

# STRATEGY OF INTELLECTUAL MODEL AND BUSINESS INNOVATION TO IMPROVE CREATIVE INDUSTRY COMPETITIVENESS IN MEDAN CITY

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## Abstract

*The aim of this research is to develop a model of creative industry competitiveness based on the management of intellectual capital strategies (human capital and social capital) and business model innovation and operationally this research aims: 1) to know the human capital model to improve the competitiveness of creative industries in Medan; 2) knowing the social capital model to improve the competitiveness of creative industries in Medan; 3) knowing the innovation of business models developed to improve the competitiveness of creative industries in Medan City. In this second year (2018), research data will be collected using a valid and reliable questionnaire. Data analysis was carried out in two stages namely descriptive and inferential. The results of this study indicate that: 1). Human capital has a positive and significant effect on social capital with a path coefficient of 0.79; 2). Human capital has a positive and significant effect on business model innovation with a path coefficient of 0.46; 3). Social Capital has a positive and significant effect on business model innovation with a path coefficient of 0.28; 4). Human capital has a positive and significant effect on competitiveness with a path coefficient of 0.59; 5). Social capital has a positive and not significant effect on competitiveness with a path coefficient of 0.04; and 6). Business model innovation has a positive and significant effect on competitiveness with a path coefficient of 0.37. In this case, human capital has the highest value in influencing the competitiveness of the creative industries in Medan.*

**Keywords:** Human Capital, Social Capital, Business Model Innovation, Creative Industry Competitiveness, Medan City.

## 1. INTRODUCTION

The number of micros, small and medium enterprises (MSMEs) in the city of Medan engaged in the creative industry as many as 2,800 units with employment reaching 1,004,899. This figure shows that the labor force participation rate in the city of Medan is recorded at 61.94%. To maximize creative economic competition in the city of Medan there are still a number of constraints faced including the low readiness of creative human resources in the city of Medan, the limited educational institutions that can produce creative spirited students, socio-cultural diversity, lack of readiness for government equipment in facing free trade, and low financial institution support for creative industries. Some of these obstacles will affect the competitiveness of the creative industry, while the Medan creative industry needs to be continuously developed because the creative industry sectors have a significant economic contribution to the economy of Medan, besides that the creative industry can create a positive business climate for other aspects, supporting the use of renewable resources is central to the creation of innovation and the creation of creativity and has a positive social impact.

Listening to the large absorption of human resources (HR) which reached around 7.5 million workers in the creative industry sub-sector shows the great potential for the development of the creative industry. Latuconsina (2010: 20) states that creative human resources (HR) are a requirement to fill roles in the creative industry. The creative industry is a way to build a creative economy or a knowledge-based economy. And this economic model is an economic foundation that is built on the synergy between HR talent and natural excellence, which is characterized by rapid growth, high added value, and a positive social perspective.

The prospect of the creative industry is very good to be developed so that it grows and has a competitive advantage in the global market, because the creative industry focuses more on the creation of goods and services that rely on expertise, talent and creativity as intellectual property. In the global market, competition will be based more on expertise, talent and creativity. Therefore, the development of creative industries is determined by the ability of human resources to enhance creativity and innovation, in order to adapt to environmental changes. In addition, the capabilities of innovation and competitive advantage are indispensable for the development of the creative industry. Therefore, creative industries must be able to change the paradigm of culture in the context of performance-based art into

performance-based entrepreneurship and change their culture of life that is profit-oriented to be customer-oriented.

Some of the problems faced in the creative industry will result in weak competitiveness of imported products. The main problems of the creative industry include managerial capabilities of creative industry entrepreneurs. This capability is very important to develop and improve the performance of the creative industry. The ability of the creative industry human resources must be improved, especially related to the knowledge, skills, and attitude of creative industries. This is important to develop the creative industry as a whole. In addition, marketing capabilities and market opening are capabilities that are not owned by many business actors engaged in the creative industry. Most of these business people prioritize artistic values or products of high artistic value but are difficult to trade or trade on the market. The weakness of the creative industry in terms of the ability to access information, especially market information, is also an obstacle in marketing its products, because the limited access to market information will have an impact on the low market orientation and weak competitiveness at the global level. The lack of information about these markets, makes the creative industry unable to direct the development of its business clearly and focus, so that its development stagnates. Thus, social capital is needed by creative industries. For entrepreneurs, social capital is the ability of actors to connect with external parties such as relating to customer satisfaction, customer loyalty, attracting new and other customers. With good human capital, it is expected to develop the next capital, namely social capital.

