

Investigating the communication network for batik village tourism stakeholders to support smart economy in Bogor regency, Indonesia

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ABSTRACT

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Unequal development is a major factor in measuring Indonesia's poverty problem, resulting in areas that are left behind. It is a primary concern of the government and stakeholders since it is unresolved and will lead to more problems in the community. Therefore, the government and stakeholders conduct various village developments to prosper the community. One is Batik village in Kemang, Bogor Regency, Indonesia. The Pakuan University of Bogor initiated the village development program. The collaboration forms a communication network and communication patterns to facilitate the delivery of messages. This study aims to identify and analyze the communication network pattern of stakeholders in the development of Kampung Batik in Kemang, Bogor Regency, Indonesia. This study is designed using a qualitative approach through interviews with relevant stakeholders. The communication network was analyzed using Sociometric Analysis through UCINET VI. The result indicates that the relationship between actors in the development of Kampung Batik is 75.5 percent and categorized as quite strong. Also, the communication pattern formed is an all-channel pattern with five actors who act as the star, bridge, opinion leader, liaison, cosmopolite, and isolate. This model supports the smart economy's potential to develop a smart village.

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1. Introduction

Indonesia is categorized as a developing country with unequal development that has become the leading cause of the significant problem of poverty (Sugiharjo et al., 2022). On the basis of recorded data from BPJS, the number of Indonesian residents categorized as poor is 9.66 percent (25.67 million people), with 13.1 percent in rural areas (Mariyam, 2018). With rural poverty rates still high, many people are moving to cities. The urban population 2050 is predicted to continue to increase, reaching 66 percent (Zamroni et al., 2015). A reduction will follow the consequence of an increase in the population of urban people in the population of people living in rural areas. It should be a concern for stakeholders because the government is

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aware that if it fails to fix the problem of poverty, it will create more problems in society, especially in the social, economic, and political realms (Setya Yunas, 2019).

Smart villages and rural communities are constructed by the respective locality's inherent strengths and available resources (Tosida et al., 2020). One of the government's efforts is to form a program called Increasing the Role of Women Towards Healthy and Prosperous Families or P2WKSS, which is devoted to encouraging the role of women to improve family welfare with a quality life. As explained in Ministerial Regulation Number 26 of 2009 concerning the Implementation of Increasing the Role of Women Towards Healthy and Prosperous Families in the Regions, P2WKSS has three main programs: Basic Programs, Advanced Programs, and Supporting Programs (Hartanto et al., 2021). In 2020, one of the villages in Kemang District, namely Tegal Village, succeeded in representing Bogor Regency in the P2WKSS competition. The election of Tegal Village as a P2WKSS area encourages the potential for business development in the community.

Kemang District is one of the sub-districts in the Bogor Regency area. Of the nine villages in Kemang District, Tegal Village is one of the developing villages in Batik New Normal Village to encourage the development of tourist villages. A village can be developed into a tourist village if it fulfills one of the criteria with supporting factors: product potential and attractiveness, support from human resources (HR), people with strong motivation, good facilities, and adequate infrastructure support. There are facilities to support tourism activities, institutional roles that regulate the running of tourism activities, and the availability of land or areas that can be developed into tourist destinations (Utomo & Satriawan, 2018; Yanti et al., 2022).

The development of Batik Village in Kemang District cannot be separated from the role of the community members and stakeholders involved. The Kemang District Government, the Tegal Village, Pakuan University, the Cooperative and UKM Office, and the community work together to create a Batik Village in the Kemang District. In addition to being a way for the community to prosper with the Batik Village, it is also to support Kemang District, which has the potential to become a tourist area. Collaboration with stakeholders in village development was first proposed by the minister of tourism, Arief Yahya, and applied to the Minister of Tourism Regulation of Tourism of the Republic of Indonesia Number 14 of 2016 concerning Guidelines for Sustainable Tourism Destinations that optimize stakeholders to create tourism experiences and benefits as well as benefit the community and the environment (Aribowo et al., 2018). Pentahelix is a knowledge-based socio-economic development model for pursuing innovation and entrepreneurship through profitable collaborations and partnerships between academia, government, industry, non-governmental organizations, and business people (Tonkovic et al., 2015). The primary key to innovation success is the existence of solid synergy and commitment among stakeholders in implementing a program. The Penta helix model is useful for managing actor-based complexity (Slamet et al., 2017).

