MOST ROLES ACTORS PLAY IN ENTREPRENEURIAL ECOSYSTEM: A NETWORK THEORY PERSPECTIVE

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ABSTRACT

This study aimed to determine the most roles actors play in the entrepreneurial ecosystem and to build entrepreneurial quality using a mix method approach. It then established an entrepreneurial ecosystem of the creative industry in the East Priangan Region (West Java, Indonesia) as a research case. The respondents and informants consisted of business actors, government, bankers, academics (universities), marketers, and social community members. Data processing and analysis employed a network theory perspective. Results of the study showed that members of the surrounding community, as part of the social community, were the actors playing the most roles in the creative industry of entrepreneurial ecosystem in the East Priangan Region. This phenomenon was evident from the many relationships they have established, their ability to spread knowledge quickly, and their ability to mediate between two other actors directly. Accordingly, they had become a valuable actor in the creative industry of entrepreneurial ecosystem in the East Priangan Region.

Keywords: Entrepreneurial Ecosystem, Network, Network Theory, Entrepreneurship, Creative Industry.

INTRODUCTION

Entrepreneurial factors are important forces that can influence the dynamics of sustainable economic growth and well-being (Auerswald, 2015). In Schumpeterian theory, Huggins & Williams (2011) explains that entrepreneurship, knowledge, and regional innovation capacity are generally considered the key factors underlying the future of economic development and the growth of regional trajectories. The links connecting knowledge, entrepreneurship, and regional innovation, as well as their capacity and growth capabilities, are the core concepts of competitive advantage.

Entrepreneurs require other actors to create value. These actors can include several companies as stakeholders, such as component suppliers, rival companies, suppliers, buyers, user communities, and universities. Isenberg (2011) explains that the metaphor to foster entrepreneurship as a strategy for economic development is through the entrepreneurial ecosystem. Along with the increasing attention regarding the importance of the entrepreneurial ecosystem, Isenberg (2010; 2011) then defines the entrepreneurial ecosystem as a set of institutional networks that help entrepreneurs drive success through all stages of the new business creation and development process. Entrepreneurial ecosystems are also adequate frameworks in studying interdependence and relationships among various actors, such as individuals, organizations, entities; local, regional, and national institutions; and policymakers and stakeholders in the regional context (Cohen, 2006; Nambisan & Baron, 2013; Morris et al.,

2015; Neumeyer & Santo, 2018), who interact in complex economic systems. Entrepreneurial ecosystems are dynamic and systemic, which involve several actors, institutions, and processes (Mason & Brown, 2014; Brown & Mason, 2017). This concept can be understood as a service network, where entrepreneurship is the focus of actions and the measure of success (Isenberg, 2011). The motivation to foster entrepreneurship depends entirely on the identity of the actor or stakeholder. For public officials, creating jobs and receiving taxes (fiscal health) may be the main goal. For banks, larger and other profitable loan portfolios may be useful. For universities, the generation of knowledge, reputation, and research funding may be beneficial. For entrepreneurs and investors, wealth creation can be important. For companies, innovation, products, talent retention, and the development of supply chain changes may be the focus (Isenberg, 2010). Given the diversity of actors within their respective interests, determining the actors who play the most roles in entrepreneurial ecosystems ensures that the entrepreneurial ecosystem possesses the strongest network to facilitate knowledge transfer and increase entrepreneurial capacity and innovation, especially for business actors.

With the development of research on the entrepreneurial ecosystem, certain weaknesses are discovered from the existing theories and concepts. Borissenko & Boschma (2016) state that although a concept is considered systemic, the entrepreneurial ecosystem has not fully utilized the insights from network theory, and determining the ways in which the elements are connected in the entrepreneurial ecosystem remains unclear (Alvedalen & Boschma, 2017; Purbasari et al., 2018, 2019). In addition, network analysis is scarcely used as an analytical tool, although its relevance has been proven useful in cluster research when focusing on the structure of knowledge networks in groups (Ter Wal & Boschma, 2009). A study by Giuliani (2007) shows that locations of groups do not constantly improve company performance (as claimed by cluster literature), but improvement seems to relate to the position in the local network of groups. Thus, knowledge is not only *"in the air"* in groups but also circulates in structured networks (Borissenko & Boschma, 2016).