In addition to these factors, the performance of creative industries is still weak due to the limited ability of human resources, especially the weak innovation capabilities of business people. The development of the creative industry is very important, and is expected to be able to drive the innovation capabilities of business people and have an impact on competitive advantage. But some creative industries feel that innovation will be a problem. Not all creative industries who want to innovate still argue that innovation requires a long process and is expensive.

Creative Industries are faced with new problems in managing their business. The limited quality of human resources is vital for the creative industry in developing its business. The results of research by Muafi et al. (2012), Zulkieflimansyah and Muhammad (2003) show that the creative industry has weak capabilities from aspects of HR, information technology and innovation. On the one hand, the creative industry has a strong contribution to the country's economy. In Indonesia, the creative industry was known as one of the economic pillars during the 1997 crisis (Sarosa, 2007; Muafi et al., 2012). This research was conducted to add to and enrich the theory of intellectual capital, linked to business model innovation and the competitiveness of the creative industry. The study of theory and research on intellectual capital is associated with business model innovation and the competitiveness of the creative industries that are rarely found in the business and management literature.

The results of the research in the first-year show that human capital, social capital and business model innovation influence the competitiveness of the creative industry. The priority of human capital has an effect of 45.91%. business model innovations amounted to 40.01% while social capital was 14.08%. Thus, it is identified that human capital, business model innovation and social capital are the dominant factors in maximizing the competitiveness of the creative industry.

Based on the theory that has been built and a map of the conditions of intellectual capital (human capital and social capital), business model innovation and the competitiveness of creative industries in Medan, the expected findings of this study are the existence of a creative industry competitiveness model based on the management of intellectual capital (human capital and social capital) and business model innovation.

## **2. THEORETICAL BASIS**

### **2.1 Creative Industry Competitiveness**

The competitiveness of the creative industry will increase as long as the business is able to innovate. In order to support the innovation process and increase competitiveness, Sáenz (2012) states that aspects that support the continuity of organizations in carrying out innovations are: social networks, associativity, trust, communication management, and organizational culture. Meanwhile, Barney (2005) argues that the key to the company's success in innovating is a culture that is conducive in transferring market information. With the effective transfer of information between each other and the synergy collaboration process can encourage the emergence of new ideas. Therefore creative industry entrepreneurs need to have social capital to accelerate the innovation process. Competitiveness is a concept commonly used in the economy, which usually refers to a commitment to market competition and success in international competition. From this definition, there are several things that can be drawn. First, the competitiveness of a Creative Industry can be seen from the competitiveness of the products it produces. Second, product competitiveness also pays attention to export share, foreign and domestic market share, product value / price, and consumer satisfaction. And third, the main driver of a company's competitiveness is HR (workers and entrepreneurs). In theory, the dimensions of competitiveness as stated by Muhardi (2007: 40) consist of costs (cost), quality (quality), delivery time (delivery), and flexibility (flexibility). The four dimensions are further explained by Muhardi (2007: 41) complete with the indicators as follows:



- a. Cost is a dimension of operating competitiveness which includes four indicators, namely production costs, labor productivity, use of production capacity and inventory. The element of competitiveness which consists of costs is capital that is absolutely owned by a company.
- b. Quality is a dimension of competitiveness which includes a variety of indicators including product appearance, product acceptance period, product durability, speed of customer complaint resolution, and product conformity to design specifications.
- c. The delivery time is a dimension of competitiveness which includes various indicators including timeliness of production, reduction of production waiting time, and timeliness of product delivery.
- d. Flexibility is a dimension of operating competitiveness which includes various indicators including the type of product produced, speed adjusting to environmental interests.

