

Conceptual Model for Developing Creativity in Batik Industry

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Abstract - The purpose of this research is to develop a conceptual model of creativity in batik industry. This model was developed by conducting a study from previous research that discuss important factors for the development of creativity. This conceptual model was built based on four variable, namely creative person, intrinsic motivation, job skills training, and creative organizational climate. Creative person will stimulate the creativity development in batik industry. A creative person are more able to improve their creativity if they have intrinsic motivation, given some training that related with the job skills they needed, and supported by organization that have positive climate (climate in organization that respects creativity, provide opportunities, time, facilities, infrastructure and incentives to employees to think about, designing, researching and developing new products that better and more innovative). For the further research, this study can be continued by testing the model empirically through distributing the questionnaire to some partisipan of SMEs and processing data from the results of questionnaire distribution using the data processing software, like SPSS, LISRELL, etc.

Keywords - Creativity, creative person, intrinsic motivation, training, creative organizational climate.

I. INTRODUCTION

Creative industries are the main pillars in developing creative economic sector that provides a positive impact on national income. The role of creative industries in economy of Indonesia quite significant, with the contribution to gross domestic product (GDP) on average 6.3% in 2002-2006 (equal to 152.5 trillion rupiah) and can absorb the 5,4 million of workforce. From the export side, the average total exports of creative economy during the years 2002-2006 amounted to 10.6%^[4]. Creative industries contributed in some areas of life, not just viewed from an economic, but also can provide positive impact to other aspects such as improving the image and national identity, innovation and creativity of children of the nation, resource utilization infinite (idea, talents, and creativity), and social impacts^[4,5].

One type of creative industries is the batik industry. Like the other industries that are included in the creative industries, batik industry faces a number of problems that related to the quality of human resources, business climate, reward/

appreciation that given to the creative person and creative work produced, use of information of technology and communications, and funding support from the banking institutions. Among these problems, the most dominant problem is quality of human resources or human resource skill^[20]. Human resources are the most important factor in the creative industries because the creative industries derived from the utilization of creativity, skill and individual talent^[1].

II. LITERATURE REVIEW

A. Batik Industry as a Creative Industry

Creative industries are industry derived from the underutilization of creativity, skills and individual talents of individual to make create wealth and generate employment by producing and exploiting individual creativity. In the creative industries, creativity has a central role as the primary resource. Creative industries require more creative resources that derived from the idea or inspiration of human thought than physical resources. However, the physical resources remain necessary, especially on its role as a creative medium^[16].

Indonesia arranges creative industries into 14 industrial groups, i.e.: architecture, design, fashion, film, video and photography, crafts, computer service and software, music, market and art goods, publishing and printing, advertising, interactive games, research & development, performing arts, television and radio. Craft is a creative that related in creation, production and product distribution that created and produced by a crafts person which begins with designing to product settlement process, includes some of goods that made of: gemstone, natural fiber, leather, rattan, bamboo, wood, metal (gold, silver, copper, bronze, iron) glass, porcelain, fabric, marble, clay, and chalk. Batik industry is classified to subsector handicraft in creative industry. The same classification is also expressed by KBLI (*Klasifikasi Baku Lapangan Usaha Indonesia*)^[2].

B. Creativity

Creativity is the ability to generate innovative ideas and manifest them from thought into reality. The process involves original thinking and then producing. The process of creation was historically reserved for deities creating "from nothing" in

creationist and other creation myths. Over time, the term creativity came to include human innovation, especially in art and science and led to the emergence of the creative class^[23].

Creativity is construed differently by various of theorists. Sternberg and Lubart in 1999 present that "*Creativity is the ability to produce work that is both novel (i.e. original, unexpected) and appropriate (i.e. useful concerning tasks constrains)*". Runco in 2007 present several authors that define creativity as involving the creation of something new and useful (Bailin in 1988, Bean in 1992, Solomon, Powell and Gardner in 1999, Mumford in 2003, Andreasen in 2005 and Flaherty in 2005)^[15]. Their point of view considers creative functioning as the manifestation of fluctuations in unstable, self-organizing local systems that reorganize into patterns of higher order thinking and coherence. Some theories and definition about creativity^[22]. Guilford in 1950 found that creativity refers to the abilities that are characteristics of creative people^[18]. Hulbeck in 1945 define "*Creative action is an imposing of one's own whole personality on the environment in an unique and characteristic way*"^[18].

