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HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW  
KARYA ILMIAH : PROSIDING**

Judul karya ilmiah (paper) : A Socio-spatial Dimension of Local Creative Industry Development in Semarang and Kudus Batik Clusters

Jumlah Penulis : 1 orang

Status Pengusul : **P. Nugroho**

Identitas prosiding :

- a. Judul Prosiding : IOP Conference Series:Earth and Environmental Science
- b. ISBN/ISSN : 1755-1315
- c. Tahun Terbit/tempat pelaksanaan : 2018
- d. Penerbit/organiser : IOP Publishing
- e. Alamat repository PT/web : <http://iopscience.iop.org/article/10.1088/1755-1315/123/1/012040>
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- d. Kelengkapan unsur dan kualitas bagus, yaitu di antaranya jumlah referensi > 50. Jurnal memiliki SJR 0,17 (2018)

Semarang,  
Reviewer 1,

Wido Prananing Tyas, ST, MDP, Ph.D  
NIP. 197301121998032001  
Departemen PWK, FT. Undip

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Reviewer 2,

Dr.-Ing. Wiwandari Handayani,ST,MT, MPS  
NIP. 197605252000122001  
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	<b>Reviewer I</b>	<b>Reviewer II</b>	
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c.Kecukupan dan kemutahiran data/informasi dan metodologi (30%)	8	9	8,5
d.Kelengkapan unsur dan kualitas terbitan/prosiding (30%)	9	8	8,5
<b>Total = (100%)</b>	27	29	28
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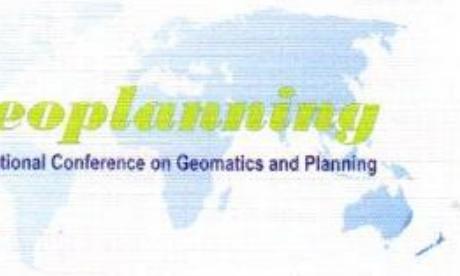
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Reviewer 1,

Wido Prananing Tyas, ST, MDP, Ph.D  
 NIP. 197301121998032001  
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 NIP. 197605252000122001  
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This is to certify that

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## The 2nd Geoplanning

International Conference on Geomatics and Planning  
9-10 August 2017, Solo Paragon Hotel, Surakarta, Indonesia

As

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 Volume 123, Issue 1, 22 February 2018, Article number 012040  
 2nd Geoplanning - International Conference on Geomatics and Planning; Surakarta - Central Java, Indonesia; 9 August 2017 through 10 August 2017; Code 134955

**A Socio-spatial Dimension of Local Creative Industry Development in Semarang and Kudus Batik Clusters** (Conference Paper) [\(Open Access\)](#)

Nugroho, P.

Department of Urban and Regional Planning, Diponegoro University, Indonesia

**Abstract** [View references \(57\)](#)

Creative industries existence is inseparable from the underlying social construct which provides sources for creativity and innovation. The working of social capital in a society facilitates information exchange, knowledge transfer and technology acquisition within the industry through social networks. As a result, a socio-spatial divide exists in directing the growth of the creative industries. This paper aims to examine how such a socio-spatial divide contributes to the local creative industry development in Semarang and Kudus batik clusters. Explanatory sequential mixed methods approach covering a quantitative approach followed by a qualitative approach is chosen to understand better the interplay between tangible and intangible variables in the local batik clusters. Surveys on secondary data taken from the government statistics and reports, previous studies, and media exposures are completed in the former approach to identify clustering pattern of the local batik industry and the local embeddedness factors which have shaped the existing business environment. In-depth interviews, content analysis, and field observations are engaged in the latter approach to explore reciprocal relationships between the elements of social capital and the local batik cluster development. The result demonstrates that particular social ties have determined the forms of spatial proximity manifested in forward and backward business linkages. Trust, shared norms, and inherited traditions are the key social capital attributes that lead to such a socio-spatial divide. Therefore, the intermediating roles of the bridging actors are necessary to encouraging cooperation among the participating stakeholders for a better cluster development. © Published under licence by IOP Publishing Ltd.

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## PREFACE

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The 2<sup>nd</sup> Geoplanning - International Conference was held on 9-10<sup>th</sup> September, 2017 in Solo, Central Java, Indonesia. Geoplanning is an international conference covering research and development in the field of applied geomatic's technologies for spatial planning, including GIS, Remote Sensing, and Satellite Image Processing. More than 132 abstract were submitted and after an initial review 80 papers were presented. Through peer review process, 50 papers were accepted for publication in the Geoplanning Conference Proceeding.

The present volume is highlighting major issue of Sustainable Development with focusing topic on “Geomatic's Application for Disaster Management and Spatial Planning.” Furthermore, the topic was divided into four themes;

Theme 1: Disaster Modelling & Management

Theme 2: Infrastructure and Settlement

Theme 3: RS-GIS for Spatial Modelling

Theme 4: Urban and Regional Planning

We would like to thank all the reviewers for their time and effort in reviewing the documents. The published papers have passed the process of improvement accommodating the discussion during the conference as well as the reviewers' comments who have guided any necessary improvement. Finally, we would like to thanks to all of the proceeding team who have dedicated their constant support and countless time to bring these scratches into a book.

Chair Committee of Geoplanning



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2018

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Accepted papers received: 07 February 2018

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# Sensitive Land Use Planning, Malinao, Albay, Philippines

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**Abstract.** This paper reviews the hazard zone as defined in the zoning ordinance of the Local Government of Malinao. The zonification was completed in accordance with the approved Comprehensive Land Use Plan stipulating the allowed use and regulations of zones to control future land development. This paper brings together an examination of human exposure as well as spatial situations and conditions of their houses within the hazard zone playing with flood risks. The purposive selection sample households were based on characteristics of people residing within it, in which the site concurs with the flood forecasted frequent every 5, 25 and 100 years turned to be significant to better understanding ‘risks computing’ were variables retrieved from the intersecting spaces fused to get the complex interrelationship of the sets of flood hazard, vulnerability and exposure of inhabitants and their place of residence weighted against capability of individual family or household to withstand effects of flooding. The Risk Quotient Object and Field Bases Model were tested in specific location in Malinao. The sample households’ individual risk location quotient varies from high to a very high risk distributions ranging from 8 to 125 numerical values. As Malinao stays on to experience flood hazards, changing climate and other natural calamities, the need to understand the six elements of disaster risk computing at household level is becoming crucial in risk reduction meeting the targets and priorities for action as specified in the Sendai Framework.

**Keywords:** Zoning, Exposure, Risk Computing, Risk Quotient, Household

## 1. Introduction

The prevailing principle of the Habitat I which was held in Vancouver in 1976 provides importance to water for life and adopt programs for the sanitary disposal of waste water. Similarly the prevailing principles of the Habitat II which was held in Istambul in 1996 arrest the deterioration of global human settlements conditions and ultimately creates the conditions for achieving improvements in the living environment of all the people on sustainable basis. In October 2016, the Habitat III held in Quito, the prevailing principles focus on Housing [1] and Sustainable Urban Development to adopt a New Urban Agenda. This work is seen significant in regulating the use of the land and activities in hazard zones particularly those families within the immediate vicinity of rivers and other waterbodies as well as providing guidance to the residents at risk and decision making in land management, land use planning and monitoring local developments [2,3].



