

**DEVELOPMENT OF THE CREATIVE ECONOMY IN THE CITY OF BANDUNG:
Measuring Creative Behavior among Indonesian Creative Workers
in Traditional Industries¹**

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ABSTRACT

Developing creative economy is believed to respond to the challenges of economic problems such as low economic growth, unemployment, poverty, and lack of industrial competitiveness. In the era of prosperity and self improvement, creativity and innovation of creative workers to create unique and interesting ideas is one thing that needs attention. The behavior of creative workers in realizing their creative works in the traditional industries in Indonesia has not been well identified. This is caused by the absence of a valid and reliable instrument to measure and identify the behavior of creative workers. Measurement of the creative workers' behavior and characteristics has been developed and evaluated with a group of Indonesian creative workers in Bandung (n=220). This study presents data supporting reliability (internal consistency) and validity (criterion and construct) of this instrument. Results of a factor analysis indicated a five factor solution of creative workers' characteristics and behavior. These findings are discussed in the context of their understanding of work value in creative industries based on local wisdom.

Keywords: *creative economy; traditional industry; creative behavior; creative workers; measurements.*

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INTRODUCTION

Bandung is one of the creative cities in Indonesia that has the greatest potential for creative people. Bandung has long been known as the "*Paris Van Java*" as a center of textile, fashion, art, and culture. Bandung city communities are very tolerant to new ideas and respect for individual liberty into a major force in the development of creative industries. In addition, the city of Bandung is a very potential to synergize and collaborate among universities, entrepreneurs, communities, governments and media in order to create a culture of creative economy. Development of the creative economy in the city showed a satisfactory improvement (Kompas, May 27, 2008). Several sub-sectors of creative industries in this city, that is, music, fashion, art, design, architecture, IT and food (culinary) are the mainstay of tourist destinations. The three traditional industries become the object of this study, namely, industrial design, advertising and fashion.

In the era which gives attention to the need for improvement levels of social welfare and self-improvement, initiative of workers to create unique and interesting ideas is one thing that needs attention (Setiadi, 2007). Some measurements have been developed for measuring creative performance. However, a number of studies addressing creative behavior have not been consistently established for evaluating the performance of creative workers in creative industries. Given that the personal characteristics of creative workers can be defined as the tendency of a person's character in attitude, behavior, mindset and act, it is essential to have a measurement model that can be used to determine and predict various criteria such as interests, behaviors, and the creativity to improve understanding the values of work in creative industries based on local wisdom. Through a behavioral model that encourages creativity and to realize the measurements to evaluate the performance of creative workers in traditional industries is expected to grow the spirit of entrepreneurship in developing creative industries.

Creativity is defined as the generating of new ideas that are potentially useful (Amabile, 1988; Woodman, et al., 1993). An idea can be said as creative if it shows something new and useful. There is a difference in meaning between creativity and innovation. Creativity is the generation of new and useful ideas, whereas innovation is the successful implementation of creative ideas by the organization. According to Wiryadi (2008), creativity starts from the existing ones. Creativity brings a person into the threshold of thought between the real and virtual situations. Creative person is one who has a new outlook, a new concept or something that is very essential.

Creative idea is the idea that original, authentic, and unique. The idea is different from the usual. According to the theory of emotions (Myers, 2004), the creative work of art is art that has a level of emotion that is experienced by the original artists. Emotional content should not be overwhelming and uncontrollable, but emotion should be given a form, given the structure, arranged in specific patterns. Leo Tolstoy (in Wiryadi, 2008) defines art as an expression of a feeling or experience in such a way that the audience to whom the art is directed can share that feeling or experience. According to the theory of Genius, the creative work of art is the work that is not constrained by the rules that have been there before. Authenticity is a core value in the art. The value of authenticity is not merely individual, because each work of art is not oriented to the artists themselves, but oriented out. So the art is not merely subjective, but also a valid objective and true for others. The essence of creativity is finding something new or new relationships of

something that already exists. Someone creates something out of something that has gone before. An artist known for being creative and starting from a material that has been created previously. Each artist departed from the tradition of a certain art of living in a society. The creation of art proceed from something that has been available in a community.

Creation of an idea more often involves the designers. Design as a link in the technology required to create innovation in accordance with the needs and development of the technology itself, and also gives the values of the humanities in any manifestation (Sachary, 1986). Design as a social drama, is not only as a passive culture of a tool, but also something that creates the overall situation. Furthermore, the design becomes a composition of the human role, even often the harmony of life. Design has always been associated with reality, such as the reality of functional, safe, skilled, economically, aesthetically, and attitudes (Sachary, 1986). Society has always questioned the values and identity; therefore, the absence of clarity in the attitude of any action, especially in the work, we do not have a strong culture.