Creative refers to novel products of value, the person who produces the work, both to the capacity of produce such works and to the activity of generating such products. All who study creativity agrees that for something to be creative, it is not enough for it to be novel: it must have valued, or be appropriate to the cognitive demands of the situation^[22]. Creativity is the tendency to generate or recognize ideas, alternatives, or possibilities that may be useful in solving problems, communicating with others, and entertaining ourselves and others^[14].

C. Managing Creativity

As with other concepts in psychology and education, creativity is defined in many ways. Logically, any human activity may be looked at from four angles: the person who performs it, the thing which is done, the process of activity itself and the conditions which effect the above three divisions. According to Taylor in 1964 and Torrance in 1977, creative activity could be defined under the following headings^[18]: creative person, creative product, creative process, and environmental influences.

In the late 1950s^[3], researcher Mel Rhodes set out to find a single, all-inclusive definition of "creativity" (Rhodes in 1961). Instead he found a variety of definitions which "*overlap and intertwine*", on farther examination of these definitions, he found they comprised four general strands. He labeled these areas the "four P's": person, process, product, and press, as shown in Fig. 1.

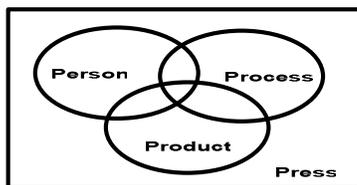


Figure 1. Venn Diagram of Rhodes' Four P's of Creativity^[3]

The creative product is a production of the creative process, which is affected by creative abilities and other characteristics of a person. Similarly, the creative product is affected by environmental conditions, which also effect people and creative processes.

Creative Person: The study of the creative persons have investigated the characteristics and have presented many general forms of creative personality. According to Taylor in 1964, the common assumption is that all persons have some creative potential. This means an existence of individual differences in degree^[3]. On this basis, Lowenfeld in 1960 distinguished between actual creativity and potential creativity. The first is that potential which is already developed and functioning, whereas the latter includes the total creative potential, both developed and undeveloped, within an individual. Taylor belief that all persons have some degree of potential to be creative in one or more ways^[22].

Creative Product: The second element of creativity is the creative product. Defining a product what is or is not a creative product is a difficult matter, because creative products of undisputed uniqueness and distinction are few. In addition, they often appear accidentally like discoveries or inventions, so that the environment may appear more responsible for them than the individual^[22]. Creativity as a product is the contribution of original ideas, a different point of view, or a new way of looking at problems^[3]. Rogers in 1982 suggested criteria for creative products are^[18]:

1. The creative product should be original, new or unprecedented somewhat.
2. The product should be adopted to and adequate for the actual situation.
3. It should be distinguished by a certain charm. The creative product does merely present the solution to a problem, but should have a quality of beauty and create a sense of elation and satisfaction.
4. It should be possible to assess, search for and confirm the creative product.

Creative Process: The third element of creativity, the creative process, focused on the steps, methods, and techniques which people use when applying their creativity^[3]. Creative process also defined as the nature, abilities, levels, and stages of creativity. According to Vernon in 1964^[22], Galton is considered the first researcher to examine the subject in his empirical study of heredity and genius. He found a wide variation, some individuals had extremely vivid pictures while others could not picture anything. Torrance in 1963 defining the creative process as "*The process of (1) sensing difficulties, problems, gaps in information, missing elements, something asked; (2) making guesses and formulating hypotheses about these deficiencies; (3) evaluating and testing these guesses and hypotheses; (4) possibly revising and retesting them; and finally (5) communicating the results.*" Torrance in 1963^[22] considered problem solving as a somewhat creative thinking to the extent that one or more of the following conditions are met:

1. When thinking production is new and valuable.
2. When thinking requires change or rejection of previously accepted ideas.
3. When thinking happens accidentally.
4. When thinking requires intensive stimulation, deep and persistence, and continues for a long time, whether it is sustained or broken.
5. When the problem is obscure and unlimited such that formulation of the problem itself becomes a part of the task.

Environmental (Press) Influences: The fourth element of creativity mentioned earlier is the matter of environmental influences. Creativity does not occur in a vacuum. On this basis, when creativity is viewed as a result of the interaction of environmental conditions and individual capacities, it may then be considered as a successful step into the unknown, getting off the main track, breaking out of a mold or rut, being open to experience and permitting one thing to lead to another recombining ideas or seeing new relationships among ideas. (Torrance and Goff in 1989)^[22]. Torrance believes that the way creative abilities develop and function is strongly influenced by the manner in which the environment responds to a person's creative needs. In other words, the development of creativity may be related to continuities and discontinuities in the particular culture (Torrance in 1962)^[18]. The extent to which creativity is encouraged, and the subsequent variety of creative products that are developed depends on the extent to which culture permits the development of both freedom within the individual and freedom among the individual and his or her environment, and on the extent to which the culture encourages diversity and tolerates the seeming ambiguity that such diversity suggests^[22].

