

ADOPTION ENTREPRENEURIAL ECOSYSTEM BUSINESS BASED ON INTEGRAL ECOLOGY TO ACHIEVE SUSTAINABLE RESILIENCE

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ABSTRACT

Background: Organizations must survive competitive competition. The fluctuating dynamics of the business world trigger organizations to adapt to changes. Integral ecology is an integrative model that connects the balance of business management with economic, environmental, social, and cultural ecology. Integral ecology is believed to be a pattern of interaction between living things and their habitats to achieve a sustainable balance.

Purpose: This study analyzes activities and identifies integral aspects of an ecologically based entrepreneurial ecosystem in a business organization (business actors/community). This study also formulates patterns of adaptation and adoption of business organizations to support improving business quality. This study serves as a reference for achieving sustainable resilience.

Design/methodology/approach: A qualitative approach with data validity through triangulation of sources and techniques.

Findings/Result: This research finding integrative model that connects the balance of business management with economic, environmental and social ecology along with cultural ecology.

Conclusion: The formulation of this pattern is a recommendation for an integral ecology-based entrepreneurship ecosystem model to achieve sustainable resilience, which can be adopted to improve the quality of businesses that are sensitive to the environment.

Originality/value (State of the art): This study focuses on businesses that have implemented triple bottom line practices by paying attention to environmental aspects. Businesses with good practices are believed to achieve sustainability through resilience and sustainability principles. Efforts to align economic development with environmental sustainability are very important in various fields

Keywords: business organization, entrepreneurial ecosystems, integral ecology, sustainable resilience, business management

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INTRODUCTION

Environmental concerns are no longer rarely discussed. We contribute significantly to environmental pollution, particularly regarding waste. We are now exploiting the environment we are supposed to protect without taking remedial action to ensure that it remains sustainable. Many people are not yet aware of environmental pollution. Waste is an object produced by living creatures that is no longer used. If unused waste accumulates, it will have a negative impact on the environment.

Waste is the primary cause of environmental problems in Indonesia. In addition to individual waste, industrial waste is another major contributor, typically exceeding personal waste. Industrial pollution has been widely discussed and is a significant issue. In recent years, the industry has begun to reconsider its purpose. The old pattern of industrial development was to increase productivity for the sake of business profit. Business actors are now shifting their focus to other aspects that are crucial for business sustainability. Therefore, solutions are needed to ensure business continuity in Indonesia and ensure sustainable survival.

The research gap identified by Czernek-Marszałek et al. (2023) explains that the ecosystem concept is characterized by a diversity of scientific disciplines. These different fields are explained from various perspectives, including communities and individuals. This interaction produces ties, links, relationships, interactions, and connections that do not necessarily have the same phenomenon. Therefore, the concept of social relations in building sustainable business units is often less coherent and unclear regarding the definition and understanding of social relations themselves. Entrepreneurial Ecosystems have been widely studied within institutional and network frameworks but have not integrated ecological or ecosystem dimensions into the ecosystem concept, creating a research gap. There is still a need for EE to converge with the goal of achieving long-term resilience (Shwetzter et al. 2019). There is a lack of comprehensive typology to explain the sources and forms of social relations within entrepreneurial ecosystems (Czernek-Marszałek et al. 2023). Another research gap concerns the emergence of sustainable resilience, which cannot be explained in Spigel's (2017) study because its emphasis is still on economic growth and innovation.

This study chose a different research object from other studies. The research context was based on businesses that have implemented triple bottom line practices by paying attention to environmental aspects. Businesses with good practices are believed to achieve sustainability through resilience. The principle of sustainability is a response to natural damage caused by exploitative development. Efforts to align economic development with environmental sustainability are very important in various fields and have become a research novelty. The novelty of this research refers to the combination of entrepreneurial ecosystem patterns with an integral ecological basis. The completeness and complexity of the business ecosystem force business actors to think entrepreneurially so they can take advantage of all aspects. The adoption of an entrepreneurial ecosystem pattern on an integral ecological basis produces sustainable business capability in the future. This sustainable resilience is the spearhead of all businesses operating in harmony with humans, the environment, and their economic needs.