The study was conducted because of the phenomenon creative workers' performance in Indonesia creative industries are not identified in term of its mindset, attitude, behavior, and act in the realization of creative works. Therefore, the identification of the constituent elements of the nature of the changes needs to be measured. Several previous studies have been initiated when we conduct a study on identification of the constituent elements of the nature of change (change of DNA) in the establishment of ways and mindset of business students (Setiadi, 2009). Similarly, the results of Wahdian's (2009) study showed that a series of visual expression to grow in media art is always based on the reality of space and time. Both of these studies provide the inspiration for this study to determine the factors that encourages creativity and creative industries. Based on studies conducted by Horng and Lin (2009) and Kreitler and Casakin (2009), the multi-year study was conducted. The results are expected to obtain a clearer description of the identification of the constituent elements of the nature of change (Change of DNA). Thus, creative workers in the creative industries can be prepared to have excellence in their creative ability to analyze problem solving, communication skills and confidence. In addition, through research is expected to respond to previous studies in order to meet the challenges of the reliability of the instruments and gauges the development of model performance evaluation of creative work as a universal instrument.

METHOD

Basically, the success of a research is not determined by a broad scope, sophisticated methods, or a complicated theory. Although publications in scientific journals are still a target outcomes to be achieved, however, the more important of all is how this research can contribute directly to community needs. Accordingly, the target output is designed in Table 1. To achieve the target outcomes, research methods that have been implemented as follows:

The first year, this study used an instrument that is prepared to evaluate the performance of creative work developed by the research team. This instrument is a self-assessment version developed from the results of content validity of the experts and actors in the creative industry sub-sectors under review. The process of data analysis performed using the software package SPSS for windows. Factor analysis conducted to explore the components that can represent a set of variables under study. Design factor analysis conducted through the steps of:

- a. Determining the correlation between variables.
- b. The selection of variables, sample size, and measurement.

Analyzed dimensions are important factors perceived by respondents. To reduce these factors and predict appropriateness done through the method of common factor analysis, a method that latent factors are not determined in advance (Kim & Mueller, 1994). In this method allowed data to cluster itself into a number of factors (variables). In addition, the reduction factors are also considered statistical criteria are commonly done in factor analysis, namely, the variance and *Eigen-value* criteria of each factor (Hair, et al., 2006).

In the second year, experimental design methods are used, namely Treatment by Matched Group Designs. Data for the preparation of the experimental design was obtained from secondary data of creative workers in the creative industries. Matching group must be considered based on factors that must be balanced, so that the groups of the experiments can be run on the experimental conditions without the influence of external factors. In principle, all factors considered to affect or influence any act or contaminate treatment should be fixed up before the action or the experiments performed. For example, creative performance and creative intelligence of the workers were seen as influential on the experimental results, the two factors that must be matched first. How to perform matching is done by testing the differences in the groups that tried to be the experimental group and control group by t-test analysis.

Table 1. Stages of Research

Period	Objective	Output	Description
1 (2010)	Exploration and identification of the model to measure the performance of creative workers in creative industries	<i>A scale for evaluating creative people</i>	Realization of a valid and reliable measurement for measuring the characteristics of creative workers through the stages of hybrid research.
2 (2011)	Application of measuring instrument and the utilization of measurement results to evaluate the performance of creative workers	<i>Scientific Paper; A review of the implementation of the operationalization of the measurement on the actors in the creative industries</i>	Operational model is tested through psychometric procedure of the object of creative workers in creative industries

RESULTS

The instruments are prepared to measure the characteristics of creative workers has been developed by the research team. This instrument is a self-assessment version developed from the content validity by experts (when the Focus Group discussion was held) and the actors in the field of creative industries sub-sectors that were examined (desian, Advertising and

Fashion) in Bandung. Measurement of each dimension was measured through a statement items. Based on Boediprasetya's et al. (2010) study, this instrument has good reliability and validity for measuring creative performance index. Table 3 presents the results of the extraction factor of 220 respondents includes data collected. These results represent a further step after measuring the adequacy of the sample (shown in table 2) which shows the value of KMO of .737 and Bartlett's Test showed a significant value of .000.