D. Intrinsic motivation

Motivation is the impulse that arises in a person consciously or unconsciously, to perform an action with a particular purpose, or those businesses which can cause a particular person or group of people moving to do something because they want to achieve desired goals or get satisfaction for his actions^[19]. Ranupandoyo in 1980 states that the motivation is to try the process, influence a person to the person carrying out something that we want. Handoko in 1990 states that motivation is a state in the person of someone who encourages individuals desire to engage in certain activities to achieve goals. Sardiman in 1992 states that motivation is the effort that encourages someone to carry something or motive power of the subjects to do certain things or activities, to achieve the goal. Mulyadi in 1988 defines motivation as the will or impulse to do something to meet the needs or could be interpreted as a process that causes a person's behavior become passionate, focused and not easily discouraged^[7]. From the various definition we can conclude that motivation is a psychological condition that drives someone to implement something, so that something can be expected to achieve organizational goals and objectives of individual employees concerned. Motivation that existed at someone would create a

behavior that is directed at achieving goals satisfaction.

Motivation contains several elements according to Sardiman's research in 1992^[7]:

1. Motivation that started the change of energy on each individual and will be clearly visible to the human physical activities.
2. Motivation is marked by the emergence of a sense of someone. Here the motivation is relevant to psychological and emotional issues that can determines a person's behavior.
3. Motivation will be stimulated because of the particular purpose. Here the motivation is a response of an action, such as the objectives concerning the matter needs.

There are two types of motivation according to Sardiman (1992)^[7]:

- a. Extrinsic motivation, comes from external factors, for example threats of being fired or money as a reward.
- b. Intrinsic motivation, comes from inside an individual, satisfaction, enjoyment of work etc.

E. Training

The term training refers to the acquisition of knowledge, skills, and competencies as a result of the teaching of vocational or practical skills and knowledge that relate to specific useful competencies. In addition to the basic training required for a trade, occupation or profession, observers of the labor-market recognize today the need to continue training beyond initial qualifications: to maintain, upgrade and update skills throughout working life. People within many professions and occupations may refer to this sort of training as professional development^[24].

Definition of training is construed differently by various of theorists according to some authors^[11]: Nitisemito in 1994 indicate that "Training is an activity of the companies that intend to improve and develop the attitudes, behavior, skill and knowledge of the employees in accordance with the wishes of the respective companies." Belong to Simamora in 1997 "Training is a systematic process of changing the behavior of the employees in a direction to enhance organizational goals." Another definition of training according to Armstrong in 1991 "Training is a planned process to modify attitude, knowledge or skill behavior through learning experience to achieve effective performance in an activity or of activities."

Simamora in 1997^[11] classifies the purposes of training as:

1. Improve performance.
2. Updating the skills of its employees in line with technological advances.
3. Reduce the learning time for new employees to become competent in the job.
4. Help solve operational problems.
5. Preparing employees for promotion.
6. Orient employees to the organization.
7. Meet the needs of personnel growth.

F. Creative Organizational Climate

Creative climate is a meaningful concept. It has important implications for understanding human behavior in organizations. Ekvall in 1983^[17] suggested that climate effects how organizational members communicate, solve problems, make decisions, handle conflicts, learn and motivate, and thus, can be noted by the efficiency and productivity of the organization. He noted that climate has an influence on job satisfaction and organization member's ability to innovate. Brtiz in 1995 defined creative climate as: "...a conglomerate of attitudes, feelings and behaviors within an organization that allow, encourage and foster the creation of change...by producing and carrying out new or novel ideas by its members"^[10].

III. METHODOLOGY RESEARCH

Our research includes the steps that conducted a study from beginning to end. Research methods in this study begins from define problem, literature review, develop conceptual model and identification variable, as shown in Fig. 2.

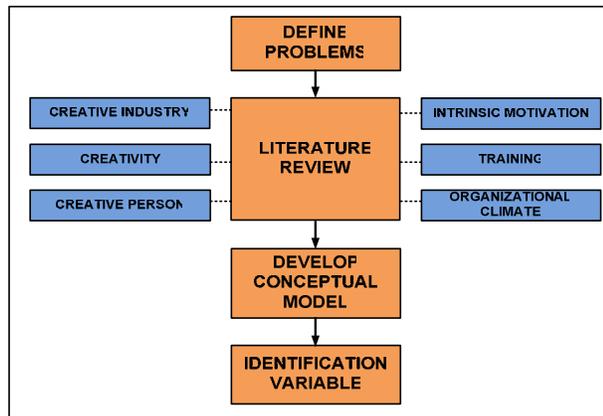


Figure 2. Methodology research

Defining problems are needed to determine the actual conditions in the field. In this preliminary study researchers will collect data from previous research about the development of creativity in batik industry. Formulation of the problem in this research are:

1. What factors that effect the improvement of industrial creativity in batik?
2. How the influence of these factors to the increasing creativity in batik industry?