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# Modeling the Dynamic Interrelations between Mobility, Utility, and Land Asking Price

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**Abstract.** Limited and insufficient information about the dynamic interrelation among mobility, utility, and land price is the main reason to conduct this research. Several studies, with several approaches, and several variables have been conducted so far in order to model the land price. However, most of these models appear to generate primarily static land prices. Thus, a research is required to compare, design, and validate different models which calculate and/or compare the inter-relational changes of mobility, utility, and land price. The applied method is a combination of analysis of literature review, expert interview, and statistical analysis. The result is newly improved mathematical model which have been validated and is suitable for the case study location. This improved model consists of 12 appropriate variables. This model can be implemented in the Salatiga city as the case study location in order to arrange better land use planning to mitigate the uncontrolled urban growth.

**Keywords:** Modeling, Land asking price, Urban growth, Salatiga City

## 1. Introduction

Regarding the future interest, planning a city should consider sustainable development. The challenge is to linking economic activities, social issues, and environmental impacts. One way to achieve sustainable development is by using land use planning to control economic and social activities, so as a result, allocation of land should fit particular uses. Land use is very important as a benchmark for parceling mechanisms, also as a benchmark for zoning the urban environments. Zoning has a function to evaluate the environmental consequences, as well as to support the future decision making in order to mitigate the negative effects of urban development [1].

Urban development is influenced by population growth and rapid urbanization process. These cause urban sprawl which leads to unsustainable practices that cause ecological, social and environmental problems [2]. Furthermore, population growth triggers a rapid land use change particularly converting farmland into housing areas. The increase of population is equal to the increasing demand for housing. While, a high density of housing areas evokes new issues, like the probability of hazards, such as fire hazards, an increasing need of water, and the high impacts of houses on ecosystem function [3]. Moreover, high population density and the establishment of new settlements may entail serious problems in water supply, energy provision, and utilities [4]. Similar findings by Mohammady [5] show that the expansion of urban areas results in a lack of infrastructure, increase of environmental pollution, and limits urban services. Eventually, unplanned urban growth



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# A Socio-spatial Dimension of Local Creative Industry Development in Semarang and Kudus Batik Clusters

*by* Prihadi Nugroho

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## A Socio-spatial Dimension of Local Creative Industry Development in Semarang and Kudus Batik Clusters

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**Abstract.** Creative industries existence is inseparable from the underlying social construct which provides sources for creativity and innovation. The working of social capital in a society facilitates information exchange, knowledge transfer and technology acquisition within the industry through social networks. As a result, a socio-spatial divide exists in directing the growth of the creative industries. This paper aims to examine how such a socio-spatial divide contributes to the local creative industry development in Semarang and Kudus batik clusters. Explanatory sequential mixed methods approach covering a quantitative approach followed by a qualitative approach is chosen to understand better the interplay between tangible and intangible variables in the local batik clusters. Surveys on secondary data taken from the government statistics and reports, previous studies, and media exposures are completed in the former approach to identify clustering pattern of the local batik industry and the local embeddedness factors which have shaped the existing business environment. In-depth interviews, content analysis, and field observations are engaged in the latter approach to explore reciprocal relationships between the elements of social capital and the local batik cluster development. The result demonstrates that particular social ties have determined the forms of spatial proximity manifested in forward and backward business linkages. Trust, shared norms, and inherited traditions are the key social capital attributes that lead to such a socio-spatial divide. Therefore, the intermediating roles of the bridging actors are necessary to encouraging cooperation among the participating stakeholders for a better cluster development.

**Keywords:** Creative Industry, Socio-Spatial Dimension, Batik Cluster, Semarang Municipality, Kudus Regency

### 1. Introduction

Creative industries have emerged as the key <sup>47</sup> ver of the modern economy for cities and regions to <sup>12</sup>ease competitive advantages in pursuit of economic growth and social welfare[1–4]. According to United Nations Development Programme (UNDP) and United Nations Educational Scientific and Cultural Organization (UNESCO) [5], world trade in creative goods and services doubled to US\$624 billion during 2002-2011 with the annual growth rate 8.8 percent on average. Foo <sup>41</sup>[2] observed that the annual growth rates of employment in creative industries in some world cities growing faster than <sup>14</sup> in any other sector, i.e. 7 percent (1998-2002) in New York, 5 percent (1995-2000) in London, 5.7 percent (1996-2003) in Amsterdam, 6 percent (1999-2003) in Vienna, 22 percent (1999-2001) in Glasgow, 13.4 percent (1986-2000) in Singapore, and 17 percent (1999-2003) in Shanghai. In Indonesia, it shared about 7 percent to gross domestic product (GDP) engaging more than 10 percent employment during 2010-2013 [6,7].



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Creative industries are often entangled with competitiveness following a series of economic development shifts from a high dependency on natural resources endowment and material possessions to human capabilities, specializations and innovations [8]. The importance of creative industries has increasingly gained its popularity since the 1990s in line with competitiveness campaign of Porter's diamond model worldwide which promotes the increase of productivity<sup>39</sup> and innovation through industrial clustering[9,10]. In fact, creative industries discourse originated in 1994 when the Australian Government publicly released new cultural policy "Creative Nation: Commonwealth Cultural Policy" proposing<sup>12</sup> an AUS\$250 million fund to support cultural institutions for wealth creation; and then followed by the United Kingdom Department for Culture, Media and Sport (DCMS) which launched "Creative Industries Mapping Document 1998" suggesting the important role of individual talents as a potential source of wealth and job creation through the generation and exploitation<sup>46</sup> of intellectual property [1,11,12]. Later, it spread rapidly to numerous developed countries in Europe and the United States [11,13] and developing countries in Asia [14,15].

Despite the growing attention (mostly) from government agencies in implementing the concept, there remains a broad range of pros and cons in defining and measuring it. On the conceptual ground, the debates on creative industries embark a problematic marriage of culture with economic activity. In many literature the term creative industries is interchangeably used with cultural industries i.e.[13,16], and is often linked with creative class e.g.[17,18], creative cities e.g.[23,20], creative or knowledge economy e.g.[16,21] and industrial clustering e.g.[22,23]. Referring to Department for Culture, Media, and Sport (DCMS) [24], the definition of creative industries is:

*"Those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property."*

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Those include 13 types of industries, i.e. advertising, art and antique market, architecture, crafts, design, designer fashion, film and video, interactive leisure software, music, performing arts, publishing, software and computer services and television and radio. Creativity as the main ingredient of the concept serves as a bridge between the culture and economy, where both have brought opposite values in nature [13,14]. Talking about culture, it is strongly associated with a set of customary values, beliefs and thoughts representing shared identity and common practices of determined conduct in a society to which any attempts to sustaining, protecting, developing, reproducing and preserving it are likely to further locally based heritage and civilization over generations. Thus, culture accounts for a differentiated product and process of articulating symbolized meanings of particular ways of life manifested in a diversity of race, ethnicity and religion. In this sense, culture is supposedly taken for granted as a foundation of economic activities [25].