To seek the actors who play the most roles in the entrepreneurial ecosystem and to obtain the correct analysis of the positions and roles among them, this study used a network theory perspective (defined as a mechanism and process of interaction within the network structure) to obtain certain results for individuals and groups (Borgatti & Halgin, 2011). Several arguments are raised concerning the reasons justifying the possibility of studying entrepreneurial ecosystem using a network theory perspective. Letaifa et al. (2016) argues that ecosystems are an extension of network theory. In the network theory perspective, the aspect understood is the relational structure between various stakeholders in the entrepreneurial ecosystem and the level of connectivity among actors that affect the connectivity of social networks (Neumeyer & Santo, 2018; Neumeyer & Corbett, 2018). Network theory approaches and strategic thinking are considered suitable in exploring the relationship and interdependence of ecosystem actors for value creation (Shaker & Satish, 2012; Kapoor & Lee, 2013).

A research on entrepreneurial ecosystems is needed, especially to identify the actors who play the most roles in the entrepreneurial ecosystem, that is, actors as the driving factor for the dynamism of interactions in the context of knowledge transfer; to improve entrepreneurial quality; and to become creative and innovative.

LITERATURE REVIEW

Entrepreneurial Ecosystem

The ecosystem approach to entrepreneurship has two dominant streams, namely the regional development literature and strategy literature. Both streams share the same roots in the thinking of ecological systems, focusing on the interdependence of actors in certain communities to create new values, and both have developed new approaches to industrial organizations over the past few decades. Moore (1993) explains that some experts view ecosystems as facilitators of innovation where different actors interact and work to help generate new knowledge cumulatively (Malecki, 2011).

Along with the increasing attention to the importance of the entrepreneurial ecosystem, Isenberg (2010, 2011) then defines the entrepreneurial ecosystem as a set of institutional networks with the aim of helping entrepreneurs to drive success through all stages of the new business creation and development process. Entrepreneurial ecosystems consist of a set of individual elements (such as leadership, culture, human capital, markets, and others), which are combined in complex ways. This can be understood as a service network, where entrepreneurship is the focus of actions and measures of success.

Entrepreneurial ecosystems are adequate frameworks for studying interdependence and relationships between various actors who interact in complex economic systems, such as individuals, organizations, entities, local, regional and national institutions, and policymakers and stakeholders in the regional context (Cohen, 2006; Nambisan & Baron, 2013; Morris et al., 2015; Neumeyer & Santo, 2018).

According to Isenberg (2011), the entrepreneurial ecosystem consists of six main domains, which include the culture, policy and leadership, availability of finance, quality human capital, markets, and various institutional and infrastructure support.

Network Theory

In the past years, network theory has successfully characterized the interaction among the constituents of a variety of complex systems, ranging from biological to technological and social systems (Boccaletti et al., 2014). It also has long been known to be influential in human communications and interaction, which explains why networks for interpersonal interaction and exchange feature prominently in distance study (Fulford & Zhang, 1993; Collins & Berge, 1996; Haughey et al., 1998; Fahy et al., 2001). Network theory refers to the mechanisms and processes of interaction within the network structure to obtain specific results for individuals and groups (Burt, 1992; Fritsch & Kauffeld-Monz, 2008; Borgatti & Halgin, 2011; Neumeyer & Santos, 2018). The network consists of a set of actors or shared nodes in a set of certain bond types (such as friendship) that connect them. The relationship is interrelated to achieve the same goal to form a path that indirectly connects actors who are not connected or directly bound. The bond pattern in the network produces a certain structure, and the actor occupies a position within this structure. Most network theory analyses look at the characteristics of the network structure and the position of the actor (centrality) and attempt to relate it to the achievements/outputs generated by groups and actors (Borgatti & Halgin, 2011).