Green Ecology is part of integral ecology, which is a solution that carries out development in harmony with physical, social, economic, and environmental development (Böttcher et al. 2024). To overcome this, a multilateral organization must play a role in global environmental control. Therefore, the right pattern is needed to design entrepreneurial ecosystems based on integral ecology to achieve sustainable resilience. Czernek-Marszałek et al. (2023) explained that social relations are key to developing a business that requires synergistic thinking, not only aspects of internal business development but also the need to consider synergistic business collaboration. Therefore, business actors/society must design an entrepreneurial ecosystem pattern based on integral ecology to achieve balance in the future so that it can survive sustainably (Böttcher et al. 2024). Ecology is the study of organisms and their interactions with the environment. In simple terms, economics studies the relationship between living things and their habitats. Therefore, it is suitable to be connected with the perception that business organizations are a form that also needs to have healthy interactions with their environment in an ecosystem. This entrepreneurial ecosystem will be a picture of a healthy supply chain that cares about the environment. Improving the economy is an important aspect of people's lives. Therefore, businesses have emerged that aim to increase economic income. Sometimes, these businesses are only profit-oriented without considering

other aspects, namely humans and the environment itself. If this continues, the consequences will have a negative impact in the future. Therefore, an integral ecological-based entrepreneurial ecosystem pattern is one of the recommendations that researchers want to design to help the business world create certain patterns that pay attention to human and environmental aspects to achieve sustainable and resilient. This approach is important for understanding the complexity of environmental management problems.

The entrepreneurial ecosystem has received considerable scientific attention, and its thinking has been developed to be more holistic and dynamic (Shwetzler et al. 2019; Tula et al. 2024; Cunha et al. 2020). Network enhancement plays a very important role in the entrepreneurial ecosystem, which shapes interaction patterns between individual elements; however, this has not been widely explored (Ter Wal and Boschma, 2011). This occurs because of a lack of understanding of the elements in the entrepreneurial ecosystem itself, where each element interacts and is dynamic within the framework of the entrepreneurial ecosystem (Motoyama and Knowlton, 2017). Stam and Spigel (2016) define EE as a collection of actors and factors that are interdependent and coordinated in a way that enables productive entrepreneurship. Companies must redesign their organizational business processes to have managerial implications.

Ecological balance is important for concentrating world development in various aspects of human life (Francesco, 2015). Integral ecology has a broad vision (Ertmanska, 2021). The vision in question is to consider all aspects of the global crisis by considering the human and social dimensions. In this concept of ecological balance, what is called integral ecology believes that all elements in human life are interrelated so that if one of them is unequal, there will be an imbalance in the other elements (Francesco 2015). In integral ecology, the dimensions referred to in integral ecology are ecology, which includes environmental, economic, and social ecology. It focuses on studying the relationship between living organisms and the environment in which they grow in. Cultural ecology, together with natural, historical, artistic, and cultural heritage, is also under threat. The social relationships in question include, for example, the exchange, sharing, and transfer of knowledge held in developing cognitive abilities and all aspects that are beneficial for future business

collaboration (Sorenson, 2018). This social relationship is considered capable of achieving sustainable resilience. Sustainable business resilience is not simple (Böttcher et al. 2024). The uncertainty of change is also a factor that requires businesses to survive under all conditions. Therefore, various parties are needed who are able to adapt agilely to business disruption situations (Pranatasari, 2021), namely leadership factors, team factors (HR), and organizational factors. Business disruption forces business actors to be agile in elaborating on crucial company factors. Pranatasari (2021) recommends formulating a framework for utilizing agile marketing for business revival, focusing on increasing speed, adaptability, and responsiveness to change. Agility refers to the extent to which an entity quickly understands the market and implements marketing decisions (Kalaiganam et al. 2021).

A competitive environment forces a business to make dynamic changes. Disruptive and dramatic dynamic changes require this capability to be applied adaptively in a business (Teece et al. 1997). This thinking extends the resource-based view (RBV) (Barney, 1991). Dynamic capabilities refer to a company's ability to integrate all internal and external resources/competencies, including reconfiguring them, so that they can be used as a strategy to handle and possibly adapt to a rapidly changing business environment. Dynamic capabilities were identified as three types: sensing, capturing, and transforming. Green entrepreneurial orientation is embedded in a company's proactive attitude that enhances its ability to start green ventures and improve its business performance (Muangmee et al. 2021). The varying degrees of impact of green entrepreneurial orientation on a company's sustainable competitive advantage require further investigation, which may involve mediating variables to explain this complex relationship (Muangmee et al. 2021).