Based on the formulation of the problems mentioned above, the purpose of this study are:

1. Knowing the factors that effect the improvement of creativity in the batik industry.
2. Analyzing the influence of these factors to the increasing creativity in batik industry.
3. Provide suggestions / recommendations for improving the competitiveness of the batik industry.

Literature study carried out to find the factors that influence the development of creativity in batik industry, which will be

used to develop a conceptual model and identification variables.

IV. CONCEPTUAL MODEL

Conceptual model of creativity in batik industry developed by conducting a study from previous research that discuss important factors for the development of creativity, like study that conducted by Amalia in 2008, Darsono in 2007, Kurniati in 2005, Rani in 2007, and Susanty in 2009.

Research that conduct by Amalia in the year 2008 is associated with the development of creativity in the batik industry. This study aims to examine the factors that influence the development of creative human resources, creative work, creative organization, creativity in using resources that comes from the environment, and product innovation on small-scale batik industry, medium and large. One of the important results of this research is creative human resources or creative persons is one of the important factors that influence the development of creativity in batik industry^[1]. **Hypothesis 1: creative person have positively influence on the development of creativity in batik industry.**

Darsono in the year 2007^[12] trying to find out the relationship between intrinsic motivation and creativity in his research. Someone may have the knowledge, skills, and thinking style, but without motivation, he will not be a creative person. Someone who has a high intrinsic motivation will be working hard to complete the job well. This positive attitude is caused by the desire to achieve satisfaction (self-satisfaction) or the desire to actualize himself. When there are obstacles in their efforts to complete the job, he will try to find solutions for problems (problem-solving). In the process of seeking the problem-solving, individuals often see the problem with different viewpoints. It means that high intrinsic motivation make individuals more creative. **Hypothesis 2: intrinsic motivation have positive impact on creativity development of creative person in the batik industry**

Research of Kurniati in the year 2005^[13] is an experimental study that aimed to test the relationship between training with increased the creativity relevan skills. From this research, Kurniati can conclude that training have significant impact on creativity development of the workers. **Hypothesis 3: job skills training have positive impact on creativity development of creative person in batik industry**

Research that conduct by Rani in the year 2007^[6] aims to test the relationship between organizational climate and creativity of the workers in the design section on PT Danar Hadi Batik Surakarta. Results of data analysis showed that are a positive relationship between opportunities to be creative and organizational climate. Opportunities of a worker being a creative worker will be greater if the workers were engaged in an organization that has a climate that respects creativity, provide opportunities, time, facilities, infrastructure and incentives to employees to think about, designing, researching and developing new products that better and more innovative. **Hypothesis 4: creative organizational climate have positive impact on the creativity development of the creative person in the batik industry.**

Graphically, the four hypotheses above can be illustrated in the following conceptual model.

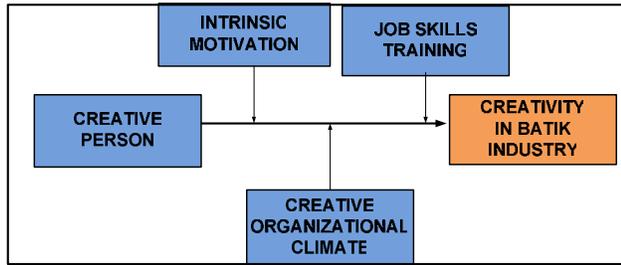


Figure 3. Conceptual model for creativity in batik industry

V. IDENTIFICATION VARIABLE

In detail, the dimensions of latent variables used in this study can be described as follows.

1. Creative person

Characteristics personnel of creative person can be known through the habit of making it appears as specific characters. According to Guilford^[8], a creative person will have some characteristics below.