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On the contrary, economy deals with the process or system of producing, distributing and consuming goods and services through the efficient use of capital accumulation for the sake of wealth creation. It constitutes (mostly) profit-taking commercialization of resources in a society through various channels of market mechanisms by which individuals and interest groups may obtain better-off living conditions. The contradictory conception of creative industries rests on the incorporation of cultural activities and events into a market economy where monetary transactions create disruptive replacement over the sacred admiration of cultural practices. *What you pay is what you get.* As a result, the commodification of cultural institutions is simply transferable by the value of money to meet consumer satisfaction gained from the cultural attractions and events instead of promoting the intrinsic values of the culture itself [26–28].

<sup>22</sup> Such conflicting seedbed has contributed to a vague and ambiguous rather than a rigorous definition of the notion of creative industries. Regarding the DCMS [24] definition of creative industries mentioned before, two key attributes of creativity are surrendered to skilled and talented

individuals and intellectual property. This definition is too broad because any activity which involves human creativity could be considered as part of creative industries [13,29]. The boundaries of definition may confine an artistic expression to a scientific-technical process, an imaginative man-made creation to a machinery-based technology adoption; an intuitive tacit knowledge mastery to a codified knowledge internship; and a subjective symbolic meaning purpose to an objective practical use. All these attributes are packed into a single thing called innovation as a product of creative processes [27,30]. Despite the growing confusion in taking 28 the notion into the practice, some key elements used to identify the creative industries consist of creativity, intellectual property, symbolic meaning, use value, terminological clutter, and production methods [25,29]. These could help the authorities in classifying sectors that fall into creative industries grouping which is necessary to assess its contribution to the economy.

Yet, the story does not end up here since there remains problematic measurement of the effects of the identified creative industries to the economy and the rest of society. The first problem relates to the isolation of certain manufacturing sectors to be categorized whether as part of creative industries grouping – for example, advertising, publishing and broadcasting (television and radio) – or simply ‘conventional’ manufacturing sectors such as petroleum and chemical production, textile production and garments and food and beverage industry. There are some difficulties to make a clear cutting demarcation between these two as exemplified by the intersection between fashion industry which belongs to creative industries and textile production and garments industry which belong to the mainstream manufacturing industries. Secondly, the economic contribution of creative industries – and so does to the society – actually is measurable at the firm level even though the creativity stems from (skilled and talented) individuals. Direct effects of the creativity-led firms could be measured in the economy through employment size, firm activity, gross output and export variables [11]. This does not fit to individual art performers or sculpture creators, for example, since their earnings could not be considered as a basis for their contribution through taxation or any other levies. In many cases, their earnings collected from cultural events are not the primary source of income; rather, their creative activities are just a matter of hobbies and/or voluntary activities away from profit-making purpose. Similarly, some public and philanthropic organizations may undertake various exhibitions in museums, galleries and convention halls at affordable ticketing prices but, again, these events are not intended to maximize profits. So, how their contribution to the economy could be measured precisely?

The third problem is associated with the intellectual property right of the creative industries operations. Even though it is useful to protecting the creativity process either at the individual or firm levels, the law enforcement to ensure it is quite ineffective. In the case of computer software, for example, the legal purchase of original software products with high-tech security system still cannot cut-off the production and distribution of imitated and fraudulent products. In the case of fashion design, the creators cannot claim for copyright products of their own entirely if the market still provides welcoming access to imitated low-quality products. As long as there are many consumers of such illegal products, the supply-demand law of the market economy still exists. Last but not least, poor data recording and consistency on the governmentside, in particular, has led to inaccurate statistics of the creative industries profile in the overall economy. Registration of business permits is not well-organized, particularly due to the lack of reliable documenting system, qualified human resources, and stringent law enforcement. On the business players’ side, the existing business climate does not always provide a convenient environment for business continuation. Some external actors like free trade regime and bilateral and multilateral agreements may impede the opportunities for small and medium enterprises (SMEs) and individuals to producing particular creative goods and services. In addition, the internal factors associated with knowledge and technology acquisition and organizational capacity do contribute in limiting upscaling process and market penetration. The mixture of all these factors has created obstacles in reporting updated business activities.

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This paper aims to examine how a socio-spatial divide contributes to the local creative industry development in Semarang and Kudus batik clusters. Dealing with the wicked problems surrounding the measurement of the effects of creative industries operations to the economy and society, I will argue for the importance of localized social construct in determining batik industry development. It is argued that the localized social construct is not static; rather, it is fluid to create a socio-spatial configuration of the prevailing business environment which encourages typical competition and cooperation among the firms and individuals engaged in the creative industries. The different social construct is likely to result in different path dependence of the creative industry development. The key social capital attributes, i.e. trust, shared norms and inherited traditions, therefore determine the formation of socio-spatial divide where the prevailing social construct takes place.

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Most previous studies have paid much attention to the outputs and outcomes of the creative industries towards the economy and society. Inevitably, this tendency has attracted many scholars, industrialists and policymakers due to the very promising benefits of the notion implementation for increasing industrial competitiveness as well as economic growth performance at the local to the global levels. All these concerns are condensed in the policy making real politic. This study focuses on the opposite direction and the role of social capital in the creative industry development. In fact, there is a close relationship between social capital and creative industries. Clare [31] suggested that specific territorial localities enable concentrations of people, resources, and infrastructure. Thus, the embeddedness of social capital in local regions encourages the nurturing of social networks necessary to stimulating creativity and innovation. Similarly, Bontje & Musterd [32] highlighted the development of attractive places is as important as the creative industries themselves to provide the creative knowledge workers, or the creative class in Florida's terminology [17,33,34], a liveable (mostly) urban spaces for acquiring, reproducing and transmitting skilful knowledge and technology adoption useful to new innovations. The location specific creative industries create a selective confinement of recursive innovations rather than contagious effects of replicative innovations ubiquitously [35–37]. Therefore, the better understanding of the location specific creative industries will bring forward heterogeneity of the local culture and identity instead of polarizing the products of creative industries into a single direction of performance.

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## 2. Data and Methods

### 2.1. Data Collection

This study examined a set of data related to the characteristics of batik industry clusters, i.e. the concentration of batik firms and their spatial networks, batik firm size and production scale, and the common practices of knowledge sharing as well as innovation processes, including responsible actors and their roles in enabling such transmissions. This data was used to depict various forms of physical, economic, and social linkages between the batik firms and within the batik clusters. Meantime, the data related to social capital were observed through the enactment of determined rules and guidelines, customary behaviors and attitudes, actors' positions and influential roles within the industry and society, the patterns of competition and cooperation between firms and the forms of collective actions sustained by the firms and society. From this sort of data, we could capture the underlying institutions which encourage the clustered batik firms to exist, interact, and develop individually or collectively at the society level. Following the idea of 'sticky places in the slippery space' from Markusen [38], some locations could be so attractive than the other places for individual firms to co-locate because of the available business environment that has provided structural incentives for the clustered firms to maximise the benefits of external economies. Such a sticky place has performed a dynamic transforming production space resulted from a complex institutional milieu comprising corporate strategies, industrial structures, profit cycles, state priorities, and local and national politics which have involved both endogenous and external forces.