The research question is how a model can be developed to integrate ecological values into an entrepreneurial ecosystem to strengthen sustainable resilience. The researchers had two research objectives: First, to analyze activities and identify aspects of an integral, ecologically based entrepreneurial ecosystem within a business organization (business actors/community). Second, to formulate an adaptable model that can support the realization of improved business quality to achieve sustainable resilience in the future.

METHODS

Researchers used a descriptive qualitative research design. This type of descriptive research was chosen because it is expected to describe phenomena related to the subject (Cooper & Schindler, 2014). This method is widely used for making business plans and management in decision-making (Cooper and Schindler, 2014). According to Sandelowski in Seixas, Smith, and Mitton (2018), the basic characteristics of this descriptive qualitative approach are different from other qualitative studies, such as grounded theory, ethnography, phenomenology, or narrative, because in descriptive qualitative research, the researcher focuses on describing the process itself.

This qualitative research was carried out by researchers involving the results of interviews, observations, or documentation systematically designed on certain phenomena. Qualitative research often explores behavioral patterns, activities in the form of interaction processes, analysis of meaning, the role of values, and the experiences of individuals and groups in their natural activities (Kitto et al. 2008). Furthermore,

this qualitative research discusses the who, what, and where of certain phenomena that are not yet widely understood based on in-depth information from informants (Kim, Sefcik, and Bradway, 2017). Primary data are the source of the data. This research fulfilled the aspect of data validity, which was carried out by source triangulation and technical triangulation.

Figure 1 conceptual framework showing the interrelationship between green ecology-based entrepreneurial practices and achieving sustainable resilience. This framework begins by examining the implementation of green entrepreneurship practices by business actors and social groups. Researchers have observed how business actors run social entrepreneurship-based businesses. Researchers have also observed how communities conduct business activities while considering environmental, social, and economic aspects. Both observations were obtained by exploring and combining them to obtain a picture of business actors' commitment to building a green ecology-oriented ecosystem. The final result is the formation of a green entrepreneurship ecosystem pattern that is capable of achieving ecosystem resilience.