Batik New Normal Village was formed by the Pakuan University service team and the Cooperative and UKM Service to encourage active community participation, such as PKK mothers and youth organizations in forming a batik micro business community (Andria et al., 2022). The socialization that was carried out to encourage the thematic village produced 30 batik craftsmen in increasing batik production in Tegal Village. Various training and comparative studies are carried out on an ongoing basis facilitated by the Office of Cooperatives and SMEs to increase human resources in producing batik. The Kemang Regency also has an MSME Forum, which oversees community-owned businesses in the Kemang District, from snack businesses to knitting bags and batik businesses, which are included in the coordinated businesses under it because they can become micro-enterprises for the community. In addition, the batik micro business community in Tegal Village also received training to process batik waste so that the production remains environmentally friendly and can be recycled to minimize the waste produced.

Batik Village in Kemang Regency was established to encourage Kemang District to become a smart village. Viswanadham suggests the concept of a smart village refers to a set of services that can be provided to rural communities and business actors effectively and efficiently by relying on four aspects: institutions, resources, service chains, and technology and delivery mechanisms. A smart village is a concept that aims to realize governance and improve services to its citizens (Huda et al., 2020). The European Network for Rural Development defines a smart village as a set of services provided more effectively and efficiently to public and private groups. Not only focusing on developing information and technology but also on strengthening human investment and community social capital and fulfilling village physical investments (infrastructure) (Dewi et al., 2022; Huda et al., 2020).

The activities carried out by the batik micro business community are inseparable from the importance of various accesses in implementing and developing their batik business, such as information on batik production and waste management. The flow of information and communication within the batik micro business community forms a network that strengthens the development of batik businesses regarding information and communication. The key to understanding network analysis is to focus on the structure of the relationship rather than the attributes that exist in the relationship (Giuffre, 2013).

According to Rogers, a communication network with a patterned flow of communication can form a social system where an innovation has been introduced. People tend to seek confirmation by asking members who are physically and socially close to them and are deemed capable of providing information about the innovation. As a result, some members will be selected,

and some will be ignored. The affected parties will develop a communication network because of this situation (Rochmaniah & Syamsudin, 2018).

The communication network pattern is a form or relationship between two or more people in the process of delivering messages so that the message's intent can be understood (Mendrofa & Syafii, 2019). The interactions and relations of stakeholders in the development of Batik Village in Kemang District will form communication patterns. This pattern will describe how actors communicate and how information flows between actors, which is an important basis for the development of Kampung Batik in Kemang Regency. This study seeks to identify and analyze the communication network pattern of stakeholders in the development of Kampung Batik in Kemang, Bogor Regency, Indonesia.

2. Social Network Terminology

2.1. The principles of social network

Social Network is an initial concept pertaining to the interrelationships among various players. Network analysis emphasizes the significance of comprehending players' interactions rather than solely concentrating on the characteristics of individual actors. The social network indicated a shift in perspective, moving away from explanations that focus solely on individuals, their core characteristics, and isolated factors towards a more comprehensive understanding that considers the interconnections, context, and broader systems involved (Freeman, 2004). Others inside organizations or social groups commonly engage in reciprocal interactions with others who are part of their familial, friendship, or acquaintance networks rather than with unfamiliar individuals (Balkundi & Kilduff, 2006; Hartanto et al., 2021). The concept of social network research posits that network connections are considered social capital, which is believed to possess inherent worth. As stated in their work, Brass and Krackhardt assert that social capital is central to social network analysis. The value an actor can extract is contingent upon the configuration of social ties, as Burt indicates (Balkundi & Kilduff, 2006). At the systemic level, a comprehensive essence arises and plays a role in the numerous instances of trust and interdependence among individual agents inside the system (Balkundi & Kilduff, 2006), (Portes, 2000).

