same topic as the foundation of fishery farms published their documents in a near period; they can confirm each other's information.

As discussed in the introduction, rural entrepreneurial ecosystem consists of the essential components of human capital, entrepreneurial culture, environmental resources, infrastructure, network, market dynamics, financial systems, and supportive policies. The actors in the entrepreneurial ecosystem interact with each other in the network. An actor could exchange knowledge and collaborate to adapt to the dynamic ecosystem. The actors have separate roles in emerging entrepreneurship activities. The dynamic interaction of actors in an entrepreneurial ecosystem depicts the service-dominant (S-D) logic (Vargo, 2020). The rural entrepreneurial ecosystem condition embodies the five main concepts of S-D logic, which are actors, service, value, institutions, and resources The narrative of S-D logic starts with actors involved in resource integration and knowledge exchange to make value co-creation successful in the ecosystem (Novani et al. 2023). Similarly, rural entrepreneurial ecosystems involve actors in growing components of the entrepreneurial ecosystem.

Accordingly, this study's propositions are value cocreation within a network of actors drives the evolution of rural entrepreneurial ecosystems (1); then, this evolved ecosystem provides essential support for these actors' successful entrepreneurial activities (2). Building upon these propositions, we introduce a theoretical framework (Figure 1) illustrating how the value co-creation process reshapes and advances the rural entrepreneurial ecosystem through dynamic interactions among actors, eventually enhancing their collective impact.

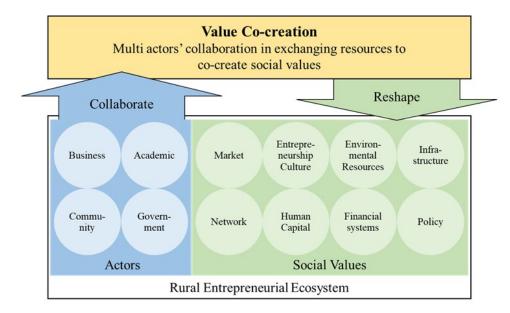


Figure 1. Theoretical framework of value co-creation evolves the rural entrepreneurial ecosystem

RESULTS

Coding and Analysis Result

The contents in the analyzed documents inform the involved actors, co-creation, and created value. Various actors participate in the entrepreneurial ecosystem, namely local government, community, business actors, and academics. This confirms this study's proposition that the actors involved comprise these four groups. In the coding results, we also identified a co-creation process. Codes derived from co-creation are in the form of "co-planning," "co-develop", "collaboration", "network", "participatory", "recommendation", "adoption", "kinship", "togetherness", "involve other", "shared knowledge", "building trust", "mutual understanding", and "exchanging." We use the formula emanating from the proposed model to interpret the coding. So, the narrative of the interpretation will be the "involved actors" in the "co-creation" process producing "collective values" for rural entrepreneurial ecosystem development. Table 1 displays the understanding of the coding results grouped into categories, namely involved actors, co-creation, and created values.

Another point of view interpreting the result is investigating the phase of the development of rural entrepreneurial ecosystem. From the analysis of contributing actors (variety and density) and output of the co-creation process, we can divide into three phases of entrepreneurial ecosystem happened in Koto Mesjid Village. The three phases are co-planning the village resettlement, co-creating robust potential-based local businesses (fishery industry), and co-expanding entrepreneurial activities (tourism sector). We find mostly the documents discussed about the second phase ecosystem, which is the development of fishery farms and industries. Therefore, the second phase could be discussed in two parts. The first part is the beginning of fishery local business in the rural entrepreneurial ecosystem. Then, it followed by the second part is telling us about how entrepreneurial ecosystem supports the development of fishery business. We illustrate the formation of values and actor collaboration in Figure 2. Furthermore, these findings are discussed in the following passages.

