Mapping of triple helix cooperation to develop local economic activation in Kampong Dolly, Surabaya

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Abstract. Kampong Dolly was popular back in the days when this district in Surabaya well-known as biggest prostitution area in South East Asia. It was not an easy job to drastically change from prostitute area into tourism destination. This collaboration is very important to do so that the potential of Kampong Dolly can be used as effectively and efficiently as possible in order to improve the welfare of the community. Triple Helix collaboration designed as a capital for developing a Local Economic Activation to support the branding of Dolly Tourism Village, improve community welfare and enhance the competitiveness of the creative industries in Surabaya City to national and international levels. The government uses SMEs scheme to employ ex-prostitute workers, therefore, it need strong commitment and hard work from many stakeholders. SMEs in Kampong Dolly has collaborated with the government, private sector and academics. However, the role of the government and academics still very weak in developing resources and technology. On the other hand, as for the collaboration of the private sector, low investment in terms of technology, which was developed to improve the advantages possessed by SMEs in Dolly Village.

1. Introduction
Kampong Dolly was popular back in the days when this district in Surabaya well-known as biggest prostitution area in South East Asia. Mayor of Surabaya, Tri Rismaharini has changed the negative branding of Dolly Village with made it into tourist destination lately. A tourist village with a variety choices of attraction ranging from mural art, traditional attraction, shopping area, and culinary. New branding program expected to improve and activate the local economic in Kampong Dolly.

It was not an easy job to drastically change from prostitute area into tourism destination. The government uses SMEs scheme to employ ex-prostitute workers, therefore, it need strong commitment and hard work from many stakeholders. On the other hand, the government use that scheme because Indonesia needs to improve the competitiveness of local products in order to compete in the global market for the sake of improving people's welfare. One of them is the need to increase the development of creative industries which encourage people to work independently [1]. Hasibuan argues that economic growth will move quickly if it is driven by creativity and innovation [2].

The potential of the creative economy highly developed with the micro-small and medium enterprises (MSMEs) based. MSMEs are able to absorb a large amount of workforce and provide an opportunity for businesses to develop thus compete with companies that more likely to use large
MSMEs people are proven to be able to survive and become the economic driving force, especially after the economic crisis in 1998 [3]. However, the five years process of development in Kampong Dolly did not significantly improve the inhabitant welfare there. Former research at the same theme in Dolly stated that each SMEs have its potentials and problems. In this study, three active MSMEs based on creative economy identified in previous study in Kampong Dolly with each potential characteristics [1]. That three enterprises that also the object of this study are Batik, Shoes, and ‘Puja’ Printing.

Even though the SMEs have formed around five years ago, the majority have problems from the production process to marketing. One of the factors that caused this problem was the lack of cooperation between the government, academics and the private sector in developing this creative economic potential [4]. Cooperation between these stakeholders is usually called Triple Helix. Triple Helix is a component of government, academia and the private sector that forms collaborative relationships to be able to increase knowledge and innovation in order to solve some of the main problems that exist [5] [6] [7]. The lack of Triple Helix cooperation can be seen from the lack of use of innovative technology from academics for the production process, marketing that does not involve the private sector and government policy, especially in terms of managing less-than-optimal permits [4].

This collaboration is very important to do so that the potential of Kampong Dolly can be used as effectively and efficiently as possible in order to improve the welfare of the community. With this research, the Triple Helix collaboration can be designed as a capital for developing a Local Economic Activation to support the branding of Dolly Tourism Village, improve community welfare and enhance the competitiveness of the creative industries in Surabaya City to national and international levels.

The aim of this study are mapping and scoring triple helix cooperation in term of activating the local economic trough SMEs. Furthermore, to develop and increase community welfare in kampong neighborhood.

2. Methods
This research used qualitative approach for determine of sampling, data record, and for the analysis. Firstly, limitation needed to define theories and empirical facts relating to the development of the local economy, especially in Surabaya as metropolitan city. The empirical facts will relate about creative industries in common, SMEs, and triple helix method. Furthermore, the theory will formulate to conceptualization the production of research variables with descriptive methods.

Population of this study are the stakeholders related to creative industries development in Kampong Dolly. Kampong Dolly was taken into consideration by the object of the study because this area faced too many problems in terms of the efforts and commitment to develop the local economy. The main problem as stated from the former study was the lack of cooperation among stakeholders. This study will try overcome these problems with developing a Triple Helix Cooperation Scheme for Local Economic Activation in Kampong Dolly, Surabaya City.