<sup>4</sup> The data collection was completed in three months starting from May 2017 until July 2017. Surveys on secondary data taken from the government statistics and reports, previous studies, and media exposures were completed to lead and enrich the interview phase. Unfortunately, I could not gather firm size and production scale data of each batik firm<sup>3</sup> precisely due to the lack of quality statistical data and government reports, particularly from the Local Agency for Industry and Trade Affairs (*Dinas Perindustrian dan Perdagangan/DISPERINDAG*) and the Local Agency for Cooperatives and Micro, Small, and Medium Enterprises (*Dinas Koperasi dan Usaha Mikro, Kecil, dan Menengah/DISKOP-UMKM*). On the other hand, the unwillingness of the firm owner to share and the poor recording of business operations created difficulties in data acquisition<sup>31</sup> from the first hand. Thus, I combined with previous studies and media exposures for helping us to identify the key actors and their roles in the local batik industry for proceeding the following in-depth interviews and field observations<sup>3</sup>. The in-depth interviews engaged several key informants from the Economic Division of the Local Planning Authority (*Badan Perencanaan Pembangunan Daerah/BAPPEDA*), the Head of Forum for Economic Development and Employment Promotion (FEDEP)<sup>3</sup> and prominent local batik entrepreneurs to provide valuable insights on understanding the dynamics of the local batik industry development in Semarang Municipality and Kudus Regency. Lastly, field observations were undertaken to verify data from the previous phase and to obtain fuller and more comprehensive impressions on what actually happens on the field and how the creativity and innovation processes take place during the industrial business operations.

## 2.2. Methods

The study applied explanatory sequential mixed-methods approach where quantitative approach comes first to provide a background understanding of the research phenomena useful to stepping further to the following qualitative approach for exploring deeper comprehension of the prior phase [39]. At the beginning, the present data of the batik firms gathered from the survey were mapped out to analyze the spatial distribution<sup>4</sup> of batik clusters in Semarang Municipality and Kudus Regency. From this point, we could identify clustering pattern of the local batik industry. By comparing with the existing socio-economic background of the firm locations, we could obtain an initial impression to lead us in understanding the local embeddedness factors which have provided a so-called business environment for the block firms to co-locate. Enriched with content analysis on the government reports such as *Rencana Pembangunan Jangka Menengah Daerah* (The Local Mid-Term Development Plan) of Semarang Municipality (2016-2021) [40] and Kudus Regency (2013-2018) [41], *Rencana Strategis BAPPEDA* (The Strategic Plan of the Local Planning Authority) of Semarang Municipality (2010-2015) [42] and Kudus Regency (2013-2018) [43], previous studies, and media exposures, we could analyze how the local batik cluster development being contextualized into the policymaking process.

4

At the qualitative phase, I explored the reciprocal relationships between the elements of social capital and the local batik cluster development. Arguably, the underlying social construct as a product of social capital mobilization provides various channels of information sharing, knowledge transfer, and technology adaptation required by the clustered firms to generate creativity and innovation [44-46]. A tendency of firms to establish particular clustering pattern is associated with the degree of proximity of firms to take the most advantages from colocation [47,48]. In this sense, social relations and networks play an important role in the formation of physical and economic linkages between firms within the respective cluster. Therefore, the positions and roles of actors in the industry were analyzed to figure out how the prevailing social construct is maintained to flourish the business environment.

## 3. Results and Discussion

Currently, there are nearly 100 batik firms in Semarang spread into almost 16 *kecamatan* (sub districts) but Gajahmungkur Sub district. The actual size of batik industry in Semarang remains

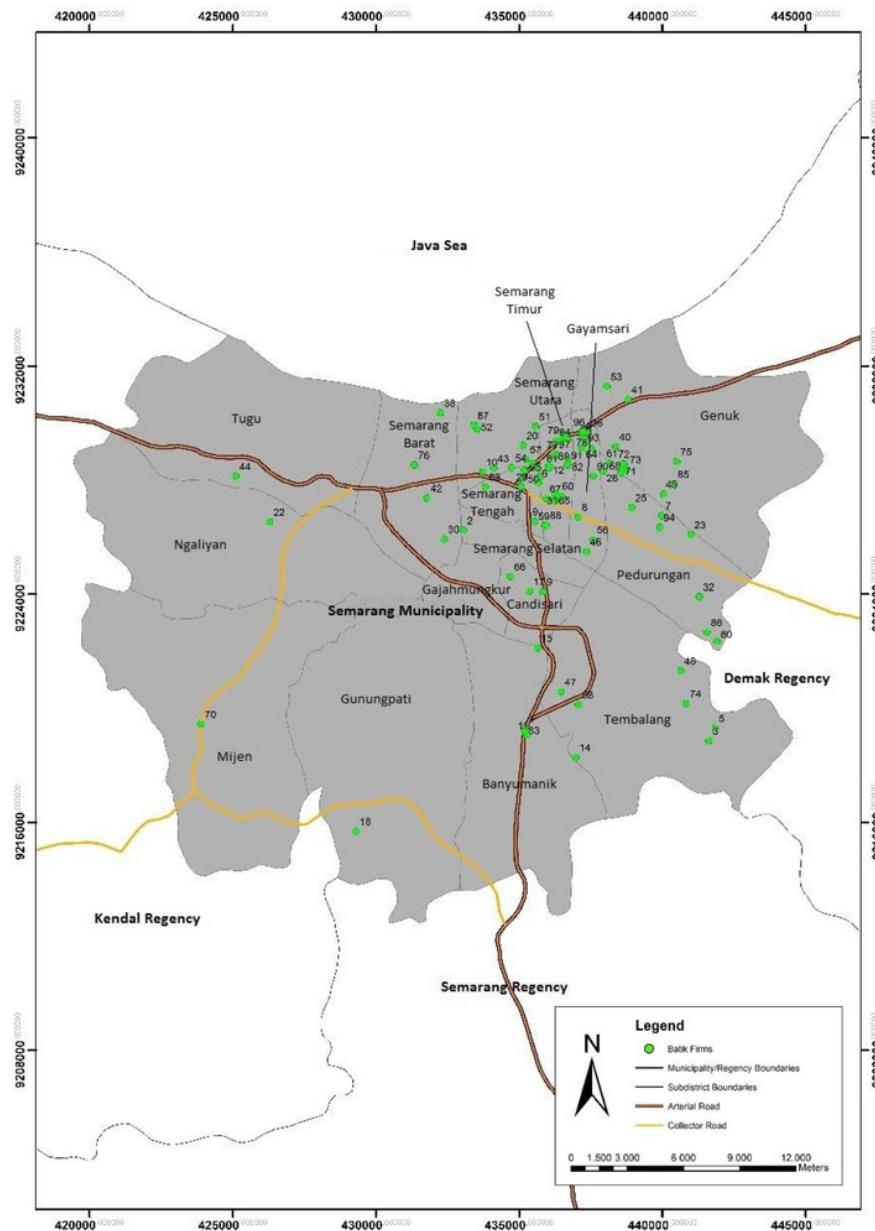
unknown, however, because of poor statistical data availability, unregistered business operation, and the unstable business cycle of firms. There are only a small number of batik production firms, approximately 10-20 firms, while the rest is batik trading firms. All of them are new business ventures established in the period of 2000s, and none has carried out the prior generations' inheritance.