The use of a network theory perspective in the entrepreneurial ecosystem is considered relevant because an ecosystem consists of discrete elements that interact with different network

configurations. According to Letaifa et al. (2016) and Purbasari et al. (2018), *"ecosystems are an extension of network theory."* Network theory may be utilized to describe relationships between organizations that have common or complementary features that facilitate access to resources and information or to define the structures of social interaction among organizations. Spigel (2017) considers that network theory has become a key element of entrepreneurial research. The network approach and strategic thinking are suitable means of The relational structure among different stakeholders in the entrepreneurial ecosystem is an aspect that is implicit in the network theory perspective, which explores the levels of connectivity between entrepreneurs, employers, government agencies, incubators, or members of accelerator organizations and investors or members of higher education organizations that influence social network connectivity (Neumeyer & Santos, 2018; Purbasari et al., 2018).

Creative Industry

A creative economy is an ecosystem that exhibits a relationship of interdependence between an inventive value chain, a development environment (nurturing environment), a market (market), and archiving (Romarina, 2016; Purbasari et al., 20109; Purbasari & Rahayu, 2019; Howkins, 2001). A discussion on the creative economy cannot be separated from an elaboration on the creative industry. The creative industry is an aspect of the creative economy because ingenuity is relevant for all sectors of economy and society (Purbasari et al., 2019).

Creative industries contribute to and develop society, in five ways (Heinze and Hoose, 2013; de Klerk, 2015): first, through economic growth (Cooke and De Propris, 2011; Dubina et al., 2017) through the creation of employment opportunities (Napier & Hansen, 2011; Haukka, 2011); second, to business by developing unique processes (Seltzer & Bentley, 1999), value-added activities (Department for Culture, Media and Sport (DCMS), 2010), and a competitive edge (Flew, 2012; Greenman, 2012) and new business opportunities (Hotho & Champion, 2011); third, through the development of unique processes (Seltzer & Bentley, 1999), value-added activities (DCMS, 2010) and a competitive edge (Flew, 2012; Greenman, 2012); fourth, social elevation (Brook, 2013; Masters et al., 2011); and fifth, regional and urban development (Krätke, 2010; Mossig, 2011). In creative industries, the process of creation is generally a collective effort that necessitates the interaction and coordination of a multitude of heterogeneous economic actors (Bach et al., 2010), as well as the entrepreneurial ecosystem.

The term *"creative industry"* began to be used by researchers to describe the sectors of the British economy, where knowledge and creativity add economic and social values to goods and services (British Government Department for Culture, Media, & Sport, 1998, 2008; Parkman et al., 2012). One of the first literature on the creative industry was Wilson & Bates (2005), who developed the idea of *"cultural industry"* intended to draw attention to art commodities. The characteristics of creative industries include the centrality of innovation activities in organizational, product, and service markets, where consumer demands are highly subjective, changing and often have ambiguous boundaries between attributes, and focus on identifying opportunities to create values (economic and social) (Müller et al., 2009), and to the extent that creative industry workers often need to rely on networks to access skills, to collaborate, to be inspired and to assist their own creative development (Daskalaki, 2010; Jason & Cunningham, 2008; de Klerk, 2015).

METHOD

Research Method

This study aims to determine the actors who play the most roles in the entrepreneurial ecosystem and to build entrepreneurial quality. It then establishes the entrepreneurial ecosystem of the creative industry in the East Priangan Region (West Java, Indonesia) as a research case. The East Priangan Region was chosen on the basis of the results of previous studies that creative industries in the region have met the criteria of existing competitive advantage from the concept of Barney (2001) and Ratih et al. (2018). This study employed the mixed methods with sequential strategy (Creswell, 2010). Exploration design was carried out in two stages. The initial stage included qualitatively collecting and analyzing data to map out the actors involved in the entrepreneurial ecosystem based on the perspectives of business actors (microanalysis level). The next stage was quantitative data collection and analysis, which aimed to identify the actors playing the most roles in the entrepreneurial ecosystem.

Research Analysis

To determine the actors playing the most roles in the entrepreneurial ecosystem, based on the network theory perspective on the creative industries in the East Priangan Region, this study used an analysis of network theory with the Gephi 9.2 application. The application was used to build a network structure with data from the results of open questionnaires. Gephi is a visualization and exploration tool for all types of graphics and networks (Bastian et al., 2009).

