The Dynamics of Indonesian Creative Industry Sectors: An Analysis Using Input–Output Approach

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Abstract The purposes of this study are (1) to get the other perspective related to the role of creative industry sectors in the national economy of Indonesia and (2) to inquire about the ways to improve these industries. The period of analysis of this study is from 1990–2005. This study employs input–output (IO) analysis as a tool of analysis. More specifically, simple output multipliers method, as well as the comparison with a previous study, is used in order to achieve the first objective while demand-pull IO quantity model is applied to obtain the second one. The results show that the other perspective regarding above role is acquired from this study, namely the industries did not have an important role in Indonesian national economy in the analysis period. The results also indicate that the ways to improve above sectors are to restrict the import activity related to the creative industries products, especially the products which domestic producers are possible to produce, and to improve the quality and price of these commodities.

Keywords Creative industry sectors · The other perspective · Improvements · Input–output analysis · Indonesia

Introduction

The United Nations Conference on Trade and Development (2004) argued that creative industries are predicted to account for more than 7 % of the gross domestic product of the world and are estimated to grow by 10 % a year on average. Besides, they explained that knowledge and creativity are powerful engines which drive economic growth.

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According to the British Council Albania (2007), the creative industries were widely observed as a main contributor of growth of economy in both developed and developing countries.

According to the Hong Kong Special Administrative Region Government (2012), creative industries had an important contribution in the economy of Hong Kong. They also argued that these industries help to enhance the innovation capacity of the economy and can be a center of economic growth in the future. Besides, according to the Ministry of Trade of the Republic of Indonesia (2008), creative economy which covered creative industries was believed to significantly give contributions to the national economy of countries.

On the other hand, Wong and Gao (2008) argued that creative industries have a significant contribution to the economy of the UK because they were growing faster than the economy of country as a whole. They also explained that creative industries in Japan have expanded since 1996 although an economic recession happened. Lennon and Hrelja (2005) described that creative industries are key contributors to economic welfare in the economy of the globe, which is increasingly dependent on knowledge and information. Above explanations show that creative industries have an important position in the national economy of countries in the world.

There are many previous studies discussed about creative industries, including the role of these in society (Booyens 2012; Champion 2010; Cassarino and Geuna 2008; Galloway and Dunlop 2007; Rogerson 2006; White 2010; Zuhdi and Putranto 2012). However, the study compares the results of previous study which the topic is the role of these industries in the national economy of one country, especially a developing country, is still thin. The kind of study is important because it can describe more details the role. Besides, it can show fairer results than the study which only employs one method in analyzing the role. This study is conducted in order to fulfill this gap. This study focuses on Indonesia, one of the developing countries in the world.

The purposes of this study are (1) to get the other perspective related to the role of creative industry sectors in the national economy of Indonesia and (2) to inquire about the ways to improve these industries. The period of analysis of this study is from 1990–2005. This study employs input–output (IO) analysis as a tool of analysis. This paper is arranged as follows. In the next section, the information related to the literatures which are used in this study will be reviewed. The methodology of this study is explored in third section. The fourth section explains the results of calculation and discussion regarding these. In the final section, the conclusions and suggested further researches are described.

Literature Review

The Definition of Creative Industries

The following explanation is a definition of creative industries by the Department for Culture, Media, and Sport of UK (1998):

> Those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property

Wong and Gao (2008) mentioned the argumentation related to definition of these industries on the following description:

> Today, the definitions of creative industries vary from nation to nation. Creative industries are considered similar to 'cultural industries', 'leisure industries', 'copyright industries', and 'content industries'. However, creative industries broadly consist of industries which encourage individual creativity, skill and talent through the generation and exploitation of intellectual properties

On the other hand, according to Lennon and Hrelja (2005), the definition of these industries is:

> Creative Industries' comprise those businesses whose products' origins lie in individual creativity, skill and talent. Creative industries have the potential to generate sustained wealth and job creation through the generation, utilisation and commercialisation of intellectual property

Previous Studies Related to the Creative Industries

Booyens (2012) investigated the contribution of creative industries in the urban economies of cities in the Global South. Champion (2010) conducted the study in order to present empirical findings related to the challenges which are faced by creative industry firms in one of the northern UK regional conurbations where is experiencing transformation in economy, namely, greater Manchester. Cassarino and Geuna (2008) explored the effect of information and communication technologies (ICT) on the creative industries' growth.