Historically, the embryonic batik industry in Semarang emerged in the nineteenth century as indicated by Budha Manjusri sculpture found in Ngemplak Simongan area. Batik clothing with *liris* or *lereng* motif was crafted into the sculpture. Unfortunately, there is no further information regarding the early development of Semarang batik industry until the historical archives found during the Dutch colonization period (1596-1942). In 1919, there were 25 batik firms with 58 male batik workers, and then it increased to 107 batik firms employing 268 male and 223 female workers in 1925. The industry originated in Kampung Bubakan then spread into several settlements in Bugangan, Rejosari, Kulitan, Kampung Melayu and Kampung Darat. There was a famous high-end product batik firm, Batikkerij Tan Kong Tien, which was named by the Indo-Chinese owner, Tan Kong Tien. He married to a daughter of the former Yogyakarta Court royal family Sultan Hamengku Buwono III, Raden Ayu Dinartiningsih, from which batik mastery had been turned into market scale production. The firm applied specialized division of labor ranging from design to coloring processes, involving many batik workers from Rejosari, Kampung Darat, Kintelan, Karang Doro, Mlaten Trenggulun, and Layur. When the massive settlement burning occurred under the Japanese colonization period (1942-1945), most batik firms ruined and leaving a few batik firms to survive including Batikkerij Tan Kong Tien, which run the business until the 1970s under the second generation successor, Raden Nganten Sri Murdijanti. Later, she was privileged by the Indonesian Batik Cooperatives Union (*Gabungan Koperasi Batik Indonesia/GKBI*) to manage batik trading monopoly in Central Java Province. In the 1950s, a new batik firm Asaco was established in Senjoyo, and then followed by Neni Asmarayani who operated a home-based batik gallery in Seroja in the 1970s, and Sri Retno batik firm established in Jatingaleh by a couple Oentoeng Suwardi and Tamsiyati who run the business during 1973-1982. However, the emergence of these late-coming batik firms did not affect much to the resurgence of the industry due to sporadic and unorganized industry management vis-à-vis the rise of printing batik firms since the 1970s which could produce batik fabrics much faster and much cheaper. Despite the competitiveness issue, their short-lived business operation was also caused by the absence of business successors [49-51].

After a 25-year business decline, the recent initiatives of Semarang batik industry resurgence have started in 2006 by Umi Adi Susilo who built a new batik firm Batik Semarang 16 in Tembalang. She promoted natural coloring batik production and registered less than 11 batik motif patents representing iconic symbols of Semarang place identity, i.e. *Lawang Sewu Ngawang, Merak Mlerok Latar Asem, Merak Mangu, Cheng Ho Neng Kleteng, Asem Arang, Gambang Semarangan, Tugu Muda Kekiteran Sulur, Blekok Srondol*, and *Merak Njeprak*. Another initiative by a couple Eko and Indah started in the same year through the establishment of batik firm Semarang Indah in Kampung Gedong, Rejomulyo. They combined natural and synthetic coloring processes in batik production. Following their success, the Local Agency for Industry and Trade Affairs in Semarang Municipality Government was keen to support the local batik industry development by replicating various technical programs including training, financial assistance, promotion, and marketing and exhibition in other places. As a result, no less than 32 batik firms supported by 188 batik workers existed in 2010 [50]. Furthermore, the local government has endorsed the former batik kampung in Bubakan as a cultural heritage preservation site through *Peraturan Daerah* (Local Regulation) No. 14 Year 2011 concerning *Rencana Tata Ruang Wilayah Kota Semarang Tahun 2011-2031* (Spatial Plan of Semarang Municipality Year 2011-2031). According to Article 69 of the regulation, the preservation of cultural heritage site may cover preserving the socio-cultural pattern of the local society, regulating any change in the existing building size and shape, and developing on-site tourism activities. This implies on public responsibilities in managing kampong development carefully to abide with pre-emptive socio-cultural values preservation [52].

To date, the growth of batik firms in Semarang has been driven externally instead of encouraging the local potentials from within. Some key points that could be discussed here are related to agent, place, activity, and contribution. The prominent agent in promoting the local batik industry is the external actors. They are new batik entrepreneurs who do not possess any family business background in the industry and have obtained government training to start up new batik business ventures. They work individually to build business linkages and therefore do not maintain connections with previous generations. As a result, a truncated intergenerational business continuation occurs since the business cycle tends to end up until the second generation only. The place of origin to run the business does not depend on the existing industrial agglomeration pattern. Even though batik kampong in Bubakan has been acknowledged as the oldest batik industry center in Semarang and officially supported by the local government policy, actually it is not quite attractive to the new business ventures to operate nearby. Rather, the new batik entrepreneurs could establish new firms elsewhere in the city sporadically. Some have built new firms close to city centers and densely populated settlements while the rest chose other places in suburbs such as Mijen, Banyumanik, Tembalang, and Genuk Subdistricts (see Figure 1). For example, Batik Semarang 16 has started the business in Tembalang and run galleries in some other places. Another example is Zie Batik owned by Marheno and Salma Batik owned by Umi Salamah who run business in Kampung Malon of Mijen Subdistrict and currently encourage the local kampong community to learn batik production and entrepreneurship skills. However, all these batik firms have shared a similarity in terms of home-based industry preference to start up new business ventures.

The potential market demand in manufacturing and trading activities in the city plays the key driver of such batik industry revival. Both sectors have provided significant shares to the local GDP consecutively at 29.75 percent and 30.81 percent (2000), 24.79 percent and 16.19 percent (2010), and 27.45 percent and 14.06 percent (2016). With a market size of more than 1.7 million population and annual growth rate at 1.66 percent (2016), the city provides a promising economic viability for both sectors. It is not surprising if more than 80 percent of the existing batik firms focusing on batik trading activities rather than batik production. Thus, the economic profitability has stimulated the local batik industry resurgence recently, not the socio-cultural tradition preservation intentions. Considering that the industry has never been rooted strongly enough in the entire society or even in the local batik kampong neighborhood, its contribution serves more to economic reasoning while the socio-cultural interests are somewhat left beyond. As exemplified by batik kampong in Bubakan, almost all of the existing batik firms are owned by immigrants or temporary tenants, and ironically, more than 90 percent batik products available supplied from Pekalongan batik producers and traders. Even though it has been endorsed as a cultural heritage site, Kampung Bubakan merely performs as a marketplace beautified with colorful batik ornaments and signage. The so-called place branding in this site has therefore failed to recreate certain batik business environment which authenticates Semarang batik tradition.