The four indicators must be managed well into an innovation so as to create competitive strategies for the creative industry. Another factor that influences innovation is intellectual capital (England & Stewart (2007). Intellectual capital is a strategic resource that can be used by companies to develop innovations to improve the organization's competitive strategy. According to Barney (2005) the competitive advantage of an organization lies in ownership and effective use of strategic resources: These strategic resources are human (human capital) and social networks (social capital), both by Bonfour & Edvinson (2005) better known as intellectual capital, further Barney (2005) states that innovation requires change and human capital is the driving force of change in the organizational environment Human capital is the collective capability of the organization to obtain the best solution from the competence of each individual

In addition to the above, another opinion was expressed by Mayo (2009) and Davila (2006) that leadership which is one component of human capital is a critical factor in creating and supporting successful innovation. In this context, leadership orientation will make an important contribution to innovation. While the influence of social capital factors on innovation was delivered by Cavusgil, et. all (2003) which shows that social capital in the form of collaboration between organizations plays an important role in sharing tacit knowledge, which in turn has a positive impact on innovation. While Pyka (2002), Rodan (2002) and Scarbrough (2003) also state that collaborative relationships in the form of informal networks are most important in promoting the culture of innovation. Based on the description, the author concludes that the main factors that influence innovation are human capital and social capital. Human capital and social capital are elements of intellectual capital.

## **2.2 Intellectual Capital**

The definition of intellectual capital is presented by Marr (2004), intellectual capital is knowledge that is valuable to the organization. The definition shows that the management of knowledge (all of what is known) creates intellectual capital. Another opinion was also conveyed by Sveiby (1997), namely that Intellectual capital is a commitment and competence of workers, which includes how each worker thinks and works and how the organization creates policies and systems that must be done. By referring to the opinion of Barney (2005), then in this study the intellectual capital elements used are human capital and social capital.

## **2.3 Human Capital**

Mayo (2009) states that human capital has four components, namely individual capability, individual motivation, leadership, and work group effectiveness. Each component has a different role in creating the value of an organization. In summary, the four components according to Mayo (2009) include: 1) Individual capability. Knowledge, skill, experience, network; ability to achieve results, potential for growth; and what they bring into work from other parts of their life, 2) individual motivation. Aspirations, ambitions and drives; work motivations; productivity, 3) leadership. The clarity of vision of top management and the ability to communicate it and behave in a way that is consistent with it. 4) Workgroup Effectiveness. Supportive-ness, mutual respect, sharing in common goals and values.

## **2.4 Social Capital**

Mayo (2009) states that human capital has four components, namely individual capability, individual motivation, leadership, and work group effectiveness. Each component has a different role in creating the value of an organization. In summary, the four components according to Mayo (2009) include: 1) Individual capability. Knowledge, skill, experience, network; ability to achieve results, potential for growth; and what they bring into work from other parts of their life, 2) individual motivation. Aspirations, ambitions and drives; work motivations; productivity, 3) leadership. The clarity of vision of top management and the ability to communicate it and behave in a way that is consistent with it. 4) Workgroup Effectiveness. Supportive-ness, mutual respect, sharing in common goals and values.

## **2.5 Business Model Innovation**

According to Osterwalder & Pigneur (2010: 10) Business model innovation is something that is truly new. The business model describes the rationale for how to create value for companies, customers and society. Osterwalder & Pigneur, (2010: 15) explains that the Business Canvas Model is a business model that describes the rationale for how organizations create, deliver, and capture value. Canvas divides the business model into nine main components, then

separates it again into the right component (creative side) and left (logic side). The nine components are as follows, (sorted from right to left). Customer Segments, Value Propositions, Channels, Customer Relationships, Revenue Streams, Key Resources, Key Activities, Key Partnerships, Cost Structure.

### 3. IMPLEMENTATION METHOD

Research will use quantitative and qualitative approaches to collect primary and secondary data. Micro primary data obtained by the survey approach with samples are creative industries. Macro secondary data obtained from the results of a survey of the Department of Industry, the Office of Cooperatives and SMEs. Qualitative approaches are needed to better understand the role of government in efforts to empower creative industries. This research was conducted in the creative industries in Medan. The research sample used proportional random sampling by taking into account regional factors or the location of creative industries and the types of businesses or sectors developed.