On the other hand, Galloway and Dunlop (2007) criticized official concepts of creative industries with reference to both culture and creativity definitions. Rogerson (2006) profiled the emerging relationship between creative industries and urban tourism in Africa through the experience of the leading economic city in South Africa, Johannesburg. Meanwhile, White (2010) examined the potential and contribution of the creative sector in more rural regions using the case study of Ireland Western Region and the Western Development Commission's activities. Besides, Zuhdi and Putranto (2012) explored the role of creative industry sectors in national economy, which refers to the national economic structural changes, of Japan from 1995–2005. They used structural decomposition analysis (SDA), one of the analysis tools in IO analysis, in analyzing this role.

IO Analysis, Multipliers Analysis, and Demand-Pull IO Quantity Model

The following description is fundamental information used in IO analysis. This description, was phrased by Miller and Blair (2009).

> The fundamental information used in IO analysis concerns the flows of products from each industrial sector, considered as a producer, to each of the sectors, itself and others, considered as consumers. The basic information from which an IO model is developed is contained in an interindustry transactions table

One of the tools in IO analysis is a multipliers analysis. Miller and Blair (2009) mentioned that the idea of multipliers refers to the difference between the initial effect of exogenous change and the total effects resulted from this modification. Further, they also argued that the most frequently used multiplier types are those can predict the exogenous changes effects on (1) sector outputs in the economy, (2) income gained by households in each sector which is caused by the new outputs, (3) the employment that is hoped to be emerged in each industrial sector because of the new outputs in the economy, and (4) the value added which is generated by each sector because of the additional outputs in the economy. The simple output multiplier is a further elaboration of the first type. The characteristics of this multiplier were mentioned by them, namely:

> For the simple output multiplier, this total production is obtained from a model with households exogenous. The initial output effect on the economy is defined to be just the initial dollar's worth of sector j output needed to satisfy the additional final demand. Then, formally, the output multiplier is the ratio of the direct and indirect effect to the initial effect alone

The other analysis tool in IO analysis is a demand-pull IO quantity model. Miller and Blair (2009) argued that this model is used in order to know the impacts of final demand changes on total output of industrial sectors in the economy. The characteristic of this model is to use fixed price while the changes are addressed to the quantity of final demands.

Methodology

As mentioned in the "Introduction," the objectives of this study are (1) to get the other perspective related to the role of creative industries in the national economy of Indonesia from 1990-2005 and (2) to inquire about how to enhance these sectors. In order to achieve these objectives, IO analysis is employed in this study. More specifically, simple output multipliers method, as well as the comparison with a previous study, is used in achieving the first purpose of this study while demand-pull IO quantity model is applied for the second one. IO tables of Indonesia for 1990, 1995, and 2005 are used as data of study. Before conducting the calculation, the process of aggregation for these tables is conducted. The objective of this process is to get the compatibility among different periods. One hundred fifty-nine sectors are obtained from this procedure. Creative industry sectors used in this study are described in Table 1. These sectors are coming from aggregated sectors and based on the Ministry of Trade of the Republic of Indonesia (2007) in the Ministry of Trade of the Republic of Indonesia (2008). The process of adjustment, in order to get the proper data, is addressed to the 2005 IO table of Indonesia before conducting the aggregation procedure.

Zuhdi (2012) argued that creative industry sectors have an important role in the national economy, which refers to the national economic structural changes, Indonesia on the period between 1990 and 2005. He employed SDA as a tool of analysis. In other words, the results of his study were based on the calculation using IO analysis. This study uses his study as a compared previous study. More specifically, the comparison with his study is conducted in this study in order to obtain the other perspective

Table 1 Creative industry sectors of Indonesia used in this study

No.	Sector name	Sector number
1	Manufacture of other products mainly made of wood, bamboo, rattan, and cork	76
2	Printing and publishing	81
3	Communication and electronic equipment and apparatus	115
4	Other manufacturing industries	129
5	Residential and non-residential buildings	132
6	Trade	137
7	Business services	150
8	General government	151
9	Education services	152
10	Other community services	154
11	Private motion picture and its distribution	155
12	Private amusement, recreational, and cultural services	156

Source: Zuhdi 2012

regarding the role of creative industries in Indonesian national economy from 1990–2005. The reasons for choosing his study are (1) the data used are same (2) the aggregate and adjustment processes applied are same, (3) and analyzed creative industry sectors are same. Simple output multipliers method is employed in the comparison. This method is chosen because it can analyze the total production value of all sectors in the economy that is needed in satisfying a monetary unit's worth of final demand for output of a particular sector (Miller and Blair 2009). In other words, this method can analyze the effect of the addition of one unit on particular sectors' final demand on the national economy, which refers to the total value of production made by all industrial sectors in the economy in order to fulfill this escalation.

