

COMPETITIVE ADVANTAGES OF A FASHION CREATIVE INDUSTRY IN A POST ASEAN-CHINA FREE TRADE AGREEMENT (ACFTA): A CASE OF BANDUNG IN INDONESIA

Rofi Rofaida* and Ayu Krishna Y*

Abstract: Bandung is the centre of the fashion creative industry in Indonesia. Its development is highly potential but there are some challenges, namely: low quality product and ACFTA increased the levels of competition. Product quality is key to developing industry competitive advantage. Therefore, it is important to develop a model of competitive advantage through the fulfillment of product quality based on the needs and desires of consumers. The approach used for the purpose mentioned above is Quality Function Deployment (QFD) and Failure Mode and Effect Analysis (FMEA). The general objective of the research is to increase the competitive advantage of the fashion creative industry in Bandung. The specific purposes of the research are as follows: Recommend production strategy priority to produce quality products based on the results of QFD and FMEA analysis; Obtain a picture related to the mapping and analysis of the role of Quadruple Helix (intellectuals, business, government, and the community) to support the implementation of priority production strategies to improve competitiveness; and Develop a model of competitive advantage of fashion creative industry in Bandung. Methods implemented were survey, FGD, mapping and analysis of the role of the quadruple helix and model development. The results showed that there were six priority strategies, namely, conducting market surveys to determine product design, updating product design reference, creating superior products, providing quality raw materials, implementing quality control, and improving quality of human resources. Mapping of the role of intellectuals, business, government, and the community will construct a model of competitive advantage

Keywords: Fashion Creative Industry; Failure Mode and Effect Analysis (FMEA); Model of Competitive Advantage; Quality Function Deployment (QFD).

INTRODUCTION

Creative industry occupies a strategic position in the recent industry development in Indonesia since it was able to survive during the global financial crisis in 2009 and it contributed to the national GDP from year 2006 to 2010 has increased gradually.

In 2015, the government has targeted the contribution of the creative industries to the national GDP to reach 8%. Data from the Ministry of Industry and Trade in 2011 showed that the fashion sub-sector provided the highest contribution, reaching 43 percent, and the employment rate calculated from the labor participation rate occupies the highest percentage of 51.8%. The total contribution of the creative industries sector to the national income was 641.8 trillion and created job vacancies for 11.8 million people (Ministry Of Tourism and Creative Economy, 2014)

* Faculty of Economics and Business Education Indonesia University of Education

The fashion industry includes the use of textile materials processed into final products such as shirts, jackets, pants, and similar products. (Director General of Small and Medium Industries, Bandung Department of Industry). Bandung is the centre of Indonesia's national fashion creative industries. The creative industries sector has accounted for 7.8 percent of West Java GDP. (www.tempointeraktif.com). The contributions are increasing significantly. In 2003, contributions amounted to 12.82%, then rose to 14.46%, which reached Rp 36 trillion. The fashion sector became the largest contributor, reaching Rp. 12 trillion in total and occupied a 400,000 strong workforce (Bandung Economic Section, 2010). The development of fashion creative industries influenced the improvement of GDP and employment, which in turn created a multiplier effect in terms of increased revenue and reduction in the overall unemployment rate.

However, the development of fashion creative industries in Bandung faces several obstacles, identified as follows:

- The level of competition in the domestic market is getting higher, especially after the ASEAN-China Free Trade Agreement (ACFTA) in January 2010. The impact of this agreement is a penetration of Chinese fashion products to Indonesia, which has become the main competitor to Indonesian creative industries.
- Fashion creative industries in Bandung are mostly small and medium enterprises (UMKM), with limited access to financial and technological resources, resulting in a poor quality product. (www.bisnis-jabar.com).
- The results of several studies suggest that the development strategy of the fashion creative industries in Bandung still runs independently and has not made a scale of priority of the aspects to be developed, so it seems sporadic and unsystematic (Suryana, et al, 2009: 89; Anggoro 2009 : 45). Not all local authorities have a master plan or blueprint for the development of creative industries (Furqan, 2010).

Product quality is the keyword that is important to give fashion creative industries in Bandung a competitive advantage. The American Society for Quality defines quality as: the characteristics of a product or service that bear on its ability to satisfy stated or implied needs (www.asq.org). The fulfillment of the quality standards based on consumer needs and desires enables companies to provide better value, which exceeds the value of their competitors' product. Fashion creative industry business entrepreneurs must implement appropriate strategies if they are to develop quality products.

