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## Value Orchestration Platform: Promoting Tourism in Batik Industrial Cluster Solo

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### Abstract

Batik industry constitute of one of 14 classified creative industries in Indonesia. As part of creative industry, batik design and the batik product is possible continuously develop. In this research, we focus on Batik Industrial Cluster in central Java, Solo. This research aim is to model value co-creation process and value orchestration platform as a hierarchical service by using service science perspective. We argue value orchestration management strategies to promote Solo as batik industrial clusters to world favourite tourist destination. To achieve it, we first examine and express the situation from batik industrial cluster in Solo by using qualitative approach. Then, we analyze a process model of value co-creation consisting of four phases, i.e., co-experience, co-definition, co-elevation and co-development. The model describes interactive relationship among stakeholders in Batik industrial cluster by involving value co-creation process to supporting such collaboration. Finally, we apply three management strategies of value orchestration platform for orchestrating value co-creation process, i.e., involvement, curation and empowerment strategies.

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*Keywords: value co-creation; co-experience; co-definition; co-elevation; co-developmen; value orchestration platform*

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## **1. Introduction**

Service can be viewed as a value co-creation, which is widely defined as a useful changes generated by purposeful and knowledge-intensive interactions between distinct entities (Spohrer & Maglio, 2010). Service Science, Management, and Engineering (SSME) or in short, service science can be defined as a multi-disciplinary approach to study, improve, create and innovate the value co-creation process (Spohrer & Maglio, 2008; Spohrer & Maglio, 2010). As a new emerging field, research methodology in the SSME is still under development until now. In this research, we focus on Batik Industrial Cluster in central Java, Solo. Batik industry constitute of one of 14 classified creative industries in Indonesia. As part of creative industry, batik design and the batik product is possible continuously develop.

Service Science is an interdisciplinary approach to study, design, and implementation of services systems (complex systems in which specific arrangements of people and technologies take actions that provide value for others). Service science has been defined as the application of science, management, and engineering disciplines to create higher value resulted by the interactions among organizations.

Industrial clusters are generally defined as spatial agglomerations of companies of related industry branches and chains of production and value-adding. Within a cluster, industry branches and their individual companies as well as related institutions (e.g. Governmental and research organizations) are linked to each other by close relationship to a certain use of resources or form of production, by spatial clustering and by high connectivity in terms of business and support activities.

There are 2 batik industrial clusters in Solo, namely, Kampung batik Kauman and Laweyan. Kampung batik Laweyan placed at west part of Solo and the biggest centers of batik production in Solo. This position is very strategic and the best assets for trading and industry. Meanwhile, Kampung batik Kauman is the old village in the city center which is closely related to the Keraton (Royal Palace) Solo.

This research aim is to model value co-creation process and value orchestration platform as a hierarchical service by using service science perspective. To achieve it, we first examine and express the situation from batik industrial cluster in Solo by using qualitative approach. The relevant stakeholders for Batik Solo Tourism Industrial Cluster are all companies providers (Laweyan & Kauman), specialized suppliers, firms in related industries (lodging, agencies, tour guides, restaurant, trading, fair & exhibition), related government agencies, University institutions, Federation and Association, Financial Institution, and the customer (tourist).

There are various issues are generated from the preliminary interview that have been conducted at Solo on 2013. Those issues are attracting local and international tourist, increasing batik value, utilization of urban spatial, fulfillment of raw material, standard and supporting policy about clothing, event and program about batik and integrated tourism.

Then, we analyze a process model of value co-creation consisting of four phases, i.e., co-experience, co-definition, co-elevation and co-development. The model describes interactive relationship among stakeholders in Batik industrial cluster by involving value co-creation process to supporting such collaboration.

Finally, we apply three management strategies of value orchestration platform for orchestrating value co-creation process, i.e., involvement, curation and empowerment strategies. The expected result from this research is to model how platform can facilitate the value co-creation process in Batik Industrial cluster Solo.

## **2. Problem Definition in Batik Industrial Cluster: Promoting Solo Tourism**

In Solo, there are two areas which are centers of batik production, namely Kampung Batik Kauman and Laweyan. At the first time the government promoted both kampung as conserved cultural heritage sites instead of cluster areas. Kampung Batik Laweyan placed at west part of Solo and the biggest centers of batik production in Solo. This position is very strategic and the best assets for trading and industry. Meanwhile, the existence of Kampung Batik Kauman has been closely related to the Moslem Leader of the Great Mosque of Keraton Kasunanan. We analyzed data, developed models, and validated them by organizing a workshop in Solo, that invited all relevant stakeholders to get feedbacks from the. So far, we already produced three preliminary results, i.e., problem description by using qualitative methods.