As mentioned in the previous explanation, simple output multipliers method is a part of IO analysis. Thus, the concepts of this analysis are also implemented by this method. The detail of the concepts is described by Miller and Blair (2009). They mentioned that the following equation is a representation of the method:

$$m(o)_j = \sum_{i=1}^{n} l_{ij} \tag{1}$$

where $m(o)_j$, n, and l_{ij} are simple output multiplier for sector j, sector numbers, and sector-to-sector multipliers matrix, respectively.

The next step is to conduct the analysis related to the efforts in increasing the total output of creative industry sectors of Indonesia. The demand-pull IO quantity model is employed in this step. Miller and Blair (2009) mentioned that the following equation is a description of this model:

$$\mathbf{x}^1 = \mathbf{L}^0 \mathbf{f}^1 \tag{2}$$

where x^1, L^0, and f^1 are matrices of total output of sectors, Leontief inverse, and final demand of sectors, respectively. 0 and 1 indicate present and future periods,

respectively. The scenarios of final demand change used in this study can be seen in Table 2. In this study, these scenarios are only addressed to the creative industry sectors. The recommendations for increasing the total output of Indonesian creative industry sectors are explored on the next step. These recommendations are based on the results of calculation and analysis of these. Conclusions of this study and suggestions related to the further research are described on the final step.

Results and Discussions

The Role of Creative Industry Sectors in Indonesian National Economy

In this subsection, the comparison with a previous study, as well as the calculation using simple output multipliers method, is done in order to acquire the other perspective related to the role of creative industry sectors in the national economy of Indonesia from 1990–2005. As mentioned in previous explanations, the study conducted by Zuhdi (2012) is selected as a compared previous study. Tables 3 and 4 describe the results of his study, namely the top five sectors which were influential in Indonesian national economic structural changes from 1990–1995 and 1995–2005, respectively. The results in these tables were coming from the calculation of gross output changes of Indonesian industrial sectors on above periods using SDA. Some creative industry sectors include in the tables. More specifically, creative industries include in Table 3 are (1) trade, (2) residential and non-residential buildings, and (3) business services sectors while trade and residential and non-residential buildings sectors appear in Table 4. Therefore, based on these results, creative industries had an important role in the national economy of Indonesia on the analysis period.

On the other hand, Figs. 1, 2, and 3 explain the results of calculation using simple output multipliers method for the industrial sectors of Indonesia on 1990, 1995, and 2005, respectively. Tables 5, 6, and 7 show the top five sectors viewed from the value of simple output multiplier on 1990, 1995, and 2005, respectively. Creative industry sectors do not appear in these tables. Therefore, based on these results, these industries did not have an important role in Indonesian national economy from 1990–2005.

Previous explanations show that, using a different method, the important role of creative industry sectors in the national economy of Indonesia did not appear in

Table 2 The scenarios of final demand change used in this study

| Component of final demand | Scenario | | |
| | 1 | 2 | 3 |
	The change of export	The change of import	The change of outside households consumption
Export	Rises 30 %	Constant	Constant
Import	Constant	Rises 30 %	Constant
Outside household consumption	Constant	Constant	Rises 30 %

Source: Zuhdi et al. 2014

Table 3 Top five sectors which were influential in Indonesian national economic structural changes, 1990–1995

No.	Sector number	Sector name	Value (100 million rupiah)
1	137	Trade	487,268.52
2	132	Residential and non-residential buildings	306,269.37
3	150	Business services	238,193.25
4	138	Restaurant	212,883.49
5	147	Banking and other financial intermediaries	202,307.68

Source: Zuhdi 2012

analysis period. In other words, in this study, comparing with a previous study, the other perspective related to the role of these sectors in Indonesian national economy in this period appears. This phenomenon is interesting to be discussed.

The methods used have an important effect in causing above phenomenon. SDA, the method used in the previous study, focuses on the change of gross output of industrial sectors between two periods while simple output multipliers method, the method applied in this study, focuses on a specific period. Besides, the calculation results of first method depends on the decomposition factors while second one's output relies on final demand.

Zuhdi (2012) mentioned that the decomposition factors which influence the calculation results of SDA are divided into four parts. These are (1) domestic final demand expansion, (2) export expansion, (3) import substitution, and (4) technical coefficient changes. Besides, according to him, expansion of domestic final demand could be elaborated into the four subparts, namely (1) household consumption expenditure, (2) private consumption expenditure, (3) government consumption expenditure, and (4) capital formation and changes in inventory. In other words, decomposition factors employed in the previous study consist of seven factors. On the other hand, the method of simple output multipliers only has one exogenous variable, namely final demand. Therefore, I can say that the previous study considers more factors than the current study. This difference generates the different outcomes, even though the same data are used.