The entrepreneurial ecosystem in Koto Mesjid village has evolved since its formation. Koto Mesjid Village emerged because of resettlement necessitated by the construction of the Koto Panjang power plant dam. The displacement caused by the dam prompted the relocation of residents from the inundated area to Koto Mesjid Village. Initially, the livelihood of the inhabitants centered around rubber cultivation. Presently, the socio-economic activities in Koto Mesjid Village encompass rubber farming and the aquaculture of pangasius fish (patin) (Andrianus et al. 2019). The village's multifaceted economic pursuits have led to its recognition as "Kampung Patin," denoting its specialization in pangasius fish production and the development of various derivative products. The village's achievement illustrates the re-establishment of the ecosystem, where conditions are different from the previous ecosystem condition.

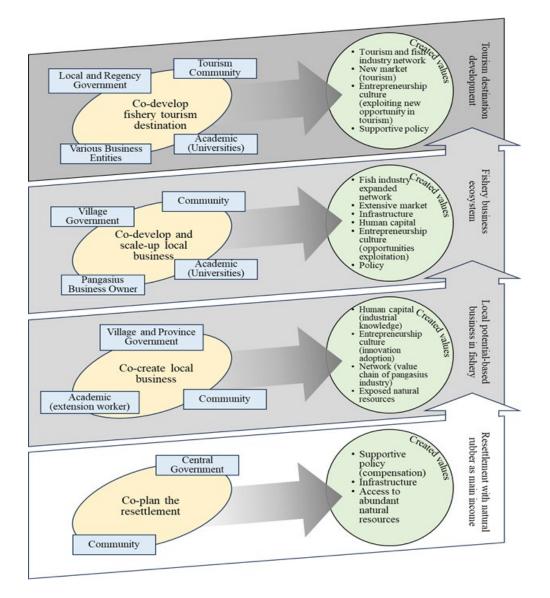


Figure 2. Phases of evolving rural entrepreneurial ecosystem in Koto Mesjid Village

Co-Planning The Resettlement Village

This study shows that the government has a vital role in engineering the entrepreneurial ecosystem. The government involvement can be seen in every document analyzed. The levels of government involved vary and produce different outcomes in each phase of entrepreneurial ecosystem development. The formation stage of the entrepreneurial ecosystem in Koto Mesjid Village results from the cooperative efforts between the local, provincial, and central government and the residents. The dam project is a national strategic activity involving two provincial governments. The government is also discussing resettlement with the community in accordance with community needs and available resources. On the other hand, in this phase, the community plans the resettlement by conveying aspirations for the ideal thing for them in the resettlement program. This includes a source of income, a rubber plantation, which they will use for the family economy. In this way, community consensus supports the success of the resettlement program. This cooperation is manifested in planning social facilities such as health and education, as well as infrastructure such as electricity and roads, all aimed at increasing the productive capacity of the residents (Karimi et al. 2005). The government also provides compensation through business capital so that people can open businesses in the resettlement area. Rubber plantations are not the only source of community income; with capital, people could start a business. The government and community are involved in value co-creation of the ecosystem activities, namely co-planning the suitable platform for entrepreneurship. However, the planning did not work as it should. People who expect a source of income from natural rubber end up with less productive plants. Adianto (2018) reported that lack of knowledge in cultivating natural rubber was one of the factors. The residents' primary livelihood from the origin depends on the river, and it is quite difficult to adapt to high land. During this phase, the resettlers depend on financial compensation to fulfil their needs. This condition leads the community and government to strive to find an alternative livelihood that we find in the next phase of their entrepreneurial ecosystem.

Co-Develop Potential-Based Business In The Village

Koto Mesjid village tried to develop the local potentialbased businesses after failing to benefit from the resettlement at an early period. One significant natural resource gifted to the area is groundwater, which has enabled them to cultivate pond fish (pangasius) livestock. Villagers traditionally cultivate pangasius. The government intervened by sending an extension worker who had expertise in fish farming to exploit the exposed resources (Adianto et al. 2018). The extension worker convinced the community to adopt new fish breeding and feeding practices. By adopting these practices, fish farmers take a step forward in creating a sustainable local business. The community benefited from the extension workers' guidance and shared their experience in fish production with other farmers. Moreover, the development of infrastructure supporting the fishery business ecosystem, such as fish breeding facilities, impacts the increasing production in the village. At this phase, the extension worker, in addition to the actors' network, co-develops the competitive advantage in local business production.