For the purpose of operational management and quality management, there are some approaches that can be applied, namely Quality Function Deployment (QFD) and Failure Mode and Effect Analysis (FMEA). The integration of both models will provide guidance for companies to set priorities in their production strategy, in order to produce quality products to improve their competitiveness.

In the macro sense, improving competitiveness of fashion creative industries is strongly determined by the relationship between Intellectuals, Business, Government and community, in a system called Quadruple Helix. The mapping of each role in supporting the strategy above will produce a competitive model which is strongly needed for the development of fashion creative industries in Bandung. The problem of the research is formulated in question form as seen below:

- What is the appropriate production strategy priority for the fashion creative industry in Bandung in order to develop quality products based on QFD and FMEA analysis?
- What is the description of the mapping and analysis of the role of the Quadruple Helix system which consists of intellectuals, business, government, and community to support the implementation of production strategy priorities to improve competitiveness?
- What is the model of competitive advantage of the fashion creative industry in Bandung after the ACFTA agreement through the implementation of QFD and FMEA?

OBJECTIVE

The general purpose of the study is to improve the competitive advantage of the fashion creative industry after the ASEAN-CHINA Free Trade Agreement (ACFTA).

The specific purposes of the study are to:

- Suggest the production strategy priorities for the fashion creative industry in Bandung to produce quality products based on the QFD and FMEA analysis
- Describe the mapping and analysis of the role of the Quadruple Helix system which consists of intellectuals, business, government, and community to support the implementation of production strategy priorities to improve competitiveness.
- Establish a competitive advantage model of the fashion creative industry in Bandung after the ACFTA agreement, through the implementation of QFD and FMEA

LITERATURE REVIEW

Quality as the Competitive Advantage of a Company

The fashion industry covers processing textile material into end products such as t-shirts, jackets, trousers, etc. The fashion creative industry is a creative industry which combines creativity, skill, and competence to produce various creative fashion products (General Director of Small and Medium Industry, Bandung Department of Industry, 2010). The fashion creative industry reflects small and medium industry.

Bandung is the place where this creative industry was born, through innovation of young artists, whose creativity has been distributed through local industry and, even abroad.

According to Kotler (2012), competitive advantage is an advantage over competitors gained by offering consumers greater value than competitors offer. Competitive advantage is gained when a company produce products for the customer which are more valuable than the advantage offered by the competitors. The implementation of an appropriate competitive advantage strategy will result in superior customer value, whether it is lower relative or unique benefits cost (Porter,2010).

The concept of quality as a competitive advantage is stated by Heizer and Render (2012:), as shown in Figure 2.

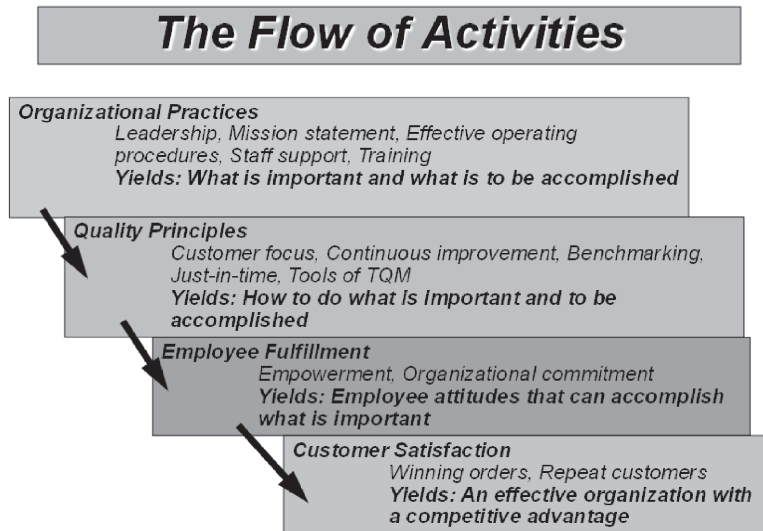


Figure 1: Competitive Advantage Through Product Quality

Source: Heizer dan Render, 2012, *Operations Management*, ninth ed, Pearson International

Garvin, cited in Lindsay and Evans (2012), stated that the dimensions of product quality are: Performance, Features, Reliability, Conformance, Durability, Serviceability, and Aesthetics