Table 8 shows the value of simple output multiplier of creative industry sectors of Indonesia from 1990 to 2005. Based on the information in this table, four patterns appear. These are (1) increasing, (2) decreasing, (3) decreasing–increasing, and (4) increasing–decreasing.

Table 4 Top five sectors which were influential in Indonesian national economic structural changes, 1995–2005

| No.	Sector number	sector name	Value (100 Million Rupiah)
1	137	Trade	4,289,107.11
2	132	Residential and non-residential buildings	2,369,657.07
3	138	Restaurant	1,599,208.04
4	134	Public work on road, bridge, and harbor	1,437,422.16
5	31	Crude oil	1,396,709.27

Source: Zuhdi 2012
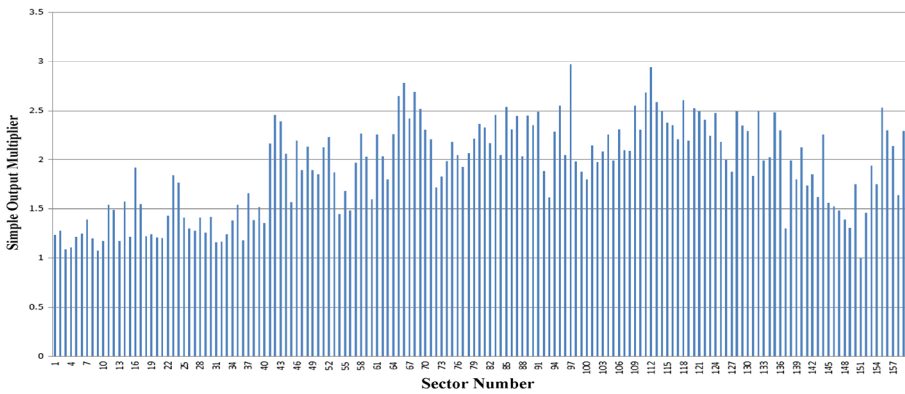
Fig. 1 The values of simple output multiplier of all Indonesian industrial sectors, 1990 (Zuhdi 2014)

The first pattern is owned by (1) trade, (2) business services, (3) general government, (4) education services, and (5) other community services sectors. The opposite pattern, decreasing, is owned by residential and non-residential buildings sector. On the other hand, decreasing–increasing pattern is owned by (1) manufacture of other products mainly made of wood, bamboo, rattan, and cork, (2) printing and publishing, (3) other manufacturing industries, (4) private motion picture and its distribution, and (5) private amusement, recreational, and cultural services sectors. Further, the increasing–decreasing pattern is owned by communication and electronic equipment and apparatus sector. Figure 4 describes more details about the patterns. The numbers on the right side indicate the sector numbers of creative industries. Based on the information in Table 8 and Fig. 4, I can say that increasing and decreasing–increasing patterns are two dominant plots for Indonesian creative industry sectors from 1990–2005.

Above phenomenon indicates that positive trend appear on analyzed sectors. Besides, this phenomenon shows that the role of these sectors in the national economy of Indonesia in analysis period strengthened. This fact is interesting to be analyzed.