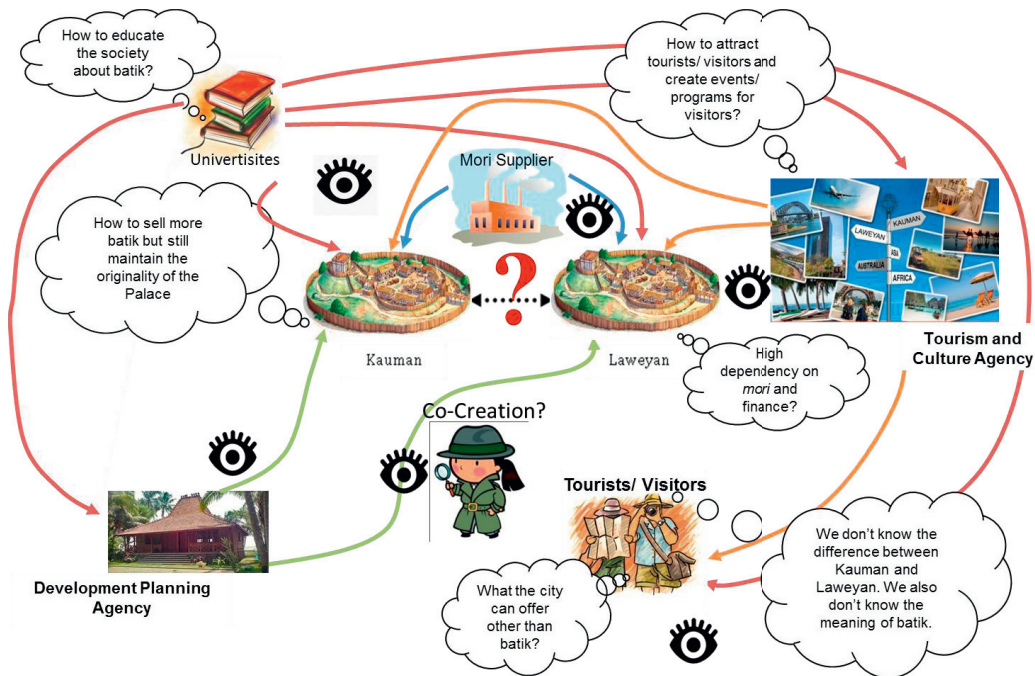


Fig. 1. Rich Picture of Definition Problem in Batik Industrial Cluster Solo

To promote tourism sector in Solo, First, we describe problems by using qualitative approach. There are various issues are generated from the preliminary interview that have been conducted at Solo on 2013. Those issues are attracting local and international tourist, increasing batik value, utilization of urban spatial, fulfilment of raw material, standard and supporting policy about clothing, event and program about batik and integrated tourism.

We had our first workshop at Hotel Sahid Jaya Solo on 27 March 2014. The objective of this workshop is to get feedback and validate our finding so far. The participants of this workshop is all of stakeholders, i.e., Tourism and Cultural Agency, Kauman and Laweyan Batik Village, University (UNIBA, UNS), Development and Planning Agency (Bappeda), Travel agent association (ASITA), merchant association of Pasar Klewer, Bank, journalists and researchers including researchers from Tokyo Institute of Technology.

Based on this workshop, the stakeholders accepted our analysis which presented by researchers, that is, our analysis truly represented the reality. However, there are also feedbacks from the stakeholders, such as development program of transportation mode between Yogyakarta and Solo, and development promotion program by using social media to attract local and international tourist to come to Solo and the other program such as development program of silkworm to fulfil the raw material, etc. Based on these issues, we propose two layers of service system, i.e., value co-creation process and value orchestration platform.

### 3. Research Methodology

In this research, we use service science perspective to analyze structure and interaction process of an Industrial cluster by comparing the model with the reality. We collect data from batik industrial clusters in Solo. Based on this

observation, we develop a new paradigm called service science that can suggest interaction and collaboration within an industrial cluster should be arranged in order to co-create innovative additional values by collaborating a variety of stakeholders and to gain competitive advantages.