Quality Function Deployment: An Approach to Consumer Based Product Quality Development

Heizer and Render (2012) developed the concept of quality function deployment (QFD) as follow:

A process for determining customer requirement (customer wants) and translating them into attributes (the how) that each functional area can understand and act on

Quality Function Deployment is a process to determine the product attribute/quality needed by the consumer, which is realized into a form of production strategy. The aid used in QFD is the House of Quality (HOQ). HOQ is an image and matrix that can be used to transform consumer desires (Voice of Customer, VOC) into the characteristics of the product and then translate these characteristics into a production strategy. The stages in the process of QFD are part of building the House of Quality (HOQ).

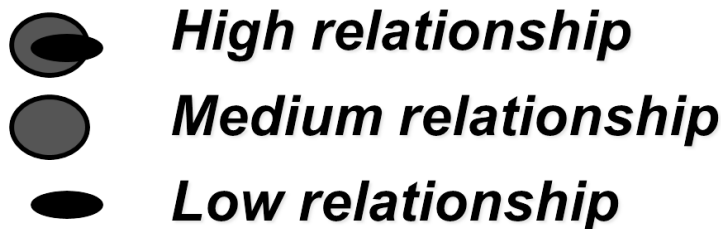
As shown in Figure 3, the stages of HOQ consist of 6 parts.

Part 1: Identification of the attributes of the products needed by the consumer and its scale of priority. This information is carried out by conducting market research through questionnaires. Product quality attributes assessed are: Performance, Features, Reliability, Conformance, Durability, Serviceability, and Aesthetics.

Part 2: Description of the production strategy of the company to meet consumer needs and desires.

Part 3: A competitive analysis of the product quality attributes (Part 1) against competitors.

Part 4: Analysis of the relationship / correlation between the desired products quality attributes with the production strategy of the company (part 1 and part 2).



Each category has a score. High relationship is scored 3, medium relationship is scored 2, whereas low relationship is scored 1.

Section 5: Analysis of interplay/relationships between different production strategies.

Part 6: An analysis indicating the production strategy priorities to be implemented by the company, based on the results of analysis of part 1 to part 5. Part 6 is the end result of the Quality Function Deployment analysis.

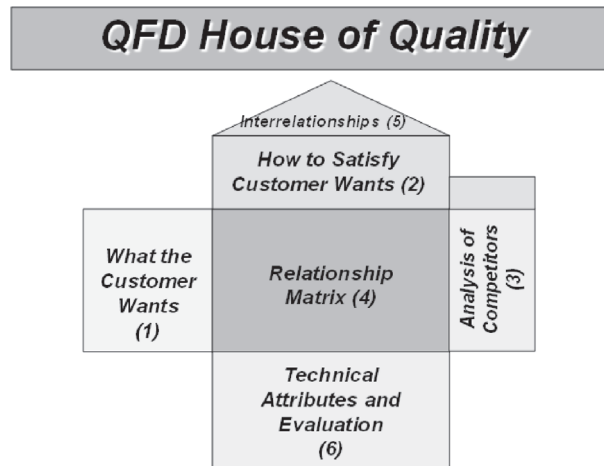


Figure 2: House of Quality

Source: Heizer dan Render, 2012, Operations Management, ninth ed, Pearson International

Failure Mode and Effect Analysis (FMEA)

FMEA, according to Russell and Taylor (2012), is a systematic approach to analyze the factors that lead to low quality products. The FMEA diagram, known as the Fault Tree Analysis (FTA), will identify the stages of the production process, which become the bottleneck / obstacles that cause the products to have poor quality, and recommend a solution to reduce or eliminate low-quality products.

The difference between this study and previous studies is that this study will utilize two methods, QFD and FMEA, to construct a competitive advantage model of the fashion creative industry, based on the needs and desires of the consumers. It is an approach that has never been done before. For IPTEKSSOSBUD development, the research will provide a new approach in the study of strategic management in which the use of QFD and FMEA is not only limited to the company level, but could also be used in the assessment of the macro / industrial policy.