The research subjects as data sources in this study are creative industries. Data analysis was carried out in two stages namely descriptive and inferential. Requirements for analysis include (1) normality of data, (2) linearity of regression, (3) regression homogeneity between variables, and (4) model match test. Test the data normality of each variable using the Kolmogorov Smirnov Test. The regression linearity test between variables is done using F test statistics. Test of regression homogeneity between variables used the Bartlett test. The fit of the theoretical model test used the goodness of fit test using Chi Squares. To test the causal model compiled in this study path analysis was used with the help of the AMOS computer program.

### 4. RESULTS AND DISCUSSION

Based on research data that has been collected, the following is a picture of Path Analysis Results using AMOS.

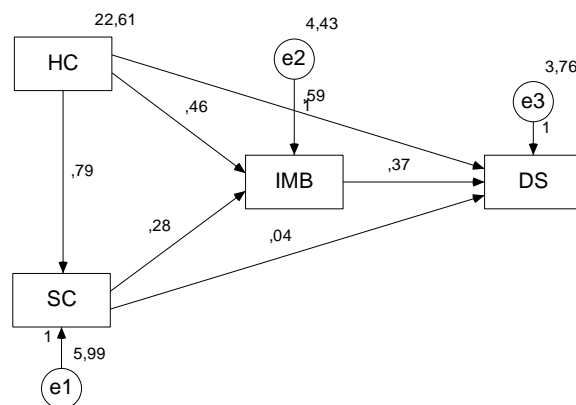


Figure 1. Path Analysis.

#### Information:

- HC: Human Capital
- SC: Social Capital
- IMB: Business Model Innovation
- DS: Competitiveness

#### 1) Human Capital Againsts Social Capital

Based on the results of the Amos program calculation in Figure 1, the Human Capital (HC) path coefficient to Social Capital (SC) is 0.79 with a significance level of 0.00 meaning significant. Significance provisions are stated to be significant if the significance level is less than 0.05. Based on these results, H0 is rejected and H1 is accepted. This means that statistically human capital has a positive and significant direct effect on social capital.

The results of this study indicate that social capital is very dependent on human capital. Human capital reflects the collective ability of creative organizations or industries to produce the best solutions based on the knowledge possessed by the people in them. Capability of a creative industry entrepreneur who possesses knowledge, skills, experience, and network will be able to build social capital such as networks, raw material distribution networks to product marketing network processes that can make creative industry businesses grow and develop in facing the ASEAN economy.

#### 2) Human Capital Againsts Business Model Innovation

Based on the results of the Amos program calculation in Figure 1. The Human Capital (HC) path coefficient to Business Model Innovation (IMB) is 0.46 with a significance level of 0.00 meaning significant. Significance provisions are stated to be significant if the significance level is less than 0.05. Based on these results, H0 is rejected and H1 is accepted. This means that statistically human capital has a positive and significant direct effect on business model innovation.

The results of this study indicate that the business model innovation that will be carried out by a creative industry is very dependent on the human capital owned. Capability, motivation and leadership spirit possessed by creative industry entrepreneurs will be able to embrace business model innovation in ASEAN and global economic competition.

### **3) Social Capital Againsts Business Model Innovation**

Based on the results of the Amos program calculation in Figure 1. the Social Capital (SC) path coefficient to Business Model Innovation (IMB) is 0.28 with a significance level of 0.00 meaning significant. Significance provisions are stated to be significant if the significance level is less than 0.05. Based on these results, H<sub>0</sub> is rejected and H<sub>1</sub> is accepted. This means that statistically social capital has a positive and significant direct effect on business model innovation.

The results of this study indicate that social capital is the basis for people who work together for shared goals in groups in building business model innovations. Every pattern of relations that occurs is bound by trust, mutual understanding and shared values that bind group members to make possible joint actions and be carried out efficiently and effectively so that the design of business model innovations will be felt easier and can run well.

### **4) Human Capital Againsts Competitiveness**

Based on the results of the Amos program calculation in Figure 1. the Human Capital (HC) path coefficient to Competitiveness (DS) is 0.59 with a significance level of 0.00 means significant. Significance provisions are stated to be significant if the significance level is less than 0.05. Based on these results, H<sub>0</sub> is rejected and H<sub>1</sub> is accepted. This means that statistically human capital has a positive and significant direct effect on competitiveness.