The conceptual framework of this research was developed with reference to modified theories based on Isenberg (2011), Mason & Brown (2014), Stam & Spiegel (2016) and Stam (2015), where the entrepreneurial ecosystem has the elements of actors consisting of business actors, government, banking, professionals, marketers, and social community members.

This study used the microanalysis level (business actors perspectives). This approach is based on the fact that one of the entrepreneurial ecosystem characteristics is complexity marked by the number of networks of actors and factors (Relational Structure) involved (Kantis & Federico, 2012). Thus, analyzing the entrepreneurial ecosystem in general is difficult and requires a limited level of analysis (Letaifa et al., 2016). Borissenko and Boschma (2016) added that the type of network analysis at the micro-level can be applied to the entrepreneurial ecosystem. In addition, the entrepreneurial ecosystem is different from other approaches because it places business actors as the driving force (Mason and Brown, 2014).

For the concept of network theory, the dimension used was centrality, which is commonly used in network theory research (Burt, 1992; Hanneman & Riddle, 2005; Fritsch & Kauffeld-Monz, 2008; Neumeyer & Santos, 2018). The dimension is also often used to determine the central node or actor in a network, including the centrality of the node (degree, betweenness, closeness, and eigenvector centrality), to identify the actors who influence or have high interaction values in the network (Brass & Burkharardt, 1993; Rowley, 1997; Setatama & Tricahyono, 2017). The results of the questionnaire data were first processed using the SPSS 20 application, which then evolved into laboratory data. Then, the results were processed using the Gephi 9.2 application. Furthermore, the resulting network structure was analyzed via a descriptive method.

Respondents

The population and sample in this study included business actors, government, bankers, academics (universities), markets, and social communities. They were involved in akar wangi woven handicraft industry in Garut Regency, mendong woven handicraft industry in Tasikmalaya City, and woven handicraft industry in Ciamis Regency. This study utilized snowball sampling to gather respondents (Table 1).

Table 1 POPULATION AND SAMPLE			
Research Area	Business Actors Respondents	Other Actor Respondents	Sample/Population
Garut Regency	7	16	23
Tasikmalaya City	64	9	73
Ciamis Regency	23	13	36
Total	94	38	132
(Sources: Data results, 2018)			

RESULTS AND DISCUSSION

Analysis using the Gephi 9.2 results in the following network structures:

Indicators of Degree Centrality

The degree of centrality is defined as the number of connections a node or an actor has. The degree of centrality describes how many nodes or actors can be directly contacted by other nodes or actors.

The results of the laboratory data, which are supported by the results shown by the network structure of degree centrality, show that the surrounding community (as a part of social community actors) comprises the actors with the most connections (409) in the creative industry of entrepreneurial ecosystem in the East Priangan Region (Figure 1).

The social community is part of the entrepreneurial ecosystem related to the social environment that influences entrepreneurship itself. Entrepreneurship can be considered as self-reinforcing in nature, and it can concentrate geographically because of the social environment, as individuals follow social directions and are influenced by what others have chosen to do (Feldman, 2001; Minniti, 2008; Huggins & Williams, 2011). Therefore, a region can influence entrepreneurial activities through a shared culture or a set of formal and informal rules (Werker & Athreye, 2004). In areas where entrepreneurship is regarded as valuable rewards provider and employers are seen as role models, a sustainable entrepreneurial culture can be established (Saxenian, 1996; Huggins & Williams, 2011). As a valuable part of entrepreneurial capital, culture refers to the capacity of a society to generate and to build on its entrepreneurial activities to create a positive impact on regional economic performance (Audretsch & Keilbach, 2004; Huggins & Williams, 2011; Purbasari et al., 2018).
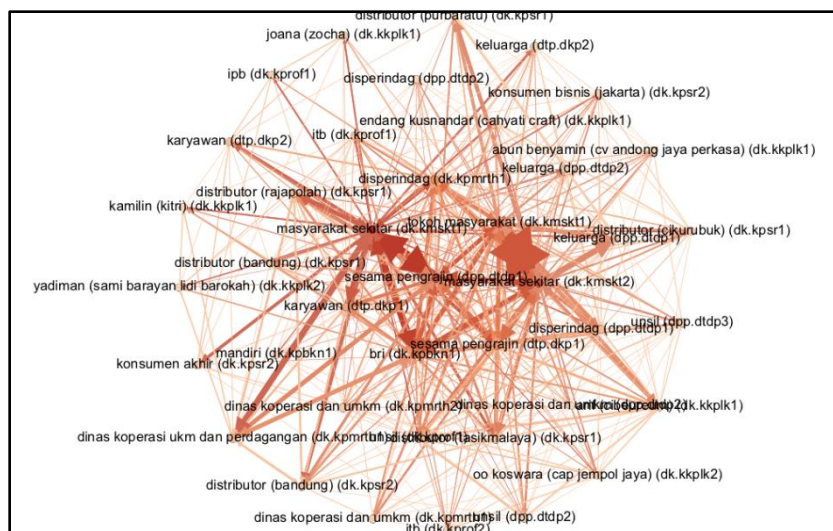
FIGURE 1
THE NETWORK STRUCTURE OF DEGREE CENTRALITY (VISIBLE 10%)
(SOURCE: GEPHI 9.2 RESULTS, 2018)