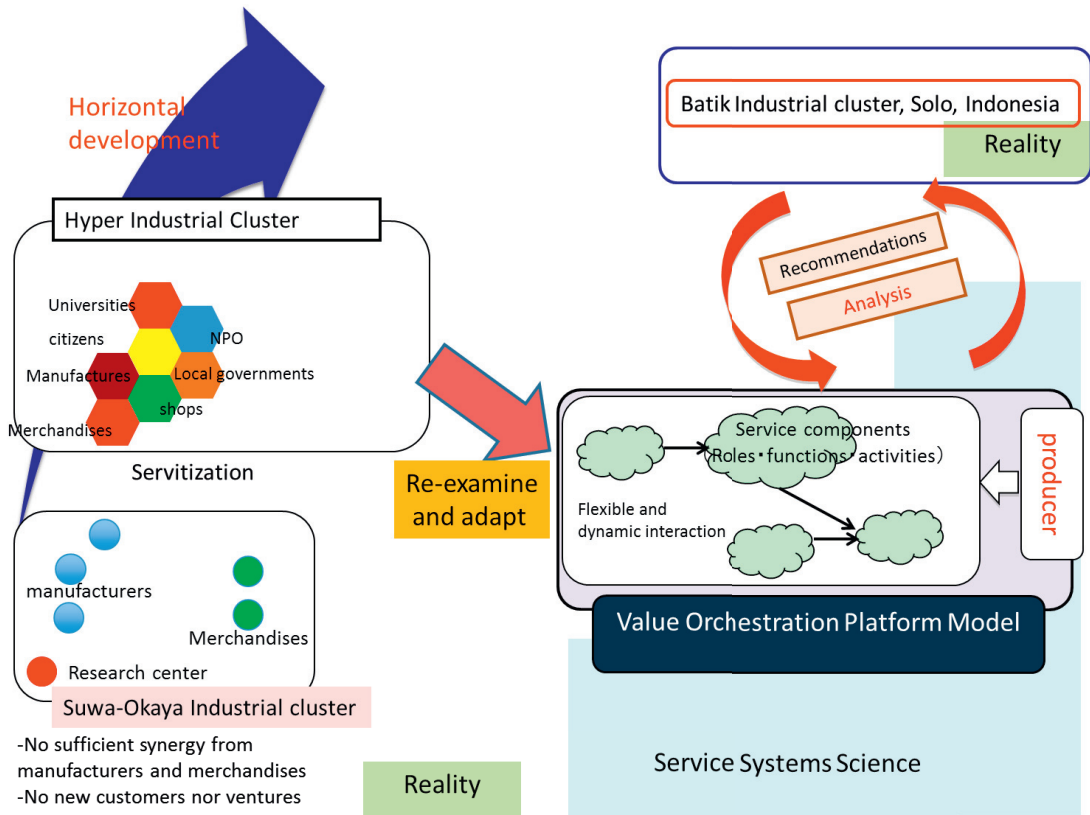


Fig. 2. Research Methodology

By using research methodology which described in Figure 2, first, we re-examine and adapt from Suwa-Okaya Industrial cluster in Japan to adopt it in Batik Industrial cluster Solo. Second, we analyze batik industrial cluster in Solo by conducting survey in 2013 and validate it through workshop in 2014 among the stakeholders. Third, we use model of value orchestration platform to facilitate stakeholders in value co-creation process which consist of four phases, i.e., co-experience, co-definition, co-elevation and co-development.

#### 4. Two Layered of Service System

Nowadays, services are increasingly essential to the economy. One of this, batik industrial cluster constitute of one of 14 classified creative industries is possible continuously develop to promote as favorite tourist destination in Solo. Service is defining as value co-creation process among the entities in service system. The entities in batik industrial clusters are stakeholders who involved, i.e., Kampung batik Laweyan and Kauman, specialized suppliers, firms in related industries (lodging, agencies, tour guides, restaurant, trading, fair and exhibition), related government agencies, University institutions, Federation and Association, Financial Institution, and the customer (tourist).

The two layer of service system is consists of value co-creation process and value orchestration platform. The next part will discuss both of value co-creation process and value orchestration platform.

#### 4.1. Value Co-creation Process in Batik Industrial Cluster Solo

In this research, we identify value co-creation interaction as an active, creative, and social process based on collaboration between entities in the service system, i.e., customers and provider. Service is define as service as a dynamic interaction process in which customers and providers are mutually learning and collaborating by co-experience.