*Source: Author's analysis, 2017*

**Figure 1.** Spatial Distribution of Batik Firms in Semarang Municipality, 2017

The present social construct in Semarang batik industry is opened to incoming permanent residents and temporary visitors. By history, it has been shaped by a viable mercantilism tradition for centuries, thanks to the city's strategic location at the intersection of two national roads connecting the country's capital Jakarta and the second largest city Surabaya and the capital cities of Yogyakarta-

Surakarta-Semarang (JOGLOSEMAR) growth triangle. Equipped with an international freight and passenger seaport Tanjung Emas, an international airport Ahmad Yani, and national scale railway stations and bus terminals<sup>44</sup> the city has transformed to become an important hub city for both international and domestic flows of people, goods and services, and information. It is not surprising that both manufacturing and trade activities have grown rapidly, creating a potential marketplace for a broad range of economic activities. However, the society has carried out a long-standing mixture of Javanese patriarchal tradition and borrowing foreign influence of Dutch, Islamic, and Chinese tradition brought by foreign imperialists, traders, and migrating dwellers. To some extent, such socio-cultural assimilation is good for the formation of opened economy and plural democracy but it also creates some adverse impacts in forms of individual opportunism and hierarchical patronage structuralism. Short-term profit-taking behavior has featured the society where the business cliques are concealed with collusion and nepotism practices inside the government bureaucracy. Simply business and power relations patronage is likely to determine business growth performance. As a result, the current business environment has fostered individualistic behavior inside the batik industry with less cooperation among the entrepreneurs in dealing with high competition market. In turn, this leads to a high-cost economy that has inhibited knowledge sharing and innovation necessary to improve product competitiveness and place branding.

Clearly, the recent development of batik industry in Semarang has demonstrated a structural shift from bonding to linking social capital as a product of truncated intergenerational business continuation. As the older family business firms went out, the newer batik firms have emerged to take the lead of the local batik industry development by introducing modified path dependence. The linking social capital actors involve some migrating residents in Semarang and batik masters in Pekalongan. Neither the former batik ancestors nor their successors have got involved during the early stage of batik industry resurgence. With a forceful role of the local government through various policies, the industry has grown rapidly to spread across the city. However, such circumstance may jeopardize the future developments of the industry due to high dependency on a few charismatic local champions to whom the local batik industry sustainability rests on. Indeed, their roles in generating local economy and empowering people at the grassroots level are advantageous for stimulating collective actions. A community-based learning organization could be built for promoting creativity and innovation further to foster the local batik industry development. On the other hand, if such initiative is not institutionalized carefully, it may fail to produce new batik entrepreneurs and business start-ups. Furthermore, it may create an exclusive business network within locally built batik clusters either at neighborhood or community levels so that a citywide industrial competitiveness is hard to be achieved due to the prevailing short-term profit-taking business opportunism.

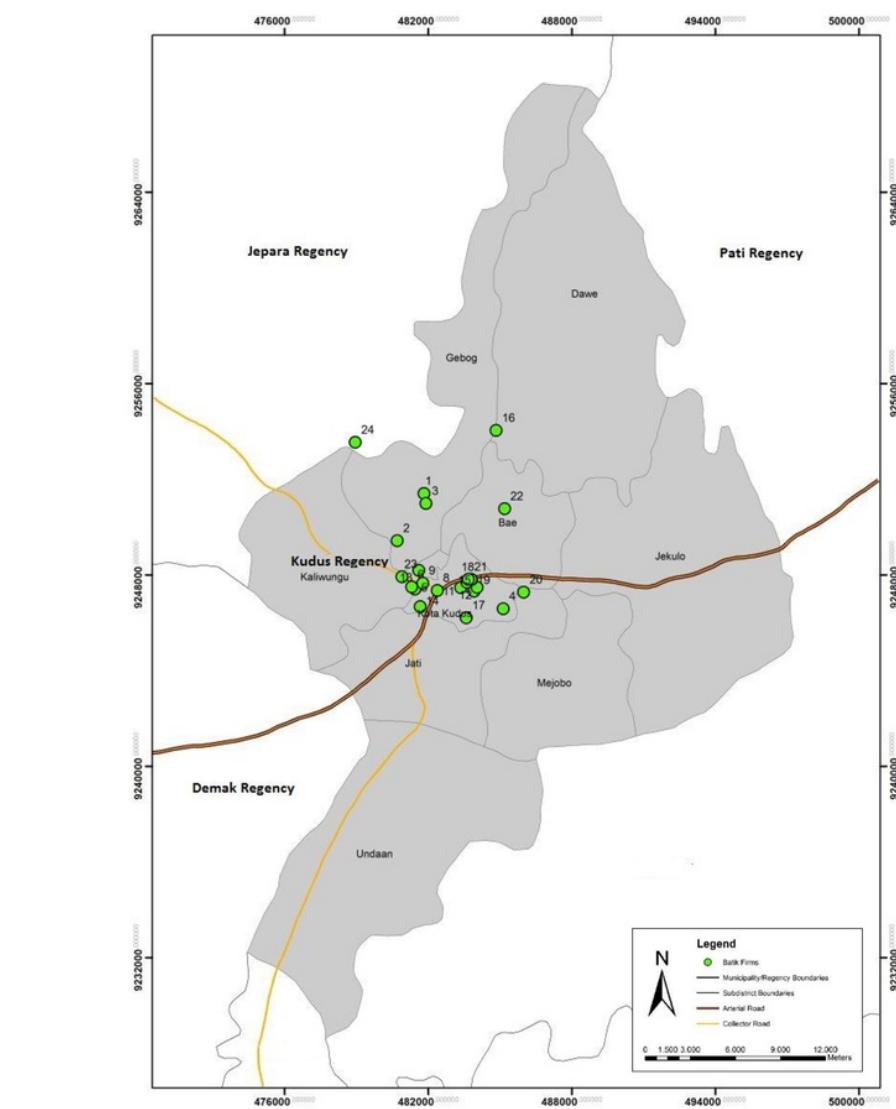
In contrast, the birth of batik industry in Kudus Regency is often associated with Islamic taught propagation era in Java Island by a prominent *majelisdakwah* (Islamic teaching institution) Wali Songo. Many references and narratives have pointed two Wali Songo missionaries, i.e. Sunan Kudus and Sunan Muria, who had inspired the local batik makers to apply calligraphic motifs, Islamic nuanced ornaments, and symbolic religious stories into batik fabrics since the 1600s. At the early period, batik production was merely a spare-time activity for women living in a settlement nearby *Masjid Menara Kudus* (Kudus Minaret Mosque) complex functioned as a center for Islamic teachings and studies, i.e. Kampung Langgar Dalem. Later, this settlement was also known as Kudus Kulon precinct. From this place, batik fabrics were used to be subsistent goods to fulfill the clothing needs of family members and relatives. In the 1800s, batik production turned into a home-based industry following the increasing demand for batik products domestically. The industry lasted until the 1880s and faced a business slowdown due to the rise of *kretek* (clove) cigarette industry in Kudus which had caused a massive inter-industry employment shift [53,54].

During the 1920s-1930s the industry survived as a result of intensified batik fabrication by the Indo-Chinese entrepreneurs. While many indigenous entrepreneurs collapsed or switched to clove

cigarette industry and other types of business, the Indo-Chinese entrepreneurs began to take over the local batik industry dominance. Since then, the assimilation with Chinese culture in socio-economic life brought back the industry into a new form of business environment. A few batik firms owned by the Indo-Chinese entrepreneurs employed the indigenous batik workers to introduce new batik motifs representing a multicultural blend of Hindu, Arabic, and Chinese culture. They also recruited batik workers from Pekalongan from which the local batik workers' skills and production technology got improved. Some popular batik motifs such as *Kapal Kandas*, *Parijotho*, *Sekar Jagad*, *Beras Kecer*, *Rama Kembang*, and *Pakis Haji* illustrated a naturalistic meticulous design which carried out philosophical values of the local wisdom and folklore narratives. The batik industry center was no longer at city center in Langgar Dalem but spread to Tanjung Karang, Dawe, and Gebog precincts. Some prominent Indo-Chinese entrepreneurs were GS Liem, TS Ing, Pho An [24] o, and Liem Boe In. In the 1950s, some new Indo-Chinese fellows joined the industry such as *Liem Boen Gan*, *Kwe Suiawu*, *Ok Hwa*, and *Gan Tjoei Gwat* [53–56].