Samples in this research were taken using non probability sampling methods through snowballing sampling. Snowballing is sampling technique whom the informant has been contacted first and met with researchers then they will recommend another person which researcher don’t know. It is important process to use their social networks to refer researchers to other people who have the potential to participate or contribute, therefore, the information learnt or provided to researchers will widely varied [8]. To determine the respondents who will be involved in in-depth interviews were first taken from representatives of the government, the private sector / entrepreneurs, and the community that met the specified criteria.

Two main related process conducted to reach the goals of this research. Firstly, mapping analysis of the triple helix collaboration that has been formed in the development of Local Economic Activation in Kampong Dolly. That objective reach by casual loop diagram analysis with data from observation, structured interviews, and secondary data which own by local government agencies.
Secondly, assess triple helix cooperation level from in-depth interviews that held on each stakeholders. The analysis will conduct with linkert analysis; therefore, the result will be the cooperation level that has been established in Kampong Dolly.

3. Results and discussion

3.1 Local economic and creative industries

Local economic development aims to build the economic capacity of an area where communities, NGOs and sector partners work to create better employment and economic conditions. The potential of Dolly's ex-localization area is the presence of SMEs in Surabaya that are capable of supporting the economic activities in the small level community [1]. On the other hand, problem related to cooperation with government, private sector, and academics leads to lack of coordination between the stakeholders and the unavailability of investment coming from NGOs or private sectors [4]. Notwithstanding Surabaya City Government commitment are relatively high, their role in generating economic activity in Dolly with providing solutions and strategies are minor. The statement is the result of the community which lack of workers who capable in production or marketing, low level of capital, and weak assistant from academics [1].

The existence of these potential and problem related to stakeholder coordination, indicates that every MSME in Dolly's localization has a desire to improve the business to grow better. Therefore, in terms of specify the role of each stakeholder (government, private sector and academics) this study held triple helix mapping. That idea comes from creative industries that drastically rose in recent years. The creative industry is an industry that originates from the utilization of creativity, skills and individual talents to create prosperity and employment through the creation and utilization of the creative power and data of the individual [9]. The definition of Creative Industry according to the government is an industry that relies on human creativity, utilizing the talents and skills possessed so as to improve living standards through the creation and exploitation of [10]. Business sectors including the creative industry are advertising, architecture, art, craft, fashion, video, film, photography, game, entertainment, publishing, software, broadcasting, and R&D.

3.2 Triple Helix Method

The theory of Triple Helix was originally from Etzkowitz & Leydersonff as an innovation-based policy development method. This theory which reveals the importance of creating three-pole synergies, namely academics, business and government - in Indonesia is known as the ABG-concept. From his theory, the aim of ABG is science-based sustainable economic development. From this synergy, it is expected that scientific circulation will lead to innovation. Innovation that has economic potential, or capitalization of knowledge (knowledge capital)

Then according to Wishnu in the 2013 APEC CEO Summit Indonesia [11], the correlation between the role of universities, businesses and the government in increasing economic growth has the relationship of the three integral actors in the context of public-private partnership in a Triple Helix concept, known as ABG or Academic, Business & Government. In the concepts of Academic, Business & Government, industry acts as a production house, while the government is a source of contractual relations that ensures stable interaction and exchange, and the university as a source of new knowledge and technology. Synergy of these three sectors is a generative principle in building a knowledge-based economy, which enables closer economic integration.

Triple Helix as the main actor must always move to make circulation to form knowledge spaces, knowledge spaces where all three actors have equal understanding & knowledge, which will direct these three actors to form consensus space, an agreement space where the three actors begin to make agreements and commitments for something that will eventually lead to the formation of innovation spaces, innovation spaces that can be packaged into economically valuable creative products. This circulation always tries to create newness (innovation) and innovation often changes existing
structures (making it unstable). Renowned economic scientist Joseph Schumpeter (Schumpeter, 1934) mentions this converting factor as Creative Destruction which means that the emergence of new innovations in the industry will displace old industries that are not creative and replace them with creative ones.

Based on the blueprint of the Indonesian creative economy in 2025 issued by the Ministry of Trade of the Republic of Indonesia states that the main actors who can move the creative industry are scholars, business and government or also called triple helix [12]. The roles of each actor include:

a) The Role of Scholars: acts as an agent who disseminates and implements science, art and technology, as well as agents who form constructive values for the development of creative industries in society.

b) Role of Business: it acts as a business actor, investor and creator of new technologies and is also a consumer of creative industries. In an effort to develop creative industries business people play a role in creating products and creative as well as forming community and creative entrepreneurs.

c) Government's Role:
   i. Catalysts, facilitators and advocates that provide stimulation, challenges, encouragement for business ideas to move to a higher level of competence.
   ii. Regulators that produce policies relating to people, industry, institutions, intermediation, resources and technology.