The economic growth in Koto Mesjid Village has led to an increase in external interest and internal development. For instance, the demand for pangasius fish is not only from locals but also from other cities. Networking with the outside market to obtain information on consumer preferences and competition is crucial for further growth and development. Business actors in Koto Mesjid Village increase their human capital, either in business or technical knowledge, to grow. For this reason, networking with institutions that can enhance human capital, such as universities, fulfils this need. As a result, the village expands the market by producing its product diversification, such as smoked fish, frozen food, and fish floss. Meanwhile, their skills in managing fish cultivation are also developing with the presence of academics who are experts in fisheries. Concurrently, the village's economic growth has attracted businesses outside the village, who now see the village as a potential market for their products (Karimi and Taifur, 2013).

Other than serving local businesses, collaboration between actors also increases the capacity of local government to manage village fund allocations. Savitri et al. (2021) recommend the need to train village government staff and heads in managing village finances. Institutions from outside the village, such as higher education institutions and consultants, are needed to meet these needs. The increased capacity of the village government is evident in the quality of good governance. Moreover, the village government can produce creative policies supporting this region's entrepreneurial activities. One of the policies is that the local government urges the community to consume fish, guaranteeing the local demand. Apart from that, village funds are allocated to build infrastructure facilitating downstream aquaculture, such as fish processing facilities.

Andrianus et al. (2019) noted that the welfare of the second generation in a self-sustainable ecosystem is not as good as the first generation. This is because the first generation was privileged to receive government assistance. In contrast, the second generation does not have access to such privileges. This is especially true for non-wealthy families with few assets to pass on to their children. However, the second generation is crucial for the sustainability of the ecosystem, particularly when it comes to family businesses that have inherited knowledge that needs to be passed on to future generations. In addition, it is not enough for a community to rely on only one type of local business for long-term sustainability. Therefore, it is essential that the community continuously shares knowledge and learns from a growing network of actors. This will enhance the community's entrepreneurial capabilities, enabling actors within the ecosystem to recognize and exploit business opportunities. This is the fundamental function of the entrepreneurial ecosystem.

The Growing Network That Opens New Opportunities

The Koto Mesjid Village proves that its entrepreneurial ecosystem can recognize new opportunities to sustain the economy, including an opportunity to develop the tourism sector. A network of actors continuously expanding and densifying enriches the shared resources. Zainal et al. (2023) reported that the Kampar Regency Government projected the Koto Mesjid village as a tourism destination. The village government then initiated promoting tourism by disseminating information about the program to the community. The community formed a tourism awareness group to raise awareness about the program's benefits. Universities have also contributed to this effort by sharing their knowledge about tourism. To co-develop fishery tourism, the private, academic, and government sectors have exchanged resources and collaborated to create a sustainable and profitable tourism industry. This has led to forming platform values for further abundant business opportunities in the tourism sector (Cunha et al. 2020; Takaendengan et al. 2022).

The Koto Mesjid Village case study states that collaboration between actors defines the function of the village entrepreneurial ecosystem. According to Baranova (2024), the ecosystem needs to promote the interaction of involved actors to develop regional entrepreneurship in line with the needs of the actors. The components they develop together are infrastructure, network, environmental resources exploitation, governance and policy, market, allocated village funds, entrepreneurial culture through generations, and human capital development. All these developed components come from the co-creation of the actors who form the ideal village entrepreneurial ecosystem to support entrepreneurship.

