

The Roles of Indonesian Creative Industries: The Economic Perspective

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Abstract:

The purpose of this study is to analyze the roles of creative industries in the Indonesian national economy. This study employs Input-Output (IO) analysis as an analysis instrument. More specifically, this study applies the parts of IO analysis, namely simple output multiplier, simple household income multiplier, index of the power of dispersion, and index of the sensitivity of dispersion as analysis apparatuses. The analysis period of this study is from 1990 through 2005. The results show that, by using simple output multiplier, the analyzed creative industries did not include in the top five Indonesian industrial sectors on the period of analysis. On the other hand, from the standpoint of the simple household income multiplier, several analyzed creative industries included in the top five Indonesian industrial sectors from 1990 through 2005, namely general government, education services, and other community services. By using both indices, one can argue that all quadrants were occupied by at least one industry on the analysis period. For example, sectors 115 and 132 occupied quadrant I in 1995 and 1990, respectively.

Keywords: Creative Industries; National Economy, IO Analysis; Indonesia

1 Introduction

The contributions of industrial sectors to the national economy can be detected not only in the developed nations, but also in the developing nations. The contributions can be observed on micro and macro points. It should be understood that the contribution percentage of existing industries varies among countries. One of the industries that interesting to be discussed in this matter is the creative industry.

There are many previous studies discussing the topic of creative. For example, Symons and Hurley (2018) describe a new method for engaging low income and marginalized communities in the creative economy. Schediwy et al. (2018) try to explain whether or not there is an obvious difference between the bohemian and entrepreneurial career identities of young musicians. Ritter and Mostert (2018) investigate the impact of four idea generation techniques, namely Silence, Evolution, Random Connections, and Scamper, on the ability to make creative solutions and to shed light on the question whether the idea-generation techniques built on each other.

Meanwhile, Keogh (2019) denaturalizes assumptions about how videogame development practices function by tracing a history of how the global videogame industry formalized through particular economic and social interests. Schroff (2019) investigates a key difference in how copyright preparations support turning comics into revenue streams between Japan on one hand and the U.S. and

Europe on the other. Wijngaarden et al. (2019) conduct a qualitative analysis of 43 interviews with Dutch co-located creative entrepreneurs and artists that provide an in-depth understanding in their historical and current decision-making processes as well as their experiences of working in co-working spaces and groups.

On the other hand, Wallis et al. (2020) focus on the media work's subjective experience over time. Hanan and Hemanto (2020) examine another way creative industries emerge, whereby individual initiatives of creative young people alter a colonial residential quarter into creative clusters. Derda (2021a) explores how fluctuations in the media landscape have affected creative procedures, and identifies a paradigm change whereby media platforms have become important, or even key, stakeholders in the creative procedures. Mulder et al. (2021) analyze the festivalization's impacts of the Dutch live music ecology on the Strategic Action Field (SAF).

Besides, de Vries (2021) analyzes the influence of the contact between diverse organizations in the same creative industry on their logics and practices, by examining the role of the origin of organizations, as a measurement of organizational diversity, in this process. O'Driscoll (2022) considers the shared cultural dialogue between advertisers and audiences by recording the leading cultural values in TV advertising in Ireland from the 1960s to the 1980s and specifically whether those advertisements represent the prevailing cultural values of the time. By using in-depth interviews, a diary questionnaire study, and postquestionnaire interviews with 17 early-career pop musicians aiming to build a career with their act in the Dutch industry, Everts et al. (2022) analyze what day-to-day activities they complete and how they value these work activities. McKerrell and Hornabrook (2022) scrutinize the key subjects that arise in the understanding of traditional music as micro-enterprise in the rural creative economy of Argyll and Bute, Scotland.

Furthermore, Purg et al. (2021) investigate cross-innovation between CCIs and SMEs. By means of a matched pair case study form of market leaders and followers in seven creative industries in the Netherlands, Loots and van Bennekom (2022) try to overcome the conundrum regarding firm growth in creative industries, which are characterized by craftsmanship, imagination, artistic quality and innovativeness. Derda (2021b) tries to shed light on existing and developing implementations regarding the usage of Artificial Intelligence (AI) in the audio-visual media production procedure.

In addition, Vriesema and Kloosterman (2022) unravel the network of the production of a huge acoustic wall in a newly built theatre in Rotterdam. The research conducted by Bustamante Duarte et al. (2022) focus on answering the following research question: how has the spatiality of the *kampongs* that host creative industries in Bandung altered since the start of the 2009 Creative Economy national policy? Stickland et al. (2022) conduct a case study applying five discrete audio mixing projects to assess and compare the two remote audio mixing paradigms: Online Real-Time Collaborative Audio Mixing and Asynchronous Mixing for Remote Clients. Casadei and Gilbert (2022) explore London's connection with fashion through the viewpoints of key industry actors. Martens (2023) assesses the promotion of the audio-visual sectors as a means of national growth in post-war Jamaica.