The fourth one places significant importance on recognizing and analyzing structural patterning. Researchers in the field of network analysis seek to identify and analyze the patterns of "connectivity and cleavage" within social systems (Lincoln et al., 1990), as cited in (Tosida et al., 2020). This study examines the structural characteristics that players utilize to generate and perpetuate network linkages. At the micro-level of a specific actor, the configuration of connections can be characterized as either closed (actors exhibit a tendency to be interconnected) or open (actors tend to be separated) (Burt, 1992) in (Tosida et al., 2020). At the systemic level, the assessment of the organizational network aims to determine the level of clustering present and the efficiency with which any two actors can establish contact through a limited number of network connections.

2.2. The role of communication networks in village development

Communication networks facilitate government and community development by promoting openness, boosting engagement, and enhancing catastrophe resilience (Mardhiah et al., 2023). Enhancing efficiency and openness in government operations heavily relies on implementing effective communication channels within the government (Sanina et al., 2017). The significance of good communication cannot be overstated, as it serves the purpose of disseminating correct information, upholding public trust, and safeguarding the well-being of individuals (Sanina et al., 2017). The user's text is not sufficient to be rewritten academically. Communication networks play a significant role in reducing disaster risk by enhancing public awareness and disseminating crucial information about catastrophes and areas susceptible to such events. The efficiency of government communication strategies is in their ability to convey clear messages through suitable channels, hence promoting community involvement and enhancing policy effectiveness (Hyland-Wood et al., 2021; Prastya et al., 2022; Triyanto et al., 2022). The structure, analysis, and reinforcement of community connections through communication networks contribute to developing environmentally sustainable behaviors and strengthen resilience in the face of adversities (Lasinta et al., 2019). Communication networks play a crucial role in facilitating interactions between the government and its community, managing crises, and fostering community development. These networks enable informed decision-making, active engagement, and the cultivation of resilience.

3. Materials and Methods

This study uses a qualitative approach supported by a quantitative method approach post-Positivist because it requires collecting both qualitative and quantitative data (Williams & Shepherd, 2017). Research methodology is a scientific method to collect useful information with a specific purpose. According to the scientific method, research efforts are based on science's rational, empirical, and systematic aspects. Based on what has been learned, it can be concluded that a research technique is a process applied scientifically and methodically to collect data for a purpose that has been decided to be researched (Mardhiyyah Soenar & Nurrahmawati, 2021). This type of research is descriptive qualitative, which describes social reality in detail regarding actors and structures in a network (Eriyanto, 2014).

This study focuses on the description of the communication network in full network analysis at the actor level. The population in this study are stakeholders related to the development of Batik Village in Kemang District. Determination of the sample was carried out using the Snowball method, namely by expanding the informants from those mentioned by the previous informants. The data collected in this study were processed and analyzed using sociometric analysis procedures and communication network analysis. Sociometric analysis is the application of analytical techniques to the collected quantitative data. The collected data will be inputted and processed using UCINET VI. According to Prell, sociometric analysis is used to identify structures, including individual positions in a network. The sociometric analysis in this study aims to describe communication patterns and the role of individuals in communication networks (Hamid et al., 2020). Communication network analysis is used to identify the structure of communication within a system by analyzing the relationships regarding the flow of communication using several types of interaction relationships as units of analysis. Communication network analysis consists of degrees of centrality, closeness centrality, and betweenness centrality, which were analyzed using the UCINET VI software.