Managerial Implications

This study finds that the diverse actors involved bring the rural entrepreneurial ecosystem to the next growth phase. Therefore, the lead actors in rural development, namely rural leaders and academics, should be able to improve the actor's network. This is done by facilitating intense interaction with more diverse actors, such as business practitioners, environmental experts, and government agencies across sectors, because this will encourage the exchange of diverse resources. Enriching knowledge and resources would increase the actors' competencies in discovering and exploiting novel entrepreneurial opportunities. This study also finds that interconnection components empower actors to execute entrepreneurial opportunities. The evolved components increase their supporting capacity for rural entrepreneurship. Therefore, rural leaders should strategically evolve each ecosystem component based on local priority. For example, leaders can develop infrastructure to support local businesses in accessing resources and markets efficiently. Lead actors can enhance value co-creation by strategically aligning efforts and driving rural entrepreneurship development.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The rural entrepreneurial ecosystem's ability to support rural entrepreneurial activities depends on the performance of both actor and non-actor components. The actors play an essential role in defining the quality standards for the ecosystem. The steps taken are to facilitate actors' collaboration, namely government, business, community, and academics. The current study confirms previous studies focusing on rural entrepreneurial ecosystems. The role of the community's leader since the first phase is in line with Miles and Morrison (2020) and Kline (Kline et al. 2020), where the leader recognizes the condition of the area and the people there so that the government issues appropriate policies to achieve common goals. Likewise, other actors, in line with Mutumba et al. (2019), benefit from the network to be able to develop and maintain typical local businesses as depicted in the second phase. Apart from actors, this research agrees with Guerrero and Santamaría-Velasco (2020) that entrepreneurial activities impact regional development. Collaboration of actors enables value co-creation, starting from knowledge and experience exchanges to producing new standards for the non-actor components, namely human capital, environmental resources, infrastructure, policy, entrepreneurial culture, market, financial system, and network. Like other levels of territory, the formed entrepreneurial ecosystem in rural areas has its composition of components. The difference made by the rural with good economic conditions is how big each component contributes to the rural economic development. Actors reshape the supporting

components representing the collective achievement of actors within the entrepreneurial ecosystem. The findings of this study regarding ecosystem development from an S-D logic perspective confirm the service ecosystem model by Goda and Kijima (2015), where networking activities stimulate resource exchange, which then upgrades the ecosystem to the next level. The evolving entrepreneurial ecosystem will make the entrepreneurial process happen by individuals in the next phase because adequate components have supported it. Concurrently, nascent entrepreneurs contribute to densifying and diversifying the network so actors within the network can be involved in advanced value co-creation.

Recommendations

This study offers valuable insights into rural entrepreneurial ecosystem studies. However, it is important to recognize its limitations. One limitation is that it only investigates a particular case study, which may impact the generalizability of the findings. Therefore, future research could compare rural entrepreneurial ecosystems across different regions to identify best practices and areas for improvement. Additionally, it would be interesting to explore the effects of cultural differences on the formation and performance of rural entrepreneurial ecosystems. Another limitation is that the study only uses content analysis of reported studies as the methodology. Therefore, a more comprehensive methodology is suggested, such as incorporating data from field surveys and time series statistics. This study also focuses on the collaboration of actors rather than the individual impacts on the entrepreneurial ecosystem. This opens avenues for further research to examine the contribution of each actor to the entrepreneurial ecosystem's performance in rural areas. Future research can build on the foundation laid by this study to provide a more comprehensive understanding of rural entrepreneurial ecosystems.