Table 2. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.737
Bartlett's Test of Sphericity	Approx. Chi-Square	2975.044
	df	1035
	Sig.	.000

Table 3. The results of Factor Extraction

	Component						Component				
	1	2	3	4	5		1	2	3	4	5
B21	.750	-.091	-.065	-.015	-.097	B59	-.133	.000	-.006	.610	.027
B31	-.632	.070	-.202	.071	.225	B24	-.175	.165	.135	.544	-.128
B6	.586	-.090	-.051	.050	.213	B14	-.112	.286	.225	.485	-.005
B56	.558	-.064	-.205	-.257	.093	B32	-.160	.428	-.029	-.478	-.088
B1	.553	.050	-.131	-.103	-.272	B39	-.172	.299	-.240	.475	-.303
B46	-.549	.070	-.083	.129	.171	B9	-.150	-.120	.062	.460	.045
B26	.544	-.165	-.258	-.126	.247	B29	-.287	.051	.021	.395	-.199
B11	.534	-.058	-.237	-.108	-.107	B19	.192	.250	-.126	.363	.237
B51	.526	-.180	-.185	.045	-.066	B4	.095	.244	.318	.350	.082
B16	.330	-.244	.163	-.144	-.031	B54	-.034	-.143	.000	.326	-.067
B37	-.147	.791	.158	-.043	.099	B57	-.195	.032	.242	.312	-.007
B17	-.067	.654	.117	-.027	.021	B58	-.168	-.029	.025	-.309	.596
B7	-.025	.609	-.073	-.064	.016	B13	.067	.027	.135	-.025	.557
B2	.041	.605	-.049	.324	.029	B43	.037	.243	-.105	-.106	.453
B52	-.250	.602	.143	-.272	-.048	B49	.010	.280	.112	.179	.386
B12	-.242	.568	.138	.111	.078	B53	-.173	.137	.196	-.323	.364
B34	-.166	.405	-.009	.138	.092	B48	.165	.126	.054	-.078	-.321
B33	.218	.266	-.111	-.194	.116	B23	.231	-.066	.067	-.028	-.292
B10	-.054	-.136	.681	-.047	-.054	Extraction Method: Principal Component Analysis.					
B55	-.022	-.096	.630	.158	.036	Rotation Method: Varimax with Kaiser Normalization.					
B15	.144	-.025	-.560	-.008	-.203	a. Rotation converged in 7 iterations.					
B20	.033	.138	.521	.238	.269						
B50	-.328	.191	.501	-.232	.152						
B25	-.214	.160	.499	.008	.360						
B35	-.001	.323	.486	-.152	.172						
B5	.125	.058	.459	.273	-.046						
B30	-.268	-.042	.436	.178	-.253						
B40	-.233	.098	.425	-.241	.339						

Forming elements of the creative nature to be included in the study variables have been grouped into five factors. Each of these factors is as follows.

The first factor consisted of items: tension (B21), anxiety (B31), inferior (B6), ashamed (B56), worry (B1), sad (B46), worthless (B26), easy to stress (B11), helplessness (B51), loneliness (B16). The second factor includes items related to nature: excited (B37), sociable (B17), easy to laugh (B7), gregarious (B2), active (B52), happy (B12), fun (34). The third factor includes items: clever use of time (B10), works well organized (B55), systematic (B15),

responsibility (B20), productive (B50), has a target (25), work hard (B35), neat and net (B5), do not waste time (B30), commit (B40). The fourth factor is the honest (B59), a cynical and skeptical (B24), selfish (B14), excessive (B32), cold (B39), quarrelsome (B9), suspicious (B29), likes to work together (B19), polite (B4), empathy (B54), egotistical (B57). Finally, the fifth factor is the theoretical (B58), pride (B13), irritability (b43), sensitive (B49), curiosity (B53), speculation (B48). Some items are not listed have been eliminated because it has a low factor loading or item is not valid. A total of 16 items were eliminated because of both reasons.

Of the 27 characteristics of reliable measurements have been tested as a measure of the behavioral characteristics of creative people who are useful to determine which of them to support the performance of creative work and which do not encourage the performance of creative workers. This measurement is formulated in terms of the index scale, which then we call the Creative Worker Characteristics Index (CWCI). Index measurements can be used to measure whether an individual creative workers showed a high potential for the performance of his creativity or not. Magnitude of this measurement index ranges between 0 (zero) to 1 (one). Closer the index value of 1 (one) indicates the higher the potential for creative workers to show the performance of individual creativity. Its formulation is as follows:

$$CWCI = \frac{[(n_{pos}/n)(\alpha_{pos}) + (n_{neg}/n)(\alpha_{neg}) + 2r(n_{pos}/n)(n_{neg}/n)]}{(n_{pos}/n) + (n_{neg}/n) + 2r(n_{pos}/n)(n_{neg}/n)}$$

Where, n = number of item properties; n_{pos} = number of items that support the nature of creative behavior; n_{neg} = number of items that do not support the nature of creative behavior; and r = the correlation between the properties of positive and negative in favor of creative behavior. The value for the level of reliability (α_{pos} , and α_{neg}) is calculated based on the weighted composite technique.