The surrounding community members serve as human resources both to the employees and craftsmen. Workers from the surrounding community include neighbours, disadvantaged communities, unemployed young people, and school dropouts. According to business actors, the surrounding community members are the actors with the best support groups and encourage the progress of the creative Industry. Considering the difficulty of determining workers who can weave, the surrounding community members are trained to master the weaving skill to help business production.

Market actors confirmed the involvement of the surrounding community, especially related to the empowerment of housewives as labourers. The surrounding community also played a major role in the promotion of products from market actors, especially through word of mouth. Academic actors revealed that the surrounding community members were involved in several activities organized by professional actors, such as community service, that are inseparable from the community.

Government actors, such as the Education Office, state that the surrounding community members became learning citizens from the entrepreneurship training program organized by the offices. The Cooperative, MSME (Micro, Small and Medium Enterprises) and Trade Office considers that the community members are the targets of training and coaching to master the weaving skills and to advance the creative industry.

Thus, from all the connections that the surrounding community has and based on the description of the network structure of degree centrality, the surrounding community can be understood as the social community actors with the most connections with other actors. The surrounding community can also be implied as the most involved actor in the creative industry of entrepreneurial ecosystem in the East Priangan Region. This finding means that one of the aspects of the entrepreneurial ecosystem is the fundamental role played by social and cultural factors (Venkataraman, 2004). In many ways, entrepreneurship occurs within the framework of

socio-cultural structures (Spilling, 1996), which are fundamentally and locally determined and strongly emphasized as road-dependence (Gertler, 2010; Welter, 2011).

Indicators of the Closeness Centrality

Closeness centrality is the average length of the shortest path between nodes or actors and all nodes or actors in the graph. Thus, a rise in the number of central nodes or actors also increases their proximity to all other nodes or actors. Closeness centrality describes how fast this node or actor can reach all nodes or actors in the network.

From the results of laboratory data and supported by the results of the network structure of closeness centrality (Figure 2), the actor with the shortest path (the highest degree of closeness centrality (0.666667)) is the surrounding community. The surrounding community members evolve into social community actors with the best ability to disseminate knowledge and information to all actors involved in the entrepreneurial ecosystem of the creative industry in the East Priangan Region.
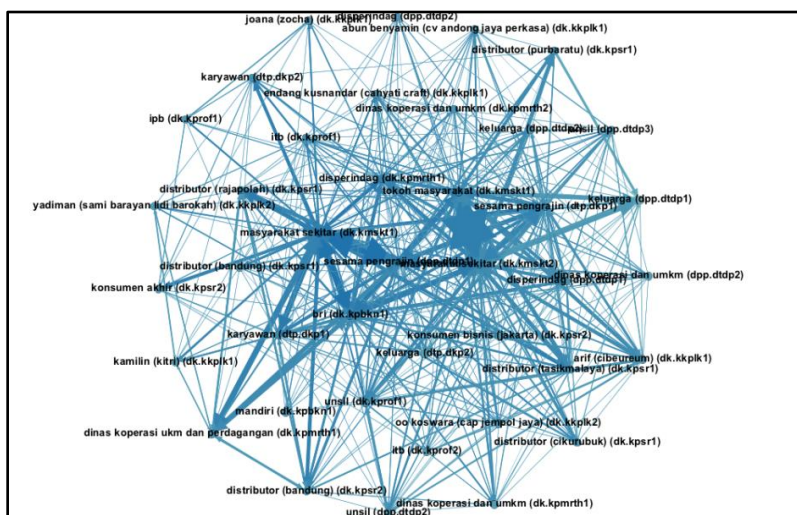