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REFERENCES

- Adianto, Muhajir D, Susetiawan. 2018. Success factors for smooth innovation adoption in indonesia: a case study of area, community and cultivator traits in Koto Mesjid Village, Riau Province. *International Journal of Society, Development* and Environment in the Developing World 2(2): 15–27.
- Adianto, Vani RV. 2022. The adoption model of technological innovations that have an impact on the welfare of the community in the village of Koto Masjid, Riau Province. *International Journal of Social Science and Business* 6(3): 446–451. https://doi.org/10.23887/ijssb. v6i3.49280.
- Aguilar EC. 2021. Rural entrepreneurial ecosystems: A systematic literature review for advancing conceptualisation. *Entrepreneurial Business and Economics Review* 9(4): 101–114. https://doi. org/10.15678/EBER.2021.090407.
- Andrianus F, Karimi S, Ridwan E. 2019. Welfare analysis and economic potential of the second generation involuntary resettlement in Koto Panjang. In: *Proceedings of the 2nd Padang International Conference on Education, Economics, Business and Accounting (PICEEBA-2 2018)*. Paris, France: Atlantis Press. https://doi.org/10.2991/ piceeba2-18.2019.124.
- Asmit B, Simatupang TM, Rudito B, Novani S. 2024. Uncovering the building blocks of rural entrepreneurship: A comprehensive framework for mapping the components of rural entrepreneurial ecosystems. *Heliyon* 10(1): e24139. https://doi.org/10.1016/j.heliyon.2024. e24139.
- Bakas FE, Duxbury N, Vinagre de Castro T. 2019. Creative tourism: catalysing artisan entrepreneur networks in rural Portugal. *International Journal* of Entrepreneurial Behaviour and Research 25(4): 731–752.
- Barach MA, Rider CI. 2023. Discovery, discernment, and exploitation: Entrepreneurial mechanisms at the nexus of individual and opportunity. *Strategic Management Journal* 44(12): 2858– 2887. https://doi.org/10.1002/smj.3528.
- Baranova P. 2024. Multi-stakeholder networks as learning settings towards pro-environmental entrepreneurship: Learning through the diversity and policy–practice interface. *The International Journal of Entrepreneurship and Innovation*.

https://doi.org/10.1177/14657503231224613.

- Bedő Z, Erdős K, Pittaway L. 2020. Universitycentred entrepreneurial ecosystems in resourceconstrained contexts. *Journal of Small Business* and Enterprise Development 27(7): 1149–1166. https://doi.org/10.1108/JSBED-02-2020-0060.
- Bichler BF, Kallmuenzer A, Peters M. 2020.
 Entrepreneurial ecosystems in hospitality: The relevance of entrepreneurs' quality of life. *Journal of Hospitality and Tourism Management* 44: 152–161. https://doi.org/10.1016/j. jhtm.2020.06.009.
- Connelly A. 2018. How can the entrepreneurship ecosystem in Guyana impact the tourism industry by 2025? *Worldwide Hospitality and Tourism Themes* 10(5): 569–580. https://doi.org/10.1108/ WHATT-05-2018-0033.
- Cowell M, Lyon-Hill S, Tate S. 2018. It takes all kinds: understanding diverse entrepreneurial ecosystems. *Journal of Enterprising Communities* 12(2): 178–198. https://doi. org/10.1108/JEC-08-2017-0064.
- Cunha C, Kastenholz E, Carneiro MJ. 2020. Entrepreneurs in rural tourism: Do lifestyle motivations contribute to management practices that enhance sustainable entrepreneurial ecosystems? *Journal of Hospitality and Tourism Management* 44: 215–226. https://doi. org/10.1016/j.jhtm.2020.06.007.
- Demirel D, Mülazımoğlu ME. 2022. How the smart governance model shapes cities? Cases from Europe. *Journal of Enterprising Communities: People and Places in the Global Economy* 16(1): 8–25. https://doi.org/10.1108/JEC-08-2021-0115.
- Fujikura R, Nakayama M. 2013. The long-term impacts of resettlement programmes resulting from dam construction projects in Indonesia, Japan, Laos, Sri Lanka and Turkey: a comparison of land-for-land and cash compensation schemes. *International Journal of Water Resources Development* 29(1): 4–13. https://doi.org/10.10 80/07900627.2012.741032.
- Galvão AR, Mascarenhas C, Marques CSE, Braga V, Ferreira M. 2020. Mentoring entrepreneurship in a rural territory – A qualitative exploration of an entrepreneurship program for rural areas. *Journal of Rural Studies* 78: 314–324. https:// doi.org/10.1016/j.jrurstud.2020.06.038.
- Goda K, Kijima K. 2015. Modeling Service Ecosystems Innovation. *Journal of Business*

and Management Sciences 3(3). https://doi. org/10.12691/jbms-3-3-1.