4. Discussion
Based on the data recapitulation of the Putat Jaya Village Office, Surabaya, Dolly Village has 42 types of MSMEs based on the creative industry. These MSMEs are included in the culinary, fashion and printing sub-sectors. But the SMEs that are the objects in this study are three, namely Batik, Shoes, and printing. The collaboration and role of each stakeholder in triple helix will be discussed in detail in each SMEs for the Local Economic Activation in Kampung Dolly.

4.1 SMEs for the Local Economic Activation in Kampung Dolly
a. SMEs Batik Tulis Jarak Arum
Dolly batik has three pattern, namely ‘arum batik’, ‘canting suryo’, and ‘alpujabar’ which produces fabric and clothes that are ready to use. Right now, the production activities are only based on orders. Raw materials and tools for batik production include the tools and fabrics are from Pabean and candles to make the pattern (batik candles) from Madura. The following is a triple helix mapping for UKM Tulis Batik Arum. The following is the role of each stakeholder in every aspect.

Table 1. Triple Helix Mapping for Each Stakeholders Role in Batik SMEs

| Aspek         | Government                                      | Academics                                      | Private Sector                                           |
|---------------|-------------------------------------------------|------------------------------------------------|---------------------------------------------------------|
| People        | Training in batik production and diversification of batik products | Providing typical batik motifs and design training by ITS. | Batik production training conducted by GMH |
|               |                                                 |                                                | This Batik UKM has diversified its products such as batik cloth, batik necklaces, batik scarves, wall hangings and batik clothes |
| Industry      | • Provision of batik houses for batik production sites. | • Granting permission for SIUP. | Has collaborated with a mall in Surabaya to help with marketing by taking part in existing fashion exhibitions |
|               | • Surabaya City Government provides a marketing place at DS Point. | • Surabaya City Government provides a marketing place at DS Point. | In collaboration with e-commerce Bukalapak for batik marketing |
|               | • The government also helped marketing this product several times through fashion fairs and | • The government also helped marketing this product several times through fashion fairs and | |
|               |                                                 |                                                | |

4
Aspek | Government | Academics | Private Sector
--- | --- | --- | ---
Technology | SME center exhibitions in the city of Surabaya. | There is a research on waste treatment results from the production. | There has been technological assistance provided by the private sector

Resources | - | - | - Purchasing fabric and canting from Pabean, Surabaya. - Another material from Madura

Institution | The government has formed Surabaya City Cooperative and MSME Office | Several institutions focus on Kampung Dolly's research development | There has been an association of SMEs in Dolly to further increase their potential together

Financial Intermediary | The Surabaya City Government has provided financial assistance to these SMEs | Academics provide training on financial management for SMEs | - Providing financial assistance carried out by the NGO Gerakan Melukis Harapan. - Infak management institution has conducted business and administration training for SMEs in all SMEs in Dolly

Source: analysis, 2018.

Based on the explanation of each stakeholders above, it can be clearly seen that the development of Batik is stronger in the business itself but weak in marketing role. This can be seen from the lack of interference from the government and academics in the development of this SME.

b. Shoes SME

SME Shoes is an SME engaged in fashion, especially producing leather shoes, flip flops, and hotel sandals since 2014. The sandals supplied to the Grand Surabaya Hotel, Bekizar Hotel, Night and Day Hotel, life hotel and Patata. Furthermore, the market for leather shoes from SMEs has reached outside the islands, such as Kalimantan and Jayapura. The following is a triple helix mapping for Mampu Jaya Shoes SME.

Table 2. Mapping Triple Helix UKM Sepatu Mampu Jaya

| Aspects | Government | Academics | Private Sector |
|---|---|---|---|
| People | - Product diversification training has been carried out such as making hotel slippers and leather shoes. | - | - This SME has collaborated with the Indonesian Footwear Development Center in the production of leather shoes. |
| Industry | - The government also helps market the products at the UMKM centers in the city of Surabaya | - | - This SME has collaborated with several hotels in Surabaya in terms of marketing |
| Technology Resources | - Granting permission for SIUP. | - | - For raw materials, leather comes from sacred hanging - For soles from Seruni, Sidoarjo - For sponges that are used as raw material for hotel slippers, they come from Wedoro |
| Institution | - The government has established the Surabaya City Cooperative | - Some institutions focus on Kampung Dolly's | - There has been a community of SMEs in Dolly to further increase |
Based on the explanation above, it can be seen that the development of Batik Jarak Arum UKM is stronger for the business itself. This can be seen from the lack of interference from the government and academics in the development of this UKM.

c. Printing SME
Printing SME not only produces unique Dolly shirts from but also helps UKM Shoes in Dolly in the process of producing hotel slippers. The workforce involved in this UKM came from youth clubs in the village. This UKM has also collaborated with several agencies, including Collaboration with ART Generation in Balai RW. The following is a triple helix mapping for Screen Printing UKM.