The simple output multipliers method is influenced by A, IO coefficient. Miller and Blair (2009) argued that this coefficient is a division of two components, namely Z_{ij}, intermediate sales by sector i to all sectors j, as a numerator, and X_j, total production of sector j, as a denominator. The increasing of A will enhance the value of simple output
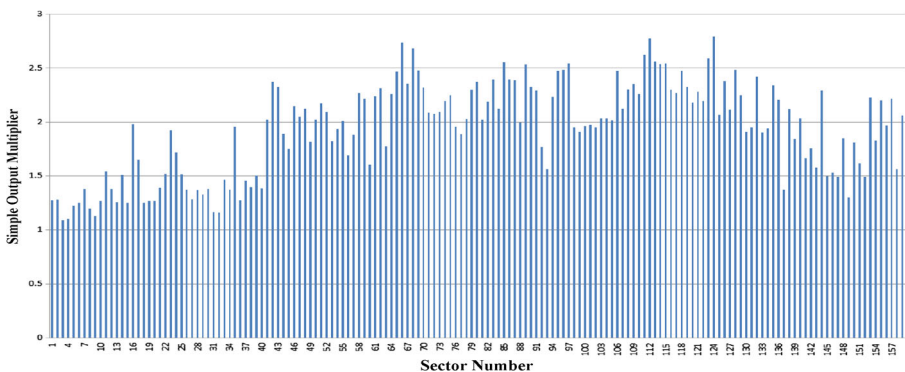
Fig. 2 The values of simple output multiplier of all Indonesian industrial sectors, 1995 (Zuhdi 2014)
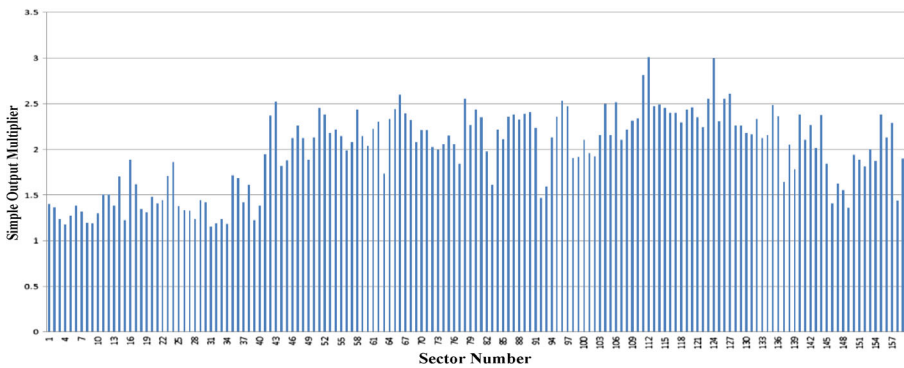
Fig. 3 The values of simple output multiplier of all Indonesian industrial sectors, 2005 (Zuhdi 2014)

multipliers. In contrast, the downturn on A will decrease the simple output multipliers value.

Previous explanation mentioned that majority of Indonesian creative industries had increasing trend in analysis period. Thus, majority of these sectors might had positive trend on the value of A in this period. In other words, from 1990–2005, the A value of majority of these sectors might increased. The increasing of A is caused by many things, namely (1) increasing of Z_{ij}, (2) decreasing of X_j, (3) increasing of Z_{ij} and decreasing of X_j simultaneously happened, (4) Z_{ij} and X_j simultaneously increase but the increasing of first component is higher than second one, and (5) Z_{ij} and X_j simultaneously decrease but the decreasing of first component is lower than second one. The next discussion focuses on the efforts in increasing the total output of Indonesian creative industry sectors.

The Efforts in Increasing the Total Output of Creative Industry Sectors of Indonesia

Previous explanations showed that the role of creative industry sectors in Indonesian national economy could be different when using a different method in analysis process. Thus, the opportunity to increase the outcome of these sectors is still open. This section discusses about this chance.

Table 9 describes the results of calculation using the demand-pull IO quantity model for each scenario of final demand change. Figure 5 shows the dynamics of total output of Indonesian creative industries for each final demand change scenario. The term of t

Table 5 Top five Indonesian sectors viewed from the value of simple output multiplier, 1990

No.	Sector number	Sector name	Simple output multiplier
1	97	Plastic products	2.97
2	112	Machinery and apparatus	2.94
3	66	Made up textile goods except wearing apparel	2.78
4	68	Wearing apparel	2.69
5	111	Prime movers engine	2.68

Source: Zuhdi 2014

Table 6 Top five Indonesian sectors viewed from the value of simple output multiplier, 1995

No.	Sector number	Sector name	Simple output multiplier
1	124	Aircraft and its repair	2.79
2	112	Machinery and apparatus	2.78
3	66	Made up textile goods except wearing apparel	2.74
4	68	Wearing apparel	2.69
5	111	Prime movers engine	2.62

Source: Zuhdi 2014

used in this discussion refers to the initial period, 2005, while *t+1* describes the future period.

Scenario 3, the change of outside household consumption, has the dominant effect on the creative industries of Indonesia. Almost 70 % of these sectors have the highest total output on future period through this scenario. More specifically, the sectors get high positive impact from scenario 3 are (1) printing and publishing, (2) communication and electronic equipment and apparatus, (3) residential and non-residential buildings, (4) trade, (5) business services, (6) education services, (7) other community services, and (8) private motion picture and its distribution. On the other hand, the sectors get high positive effect from scenario 1, the modification of export, are (1) manufacture of other products mainly made of wood, bamboo, rattan, and cork, (2) other manufacturing industries, (3) general government, and (4) private amusement, recreational, and cultural services. In contrast, all creative industry sectors of Indonesia have the lowest total output on future period when scenario 2, the import change, is applied. In other words, import activity related to the products of creative industries will give the negative impact on the total output of these sectors.