4. Results and Discussion

4.1. Overview of Batik in Kemang Village

Kampung Batik in Kemang is the collaboration between Pakuan University, the Office of Cooperatives and UKM, and the Tegal Village in 2020. The choice of Tegal Village for the New Normal Batik Village program initiated by Pakuan University was based on the election of Tegal Village as P2WKSS (Increasing the Role of Women Toward a Family Healthy and Prosperous), Bogor Regency. P2WKSS activities in Tegal Village have not had a real impact because there are difficulties in managing a business limited to marketing. The activity initiated by Pakuan University coincided with the socialization of the Entrepreneurial Village in Tegal Village based on directions from the Bogor District Office of Cooperatives and SMEs.

The activities carried out include the first training in batik micro business management whose material focuses on marketing management. In this training, the thing that is taught is the importance of making a marketing strategy to compete with competitors from the price, product, place, and promotion strategies. Second, training on marketing cooperation facilities by teaching how to communicate well in contacting third parties in the bidding process. Third, training in batik production by introducing the stages of making written and stamped batik, the tools and materials used in batik production. Fourth, training on creating a digital store and its management by introducing the concept of selling offline versus selling online. Besides that, a marketplace was also introduced that could be used in marketing the results of batik production and taught how to use it. Fifth, bookkeeping training by providing an understanding of the impact of bookkeeping on business development.

The development of the village is continued with discussions between Pakuan University, the village head, and prospective Tegal village batik craftsmen. Then, the New Normal Bogor Batik Micro Business Group was formed as one of the Regional Superior Product Development Programs carried out by Pakuan University. The formation of the New Normal Bogor Batik Village in Tegal Village in 2021 motivated the people in Kemang District to participate in the batik business so that this Batik Village could expand to every village in the Kemang District.

4.2. Stakeholders Communication in the Development of Batik Village in Kemang

In the development of Batik Village in Kemang District, stakeholders communicate formally and informally. Formal communication or through official channels is the flow of messages through the communication channels that the organization has established as a way of disseminating information. The communication of stakeholders in the development of Kampung Batik is carried out in regularly scheduled meetings or forums, usually through an official invitation letter. Stakeholders communicate informally, such as discussing batik outside official forums or via WhatsApp. Things that are often discussed or discussed are about the production of batik, marketing, and the facilities and infrastructure needed in producing batik.

The Kemang sub-district plays a role as a facilitator and lighter or giver of encouragement to the community in the development of Batik Village. The sub-district also often consults with sub-district heads in other areas related to marketing or marketing for batik. The Office of Cooperatives and UKM has a role in facilitating batik training, coaching management procedures, and providing budgets for needs. Such as training for prospective batik craftsmen in Pekalongan for a month to get a certificate. Department of Cooperatives and SMEs Bogor Regency is coordinating with the Head of the Kemang Subdistrict Head and the Secretary of the Kemang Subdistrict regarding consolidating human resources for Kampung Batik so that information will be notified by letter or by informal communication from one person spreading through groups on WhatsApp. The UMKM Forum in Kemang District has a role as a coordinator in the batik community, which acts as a dissemination of information from the government to batik actors. Pakuan University has a role as a liaison for stakeholders, implementation, and monitoring where para stakeholders give each other news about the sustainability of Kampung Batik either through WhatsApp or phone.

The process of disseminating information is easier because communicating with various parties related to the development of Batik Village in Kemang District utilizes group chat features in WhatsApp. Like the actor Elly getting directions from the

Office of Cooperatives and UKM or from the Kemang District Government, this information will be disseminated by Elly via group chat, which exists in WhatsApp so that every community member of the batik production community will know this information.

4.3. Stakeholders Communication Network in the Development of Batik Villages in Kemang

By identifying the indicators of the trend toward change, then map change agents of influence in encouraging community participation. Referring to the theory Propensity by Change Lerner (Lindh & Thorgren, 2016). The communication network is a picture of the flow of message exchange within the group. In the communication network, each interaction of the actors will describe interpersonal communication, which can produce the roles of each actor who communicates with each other on certain topics. The communication network system developed for the stakeholders in the development of Batik Village in Kemang District was due to the interaction of stakeholders in exchanging messages, from giving and receiving to disseminating information. Based on the Pentahelix concept, five stakeholders influence village development: government, academics, community/society, businesspeople, and the media.