As part of a conceptual framework for understanding the dynamics of service innovation, we introduce four phases, i.e. co-experience, co-definition, co-elevation and co-developmen in order to describe the complex service innovation process involved in this service innovation system based on the framework of S-D logic, as portrayed in the Figure 3.

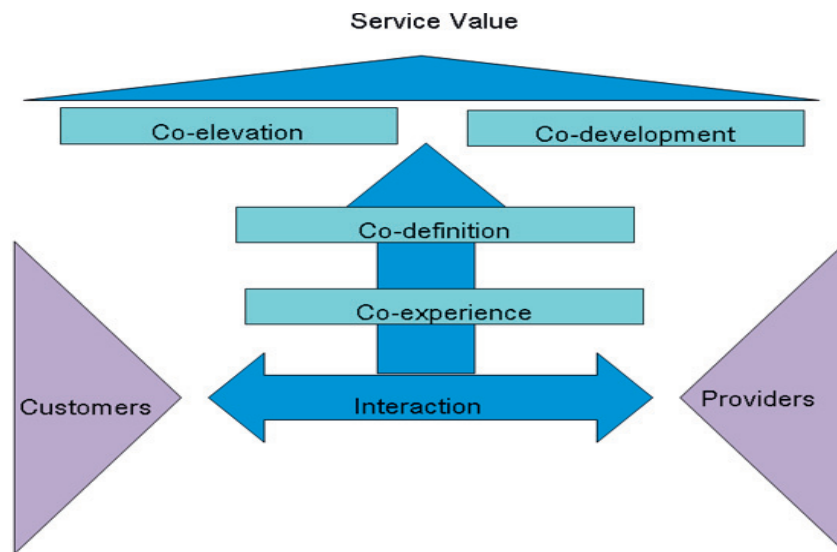


Fig. 3. Value co-creation Model Process in Service System (Galbrun and Kijima, 2009)

The basic idea of the model is that both providers and customers do not necessarily understand and/or recognize their expectations and capability, respectively, when they participate in the service process. The model identifies four phases in the value co-creation process. In order to create new service value, customers and providers first co-experience the service process, then co-define a shared internal model through mutual understanding among them. On the other hand, in order to improve and/or to innovate service value, its co-elevation and co-development by the both sides is critical. Co-experience and co-definition is carried out in a relatively short time, while co-elevation and co-development takes relatively longer time.

##### A.1. Co-experience and Co-definition Process in Batik Industrial Cluster Solo

When participating in the collaborative value co-creation process, customers and providers may have little or no idea about the other's capabilities and expectations. Hence, rather than reducing the gap between the needs and seeds, by co-experience, the provider and customer may need to share an internal model to co-define a mutual understanding about the service. Provider understand customers' need and preference, meanwhile customers understand provider's direction of service.

In co-experience process, customers need to understand how to make batik and its process, meanwhile, provider need to provide batik class to fulfill customers need. For example, through conversation and discussion, at Batik workshop, Batik Mahkota Laweyan recognizes a customers' preference, while customers understand the process of making Batik.



Fig. 4. Result of Making Batik at Batik Workshop (from Batik Mahkota Laweyan)

At batik workshop, after customers make Batik then Satisfaction is generated by co-experiencing and co-defining a shared internal model by provider and customer.

#### A.2. Co-elevation Process in Batik Industrial Cluster Solo

Co-elevation is a zigzag-shaped spiral up process of expectation of the customers and abilities of the providers. For example, Batik Gunawan Setiawan in kampung batik Kauman provide a guarantee quality of batik.



Fig 5. Example of Co-elevation process

In this process, according to Figure 5, producers' names, address and photos certainly guarantee quality of batik, both of providers and customers believe.

#### A.3. Co-development Process in Batik Industrial Cluster Solo

Co-development pays attention to co-innovation generated by simultaneous collaboration among the various entities. For example, nowadays development of Batik Motif in Batik Industrial Cluster Solo is increasing. Motif development always has been moving based on the customers' preference.



Fig. 6. Development of Batik Motif

#### 4.2. Value Orchestration Platform

The value orchestration platform invites customers and providers to "get on board" and facilitates the process and leaves the control entirely to providers and sometimes to customers as well. In order to facilitate the value co-creation process, we need a platform to orchestrate the program which purposed to promote tourism in Solo.