Above phenomenon indicates that import activity related to the products of creative industries should be avoided if the enhancement of total output of Indonesian creative industry sectors on future period would like to be achieved. This logic makes sense because this activity tends to decrease the efforts of these sectors in generating the products. In other words, this activity causes the downturn on the production processes of these sectors.

This downturn is a result of domino effect. The following explanation will specifically describe about this effect. Firstly, import activity related to the products of

Table 7 Top five Indonesian sectors viewed from the value of simple output multiplier, 2005

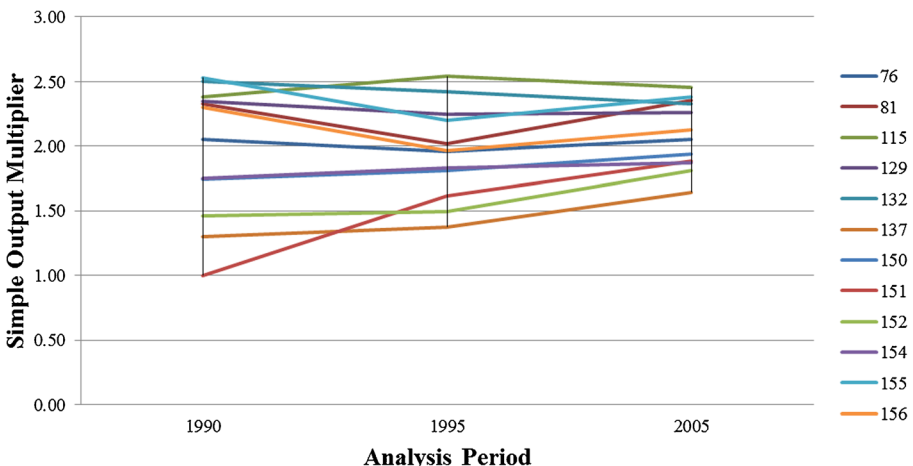| No.	Sector number	Sector name	Simple output multiplier
1	112	Machinery and apparatus	3.00
2	124	Aircraft and its repair	2.99
3	111	Prime movers engine	2.81
4	127	Musicals instruments	2.61
5	66	Made up textile goods except wearing apparel	2.59

Source: Zuhdi 2014

Table 8 The values of simple output multiplier of Indonesian creative industry sectors

No.	Sector number	Sector name	1990	1995	2005
1	76	Manufacture of other products mainly made of wood, bamboo, rattan, and cork	2.05	1.96	2.05
2	81	Printing and publishing	2.33	2.02	2.35
3	115	Communication and electronic equipment and apparatus	2.38	2.54	2.46
4	129	Other manufacturing industries	2.35	2.25	2.26
5	132	Residential and non-residential buildings	2.50	2.42	2.33
6	137	Trade	1.30	1.37	1.64
7	150	Business services	1.75	1.81	1.94
8	151	General government	1.00	1.62	1.88
9	152	Education services	1.46	1.49	1.81
10	154	Other community services	1.75	1.83	1.87
11	155	Private motion picture and its distribution	2.53	2.20	2.38
12	156	Private amusement, recreational, and cultural services	2.30	1.97	2.13

creative industry sectors will make the amount of these in the country overflowing. Secondly, this phenomenon will increase the market competition of these products. Assuming the import products have higher competitiveness than domestic ones, this situation will give disadvantages to the domestic producers of creative products. This condition will decrease the motivation of them in doing production processes. Finally, this circumstance will decrease the total output of Indonesian creative industry sectors.

Above explanation describes that the import restriction policy for creative industries products is needed in order to achieve the enhancement of total output of Indonesian creative industry sectors on future period. However, the import activity is still needed especially for the products, including parts of product, which are difficult to be


Fig. 4 The movements of simple output multiplier of Indonesian creative industry sectors, 1990–2005

Table 9 The values of total output of Indonesian creative industry sectors for each final demand change scenario