In the development of Batik Village in Kemang District, more precisely in Tegal Village, only four stakeholders coordinate with each other, namely the government, businesspeople, academics, and the community. After interviews with stakeholders, this study confirmed that no media specifically coordinated the development of Kampung Batik. Publications about Kampung Batik are still going through the official website of Kemang District and through Pakuan University as academics who intercede for several media to publish some news on the progress of Kampung Batik, which is being implemented. So, from four sides of stakeholders, a total of eleven communication network actors were interviewed and related to the development of Batik Village in Kemang District, namely five people from the relevant government, one person from a businessman, three people from the community that produces batik, and one person from Pakuan University as an academic.

Table 1

Actors of the communication network on the stakeholders in the development of Batik Village

No.	Name	Position	Group	Color
1.	Rameni	Head of District	Government	Green
2.	Hermawan	District's Development Head Unit	Government	Green
3.	Budi Riva	Secretary of District	Government	Green
4.	Kasim Sunardi	Head of Village	Government	Green
5.	Ahmad	Village Secretary	Government	Green
6.	Elly Yuliana	Head Forum of SMEs	Businessman	Red
7.	Novarida	Batik Entrepreneur	Community	Blue
8.	Santi Triastuti	Batik Entrepreneur	Community	Blue
9.	Ida Soviati	Batik Entrepreneur	Community	Blue
10.	Eneng Tita	Lecturer of Pakuan University	University	Blue
11.	Linda	Secretary of SMEs in Regency Level	DISKOPUMKM	Yellow

Fig. 1 shows the results of the analysis of communication networks in the form of sociograms using UCINET VI. There are 11 nodes for a total of 83 ties, which shows the relationship between actors in giving and receiving information about the development of Batik Village in Kemang District. The green color indicates actors within the scope of government, the blue color indicates actors within the scope of the batik community, the red color indicates actors within the business sphere, namely the MSME forum, and the yellow color indicates actors within the academic sphere, namely Pakuan University. The actors depicted are the center of the relation between actors, namely Rameni and Budi Riva, with the nodes in the center of the sociogram. There are 83 ties with a density or density of 0.755 and a standard deviation of 0.430. A density of 0.755 or 75.5% indicates a strong relationship between actors. The most frequently discussed information is about the production of batik and how to do marketing for the sustainability of this batik. The exchange of information and forms of coordination are done directly and through WhatsApp.

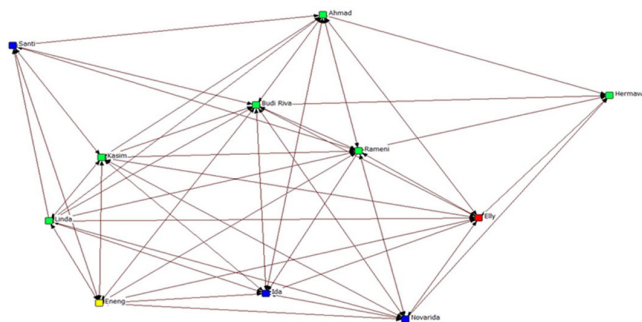


Fig. 1. Sociogram of the communication network of Batik Village development actors in Kemang using UCINET VI

The communication network analysis method used is the level of intact network analysis to see the centrality of actors based on:

1. Rank Centrality (Centrality Level)

The level of centrality shows the actor's popularity in a social network by looking at the number of links to and from the actor. In a network with a direction (directed), the degree this could be indegree, i.e., the number of connections or ties leading to the actor or outdegree, namely the number of links coming out of actors (Eriyanto, 2014). Table 2 shows that the actor with the most links that lead to the actor is Kasim as the Tegal Village Head with a value of ties (Mardhiyyah Soenar & Nurrahmawati, 2021). Meanwhile, the actor with the most outgoing links is Rameni, with a score of ties (Lindh & Thorgren, 2016). By this figure, Kasim and Rameni were famous actors in the network. It means that the two actors make the most contact and are contacted and have a strong cooperative relationship in providing information. These results show the importance of communication between levels of leadership in local government. Effective government communication necessitates careful planning, the establishment of quantifiable objectives, and the ability to evaluate outcomes, which can be further reinforced by providing incentives at the sub-district level. There is a need to augment the funds allocated for the capacity-building program targeting local institutions (Simbolon et al., 2022).