Despite such transitional industrial dynamics, the actual contribution of these newly built batik firms to the economy was not well-identified yet. There was insufficient data and information regarding industrial size and growth performance. As a consequence, we could not figure out what actually happened during this slowdown period in contrast to the heightened dominance of the Indo-Chinese batik firms over the indigenous competitors. This situation continued until the dark period of the industry during the 1980s-2000s when the local batik industry in Kudus suddenly disappeared. The missing local batik tradition rested on the hands of a very few old batik workers like a 74-year-old(deceased) female worker Niamah[54,57]. One possible reason is that the batik industry was less prioritized by the local government compared to tobacco industry which shared more than 70 percent to the local GDP and occupied more than 25 percent labor force. Batik industry seemed lack of economic viability for the local economy as well as entire society. As for the batik workers, it was not reckoned as a primary source of household income due to low and unstable labor wage earnings. Generally, batik industry whose mostly belong to female workers was being treated an additional income source during planting and harvesting periods break. This practice is very common in agriculture-based society particularly in Java to collect extra money from undertaking batik labor as a side job. In addition, a more prospective income earning and social status improvement in clove cigarette industry stimulated the batik workers for doing employment shift easily.

Recently, the batik industry in Kudus has re-emerged from the new generation of batik entrepreneurs. Similar to Semarang case, the local batik industry resurgence was initiated by newcomers who have neither attachment to batik production background nor family business circle. At the beginning, these initiators started to learn batik techniques independently with the old batik makers at various places, including batik masters in Surakarta and Pekalongan, before taking part into several government-driven training. It was Ummu Asyiyati the owner of Alfa Batik firm and Yuli Astuti the owner of Muria Batik firm, both living in Gebog Subdistrict, who started the business in 2006. They worked relentlessly to discover authentic local batik motifs and succeeded to file patent register for some motifs. Since 2007 the Local Agency for Industry, Trade, Cooperatives and Micro, Small, and Medium Enterprises Affairs (*Dinas Perindustrian, Perdagangan, Koperasi dan Usaha Mikro, Kecil, dan Menengah*) DISPERINDAGKOP-UMKM has supported these initiatives through various training and financial assistance until the present days. Unfortunately, only a few training participants have continued to establish new business start-ups while the rest preferred to become blue collar workers or find more prospective jobs[53,54]. As a result, the current local batik industry grows slowly with 25 batik firms where less than half producing their own products and the rest runs batik trading businesses. In Figure 2 we may observe the spatial distribution of batik firms in Kudus. The batik production firms locate along the axial road towards Mount Muria in Gebog Subdistrict while the batik trading firms concentrate in the city center area.



Source: Author's analysis, 2017

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**Figure 2.** Spatial Distribution of Batik Firms in Kudus Regency, 2017

Inevitably, the prominent agent of batik industry revival in Kudus is the local citizens. They started to learn batik production processes and entrepreneurial skills at their own costs to regenerate the local batik tradition. The local government support is very useful to multiply such endogenous initiative for promoting new entrepreneurs and business start-ups. However, this government routine is not quite effective in negotiating the young generation's preference and mentality to change from industrial paid workers to self-employed persons. Another support comes from the large-scale clove cigarette industry, PT. Djarum, which provides a corporate social responsibility (CSR) program through Bakti Budaya Djarum Foundation. The company has facilitated talented individuals, groups, and organizations in promoting cultural tradition and events. Ummu Asyiaty is one of program

beneficiaries to whom the Foundation has provided funding, technical assistance, exhibition support, and business connections for promoting the local batik tradition richness. The similar way has been provided to Miranti Serad Ginanjar – a homegrown batik scholar – to conduct research and documentation on the local batik tradition as published in her book entitled “Batik Kudus the Heritage”. In the meantime, supports from the external actors are also available from various interest groups such as fashion designer community, vertical government agencies, research institutes, and batik artists and collectors, making the industry more attractive for public consumers and tourism visitors [55–57].

The preferred place of the current batik industry to operate is no longer attached to its origin in Kampung Langgar Dalem. A typically specialized localization exists when the batik trading firms concentrate in city center precincts and the batik production firms move outwards to suburbs. As for the batik trading firms, it is not required to locate close to Kampung Langgar Dalem but the national road *Daendelsweg*, which is stretched across the region connecting Jati, Kota Kudus, Bae, and Jekulo Subdistricts. As for the batik production firms, proximity to roads is also important for ensuring input-output linkages during the production processes. Therefore, they tend to concentrate along the axial road to Mount Muria, which is not only accessible from the city center but also connected with popular tourism destination in Colo resort at Mount Muria.

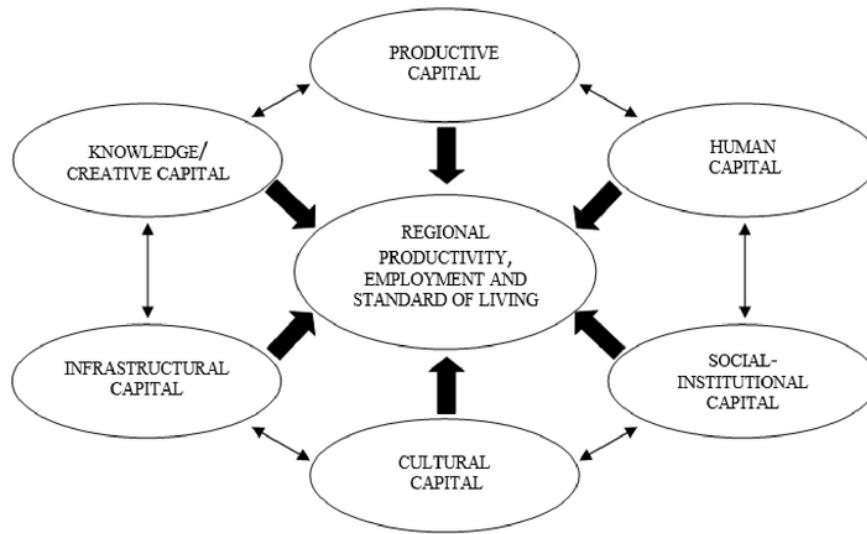
Such industrial growth tendency is associated with the existing place branding of Kudus as *Kota Kretek* (Clove Cigarette City), making the city a potential marketplace for the growth of supporting industries. In addition, growing demand for pilgrimage tourism has also attracted visitors for purchasing local souvenirs including batik products. Ironically, the domestic trade market is overwhelmed by cheaper batik products from other places, particularly Pekalongan, which is mostly consumed by the locals. The local government policy support which encourages the civil servants to wear embroidery or batik clothing on certain working days is less useful to boost the batik industry growth because it does not specify the prioritized use of the local products only. As a result, there is a missing trade economy where the locals buy batik products from the local batik industry competitors, and the local batik producers sell the products to visitors and potential buyers in distant regions. Slightly different to the Semarang case, the emerging trade market opportunities in Kudus have not implied much on the batik industry growth. Instead of creating greater multiplier effects locally, the industry has intensified dependency on input factors as well as marketing destination towards other regions. To make it worse, since the locals are preferred to buy cheaper imported batik products, the industry seems to create deficit exchange to the economy. Therefore, similar to the Semarang case, the short-term economic rationality of the new batik entrepreneurs has emphasized economic profitability against the socio-cultural tradition preservation.