- a. Have a great curiosity
Great curiosity characterized by a huge encouragement to know more, ask many questions, always pay attention to other people, objects and situations, and sensitive observation and want to know and investigate.
- b. Imaginative
Imaginative person characterized by ability to perform or imagine things that do not or have never occurred, but often use fantasy to know the difference between fantasy and reality.
- c. Depending on the plurality
Someone who depends on the pluralistic society characterized by the encouragement to overcome a difficult, felt challenged by the situations are so complicated and more interested in the difficult tasks.
- d. Risk taking
Dare to take risks characterized by courage to answer, not afraid to fail or get a critique, and not be in doubt because of lack of clarity the things that are not conventional, or a less structured.
- e. Respect
Feel respect characterized by attitude can appreciate the guidance and meaning in life, and appreciate the abilities and talents of others.
- f. Independent
Independent characterized by behavioral capable of initiative, able to overcome obstacles / problems, have the confidence and can do something by themselves without help from others.
- g. Adaptability
Adaptability characterized by ability someone in adopting to the environment and co-worker.

2. Intrinsic motivation

Amabile^[16] argued that three components were needed to enhance creativity in business, i.e: expertise (technical, procedural and intellectual knowledge), creative thinking skills (how flexibly and imaginatively people approach problems), and motivation (especially intrinsic motivation). According to Herzberg^[18], intrinsic motivations consist of some dimensions as below.

- a. Enthusiasm/interest.
Enthusiasm/interest characterized by a tendency of a person in finding out and studying a particular case.
- b. Feel challenged to work.
Feel challenged to work is the feelings that needed to develop themselves and to realize their capabilities and potential in real forms.

3. Job skills training

The good job skills training should created an environment where employees can acquire or learn the attitudes, abilities, skills, knowledge and behaviors which have related to specific jobs, so it can encourage them to be do a better job. According to the study that conduct by Martiningsih in the year 2007^[9], there are some important dimensional of job skills training.

- a. Target of training
Training should have a clear purpose and target.
- b. Material of training
Material of training should be prepared based on a predetermined training objectives.
- c. Instructor of training
Instructor of training should be able to teach about training materials with a particular method so that participant will acquire knowledge and have skills appropriate to the specified target.
- d. Frequency of training
Includes of frequency of implementation of training and the intensity of the training organized by the government.
- e. Participation of trainees
Participation of the trainee can enhance the transfer of knowledge between transfer agent and transfer recipient.
- f. Feedback.
Feedback is useful to know weather the purpose and target of training have been achieve.

4. Creative organizational climate

According to Ekvall in the year 1999, there are some important dimension of creative organizational climate^[17].

- a. Challenge, the degree to which members of the organization are involved in its daily operations and long-term goals.
- b. Freedom, described as the independence in behavior exerted by the people in the organization. In a climate with much freedom, people are given autonomy to define much of their own work.
- c. Conflict, refer to the presence of personnel, interpersonal and emotional tensions (in contrast to

idea tensions in the debates dimension) in the organization.

- d. Idea Support involves the new ways ideas are treated. In the supportive climate, ideas and suggestions are received in an alternative and kind of way by bosses and workmates.
 - e. Debates, involves encounters, exchanges often clashes among viewpoints, ideas and differing experiences and knowledge.
 - f. Tolerance of uncertainty and ambiguity exposed in the workplace constitutes risk taking.
 - g. Dynamism and liveliness are the eventfulness of the life of the organization. The atmosphere is lively and full of positive energy.
 - h. Trust and openness refers to the emotional safety in relationships. The communication is open and strait forward.
 - i. Idea time is the amount of time people can use for elaborating on new ideas.
 - j. Playfulness and humor refers to the spontaneity and ease that is displayed in organization.
5. Creativity in batik industry

In this model, the measurement of creativity in batik industry adjusted to the research Susanty in the year 2009^[2]. According to that research, there are some important dimensional of creativity in batik industry.

- a. Improved design variations (pattern), include new design of batik and development of previous design/combinations.
- b. Improved variations color in batik by using various colors and related to needs of consumers, the use of bright colors, and new color combinations of batik.
- c. Utilization of residual production material. Creativity can be measured from the design of new products that use cheap materials (low cost materials), utilization of materials used (*malam*, fabric reject, remaining batik/rags, residual dye) to provide added value.

VI. CONCLUSIONS

The most dominant problems in the batik industry is human resource skill. Human resources are the most important factor in the creative industries because the creative industries derived from the utilization of creativity, skill and individual talent. In the conceptual model for developing creativity in batik industry, creative person is an important factor for development creativity in that industry. Creative person are more able to improve their creativity if they have intrinsic motivation, given some training that related with the job skills they needed, and supported by organization that have positive climate (climate in organization that respects creativity, provide opportunities, time, facilities, infrastructure and incentives to employees to think about, designing, researching and developing new products that better and more innovative). For the further research, this study can be continued by testing the model empirically through distributing the questionnaire to some partisipan of SMEs and processing

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