Table 2
Rank Centrality Results with UCINET VI

No.	Actors	OutDegree	InDegree	NrmOutDeg	NrmInDeg
1.	Rameni	25	21	50	42
2.	Elly	24	21	48	42
3.	Budi Riva	21	21	42	42
4.	Novarida	21	20	42	40
5.	Kasim	21	23	42	46
6.	Ahmad	16	15	32	30
7.	Linda	14	9	28	18
8.	Eneng	11	15	22	30
9.	Hermawan	11	13	22	26
10.	Santi	8	8	16	16
11.	Ida	7	13	14	26

2. Proximity Centrality (Closeness Centrality)

This section describes the actor's closeness to all actors in the social network. Proximity is measured by calculating the number of paths or paths for an actor to be able to contact or be contacted by other actors in the network. Proximity centrality can be obtained by dividing the shortest paths between one actor and another in a network (Eriyanto, 2014). Table 3 shows that in Closeness, Budi Riva has the highest score of 100, and in Closeness, Rameni also has the highest score of 100. It means that the two actors have the convenience of interacting and disseminating information to other actors in a working relationship.

Table 3
Proximity Centrality Results with UCINET IV

No.	Actors	inFarness	outFarness	inClose	outClose
1.	Budi Riva	10	11	100	90.909
2.	Rameni	11	10	90.909	100
3.	Elly	11	11	90.909	90.909
4.	Kasim	11	11	90.909	90.909
5.	Ida	12	15	83.333	66.667
6.	Linda	13	11	76.923	90.909
7.	Ahmad	13	12	76.923	83.333
8.	Novarida	13	12	76.923	83.333
9.	Eneng	13	12	76.923	83.333
10.	Hermawan	15	17	66.667	58.824
11.	Santi	15	15	66.667	66.667

3. Intermediary (Betweenness) Centrality

Intermediary centrality shows the position of an actor as an intermediary in the relationship between one actor and another in a network. This intermediary relates to whether one actor can contact another actor directly or must go through another actor (Eriyanto, 2014). Table 4 shows that the Rameni actor has the highest Betweenness score with a value of 6.126, meaning that the Rameni actor plays an important role as a facilitator in a network.

Table 4
Results of Intermediary Centrality with UCINET IV

No.	Actors	Betweenness	InBetweenness
1.	Rameni	6.126	6.807
2.	Budi Riva	5.376	5.974
3.	Elly	4.193	4.659
4.	Kasim	3.293	3.659
5.	Ahmad	2.883	3.204
6.	Novarida	1.550	1.722
7.	Eneng	1.500	1.667
8.	Linda	1.293	1.437
9.	Ida	0.476	0.529
10.	Santi	0.310	0.344
11.	Hermawan	0.000	0.000

4. Eigenvector Centrality

Eigenvector aims to describe how important people who have networks with actors are. It is measured by how many networks people/organizations/institutions have with actors (Eriyanto, 2014). Table 5 shows that the highest eigenvector value is in the actor Elly with a value of 0.402, which indicates that this actor has a fairly important role because he has a lot of networks with other actors. Actor Elly, Chair of the UMKM Forum in Kemang, has an important role in coordinating every community-owned business. From the interview results, this study found that the actor Elly was also a coordinator in the batik business under the direction of DISKOPUKM in providing training related to the batik production process in Tegal Village. Actor Elly also has many relationships selling ready-made batik cloth in Bogor Regency.