The prevailing social construct that leads to acurrent business environment in Kudus is primarily shaped by industrialist hardworking society, thanks to the harmonious socio-cultural assimilation of Hindu, Arabic, and Chinese culture in the past. The local society has brought forward agriculture-based peasant economy into a modern manufacturing industry. Strong attachment to homeland and natural resources cultivation has fostered t~~10~~cal family business relations so that limited business cliques in high competition market exist. As a result, the recent batik industry development has encouraged bridging and linking social capital actors when limited collective actions by the local actors represented by the home-grown batik initiators, scholars, private companies, and local government are blossoming, so that broader participation by the external agencies come later. Collaboration between the local batik firms and private companies through CSR programs has indeed restrained the local batik industry development down to earth. This is useful to rediscover the local batik tradition and identity with complimentary moderate support from the local government.

Unfortunately, short-term profit-taking behavior by the local batik entrepreneurs is more favored, particularly by those who running batik trading activities. Mostly these batik traders import cheaper

batik products from Pekalongan and any other places to be sold in the local market. Instead of promoting local products, such business activity causes intensified competition driven by the high-cost economy in the local market. High dependency on factor inputs by the local batik producers against high dependency on cheaper final products by the local batik traders has worsened the existing business environment. Moreover, the lack of government policy support has contributed to such institutional obstacles where business opportunism exceeds inter-firm business cooperation which is counterproductive towards batik industry resurgence. Therefore, the batik firm's marketing strategy and product differentiation play the key role in stimulating collective actions. Building business alliance could be the most preferred choice for tackling these obstacles. Creativity and innovation of participating firms could be intensified through resources exchange among the alliance members. Eventually, product competitiveness and batik tradition identity may be achieved even though the local batik industry development is underpinned by a few groups of selected batik production firms and supporting stakeholders.

Drawing lessons from both cases in Semarang Municipality and Kudus Regency, we can figure out a distinguished development roadmap of the local batik industry. The Semarang case represents a territorial clustering approach at neighborhood or community levels while the Kudus case promotes a functional clustering approach. Even though they both have shared socio-cultural background similarities, the different local institutional setting has brought forward each industry to opposite directions for increasing local competitive advantage. According to Kitson et al. [3], the regional competitive advantage is indicated by the achievement of regional productivity, employment, and standard of living (see Figure 3). This output is resulted from the mobilization of six types of capital, i.e. human, social-institutional, cultural, infrastructural, knowledge/creative, and productive capitals. Human capital refers to the quality and skills of the labor force; social-institutional capital refers to the extent, depth, and orientation of social networks and institutional forms; cultural capital refers to the range and quality of cultural facilities and assets; knowledge/creative capital refers to the presence of an innovative and creative class; infrastructural capital refers to the scale and quality of public infrastructure; and productive capital refers to a cumulative product of these capitals which are mutually supporting and underpinning an efficient productive base to the regional economy.



**Figure 3.** Bases of Regional Competitive Advantage [3]

In this study, I have partially utilized this regional competitive advantage framework to examine social-institutional capital in contributing to the social construct formation locally. Concerned with the local batik industry resurgence in both locations, the growing number of batik firms since the mid-2000s, regardless of their primary business type either as batik production or batik trading firms, has indicated increasing productivity and employment size levels. Based on triangulation process by evaluating interview results, government reports, previous studies, media exposures, and field observations, we may obtain a sense of performance change even though the accurate figures are missing. In addition, most batik firms belong to SMEs group in which poor bookkeeping applies, and the owners are less cooperative to share firm performance honestly. Regarding the improvement on the standard of living, I did not examine that far as the research focus took place at society level for examining the role of the localized social construct in creating a socio-spatial setting of the prevailing business environment. To some extent, the social construct in both locations has shared socio-cultural similarities in terms of the underlying Javanese culture that carries out opened economy and society. Socio-cultural assimilation between the indigenous citizens and foreigners has somehow determined the local batik industry development roadmap which cultivated high competition and opportunistic behavior in the local business environment. However, the local social construct has been adaptive and evolving towards inextricable endogenous factors and external influences along the periods of time. As a result, the recent batik industry revival has encouraged each case to take opposite directions in shaping the local industrial competitiveness.

#### 4. Conclusion

I shall begin to conclude this study by addressing a question why local industrial competitiveness state may be different between localities although the existing social construct has stemmed from the similar socio-cultural root of tradition. More interestingly, when the recent batik industry revival in different locations has opportunities to achieve industrial development convergence, the prevailing business environment seems reluctant to exist even though each has brought forward less modified prolonged path dependence. Clearly, the local social construct is not static; rather, it evolves to deal with external influences while it also accommodates the adaptation of the local society to respond such a changing environment. The adaptive capacity of the participating actors during the local batik industry revival reshapes and determines how the local institutional setting effectuates the batik industry development initiatives. The contesting roles and responsibilities among the actors in managing competition and cooperation in the market provide the key for driving the prevailing business environment. Excessive roles of particular parties may result in socio-spatial separation rather than competitive industrial integration. On the contrary, fewer roles may lead to exclusion in both economic and social standings. In turn, such socio-spatial configuration lubricates a tension between individualistic behavior and collective actions. When individualism is greater than collectivism, a limited territorial closure of the local batik industry tends to emerge. Conversely, a selective cross-border functional business network may occur when collectivism exceeds the individualism.

Finally, I would like to emphasize that regardless of which industrial development preference emerge, they carry out their own virtues and drawbacks. Interestingly, each has a potential to direct the local batik industry to promote local competitiveness through different ways. On the other hand, they may also promote business exclusiveness which is counter-productive towards the local batik industry sustainability. However, this claim needs further research to explore substantive key drivers within the existing social construct that has shaped the adaptive capacity of the participating actors in the local batik industry development.

#### 5. Acknowledgments

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*Kota Semarang dan Kabupaten Kudus*" (Local Embeddedness Factors on the Variations of the Batik Industry Cluster Development in the Fast Growing Regions of Central Java Province **1** the Case Study of Semarang Municipality and Kudus Regency). I am indebted to the Director of Research and Community Services at the Indonesian Ministry of Research, Technology and Higher Education (DITLITABMAS-KEMENRISTEKDIKTI) for providing the grant and advisory support during the research. I also would like to gratitude the Head of Research and Community Services Institution at Diponegoro University (LPPM-UNDIP) who have relentlessly encouraged the staff for undertaking sustained research and many kinds of scientific activities in favor of either personal career development or institutional advancement.

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