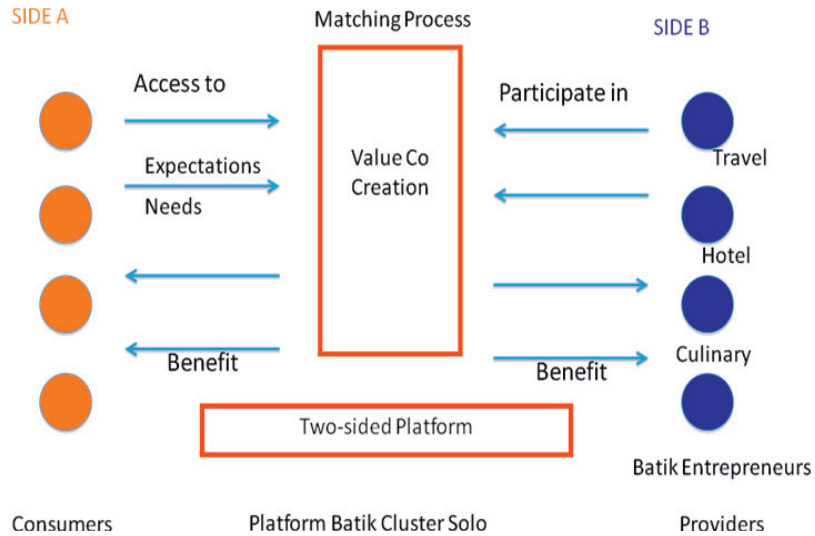


Fig. 7. Model of two sided platform to promote Solo Tourism

There are three management strategies, i.e., involvement, curation and empowerment strategies.

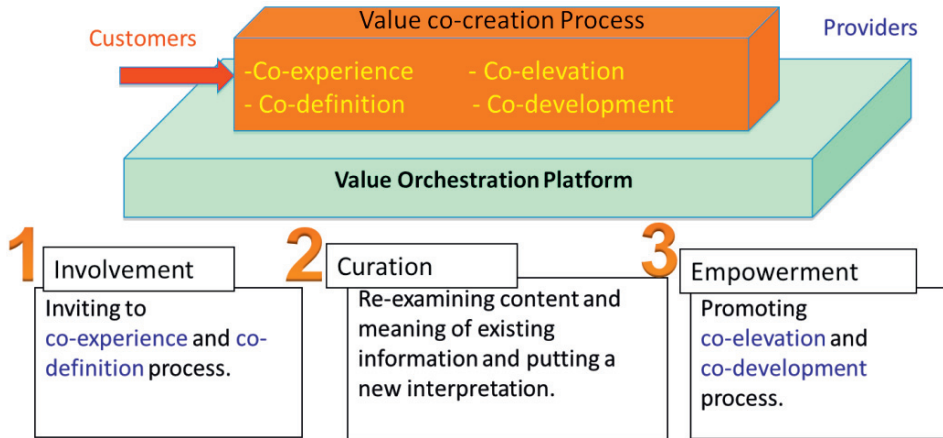


Fig. 8. Two layers of Service System in batik Industrial Solo

Based on the above figure, each of strategies will described as follows:

- Involvement strategy to promote Solo Tourism  
 Involvement strategy is a strategy for the platform to attract and involve customers and providers. In this strategy, inviting customer to co-experience & co-definition is very important. To promote solo tourism, we need to make the platform through program, for example by providing customers to understand the making process of Batik through “Program Experiencing Batik”.



Fig. 9. Involvement Strategies

- Curation strategy to promote Solo Tourism  
 Value curation is essential for the platform to encourage customers and providers to co-elevate and co-develop.





Fig. 10. Curation Strategy

- Empowerment strategy to promote Solo Tourism

Empowerment is another aspect of value orchestration, particularly for the co-elevation and co-development phases.



Fig. 11. Empowerment Strategies

## 5. Conclusion and Discussion

In this research, we use model value co-creation process and value orchestration platform as a hierarchical service by using service science perspective. We first examine and express the situation from batik industrial cluster in Solo by using qualitative approach. Then, we analyze a process model of value co-creation consisting of four phases, i.e., co-experience, co-definition, co-elevation and co-development. The model describes interactive relationship among stakeholders in Batik industrial cluster by involving value co-creation process to supporting such collaboration. Finally, we apply three management strategies of value orchestration platform for orchestrating value co-creation process, i.e., involvement, curation and empowerment strategies.

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