- Guerrero M, Santamaría-Velasco CA. 2020. Ecosystem and entrepreneurial activity in Mexico: An exploratory analysis. *Perfiles Latinoamericanos* 28(55): https://doi.org/10.18504/pl2855-009-2020.
- Hruskova M. 2024. Ecosystem pipelines: Collective action in entrepreneurial ecosystems. *International Small Business Journal: Researching Entrepreneurship* 42(1): 39–66. https://doi.org/10.1177/02662426231178381.
- Inada Y. 2024. Unlocking Value Co-Creation in Entrepreneurial Ecosystems: The Vital Role of Institutions. *Administrative Sciences* 14(5): 82. https://doi.org/10.3390/admsci14050082.
- Karimi S, Nakayama M, Fujikura R, Katsurai T, Iwata M, Mori T, Mizutani K. 2005. Post-project review on a resettlement programme of the kotapanjang dam project in Indonesia. *International Journal of Water Resources Development* 21(2). https://doi.org/10.1080/07900620500038147.
- Karimi S, Taifur WD. 2013. Resettlement and development: a survey of two of Indonesia's Koto Panjang resettlement villages. *International Journal of Water Resources Development* 29(1). https://doi.org/10.1080/07900627.2012.739539.
- Kline C, Duffy L, Clark D. 2020. Fostering tourism and entrepreneurship in fringe communities: Unpacking stakeholder perceptions towards entrepreneurial climate. *Tourism and Hospitality Research* 20(1): 3–17. https://doi. org/10.1177/1467358418781443.
- Kuckertz A. 2019. Let's take the entrepreneurial ecosystem metaphor seriously! *Journal of Business Venturing Insights* 11. https://doi. org/10.1016/j.jbvi.2019.e00124.
- Luo A. 2022. Content Analysis | A Step-by-Step Guide with Examples. https://www.scribbr.co.uk/ research-methods/content-analysis-explained/ [16 February 2024].
- Lyons TS, Lyons JS, Jolley GJ. 2019. Entrepreneurial skill-building in rural ecosystems. *Journal of Entrepreneurship and Public Policy* 9(1): 112– 136. https://doi.org/10.1108/JEPP-09-2019-0075.
- Miles MP, Morrison M. 2020. An effectual leadership perspective for developing rural entrepreneurial ecosystems. *Small Business Economics* 54(4): 933–949. https://doi.org/10.1007/s11187-018-0128-z.

- Muñoz P, Kimmitt J. 2019. Rural entrepreneurship in place: an integrated framework. *Entrepreneurship* & *Regional Development* 31(9–10). https://doi. org/10.1080/08985626.2019.1609593.
- Muthmainnah D, Fahmi Z, Supriyadi F, Rais AH, Sawestri S, Prianto E. 2023. Learning the Lessons from the Integrated Small-scale Inland Fisheries Business in Kampong Patin Village, Indonesia. *Fish for the People* 20(3): 39–42. http://hdl.handle.net/20.500.12066/7173.
- Mutumba A, Ngoma M, Munene JC, Ntayi JM. 2019. The entrepreneurial ecosystem quality for sustainable franchising: Mediating effects of public–private–partnership (PPP) support in Uganda. World Journal of Entrepreneurship, Management and Sustainable Development 16(1): 44–56. https://doi.org/10.1108/ WJEMSD-04-2019-0027.
- Neck HM, Meyer GD, Cohen B, Corbett AC. 2004. An entrepreneurial system view of new venture creation. *Journal of Small Business Management* 42(2). https://doi.org/10.1111/ j.1540-627X.2004.00105.x.
- Ngongoni CN, Grobbelaar SS, Schutte CSL. 2017. The role of open innovation intermediaries in entrepreneurial ecosystems design. *South African Journal of Industrial Engineering* 28(3): 6–65. https://doi.org/10.7166/28-3-1839.
- Novani S et al. 2023. Empowering digital creative ecosystem using problem structuring method and a service science perspective: A case study in Cimahi and Bandung, Indonesia. *Asia Pacific Management Review* 28(2): 215–228. https:// doi.org/10.1016/j.apmrv.2022.09.003.
- O'Brien E, M Cooney T, Blenker P. 2019. Expanding university entrepreneurial ecosystems to under-represented communities. *Journal of Entrepreneurship and Public Policy* 8(3): 384– 407. https://doi.org/10.1108/JEPP-03-2019-0025.
- Qian H. 2018. Knowledge-based regional economic development: a synthetic review of knowledge spillovers, entrepreneurship, and entrepreneurial ecosystems. *Economic Development Quarterly* 32(2): 163–176. https://doi. org/10.1177/0891242418760981.
- Roundy PT, Burke-Smalley L. 2022. Leveraging entrepreneurial ecosystems as human resource systems: A theory of meta-organizational human resource management. *Human Resource Management Review* 32(4): 100863. https://doi.