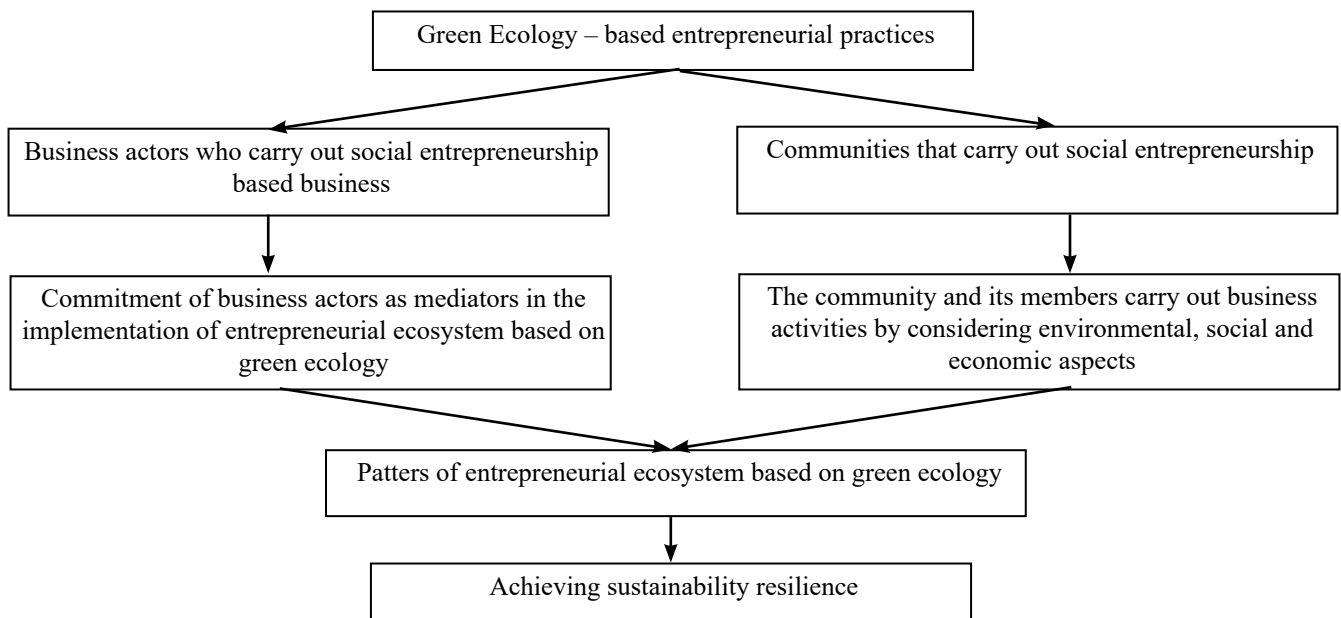


Figure 1. Conceptual Framework

A purposive sampling technique was used to select samples that were suitable for the research. The selected speakers are business/community actors who have organizationally implemented an integral-ecology-based entrepreneurial ecosystem. Primary data were obtained through in-depth interviews, observations, and documentation. The instrument was in the form of an interview guide/observation sheet, which was built based on theory (Spigel, 2017; Shwetter et al. 2019; Czernek-Marszałek et al. 2023). To ensure the objectivity of this research, the researchers used data validity through the triangulation method. This triangulation was carried out with a comprehensive approach to conducting research using various theories, data, and methods (Kitto et al. 2008). This study chose source and technique triangulation. Source triangulation is a data validity technique that uses two or more sources to ask the same question. Technical triangulation was carried out using interviews, observations, and documentation.

The deduction model is carried out by researchers, namely, by using theory as a research tool, finding problems, building temporary guesses, making observations, and testing data. In this qualitative research, the researcher adopted the steps outlined by Kim, Sefcik, and Bradway (2017). The initial step taken by the researchers was to collect data using in-depth interviews. Through in-depth interviews, researchers obtain an overview of the phenomenon being studied. After the data were obtained, the researcher performed data reduction. This was done by sorting out important points to make it easier to identify findings with research conditions. The results of the data reduction are presented, and a data comparison is performed. Researchers look for common threads and similarities to achieve data validity using triangulation. The final stage was data interpretation. Conclusions were drawn to answer the research problem formulation.

RESULTS

Respondent Characteristics

The research was conducted qualitatively using in-depth interviews in Yogyakarta. This study was conducted in 2024. The selected sources met the following criteria: business actors/communities that have been operating for at least three years; business actors/communities that have organizationally implemented green ecology-

based practices; business actors/communities that have a green supply chain ecology; and business/community actors who carry out managerial activities (HR, Marketing, Operations and Finance).

Table 1, the list of sources presents six research sources from social entrepreneurship-based communities and companies in Yogyakarta. The table includes the year of establishment, type of organization, scope of activities (local or national), and interviewees, such as managers, pioneers, and owners. The results of the in-depth interviews obtained various information from each resource person who practiced implementing integral-ecology-based entrepreneurial ecosystems. It is proven that with this application, they get various conveniences that are useful for developing their businesses. The complexity of business development forces business actors to continue to adapt and network to survive the uncertainty of future changes. Sustainable business resilience is one of the main goals of a business to compete in competitive competition (Böttcher et al. 2024). The practice of implementing Entrepreneurial Ecosystems based on integral ecology is an alternative to respond to increasingly high competition in the business world, forcing an organization to achieve a competitive advantage. In addition, a business organization that only focuses on profits is deemed less able to survive sustainably. Therefore, the aspects of profit, people, and the environment should be implemented in harmony.

Entrepreneurial Ecosystems practices are based on integral ecology

This discussion was carried out by photographing the practice patterns of implementing the integral ecology-based entrepreneurial ecosystems model from each resource person in the form of the MSME community and social entrepreneurial companies (Tula et al. 2024). Researchers have focused on the mechanisms and processes for implementing green ecology-based entrepreneurial ecosystems with their uniqueness.