DISCUSSION

An issue that is quite often expressed by the bureaucrats, from the head of the central government (the president) to the local officials in recent years is the emergence of creative industries are increasingly widespread as the global economic crisis that kept rolling since 1997. Creative industries is believed to bring up the creation of a business climate that developed many new business field, as a renewable resource, forming the nation's image and identity, and raises destination branding. Creative Industries is one of the main pillars in developing the creative economy sector is expected to positively impact people's lives. The terms 'creative industries' and 'creative economy' are both relatively new and do not yet have fully settled definitions. Sometimes they are used interchangeably; sometimes they refer to related but separate concepts. This study uses the term 'creative industries' for the sake of simplicity, as it is the activity of these industries which is being measured here. These days, though, 'creative economy' is probably the more widely used term. In any case it is likely that each country or region will adapt the creative industries/economy concept to suit its own needs.

New awakening has emerged to creative industry potential proven able to long existing in the middle of 1996 economic recession and keep developing based on local culture. The

Department of Trading of Indonesia has mapping 14 creative industry sectors consist of advertising, architecture, art and antique market, craft, design, fashion, video film and photography, interactive play, music, art show, publishing and printing, computer service and software, television, radio, and research and development. It is evident from the results of a survey of the Ministry of Trade Republic of Indonesia which states that the GDP (Gross Domestic Product) is contributed by the Creative Industries in Indonesia reached 6.3%, a surprising percentage of the accounts and GDP in Indonesia. The creative industry has contribute to gross domestic product (GDP) of Indonesia Rp 104,638 trillion averagely in the year 2002-2006, and absorbed employments 5.4 million averagely per year with its productivity reaching 19.5 million rupiah per worker per year. This worker productivity is higher than Rp18 million per worker national productivity yearly. In the year 2006, the creative industry has exported Rp81.5 trillion or 9.13 percent from total national export (kompas, 2008).

Economic development of Indonesia and the creative industries are very closely related to stretching of creative activity in the towns that became centers of creativity in Indonesia. Jakarta, Bandung, Yogyakarta, Solo, Denpasar, Jember and other cities is an example where the creativity of the actors and the creative community in the city has a positive impact on the city, both from an economic standpoint and in terms of branding and promotion of their respective cities. Bandung is one of the creative potential of human resources with the greatest creative. Bandung has long been known as the "Paris Van Java" as a center of textile, fashion, art and culture. Yogyakarta is a city of unique creative, because it has a rich cultural heritage is special and on the other hand has the potential of human resources is related to its status as a city of education. Creative industries from different sectors can thrive in this city, starting from the crafts and the performing arts to information technology, music, design and advertising. The city of Denpasar-Bali had packed direction and policy development through the City's vision and mission development. Denpasar is analogous to the development of creative economy. The vision of the city of Denpasar is 'The creation of the Culture Concept Denpasar with Harmony in Balance'. Implementation of creative economic development and empowerment of the city's economy is realized through the empowerment of community based mission Balinese culture and local wisdom, and the mission to accelerate growth and strengthen economic resilience through community economic system.

The declaration of the Creative Economy Indonesia development program until 2025 is a form of optimism and appreciation for the flood of Indonesia supports the vision that is becoming a developed country (Ministry of commerce, 2008). Inside are ideas, ideals, imagination and dreams to become a community with high quality of life, prosperous and creative. Creative economy include creative industries, is believed to contribute to the nation's economy significantly. Various sub-sectors within the creative industries have the potential to be developed, because the Indonesian people have the human resources and rich cultural heritage. Therefore, all efforts directed towards the development of creative industries to establish an independent industry as well as the welfare of the community, particularly the welfare of creative industries.