org/10.1016/j.hrmr.2021.100863.

- Savitri E, Andreas, Diyanto V. 2021. Financial Management of Allocated Village Fund. In: *Proceedings of the Conference on International Issues in Business and Economics Research (CIIBER 2019).* Paris, France: Atlantis Press. https://doi.org/10.2991/aebmr.k.210121.002.
- Spigel B. 2017. The relational organization of entrepreneurial ecosystems. *Entrepreneurship: Theory and Practice* 41(1): 49–72. https://doi. org/10.1111/etap.12167.
- Syahza A, Tampubolon D, Irianti M, Meiwanda G, Asmit B. 2023. The impact of small-scale oil palm plantation development on the economy multiplier effect and rural communities welfare. *International Journal of Sustainable Development and Planning* 18(5): 1407–1415. https://doi.org/10.18280/ijsdp.180511.
- Takaendengan ME, Avenzora R, Darusman D, Kusmana C. 2022. Financial feasibility of communal homestay business in eco-rural tourism. *Indonesian Journal of Business and Entrepreneurship* 8(1): 59–69. https://doi. org/10.17358/ijbe.8.1.59.
- Thees H, Zacher D, Eckert C. 2020. Work, life and leisure in an urban ecosystem - co-creating Munich as an Entrepreneurial Destination. *Journal of Hospitality and Tourism Management* 44: 171– 183. https://doi.org/10.1016/j.jhtm.2020.06.010.
- Thompson TA, Purdy JM, Ventresca MJ. 2018. How entrepreneurial ecosystems take form: Evidence from social impact initiatives in Seattle. *Strategic Entrepreneurship Journal* 12(1): 96–116. https:// doi.org/10.1002/sej.1285.
- Tunison S. 2023. Content Analysis. In: Okoko, J. M., Tunison, S., and Walker, K. D. eds. Varieties of Qualitative Research Methods: Selected Contextual Perspectives. 1st ed. Springer Cham. https://doi.org/10.1007/978-3-031-04394-9 14.
- Utete R, Zhou S. 2024. Re-imagining the complexities faced by rural entrepreneurs in South Africa: Implications for local economic development in the post COVID-19 pandemic period. *Journal of Rural Studies* 105: 103167. https://doi. org/10.1016/j.jrurstud.2023.103167.
- Vargo SL. 2020. From promise to perspective: Reconsidering value propositions from a service-dominant logic orientation. *Industrial Marketing Management* 87: 309–311. https:// doi.org/10.1016/j.indmarman.2019.10.013.
- Xu Z, Dobson S. 2019. Challenges of building

entrepreneurial ecosystems in peripheral places. *Journal of Entrepreneurship and Public Policy* 8(3): 408–430. https://doi.org/10.1108/JEPP-03-2019-0023.

- Zainal, Wardana D, Cahyadi M. 2023. Collaboration governance in development of tourism objects in Kampar Regency Riau Province. *Management Studies and Entrepreneurship Journal (MSEJ)* 4(1): 736–744.
- Zulkarnain, Lubis DP, Satria A, Hubeis M. 2021. The relationship of fish farmer characteristics and communication network in aquaculture bussiness at the village of Indonesia. *IOP Conference Series: Earth and Environmental Science* 695(1). https://doi.org/10.1088/1755-1315/695/1/012034