Case 1 – PK

PK is a community that cares about MSME sustainability in Yogyakarta. His concern arose when pioneers felt that in the world of business competition, there were many unfair practices that often appeared to be detrimental to MSMEs, especially start-up ones. This injustice can take the form of unfair prices, price

competition with factories, and low selling prices for MSME products because they lack value. Therefore, PK was born as a forum to ensure that justice is obtained by MSMEs under its management system. PK activity is carried out regularly every week through well-curated exhibitions. The requirements for MSMEs that can take part in the PK exhibition are MSMEs whose products are sold first-hand, maximum second-hand, products that are environmentally friendly, products that ensure fairness in the selling price including employee wages under the management of the MSME, products that are not resellers, and products that are not manufactured products. PK provides a platform for the market (consumers) to buy through exhibitions. MSMEs sometimes have difficulty with marketing aspects so that the products they sell are less able to expand to higher market reach. PK is also a forum for networking because exhibitors are first-hand MSMEs that provide quality products at fair prices. In addition, PK supports the local potential to enter the wider market. It is hoped that the local potential of each MSME can become a supporting resource for other MSMEs, so that synergistic social business relationships are formed to mutually strengthen each other's business defenses. This PK model is a form of management and an effort to build an entrepreneurially managed ecosystem. Management that cares about the environment is a form of green ecology.

Case 2 – PM

One of the PM pioneers also works as a businesswoman who is focused on the environment and health. The

products are made without polluting the environment and caring for the health of consumers. This PM pioneer is concerned about the many businesses that do not carry the value of caring for the environment, so that in the end, a lot of waste is produced. Apart from the waste aspect, many MSMEs also make products that consumers are interested in without considering the consumer's health aspects; for example, they are given preservatives, unnatural dyes, and products without content information. According to PM pioneers, consumers have the right to receive good and quality products to support their health. Therefore, this PM appeared to answer his pioneer's anxiety about the phenomenon at hand. PM is a community of MSMEs that regularly exhibits sustainable products. To participate, there is a fairly strict curation mechanism to ensure that the products sold by MSMEs are sustainable, including environmentally friendly, fair social aspects for the workers behind the scenes, and are not reseller goods. The activities carried out by PM include exhibitions, network support, and investment possibilities for investors who share the same values as these MSMEs; increasing skills and competencies through training to improve the quality of human resources; increasing market and marketing reach; support for fair selling prices; resource networking in accordance with local potential between MSMEs; and knowledge transfer to experienced mentors. MSMEs in this community feel very helped because PM activities vary greatly according to the needs of the MSMEs within them. The integrative model pattern implemented by PM is an ecosystem that is managed entrepreneurially.

Table 1. List of sources person

Code	Year established	Information
PK	2015	Type: community; Reach: Yogyakarta (local); Interview with: manager
PM	2016	Type: community; Reach: Yogyakarta (local); Interview to: pioneer
PW	2021	Type: community; Reach: Yogyakarta (local); Interview to: pioneer
PMo	2018	Type: community; Reach: Yogyakarta (local); Interview with: manager
JL	2016	Type: Social entrepreneurship based company; Reach: Yogyakarta (national); Interview to: manager
AG	2014	Type: Social entrepreneurship based company; Reach: Yogyakarta (national); Interview with: owner

Case 3 – PW

PW is a community in the form of a market with regular monthly activities in the form of an ecoculture market. This community combines cultural and ecological concepts together. This integration is believed to be a form of integral ecology that balances the inequality that occurs in all elements of human life (Francesco 2015). By carrying out balanced activities in all elements of life, it is believed that this integral ecology will bring a broader vision in the future (Ertmanska 2021). Participants in this community take turns holding exhibitions according to a different theme each month. Exhibitors are curated to accommodate shared values within the community. PW is also designed to encourage visitors to pay attention to the environment through a zero-waste open market concept. PW collaborates with the waste management team so that visitors can attend and donate their waste for further processing into more useful items. This management system that invites visitors to care about the waste they consume is a form of PW stimulation of the community to consume sustainably. PW is a meeting place for entrepreneurs, potential consumers, and fund owners who share a concentration on the environment and culture. Through this activity, they can meet to transfer knowledge, expertise, and possibly fund certain businesses. PW also stimulates business actors to seize new opportunities that might change their productivity. It is also possible to increase marketing reach through the use of PW. The various efforts made by PW are a form of ecosystem that is managed by entrepreneurs. The hope is that PW can help business actors survive sustainably because maintaining a business is not easy.

Case 4 – PMo

PMo is a community managed by the local MSME community through the Cooperative and UKM Department. The government facilitates this activity to take place every month so that local MSMEs can increase the marketing of their products, increase their productivity, enable MSMEs to meet each other and exchange potential resources, and facilitate increasing human resource capacity through training. The government is very concerned about developing MSMEs because they are believed to be one of the cornerstones of the country's economy. Business capital loans are also possible through certain mechanisms. Government facilitation also allows for the transfer of knowledge regarding the use of technology. The

government-owned network makes it easier for MSMEs to obtain information on the adoption of technology that is suitable for their MSMEs. The convenience that MSMEs receive under PMo management is a form of ecosystem needed by business actors. An ecosystem managed in an entrepreneurial manner can facilitate development and survival in situations of future uncertainty.