Quadruple Helix

The Quadruple Helix concept arose to include an aspect which did not exist in the triple helix concept, namely the community aspect. The Quadruple Helix views the community aspect as important in developing a model of creativity and innovation. Han Woo Park (2014) explained the Quadruple Helix concept as follows:

...In short, the TH focuses on top-down government, university and industry policies and practices whereas the Quadruple Helix focuses on BOTH

top-down government, university and industry policies and practices as well as bottom-up and mid-level out civil society grass-roots initiatives and other actions that help better shape, fine-tune and make more effective and efficient the government, university and industry policies and practices (Han Woo Park, 2014)

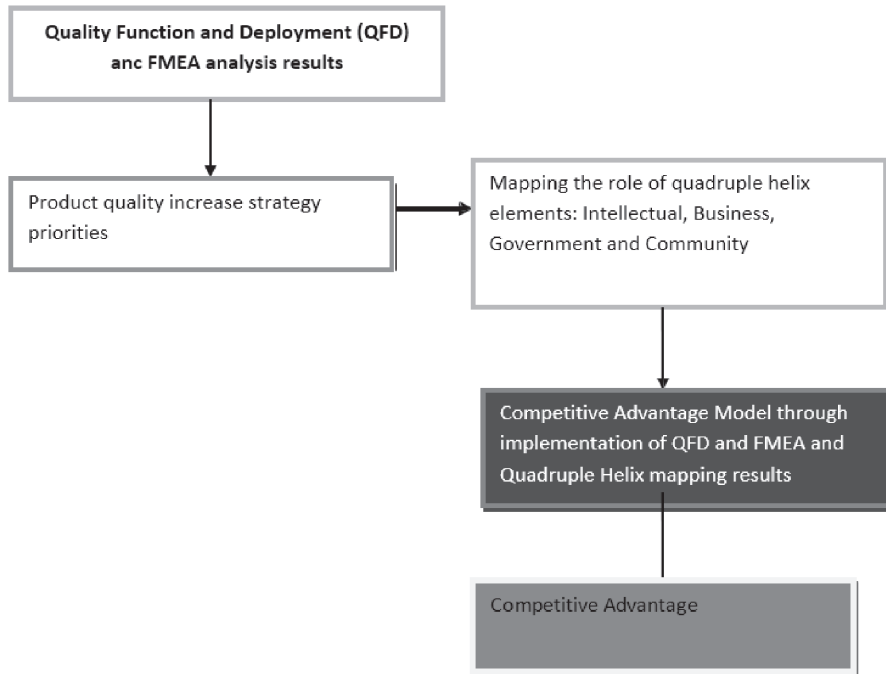


Figure 3: Conceptual Framework/Research Model

Research Method

The research is qualitative in nature. The research was conducted by survey. The observations had a time coverage “one shoot” / cross sectional. Sampling was collected by using the purposive sampling method. Qualitative research typically uses non-probability sampling (including purposive sampling). In this study, the sample size was 65, consisting of 50 consumers of Bandung fashion creative industries and also the Chinese fashion consumers and 15 creative industry business entrepreneurs.

- In line with the purpose of this research, the descriptive analysis procedure was conducted as follows:
- Compiling data and checking the questionnaire
- Data Tabulation, grouping data based on indicators

- QFD stages, consisting of: preparation of House of Quality / HOQ
- QFD descriptive Analysis and Interpretation
- FMEA stages, consisting of: preparing Fault Tree Analysis (FTA) that would identify the stages of the production process that becomes the bottleneck / constraints
- FMEA descriptive analysis
- Conducting mapping and analysis of the role of the 'quadruple helix' system: Intellectuals, Business, Government and Community descriptively
- Developing a model of competitive advantage based on the implementation of QFD, FMEA and the results of the analysis of the role of the quadruple helix mapping plus.

Results and Discussion

Integration of Quality Function Deployment (QFD) and Failure Mode Effect Analysis (FMEA) Models in Fashion Industry Strategy Priority Setting:

Analysis of Quality Function Deployment (QFD) is a matrix diagram package (also known as quality tables) in the form of the house. Analysis of the production strategy priorities that must be conducted by the fashion creative industry as a result of the analysis of Quality Function Deployment are as follow:

- Conducting market surveys for product design by:
 - Conducting a needs analysis of fashion products consumers
 - Developing the need for fashion products from the most needed at this time to one that is not needed by consumers
 - Conducting benchmarking based on the development of fashion products within and outside the country.
- Updating the reference of the design of the product through the website. Creative industries can continue to update and monitor the development of fashion products through a website or blog from a different brand.
- Creating a superior product, thereby creating a special value for the fashion products themselves.
- Selecting good quality raw materials. Creative industries can perform this in several ways, as follows:
 - Determine the standardization of the quality of raw materials to be used
 - Assess the advantages and disadvantages of the raw material before it is used for production in large quantities
- Performing Quality Control.