Table 5
Eigenvector Centrality Results with UCINET VI

No.	Actors	Eigenvec	nEigenvec
1.	Elly	0.402	56.860
2.	Rameni	0.383	54.211
3.	Kasim	0.380	53.694
4.	Novarida	0.354	50.075
5.	Budi Riva	0.346	48.923
6.	Eneng Tita	0.259	36.590
7.	Linda	0.252	35.685
8.	Hermawan	0.234	33.040
9.	Ahmad	0.228	32.231
10.	Ida	0.222	31.391
11.	Santi	0.126	17.777

The role of the communication network stakeholders in the development of Batik Village, namely:

1. Click

Click is a group formed in a network consisting of 3 people. In a click, at least each actor must interact either directly or indirectly with each other. Clicks are formed based on the surrounding environment that contacts actors, and they are satisfied with this contact (Hamudya et al., 2021).

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WARNING: Valued graph. All values > 0 treated as 1
6 cliques found.
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1: Rameni Elly Linda Eneng Novarida Budi Riva Ida Kasim
2: Rameni Elly Linda Budi Riva Ida Ahmad Kasim
3: Rameni Hermawan Elly Novarida Budi Riva
4: Rameni Hermawan Elly Budi Riva Ahmad
5: Rameni Linda Eneng Budi Riva Kasim Santi
6: Rameni Linda Budi Riva Ahmad Kasim Santi
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Fig. 2. Click results using UCINET VI

Fig. 2 captures that six Cliques were formed, namely Click One consisting of Rameni, Elly, Linda, Eneng, Budi Riva, Novarida, Ida, and Kasim. The two-click group consists of Rameni, Elly, Linda, Budi Riva, Ida, Ahmad and Kasim. The three-click group consists of Rameni, Hermawan, Elly, Novarida and Budi Riva. The four consist of Rameni, Hermawan, Elly, Budi

Riva and Ahmad. The five members of the Clique are Rameni, Linda, Eneng, Budi Riva, Kasim and Santi. The six members are Rameni, Linda, Budi Riva, Ahmad, Kaim and Santi.

2. Isolate

Isolates are actors with little or no contact with other actors in the group. Regarding personal matters, this isolated actor will become a loner (Hamudya et al., 2021). The actor isolated in this network is Hermawan, with the least interaction with other actors. It was because Hermawan had only served as Acting Head of the Sub-Division of Kasiekbang for one month when the interview occurred.

3. Bridge

Bridge are actors in the network who have access to relationships or contacts between high groups and have relationships with other cliques. Actor to bebridge acts as a liaison between other groups (Hamudya et al., 2021). If seen from Figure 2, where Rameni is included in each clique membership that is formed, the actor who acts as a bridge is Rameni, who has relationships between clique groups and has the potential to become the right actor liaison.

4. Connector (Liaison)

Liaison is actors who become links between groups but are not themselves members of the linked groups (Hamudya et al., 2021). The actor who plays the role of liaison is Eneng, part of Pakuan University academics. These actors connect each other between group members even though they are not part of the group, in line with its role as a liaison for stakeholders in the development of Batik Village. As Eneng explained, Pakuan University as an academic has the role of connecting stakeholders such as the Cooperative and UKM Office, the Kemang District government, the Head of Tegal Village, and the community assisted by batik production training in uniting goals in developing potential as a tourism area or village.

5. Gatekeeper

Gatekeepers are actors who control the messages that will be disseminated in a system (He et al., 2012). Rolegate Keeper is owned by the actor Hermawan as an intermediary for messages that will be informed from the district to stakeholders related to Tegal Village. As explained by Hermawan and Hasan (2017), if there is information that will be conveyed through official forums or meetings, the Head of the sub-district will assign Hermawan to deliver an official letter issued by the sub-district to parties involved in the process of developing Batik Village in the Kemang sub-district.

6. Opinion leaders

An opinion Leader is an actor who does not have a formal position as a leader but has a role that influences every member of the network to act (Li et al., 2022). On the communication network stakeholders in the development of Kampung Batik, the actor who played the role of opinion leader, namely Elly, based on the results of interviews with sources from various stakeholders, chose Elly because the actor played an active role when he was in the forum and had considerable influence over other actors.