FIGURE 2
THE NETWORK STRUCTURE OF CLOSENESS CENTRALITY (VISIBLE 10%)
(SOURCE: GEPHI 9.2 RESULTS, 2018)

The description of the closeness centrality shows that the entrepreneurial ecosystem has a temporal dimension due to its progressivity and geographical dimensions, which are caused by closeness of the actors. The importance of entrepreneurial culture in ecosystems (Neck et al., 2004; Cohen, 2006; Isenberg, 2010; 2011; Kantis & Federico, 2012) is then ultimately highlighted. Entrepreneurship culture is born from the environment that shapes it, including society.

According to government and academic actors, the surrounding community members became social community actors with the highest degree of closeness. Accordingly, they successfully disseminated knowledge and information faster than other actors did; the surrounding community can be said to interact with government and academics although they seldom do that. Market actors were claimed to have frequent interactions with the surrounding

community members. Market actors added that in the past two years, the interaction was actively carried out for the development of the businesses. Similarly, other social community actors revealed that interactions were often carried out, especially when it concerned information regarding the availability of jobs in the creative industry. This information eventually circulated within the social community, especially among members of the surrounding community.

In relation to the role of the surrounding community, four frameworks illustrate why a region can become a profitable entrepreneurial ecosystem, two of which can explain the above conditions (Feld, 2012; Jennen et al., 2016).

First is the desired location because of external conditions or its location in the geographical area as the centre of entrepreneurship based on the economy aggregate. Thus, it builds a good economic scale. With various infrastructure, knowledge, suppliers, and the availability of labour with certain industry knowledge, companies can benefit from sharing ideas and reducing costs.

Second, network effects operate as follows: a rise in the number of people in the network enhances practices, inspiration, and talents which can be shared; it also increases the value of locations. Nevertheless, it requires more than mere co-location to create a horizontal network that develops a culture of openness and horizontal information exchange between companies and industries (Saxenian, 1996; Jennen et al., 2016).

Indicators of Betweenness Centrality

Betweenness centrality is a measure of centrality in a graph based on shortest paths by quantifying the number of times a node acts as an intermediate (directly mediating) along the shortest path between two other nodes.

From the results of laboratory data and supported by the results of the network structure of betweenness centrality (Figure 3), the actor with the most direct route (directly mediating) between two nodes or actors in the network is the surrounding community; the actor with the highest degree of betweenness centrality (41060.5). This finding means that the surrounding community members are social community actors with the most direct route (directly mediating) between two nodes or actors in the creative industry of entrepreneurial ecosystem in the East Priangan Region.

According to business actors, the surrounding community members were involved in the creative industry as a workforce (employees or craftsmen). With this role, the surrounding community members often mediate between business actors and market actors related to production and marketing activities. Academic actors also acknowledged that the surrounding community members are actors involved in research and community service activities, both as research sources and as objects of the activities. In this case, the surrounding community members help mediate academic actors with other social community actors, market actors, business actors, and even government actors in activities related to the creative industry.