- Improving the quality of human resources for designers, tailors and others, conducted through training in the field of fashion and other fields related to fashion.

The results of the analysis of the Quality Function Deployment step 1 to step 4 are formulated in the House Of Quality (HOQ) Figure (Figure 4).

Results of Failure Mode and Effect Analysis (FMEA) Approach

FMEA analysis resulted as follows:

TABLE 1: IDENTIFICATION OF PRODUCT DEFECTS AND THE CAUSE OF THE FAILURE

<i>Failure Mode</i>	<i>Cause of Failure</i>	<i>Correction Action</i>
Perishable products	Low quality raw material	(a) Selection of good quality raw materials (b) Selection of suppliers who provide good quality raw materials
	Low quality supporting materials (paint, thread, and others)	(a) Selection of good quality supporting materials (b) Selection of suppliers who provide good quality supporting materials
	There is no strict quality control in the production process	Conducting statistical process control
	Not all businesses entrepreneurs have a standardized SOP	Developing appropriate SOP
	Quality packaging is not considered	(a) Improving the quality of raw materials for packaging (b) Improving the distribution channel

Source: Research analysis, 2013

COMPETITIVE ADVANTAGE MODEL DEVELOPMENT

The Role of Intellectuals

Educators in educational institutions and researchers who consistently contribute to the development of fashion creative industries through a scientific point of view are included in the group of intellectuals or scholars. Intellectuals are educators in educational institutions, researchers, and artists who have a high concern in developing fashion creative industries through a scientific point of view, rather than business practices. Contributions can be made on three aspects: education, research, and community service.

The role of education is important in the establishment of a creative and innovative mindset in the pupils / students. This mindset will encourage students

to develop novel works in the fashion industry. Education plays an important role in creating creative and innovative generations through a structured and scientific pattern.

The role of research is implemented by scholars / intellectuals through creative, innovative, and appropriate / applicable research. The research results can be implemented to improve the performance of the creative industries to increase their competitiveness. Research also aims to provide input to the government for further development of fashion creative industries policy.

The role of community service is implemented by scholars / intellectuals through community activities, especially activities aimed at creative industry communities. The results of the research can be disseminated and applied through community service activities. This activity also aims to create a supporting climate for the community and other institutions / social order which support the growth of the creative fashion industry.

The action plan to be implemented is:

- Development of Creative and Entrepreneurship Based Curriculum.
- Multidisciplinary Innovative Research
- Development of Business Incubators to prepare young entrepreneurs in the fashion business.
- Development of Professional Certification Training Institution
- Input from Intellectuals in terms of development of fashion creative industry policy.

The Role of Industry

In the development of Bandung fashion creative industries, the role of business is creating products that have creative product competitiveness through creativity and innovation, providing added value for fashion creative products. The details of the role of business can be identified as follows:

- Creating creative products which have competitive advantage
- Creating business field for creative people
- Providing input to the development of fashion creative industries policy
- Cooperating with educational institutions and government for the development of entrepreneurial capacity, business coaching, and mentoring

The Role of Government

The roles of government in developing creative industry are:

Facilitation: The government provides stimulation, challenge and encouragement, so that business ideas are able to move to a higher level of competence, in the form

of financial assistance, incentives or protection, and the government's commitment to use its political strength in providing good public administrative services.

Regulatory: Government can accelerate the development of creative fashion industry through policies that create a conducive business climate for creative fashion industries. An action plan that could be undertaken, for example: Development of low-interest financing scheme without collateral

Urban planning: The government has a central role in the creation of a creative city, which is able to accumulate and concentrate the energy of creative individuals as magnets that attract individuals / companies to make investments.