No.	Sector number	Sector name	Xt	Xt+1, scenario 1	Xt+1, scenario 2	Xt+1, scenario 3
1	76	Manufacture of other products mainly made of wood, bamboo, rattan, and cork	65,800.96	72,783.42	65,361.38	71,928.11
2	81	Printing and publishing	210,534.89	219,127.86	205,824.17	236,806.36
3	115	Communication and electronic equipment and apparatus	1,259,131.53	1,429,073.54	1,156,663.32	1,430,286.87
4	129	Other manufacturing industries	61,025.79	71,717.13	51,776.11	69,946.03
5	132	Residential and non-residential buildings	2,881,814.45	2,890,567.50	2,878,131.40	2,901,700.92
6	137	Trade	5,084,383.17	5,345,819.98	5,060,122.19	5,714,701.13
7	150	Business services	796,714.13	861,069.24	604,031.56	876,244.09
8	151	General government	1,448,272.00	1,458,977.57	1,439,698.98	1,456,392.29
9	152	Education services	1,221,429.12	1,256,327.86	1,195,287.21	1,379,837.99
10	154	Other community services	110,282.46	111,100.03	105,672.55	114,605.45
11	155	Private motion picture and its distribution	20,441.79	22,642.23	−9,574.39	35,110.50
12	156	Private amusement, recreational, and cultural services	204,456.75	226,466.29	195,246.93	218,619.91

produced by domestic producers. In other words, the policy should be focused on the products which domestic producers are possible to produce.

Based on the results of calculation, the scenario has the dominant effect on the creative industry sectors of Indonesia is scenario 3, the modification of outside household consumption. These results indicate that the escalation of creative industries products consumption by outside households will give positive impact on the total output of these sectors. Therefore, the efforts in order to achieve this escalation are needed.
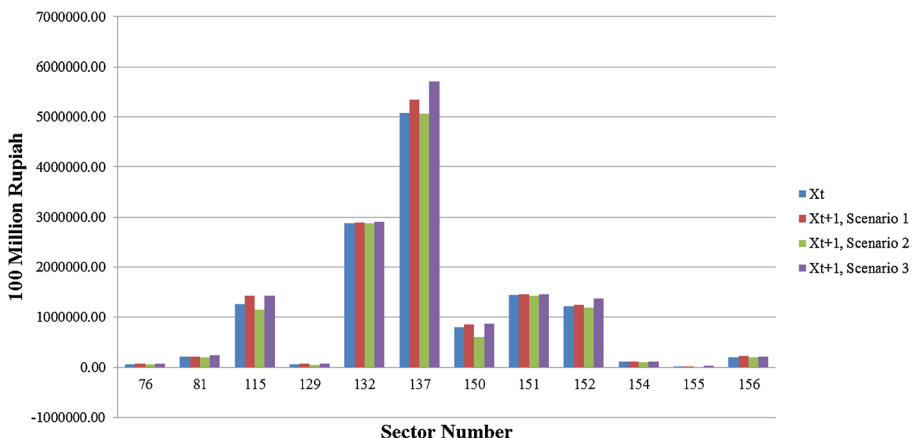
Fig. 5 The dynamics of total output of Indonesian creative industry sectors

Improving the quality of creative industries products is an example of attempt which can be done by domestic producers of these in order to achieve above escalation. This attempt will upgrade the competitiveness of these products in the market, especially domestic market. The consequence of this situation is to increase the willingness to pay of household consumers for the products. Obviously, improving the price of above products is also an important aspect in order to achieve the escalation. This effort will also improve the competitiveness of products of creative industries in the market. The contribution of this improvement is to push the desire of above consumers to consume these products. Consequently, these domino effects will increase the total output of Indonesian creative industry sectors on future period.

Conclusions and Further Researches

This study tried to get the other perspective related to the role of Indonesian creative industries in the national economy of Indonesia and to inquire about the ways to improve these. The analysis period of this study was from 1990–2005. This study employed IO analysis as a tool of analysis. Comparison with a previous study, as well as the calculation using simple output multipliers method, was conducted in order to achieve first objective while the second one was obtained from the calculation using the demand-pull IO quantity model. The results of previous study showed that, in the period of analysis, creative industries had an important role in the national economy of Indonesia while the opposite outcomes appeared in the current study. In other words, the other perspective regarding above role was acquired from this study.

The results of this study also indicated that import activity related to the creative industries products, especially the products which domestic producers are possible to produce, should be restricted if the enhancement of total output of Indonesian creative industry sectors on future period would like to be achieved. Besides, the attempt to increase the consumption of these products by outside households was also needed in order to obtain this enhancement. The examples of this attempt were to improve the quality and price of above products.

The other tools of analysis, such as income/employment multipliers and statistical analysis methods, however, were not applied in this study. Using these methods in as tools of analysis in this topic will generate the deeper understanding regarding the characteristics of creative industry sectors of Indonesia. More specifically, the role of these sectors in the national economy of Indonesia can be explored in more details. Therefore, using other methods as analysis tools in this topic is a suggested further research from this study. Besides, this study also suggests to expand the analysis period of the discussion, such as 1990–2013. This expansion will give more recent and detailed information regarding the role.