Case 5 – JL

JL is a social company that focuses on mechanisms to increase the productivity of traditional shrimp farmers so that they can increase their production and cultivation efficiency in the shrimp industry. JL helps traditional farmers cultivate shrimp more quickly and precisely. One of the concerns that arise is that many shrimp farmers suddenly go bankrupt due to their low knowledge of effective pond management, low use of supporting technology, and low level of professional financial management among traditional farmers. Therefore, JL plays a role in creating an ecosystem that supports the progress of traditional fish farmers who think entrepreneurially to avoid bankruptcy and uncertainty in production results. The owner of JL comes from a family that had a previous business; therefore, family support is significant. However, the owner of JL did not continue the business because his mission differed from his family's. JL's concerns arose from the conditions he observed. JL designed various integrative models to support the entire value chain of shrimp farming businesses from upstream to downstream. This comprehensive model is an entrepreneurial ecosystem. JL encompasses technology, knowledge, and expertise transfer, skill development, and increasing product value. EE was carried out by JL starting from production, management, and funding from upstream to downstream.

Case 6 – AG

AG is a form of social enterprise committed to running its business on a balance basis of people, planet, and profit. AG creates a social business that cares about the environment to create a more sustainable environmental balance through partnerships with small farmers and sustainable agricultural practices. Business governance by AG is a form of entrepreneurial ecosystem based on integral ecology. The products produced by AG are sustainable and committed to caring for the health benefits of its consumers. This product is 100% derived

from natural ingredients from selected local plants, without artificial ingredients. AG not only makes products that generate profits but also empowers and involves local communities and farmers. The values raised by AG are to achieve integral ecological balance to achieve harmony and resilience in the future. With consistency carried out by AG, all conveniences come from the government, angel investors, mentors, grants, technology adoption, and increased networking. The government strongly supports AG's efforts to develop an integrative model. This AG model is a form of ecosystem managed in an entrepreneurial manner that can support local farmers to develop and increase their productivity with more valuable products.

Formulation of an Entrepreneurial Ecosystems Adoption Pattern Based On Integral Ecology to Realize Sustainable Resilience

The results of the in-depth interviews with Cases 1–6 revealed several points that enable a business to successfully achieve sustainable resilience. This aspect includes several parties who can facilitate efforts to find solutions to the problems encountered. This party supports business organizations in maintaining their businesses in the future. This support forms a pattern of social relationships that interact with each other so that knowledge exchange and transfer occurs, developing cognitive abilities (Sorenson, 2018). Figure 2 is an entrepreneurial ecosystem obtained from the results of observations on several sources, namely exploring and combining various opinions about the commitment of business actors in building an ecological ecosystem to produce a pattern of main actors in a green ecology-oriented entrepreneurial ecosystem.