7. Cosmopolitan

Cosmopolitans are actors who contact people outside the organization (Li et al., 2022). The actor who plays the cosmopolitan, Eneng is an academic at Pakuan University. In addition to connecting with stakeholders, Eneng contacted people outside the group, such as the media, who also contributed to the publication.

4.4. *Communication Network Patterns Stakeholders in the Development of Batik Village in Kemang*

The communication network pattern is the structure of the flow of communication within an organization and describes communication relationships in work teams based on the organizational structure (Rahmawati & Sugiantoro, 2019). There are five communication network patterns: chain patterns, wheel patterns, Y patterns, circles, and the pattern of all channels (all channels). In this study, the type of network communication pattern formed in communication between the eleven actors involved in the development of Batik Village in Kemang District, there is one pattern of relevant communication network, namely the pattern of all channels.

The communication patterns of all channels are interconnected, or all members in the network have the same influence in communicating with each other. After interviews, this study found that the communication or coordination of each stakeholder related to the development of Batik Village in Kemang communicates with each other and has the same opportunity to give their opinion. In the results of the interviews, all actors stated that there was no difficulty in contacting each actor or there was no need to go through an intermediary to connect to a particular actor. Each actor has the freedom to discuss with other actors.

Even if it is an urgent situation, it can be discussed directly over the telephone. When monitoring and evaluating the progress of Kampung Batik development is carried out, stakeholders give information to each other.

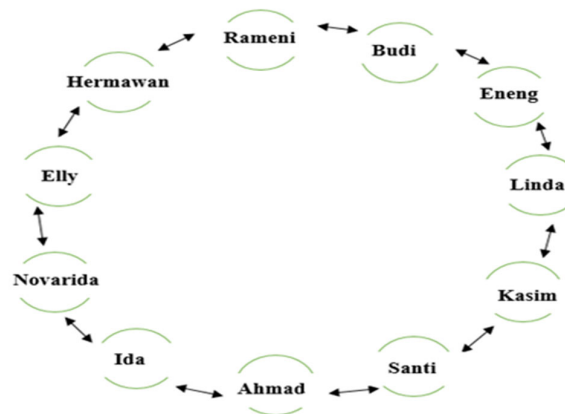


Fig. 3. Stakeholder Communication Patterns for the Development of Batik Village in Kemang District

5. Conclusions

Stakeholder communication in the development of Kampung Batik is conducted in two ways: formal and informal. Formal communication is carried out through official forum meetings and meetings, while informal communication is employed through chats outside the forum, via WhatsApp, and telephone. The information usually discussed is about batik production, batik marketing, and tools for batik. In the analysis of the communication network, this study found that the structure of the communication network formed by the stakeholders in the development of Batik Village in Kemang District had a density value (density) worth 0.755 or 75.5% which means that the communication or relationship that exists between actors is strong enough. Actor Rameni is a star actor in the network with the highest score, getting 23 ties.

There are six clicks found in the network. Actor Hermawan became isolated and gatekeeper, actor Rameni became a bridge, actor Eneng became a liaison and cosmopolitan, and actor Elly became an opinion leader. The actor-network has six cliques: Click One, consisting of Rameni, Elly, Linda, Eneng, Budi Riva, Novarida, Ida, and Kasim. The two-click group consists of Rameni, Elly, Linda, Budi Riva, Ida, Ahmad, and Kasim. The three-click group consists of Rameni, Hermawan, Elly, Novarida, and Budi Riva. The four consist of Rameni, Hermawan, Elly, Budi Riva, and Ahmad. The five members of the Clique are Rameni, Linda, Eneng, Budi Riva, Kasim, and Santi. Six clique members are Rameni, Linda, Budi Riva, Ahmad, Kaim, and Santi. Communication network patterns formed on stakeholders related to the development of Batik Village in Kemang District, namely forming a pattern of all channels where all actors have the same influence to interact with other actors.

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