The comparison between two or more countries, such as developed and developing countries, regarding creative industries is also not discussed in this study. This comparison will show the differences and similarities in the characteristic of these industries in compared countries. This comparison will also describe the role of the industries in the national economy of each compared country. Based on these reasons, this study also suggests this comparison as a further research.

References

Booyens, I. (2012). Creative industries, inequality and social development: developments, impacts and challenges in Cape Town. *Urban Forum, 23*, 43–60.

British Council Albania (2007). Mapping of creative industries in Albania. Resource document. British Council Albania. http://www.britishcouncil.org/bc-albania-mapping.pdf. Accessed 8 June 2013.

Cassarino, I., & Geuna, A. (2008). Background paper on ICT and creative industries. Resource document. EU-Project CReATE. http://www.lets-create.eu/fileadmin/_create/downloads/BGP_ICT_and_Creative_Industries_2008.pdf. Accessed 8 June 2013.

Champion, K. (2010). Hobson's choice? Constraints on accessing spaces of creative production in a transforming industrial conurbation. *Creative Industries Journal, 3*(1), 11–28.

Department for Culture, Media, and Sport of UK (1998). Creative industries mapping document, 1998. Resource document. Department for Culture, Media, and Sport of UK. http://www.creativitycultureeducation.org/creative-industries-mapping-document-1998. Accessed 8 June 2013.

Galloway, S., & Dunlop, S. (2007). A critique of definitions of the cultural and creative industries in public policy. *International Journal of Cultural Policy, 13*(1), 17–31.

Hong Kong Special Administrative Region Government (2012). Hong Kong: The facts: Creative industries. Resource document. Information Services Department, Hong Kong Special Administrative Region Government. http://www.gov.hk/en/about/abouthk/factsheets/docs/creative_industries.pdf. Accessed 8 June 2013.

Lennon, S., & Hrelja, A. (2005). Creative industries and the importance of place for economic prosperity. Resource document. PIA National Congress 2005. http://www.sgsep.com.au/system/files/SGS_PIA_Congress_Presentation_SL_AH_April05.pdf. Accessed 9 June 2013.

Miller, R. E., & Blair, P. D. (2009). *Input–output analysis: foundations and extensions* (2nd ed.). New York: Cambridge University Press.

Ministry of Trade of the Republic of Indonesia (2008). Pengembangan ekonomi kreatif Indonesia 2025: Rencana pengembangan ekonomi kreatif Indonesia 2009–2015. Resource document. Ministry of Trade of the Republic of Indonesia. http://dgi-indonesia.com/wp-content/uploads/2009/05/buku-1-rencana-pengembangan-ekonomi-kreatif-indonesia-2009.pdf. Accessed 8 June 2013.

Rogerson, C. M. (2006). Creative industries and urban tourism: South African perspectives. *Urban Forum, 17*(2), 149–166.

United Nations Conference on Trade and Development (2004). Creative industries and development. Resource document. United Nations. http://unctad.org/en/Docs/tdxibpd13_en.pdf. Accessed 8 June 2013.

White, P. (2010). Creative industries in a rural region: creative west: the creative sector in the western region of Ireland. *Creative Industries Journal, 3*(1), 79–88.

Wong, C. Y., & Gao, R. (2008). Creative industry in UK, Japan and China: A supply chain management perspective. Resource document. Graduate School of Business Administration, Kobe University. http://www.b.kobe-u.ac.jp/paper/2008_01.pdf. Accessed 9 June 2013.

Zuhdi, U. (2012). Analyzing the influence of creative industry sector to the national economic structural changes by decomposition analysis: the case of Indonesia. *Procedia - Social and Behavioral Sciences, 65*, 980–985.

Zuhdi, U. (2014). Using multipliers analysis in order to get another perspective related to the role of ICT sectors in national economy of Indonesia: 1990–2005. *Journal of Physics: Conference Series, 495*, 012051.

Zuhdi, U., & Putranto, N. A. R. (2012). Examining the role of creative industry sectors in national economic structural changes of Japan. Resource document. Social Science Research Network. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2174381. Accessed 8 June 2013.

Zuhdi, U., Putranto, N. A. R., & Prasetyo, A. D. (2014). Encouraging information and communication technology sectors using input–output approach: the case of Indonesia. *Advanced Science Letters, 20*(1), 199–202.