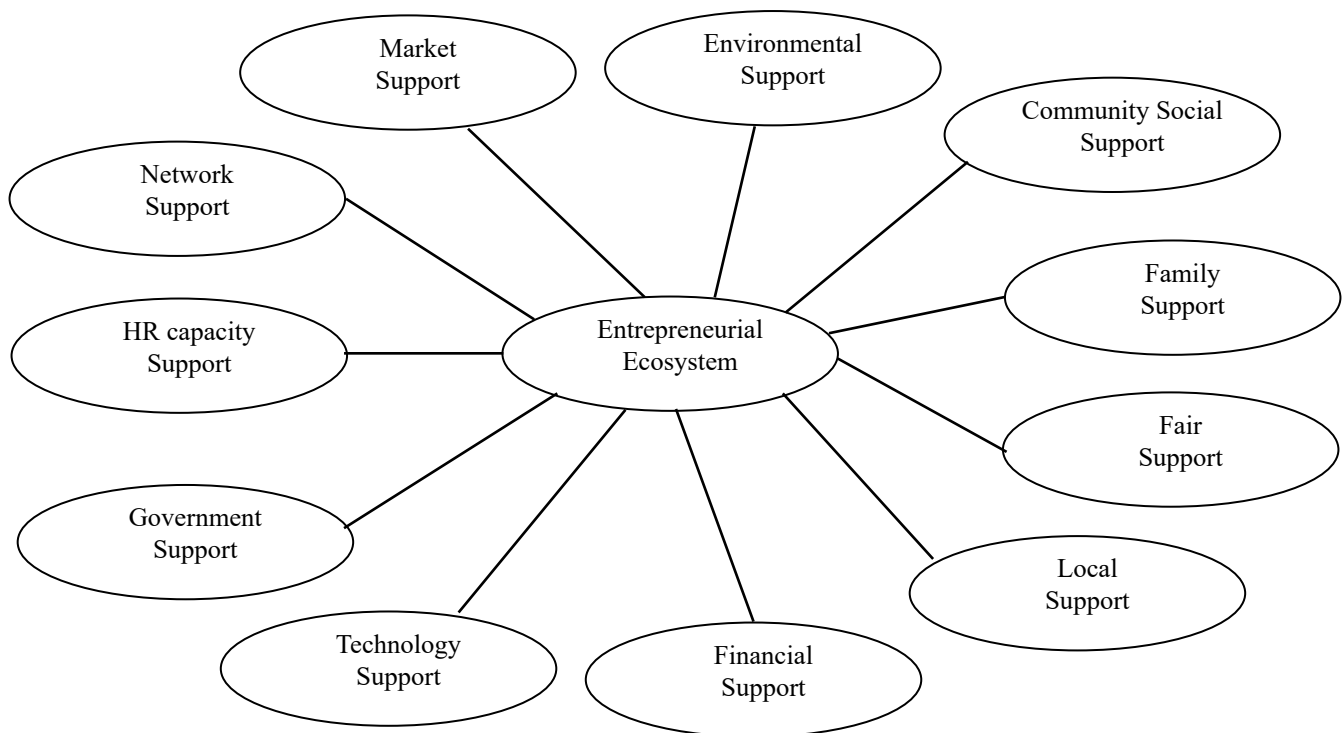


Figure 2. Entrepreneurial Ecosystem

The following are important aspects that support the formation of an ecosystem that is managed entrepreneurially: (1) Network support. Networking is the most important aspect of the development of business organizations. An extensive network helps in the development of business organizations. Networking can come from fellow entrepreneurs, access to funding, and other resource networks. (2) Market support: Market reach is also an important aspect of increasing the income of the business organization itself, including aspects of marketing, target suitability, and reach expansion. (3) Environmental support: A conducive environment supports the development of business organizations. (4) Community social support: Social communities can include local business organizations. (5) Family support: The role of family and friends is a valuable asset in developing a business organization, making business development easier. (6) Fair support: Entrepreneurs starting their first business often experience unfair treatment (price fairness, territorial fairness, and resource availability fairness). (7) Local support: This includes local respect for the family. (8) Financial support. This support includes funding opportunities, investment opportunities. (9) Technology support. This support includes the possible technology adoption by business organizations. (10) Government support: Government support can take the form of infrastructure facilitation, legal procedures, incentives, and grants. (11) HR capacity support. This support takes the form of competency and skills training for the family caregiver. These findings are in line with several previous studies related to the development of entrepreneurial ecosystems, including the thoughts of Ter Wal and Boschma (2011), Stam and Spigel (2016), and Spigel (2017). Researchers have combined this with previous research that focused on balancing elements

of human life to target sustainability through integral ecology, which combines aspects of environmental, economic, and social ecology, as well as cultural ecology (Francesco, 2015). This integral ecological concept has a broad vision (Ertmanska, 2021). Next, the researchers combined the findings with previous research to obtain a new integrative model for business organizations that can survive sustainably through entrepreneurial ecosystems based on integral ecology. Formulation of patterns that can be adopted by similar business organizations so that they can support the realization of improving the quality of the business and sustainable resilience.

Figure 3 shows an entrepreneurial ecosystem framework based on integral ecology, which explains the elaboration of several previous thoughts about entrepreneurial ecosystems that are linked to the findings of this study. For business actors, a well-managed entrepreneurial ecosystem will make it easier for them to survive changes in the business world (Tula et al. 2024). Furthermore, it is best if business development is carried out in a balanced manner within an integral ecological framework so that it is able to achieve sustainable resilience in the future. Integral ecology includes economic, social, environmental, and cultural aspects. All of these aspects should go hand in hand so that the organization can adapt nimbly to changes in both leadership and HR factors. With dynamic capital, business actors are expected to sense, seize, and transform opportunities in the form of good strategies to achieve competitive advantage. All support in the entrepreneurial ecosystem will bring stability to the business in the future.