Based on the results of this study it can be indicated that in creating high competitiveness superior human capital is needed. In creating a creative industrial business that has competitiveness or is different from other creative industries, the business must be able to have superior human capital in expertise, knowledge, experience, motivation and leadership. Thus, creative industry business groups are able to read far-reaching opportunities in global economic competition.

### **5) Social Capital Againsts Competitiveness**

Based on the results of the Amos program calculation in Figure 1. the Social Capital (SC) path coefficient to Competitiveness (DS) is 0.04 with a significance level of 0.63 meaning not significant. Significance provisions are stated to be significant if the significance level is less than 0.05. Based on these results, H<sub>0</sub> is rejected and H<sub>1</sub> is accepted. This means that statistically social capital has a positive and not significant direct effect on competitiveness. The results of this study indicate that competitiveness can be created by building or possessing social capital, but there are other factors that are greater in influencing the competitiveness of the creative industry.

### **6) Business Model Innovation Againsts Competitiveness**

Based on the results of the Amos program calculation in Figure 1. the Business Model Innovation (IMB) path coefficient to Competitiveness (DS) is 0.37 with a significance level of 0.00 meaning significant. Significance provisions are stated to be significant if the significance level is less than 0.05. Based on these results, H<sub>0</sub> is rejected and H<sub>1</sub> is accepted. This means that business model innovation statistically has a positive and significant direct effect on competitiveness.

Based on the results of the research, it can be indicated that the competitiveness of the creative industry can be influenced by the innovation of the business model developed. Osterwalder & Pigneur, (2010: 15) explains that the Business Canvas Model is a business model that describes the rationale for how organizations create, deliver, and capture value. Canvas divides the business model into nine main components. The nine components are as follows: Customer Segments, Value Propositions, Channels, Customer Relationships, Revenue Streams, Key Resources, Key Activities, Key Partnerships, Cost Structure. These nine main components are able to read opportunities in creating high competitiveness.

## **5. CONCLUSION**

The results of this study indicate that: 1. Human capital has a positive and significant effect on social capital with a path coefficient of 0.79; 2. Human capital has a positive and significant effect on business model innovation with a path coefficient of 0.46; 3. Social Capital has a positive and significant effect on business model innovation with a path coefficient of 0.28; 4. Human capital has a positive and significant effect on competitiveness with a path coefficient of 0.59; 5. Social capital has a positive and not significant effect on competitiveness with a path coefficient of 0.04; and 6. Business model innovation has a positive and significant effect on competitiveness with a path coefficient of 0.37. In this case, human capital has the highest value in influencing the competitiveness of the creative industries in Medan.



The results of this study indicate that the priority criteria for increasing the competitiveness of the creative industry in Medan City start from Human Capital, Business Model Innovation and Social Capital. Human capital greatly influences intellectual capital of creative industries in the city of Medan. Human resources who have competencies and build a culture of innovation and are supported by a network of stakeholders can improve the competitiveness of the creative industry.

## 6. SUGGESTIONS

1. Human capital is the driving force of entrepreneurship, therefore human capital, which is proxied in the form of knowledge, expertise, skills, competence and experience, becomes the basis for driving entrepreneurial behavior in the informal sector. The high level of knowledge, expertise, skills, competencies and experience possessed by informal sector actors will enhance their ability to achieve competitive advantage and business competitiveness. Considering this matter, it needs attention from various good parties. Universities, the government, in this case the Office of Cooperatives and SMEs, Department of Industry and Trade, Department of Tourism and Culture as well as BUMN and Private Sector to be able to provide assistance for creative industry entrepreneurs to increase knowledge, expertise, skills, competencies and experience through education and training.
2. Social Capital in the form of networking, cooperation and relational relations with fellow business people in creative industries and with various well-built parties will increase the confidence of creative industries. This confidence will motivate and become the capital of creative industries to be proactive in conducting business innovation. Therefore it is necessary to provide assistance programs for creative industry groups to build associations among creative industries by initiating and facilitating the programs needed to improve their entrepreneurial orientation.

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