There are action plans to be undertaken by the government, for example:

- **Policy Incentives:** Incentives are facilitation or additional income in the form of money, goods, etc given to increase business motivation. According to the Ministry of Tourism and Creative Economy (2014), some forms of incentives that can be provided are:
- **Welfare incentives:** This incentive is given by the government in a negative condition, meaning conditions where the industry is non-commercial or unfavorable. Incentives can be given by the government, for example, to encourage CSR (Corporate Social Responsibility) from the private sector to support exhibition of the fashion industry.
- **Growth Incentives:** Incentives are given by the government in a positive condition, meaning that industrial activity is commercial and relatively favorable. Incentives can be given by the government by, for example: opening access to markets abroad (exhibitions, business matching), providing export licenses, export taxes and import settings.
- **Innovation incentives:** These incentives are given by the government in case of development, meaning that the market needs new innovation. These incentives can be given to the new creative industries which have great potential.

Conducive Business Climate

The creation of a conducive business climate can be implemented as follows:

- **Cluster and Creative City:** Preparing creative cities or creative areas, which are gathering places for creative individuals who can interact and collaborate to create creative products and services with high economic value. Clusters and creative areas will be the main drivers of the concentration in growth of creative workers and interaction space to share the development of entrepreneurship in the form of experimentation and sharing of experience (learning). This will develop efficiency of creative industries and improve competitiveness of Indonesia's creative industries.

- Creative Administration: Developing a simple and uncomplicated bureaucratic system. This is also expected to be able to attract world-class companies to set up offices, or make investment in creative industries in Indonesia (Foreign Direct Investment)
- Distribution Line & Connectivity between areas: Governments should play an active role in providing distribution channels for both conventional and digital distribution (distribution supported by information technology and telecommunications) in order to avoid high-costs in domestic and international markets.
- Open public space: used as a gathering place for creative people and a variety of creative events. Recently, in Bandung, new parks have been built as gathering places for creative communities, such as Elderly Park, Pasopati Parks and Dago Park.

The Role of Community

The creative community is a collection of individuals who have a common vision and move according to their own will, starting from creating the exchange of knowledge, experience, technique and tactics that are interrelated to grow their initiative to establish a project, and eventually lead into a strong innovative business. Communities can support the policies / programs on capacity development of SMEs through various means, such as cooperation with educational institutions and government for the development of entrepreneurial capacity, business coaching, and mentoring. Communities become a means for the establishment and development of business entities, knowledge sharing among businesses of the creative fashion industry. Knowledge sharing can be the main media to develop the quality of performance among members of the community. Communities can also increase networking / business networking. Communities may cooperate with government and educational institutions to foster entrepreneurship and business coaching.

In Bandung, there is a group of creative industries called Bandung Creative City Forum (BCCF). BCCF become a place for the creative industries communities including fashion creative industries. Especially for the fashion creative industry communities, a number of *distro* (clothing brands) formed a cooperation named KICK, short for Kreative Independent Clothing Kommunity.

The results of the study recommend a model of competitive advantage as shown in Figure 5. From the model of competitive advantage above, it can be concluded that the synergy of each element of the Quadruple Helix will determine the success of the fashion industry in Bandung. Details of the synergy of each element of the Quadruple Helix are as follows:

- The relationship between Intellectuals and Community
Intellectuals can provide creative human resources required by the fashion industry community, who generate innovation and technology needed for

the research-based industry. Intellectuals can also play a role in generating creative culture in the community through community service activities. Communities can provide inputs for intellectuals in terms of competencies required by the communities, research cooperation and the improvement of human resources quality through coaching or business internship programs.

- The relationship between Intellectuals and Business

Creative human resources required by the fashion industry generate innovation and technology needed for the research-based industry. Intellectuals can also play a role in generating creative culture in the community through community service activities.

Industry can provide input to intellectuals in terms of the competencies required by industry, research cooperation and improvement of human resource quality through coaching or business internship programs.

- The relationship between Business and Community

Business / industry is a community-forming element. Community is a forum for knowledge sharing, business entity formation and development, networking, and business coaching

- The relationship between Intellectuals and Government

Intellectuals can provide input to Government policies, including curriculum policy to develop creative human resources, research cooperation, a business incubator in educational institutions, and conduct certification programs. Certification programs prepare creative human resources that have national and international standards.

The government can act as a catalyst, regulator, investor, and urban planner. Governments have an obligation to develop policies in order to create a conducive business climate. Government can play a role as an investor. As an urban planner, one of the government's priorities is to form creative cities in Indonesia.