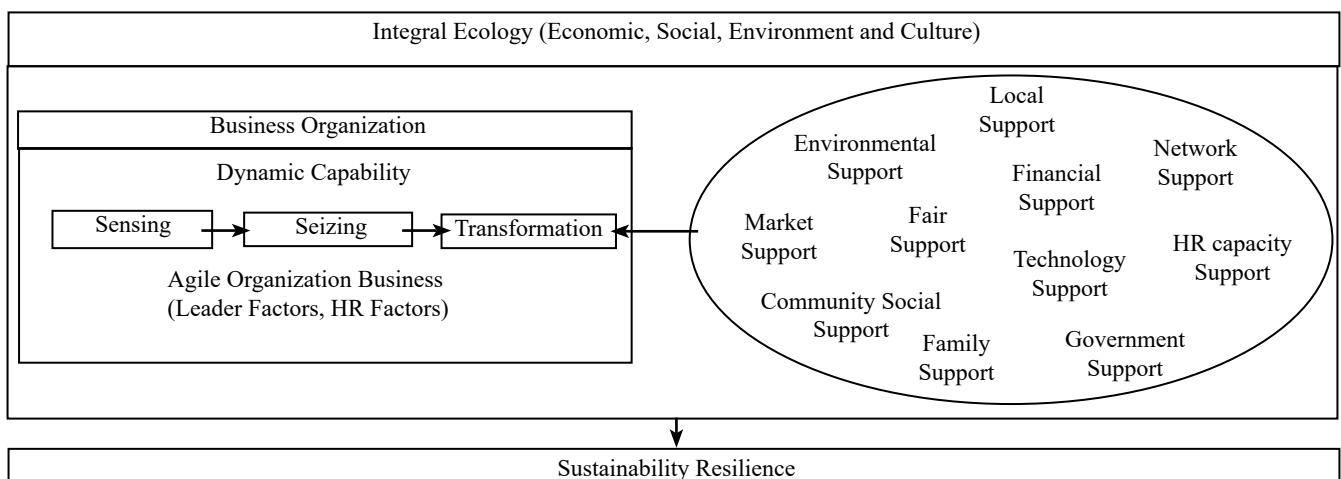


Figure 3. Framework of entrepreneurial ecosystem based on integral ecology

Managerial Implications

This study photographs the implementation of entrepreneurial ecosystem practices in a green ecology-based business unit. The integrative model recommended through the application of green ecology-based entrepreneurial ecosystems can be adopted by various business organizations with different levels of business. By adopting this pattern, business organizations consistently find it easier to develop their business so that they are able to achieve sustainable resilience. The practice of implementing Entrepreneurial Ecosystems based on integral ecology is an alternative to respond to increasingly high competition in the business world, forcing an organization to achieve a competitive advantage. In addition, a business organization that only focuses on profits is deemed less able to survive sustainably. So the aspects of profit, people and environment should be implemented in harmony together

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The practice of implementing entrepreneurial ecosystems based on integral ecology is an alternative to answer the competitive competition in the business world and dynamic changes. Apart from targeting competitive advantage, business actors need to balance efforts between achieving profits and harmonizing environmental and social management. This balance is then called integral ecology to achieve sustainable resilience. A business ecosystem managed in an entrepreneurial manner can make it easier for business actors to develop their businesses, find solutions to sudden business problems, and maximize their resources. Environmental problems can be reduced by expanding resource optimization and increasing sustainability while maintaining the basic system of capitalist production and consumption. We need to change the aspects of problems into opportunities. With dynamic and unique capabilities, organizations can create competitive advantages in the market.

Recommendations

Future researchers are advised to look more deeply into the parties involved in entrepreneurial ecosystems

based on integral ecology. It is recommended that future research be conducted quantitatively to examine the factors and parties in entrepreneurial ecosystems that most influence the resilience of a business. The goal of an organization is to ensure sustainable business survival.

The business practices that are the object of research are still local and national in scope. There may be differences in the characteristics of local, national, and international business reach. However, this study did not measure the aspects of business marketing reach and level.

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