Similarly, market actors explained that the surrounding community members played a role in helping mediate market actors with housewives as part of the surrounding community members, who were empowered by market actors. Closeness centrality is generally related to the needs of jobs or vice versa.
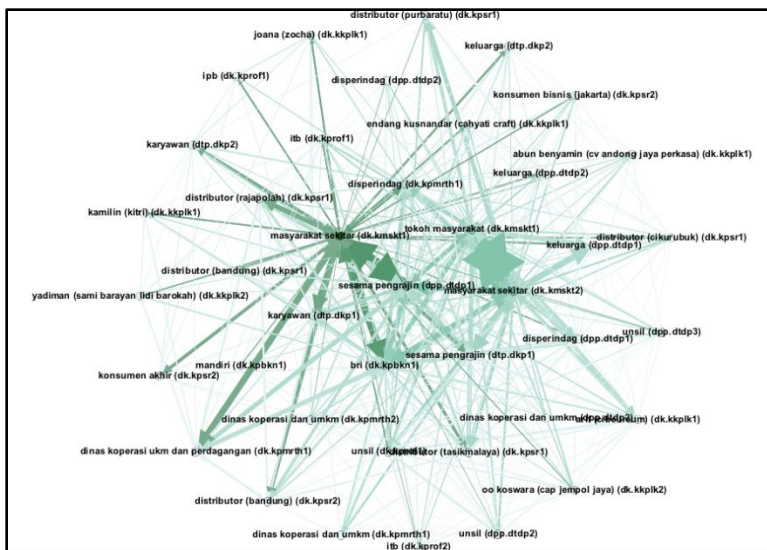
FIGURE 3
THE NETWORK STRUCTURE OF BETWEENNESS CENTRALITY (VISIBLE 10%)
(SOURCE: GEPHI 9.2 RESULTS, 2018)

Bankers also stated that the surrounding community members successfully helped mediate bankers with other actors and communities related to banking activities, one of which was the promotion of business funding programs to the general public. The surrounding community members, in this case, have helped develop information about these activities for other community actors who might need them; the surrounding community members who act as employees are often asked to represent business actors in these activities, who will then convey the information obtained to business actors.

For government actors, the surrounding community members were involved as learning citizens. In addition, the surrounding community members were also involved as the targets of training and coaching to master entrepreneurship skills. Therefore, government actors need the surrounding community members to mediate them and other social actors in conveying information regarding these activities to involve other people.

The role of the surrounding community members as an intermediary for many actors involved in the entrepreneurial ecosystem can help business actors in expanding networks, especially information and knowledge networks, and in encouraging or maintaining a culture of entrepreneurship. Minniti (2008) writes that social interactions in the local business environment will reduce ambiguity and uncertainty about entrepreneurial practices and new business processes. The mechanism shows how the local entrepreneurial culture, regardless of its source, creates new entrepreneurs. In turn, the latter helps maintain culture from time to time. In fact, the externality of local social networks in entrepreneurship, regardless of whether they are related to information, knowledge, effect status, or self-confidence, shows that entrepreneurship increasingly strengthens over time (Andersson & Magnus, 2014).

Indicators of Eigencentrality

Eigencentrality (also called Eigenvector centrality) is a measure of the influence of nodes or actors in a network. Eigencentrality describes how well these nodes or actors are connected to other well-connected nodes or actors. This measurement shows the importance or value of a node or actor in social networks.

From the results of laboratory data and supported by the results of the network structure of eigencentrality (Figure 4), the surrounding community is the actor who has good connections and well connected with other nodes or actors in the network of entrepreneurial ecosystems in the East Priangan Region; the actor with the highest degree of eigencentrality (1). Thus, the surrounding community, as part of social community actors, can be understood as the most important actor in the entrepreneurial ecosystem of the creative industry in the East Priangan Region.
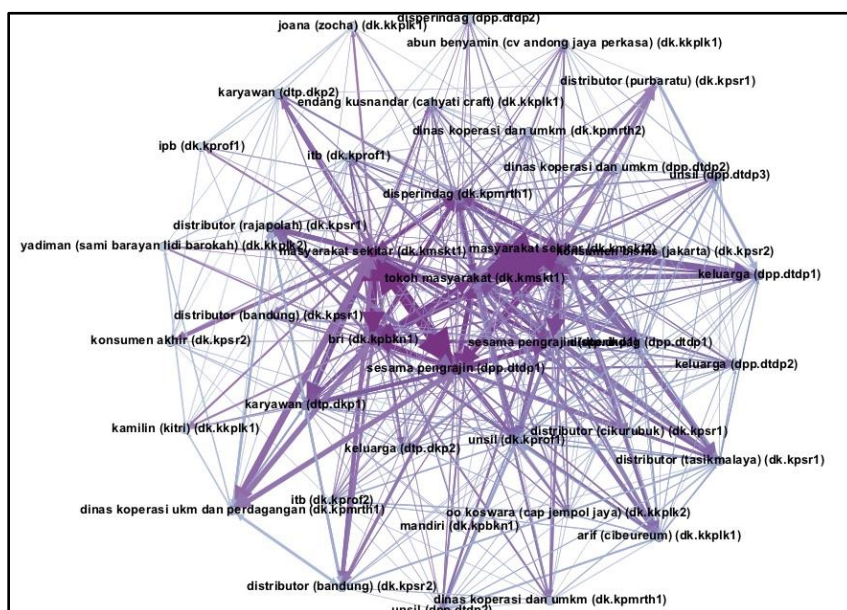