- The relationship between Business and Government

Business can provide input to and support government policies. Large-scale fashion industry can contribute in terms of capacity development through financing of SMEs and SME development of quality human resources. The government can act as a catalyst, regulator, investor, and urban planner.

- The relationship between Community and Government

Community can provide input to and support government policies. Large-scale fashion industry can contribute in terms of capacity development through financing of SMEs and SME development of quality human resources. The government can act as a catalyst, regulator, and of course an investor.

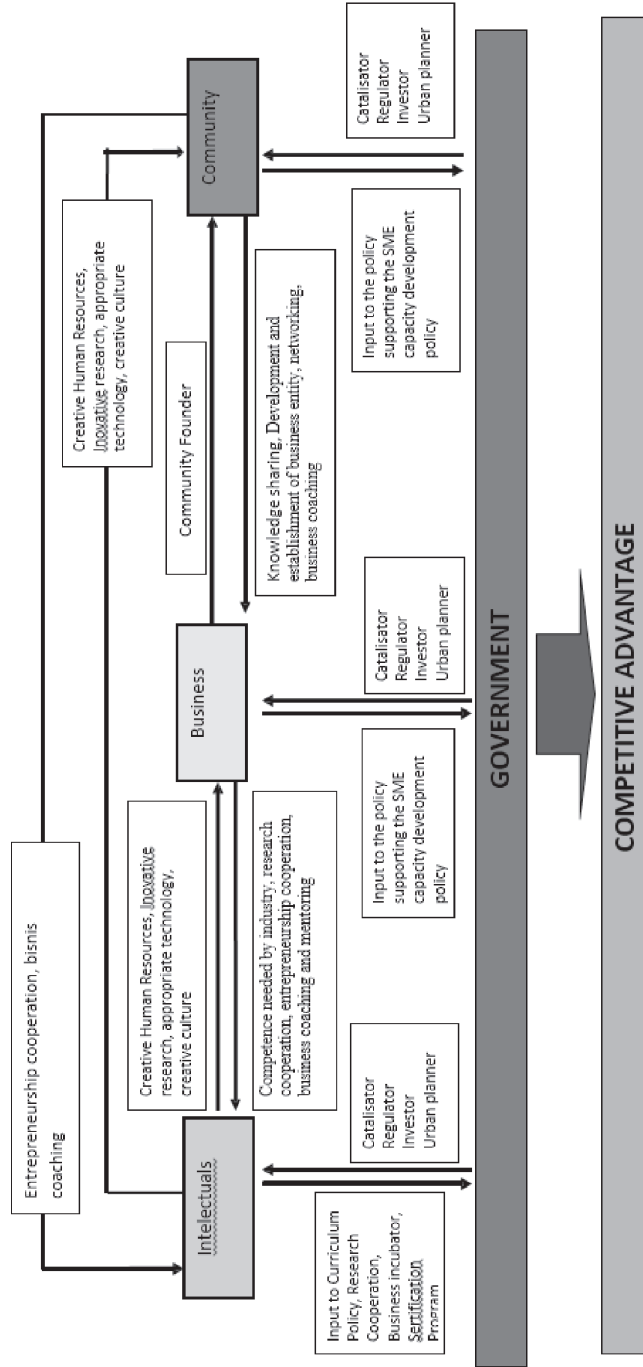


Figure 4: Model of Competitive Advantage of Fashion Creative Industry

CONCLUSION

The results of the study identified the roles of the Quadruple Helix as follows: **Intellectuals** have a great capacity to strengthen the bases of formal and informal innovation, ripen innovation and disseminate information. **Business** role is producing creative products and playing a role in the economic exchange relations, as well as in the transformation of creative ideas into products which have economic value. **Community** is a means for the establishment and development of business entities and knowledge sharing among businesses of the fashion creative industry. Knowledge sharing can be a major media to develop performance quality among community members and networks. **Government** roles in the development of creative industries are: Facilitators who provide stimulation, challenge, encouragement, so that business ideas move to a higher level of competence. Regulators who accelerate the development of fashion creative industries if the government is able to make policies that create a business climate conducive to fashion creative industries. Urban planners who have a central role in the creation of a creative city to accumulate and concentrate the energy that attracts individuals / companies to open a business in Bandung. In the model of development of fashion creative industries competitive advantage, government is central to the development of fashion creative industries competitive advantage in Bandung. Its role is as a catalyst, regulator, investor, and urban planner.

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