### Tabel 3. Mapping Triple Helix UKM Sablon

| Aspek      | Government                                      | Intelectual  | Business                                      |
|------------|--------------------------------------------------|--------------|-----------------------------------------------|
| People     | -                                                | -            | - Only make plain shirt printing and there is no diversification |
| Industry   | - The Surabaya City Government provides a marketing place in DS Point and SME centers |
|            | - fashion exhibition and SME center exhibition in the city of Surabaya |
| Technology | -                                               | -            | - Supplier of fabric comes from Kapasan       |
| Resources  | -                                               | -            | - There has been a community of SMEs in Dolly to further increase their potential together |
| Institution| - The government has established the Surabaya City Cooperative and MSME Office |
|            | - Some institutions focus on Kampung Dolly's research development |
| Financial  | -                                               | -            | - Capital only comes from self-help Chairperson RW |
| Intermediary| -                                              | -            |                                              |

Source: analysis, 2018.

4.2 Triple Helix cooperation level assessment
The following is an assessment of the level of triple helix collaboration that has been formed in the development of the Local Economic Activation in Kampong Dolly.

a. Government Role
To assess the role of the government in the effort to develop the local economy in Dolly Village, this is done using a radar diagram which will be explained as follows. This assessment was carried out by summarizing the relationship between the government and 7 SMEs in Dolly Village.
Based on the graph above it can be seen that the government role were still weak in helping the development of the local economy in Kampong Dolly in the aspect of "Resources". This happened because the majority of SME business owners in Kampong Dolly searched for their own raw materials. At present the Surabaya City Government has provided thematic village policies and this greatly facilitates SME entrepreneurs to obtain their raw materials.

Government assistance is mostly in the aspects of industry and institutions. This happened because the government already had a Cooperative and UMKM Service that overshadowed all UKM activities in Kampong Dolly. Both in terms of community empowerment, giving capital, arranging permits to marketing products. The Surabaya City Government has prepared a marketing location for all products produced in Kampong Dolly both in the DS Point building which is the marketing center for typical Kampong Dolly products as well as all SME centers spread throughout the city of Surabaya.

b. Academics Role
To assess the intellectual role in the effort to develop the local economy in Dolly Village, it is done by using a radar diagram which will be explained as follows. This assessment was carried out by summarizing the intellectual connection with 3 SMEs in Kampong Dolly.
Figure 2. Academics role in developing local economic activation in Kampung Dolly

Based on the graph above it can be seen that for academics the highest is the provision of financial and institution assistance. This happened because many universities had provided assistance in the form of training on financial management for SMEs and had directed the research core to the efforts of developing MSMEs in Kampong Dolly as held by the Ten November Institute of Technology of the PDPM Study Center. As for the lowest role of academics is the provision of resources. This happens because SMEs are looking for their own resources. Higher education has not yet sought the substitution of raw materials that are easier to find, environmentally friendly and can further increase selling prices so that they can improve the welfare of Dolly's people.

c. Private Sector Role
To assess the role of business in the effort to develop the local economy in Kampong Dolly, a radar diagram will be explained as follows. This assessment was carried out by summarizing the relationship of business with 7 SMEs in Kampong Dolly.

Figure 3. The Role of Business in Developing Local Economic Activation at Kampung Dolly
Based on the graph above, it can be seen that the role of business is very large for the development of SMEs in Dolly's village. This happened because many Dolly villagers took their own initiative both in terms of production, distribution and marketing. The other business or private sectors that have helped to develop the local economy in Kampong Dolly are the Gerakan Melukis Harapan (GMH). GMH is a community formed because of the awareness of the young generation of Surabaya, at the discretion of Surabaya Mayor Tri Rismaharini about closing Dolly's localization. The community that was founded on September 10, 2014 has moved to educate, develop the economy, and provide enthusiasm for the people of former Dolly localization. Through this GMH, Dolly Village UKM began to move well with training in SME processing, providing capital to assist in marketing. Not only GMH, some SMEs have also collaborated with private sector, hotels and malls in Surabaya to help the supply their products. In addition, the Infak Management Institute, which is one of the NGOs in Surabaya, has conducted business and administrative training for SMEs in all SMEs at Dolly.

5. Conclusion
The conclusion obtained from this research is that the development of SMEs in Kampong Dolly has collaborated with the government, private sector and academics. However, the role of the government and academics still very weak in developing resources and technology. On the other hand, as for the collaboration of the private sector, low investment in terms of technology, which was developed to improve the advantages possessed by SMEs in Dolly Village.

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