Through a national strategic research grant program sponsored by the Directorate of Higher Education in research and community service, a group of researchers consisting of Nugroho J. Setiadi, Agoestiana Boediprasetya and Wahdiaman of the Widyatama University proposed research program entitled: PERFORMANCE MEASUREMENT MODEL FOR CREATIVE

WORKERS IN INDUSTRIAL DESIGN, ADVERTISING AND FASHION IN THE CITY OF BANDUNG. Since the study began in 2010 and several outcome studies have also been published. The results of their research has been disseminated on the forums are: Focus Group Discussion (FGD) has been held two times on September and November 2010 in Widyatama University, with the theme: "Identify the characteristics of creative workers in the industry of visual communication design", and "Understanding the values of the work of the creative industries based on local wisdom". Focus Group Discussion involve expert speakers include: Prof. Dr. Primadi Tabrani, Rudi Farid, Wahdaman, and Nugroho J. Setiadi. According to Tabrani's (2000) view, the desire to create things whose value is not purely practical – things that are beautiful, that communicate cultural value through music, drama, entertainment and the visual arts, or that communicate social position through style and fashion – is as old as human society itself. There have always been, and always will be, people with the imagination and talent to make and do these things. Their products and services are said to have an 'expressive value', a cultural significance that may bear little relationship to how much they cost to make. The values of creative work lies in the innovations that gave rise to new ideas for development based on the society values. Develop the industrial sector into a creative industry based on knowledge, technology and local wisdom to replace labor-intensive industry by promoting innovation based on Indonesian culture to generate income for the country, such as textile, fashion, art and culture.

The creative industries do not operate in isolation. They sit at the centre of a web of connections with other industrial sectors, and are a source of innovation for the wider economy, particularly through design, branding and advertising. They also have an important role to play in urban regeneration and community cohesion. This wider web is often referred to as the creative economy.

The monumental outcome of this study was determined the instrument to measure the creative potential of creative workers in Indonesia's creative industry. The results of extraction of elements forming the creative nature of creative workers showed that the elements were grouped according to the NEO-FFI personality dimensions (Costa & McCrae, 1992). Therefore, the dimensions of the form factor, using the name of the NEO-FFI dimensions. Thus, in accordance with the items, the first factor can be called as Neuroticism factor, because it describes the item relating to the attributes of emotional stability. It means that the low levels of neuroticism shows the individual's ability to control his emotions, for example, calm attitude in solving problems, tough, not easily give up, self-conscious and anxious. The second factor is Extraversion. This factor represents the attributes associated with the characteristics of someone who is outgoing and assertive, friendly, warm, and always think positive. The third factor is Conscientiousness. This factor represents the attributes associated with more typical of someone who is meticulous, responsible and hardworking or industrious, obedient, orderly, and disciplined. The fourth factor is Agreeableness as representing the attributes associated with the typical people you trust and polite, willing to sacrifice for the benefit of others, and rather blunt. Akhirnya, faktor kelima adalah *Openness to experience*. This factor represents the attributes associated with creative thinking, sensitive, a lot of ideas, and artistic. Element that has the highest factor loading in each group shows the magnitude of the contribution element in determining the creative nature of creative workers. These elements are the low tension, high passion, capable of managing time, reliable, and many ideas.

CONCLUSION AND SUGGESTIONS

Each person has their own potential. One's potential can be derived from the innate and experience. Even if a person has the innate potential for high levels of creativity, not necessarily that it could realize its potential. Especially when its work was poor stimulation, such as authoritarian boss, does not provide the freedom to subordinates, and never listen to others' opinions. During the period of measurement development, implementation of these measures provide a more clear identification of the constituent elements of the nature of change (Change of DNA) of workers in creative industries.

The experimental results of this measurement is useful in mapping the potential and creative performance on existing workers in Indonesia's creative industry. Thus, creative workers in the creative industries can be prepared with the provision of excellence in the creative ability to analyze problems, good communication and confidence. In the work context, the creative worker is a strategic focus. The success of the work rely on creative workers. However, it should be realized that the workers have the potential diversity and respective capabilities. They are unique with all the potential and capacity. This uniqueness cannot be uniform. Uniqueness of the workers is causing a separate issue that must be recognized and solved, so that to manage of creative workers in an integrated framework to be considered, especially considered in the development of creativity. Therefore, the development potential and creativity of workers must proceed from the characteristics of giftedness and creativity that needs to be optimized for workers ranging from cognitive (thinking), affective (feelings), and psychomotor (behavioral). Intrinsic motivation and creativity fostered through individual potential and create a psychological climate that guarantees freedom of creative expression for the workers in the work environment.

Although a two-year period of this study was successfully conducted exploratory studies and identify the model to measure the characteristics of creative workers in creative industries, as well as to the application of measurement and utilization of research results to evaluate the performance of creative workers, however, for future studies still needed a study on cultural and aesthetic values as well as the function of the activity of creative workers. Thus, the results provide a direct contribution to the needs of the community. Finally, modeling the development of creative industries in the Bandung city can serve as a pilot project for other regions.

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