FIGURE 4
THE NETWORK STRUCTURE OF EIGENCENTRALITY (VISIBLE 10%)
(SOURCE: GEPHI 9.2 RESULTS, 2018)

This finding is confirmed by the results of measurements in the previous dimension. The results are indicated by several connections: the ability to spread knowledge quickly, the position to directly mediate between two other actors, and the importance they hold as actors in the creative industry of the entrepreneurial ecosystem in the East Priangan Region.

The surrounding community members contribute to the success of business actors by playing a role in shaping the culture of entrepreneurship. Audretsch & Keilbach (2004) state that the entrepreneurial capital embedded in a region understands various legal, economic, institutional, and social forces, all of which affect the capacity of the local economy to produce new businesses. Entrepreneurial capital is defined as the contribution of regions, with factors conducive to the creation of new businesses. This finding implies the existence of a regional

environment that encourages new business activities, such as innovative environments, the existence of formal and informal networks, the acceptance of the general social community for entrepreneurial activities, as well as the venture capital and bankers who are willing to share risks and benefits. Therefore, the regional environment can influence entrepreneurial activities through a shared culture or a set of formal and informal rules (Werker & Athreye, 2004).

CONCLUSION

Based on the centrality dimension used to measure the entrepreneurial ecosystem model in the form of a network structure, this study confirmed that the actors playing the most roles in the entrepreneurial ecosystem of the creative industry in the East Priangan Region was the surrounding community (social community actors). The indicators of degree centrality, closeness centrality, betweenness centrality, and Eigencentrality showed that the surrounding community consistently emerged as actor with the most connections. This actor spread knowledge fast, hold a position that directly mediate between two actors, and played the most roles in the entrepreneurial ecosystem of the creative industry in the East Priangan Region.

Some practical suggestions can now be given. The social community actors should increase their involvement in creative industries, especially community leaders and local communities, not only as labourers but also as creators of suitable atmosphere and comfortable and attractive concepts for tourists. The social community actors should promote creative industries by utilizing social media and word of mouth to let outsiders notice the excellence of creative industries in their region.

In addition, business actors, along with social community actors and the government, are advised to form industrial communities to help strengthen networks of cooperation among business people, social communities, and government. Doing so will increase entrepreneurial spirit and mind-set to encourage dynamics, development, and sustainability in entrepreneurial ecosystem.

Further Research

Further research can examine collaboration, synergy, and alignment in the interactions among actors in the entrepreneurial ecosystem because improving the performance of the entrepreneurial ecosystem is necessary in creating productive entrepreneurship. Further studies are also recommended to review other concepts, such as community, institutions, SME, and digital technology (start-up)—these aspects have not been thoroughly discussed in the research of entrepreneurial ecosystems. The concept of collaboration, synergy, and alignment in the interactions among actors in the entrepreneurial ecosystem is also important because the integration of actors can improve the performance of entrepreneurial ecosystems in generating productive entrepreneurship.

Research Implication

This research broadens one's knowledge about the entrepreneurial ecosystem by utilizing the network theory perspective, which can be used as a new approach in the study of entrepreneurial ecosystems not covered by previous research. Practically, the results of this study can be used by stakeholders (business actors, government, bankers, academics, markets, and

social communities) in the entrepreneurial ecosystem and in establishing effective and efficient strategies and policies related to the development of creative industries in each entrepreneurial ecosystem region. The results also represent the effort to build quality entrepreneurs by producing innovative products or services that can increase market demand both domestically and globally. This condition will certainly have a positive impact on local competitiveness.

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