On the other hand, the study conducted by Gilardi and Lam (2022) locates audience engagement in the act of content creation and deliberates the levels of engagement that content creation could generate. Baú (2022) scrutinizes the role that Reality TV can play in the lives of young participants, when a programme is made as a strategic intervention to achieve alteration. Carpio et al. (2023) examine four award-winning Embodied Virtual Reality (EVR) films, namely *Bonfire*, *The Line*, *The Key*, and *Wolves in the Walls*, as case studies and suggests a set of heuristics to guide the new EVR films

production. Besides, van Raalte et al. (2023) examine and interpret their survey results in greater depth, specifically as they relate to workplace bullying. Their study focuses on the UK's television industry. Cannizzo et al. (2023) review present paradigms of music industry careers in order to theorize how career breaks and interruptions may be understood by the workers of music industry.

Meanwhile, Arnold and O'Brien (2023) find a paradoxical narrative that contradicts inequalities and unfairness and classifies individual confidence and persistence as key to interviewees' career success. Their study focuses on the case of Ireland. Swartjes et al. (2023) analyze which losses organizers experienced when faced with a social trauma that disturbed their ontological security by applying thirty-five interviews with Danish, Dutch, and British music festival organizers. Roberts (2023) uses the South West Creative Technology Network (SWCTN) in the South West, UK, as a case study to scrutinize the varied economies evident in Knowledge Exchange (KE) programmes distributing university-industry Research and Development (R&D). Stockley-Patel and Swords (2023) examine the multiple intermediary procedures conducted by players in a creative R&D project. Gonzalez-Cristiano and Le Grand (2023), on the other hand, scrutinize how freelancers in the field of the creative industries capture and filter their clients' needs and wants in cooperative innovation projects. Their study focuses on the freelancers in Finland and Spain.

Based on the aforesaid previous studies, the use of Input-Output (IO) analysis in examining the roles of creative industries in the national economy of a definite country is still lack. IO analysis is a tool in inspecting the linkages of industries in one or more countries. Therefore, the tool is a suitable tool in analyzing the roles. The importance and originality of this study are that it explores the roles by using several calculation methods from IO analysis which focusing on the national economy of Indonesia. This study can also be seen as a continued study from the previous study conducted by Zuhdi (2015b). The purpose of this study is to analyze the roles of creative industries in the national economy of Indonesia. This study uses IO analysis as an analysis device. More specifically, this study employs the parts of IO analysis, namely simple output multiplier, simple household income multiplier, index of the power of dispersion, and index of the sensitivity of dispersion as analysis apparatuses. The period of analysis of this study is from 1990 through 2005. The rest of this paper is defined as follows. Section 2 elucidates the methodology of this study. Section 3 shows the outcomes of calculations. Also, the discussions for the outcomes can be seen on this section. The next section, section 4, explains the conclusions of this study, and suggested further researches.

2 Methodology

The methodology of this study is elucidated as follows. The first step is to clarify the data used. This study uses Indonesian IO tables for 1990, 1995, and 2005 as data. Initially, the tables consist of 161, 172, and 175 industries, respectively. After applying the adjustment procedure, the tables have 159 industrial sectors. The industrial sectors are defined in Appendix. The second step is to display the Indonesian creative industries discussed in this study. Table 1 explains the industries.

Table 1: Indonesian Creative Industries Used in This Study (Source: Zuhdi (2012) with Slight Modifications)

| Sector Number | Sector Name |
|---------------|---|
| 76 | Manufacture of other products mainly made of wood, bamboo, rattan, and cork |
| 81 | Printing and publishing |
| 115 | Communication and electrical equipment and apparatus |
| 129 | Other manufacturing industries |
| 132 | Residential and non-residential buildings |
| 137 | Trade |
| 150 | Business services |
| 151 | General government |
| 152 | Education services |
| 154 | Other community services |
| 155 | Private motion picture and its distribution |
| 156 | Amusement, recreational, and cultural services (private) |

The third step is to conduct the calculations by applying simple output multiplier and simple household income multiplier. Miller & Blair (2009) clarify the equations of both multipliers as follows:

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

$$m(h)_j = \sum_{i=1}^n a_{n+1,i} l_{ij}. \quad (2)$$

The former model clarifies the simple output multiplier while the latter one expresses the simple household income multiplier. More specifically, $m(o)_j$, $m(h)_j$, $a_{n+1,i}$, n , and l_{ij} are simple output multiplier for sector j , simple household income multiplier for sector j , the coefficients of labor-input, the number of industrial sectors, and a sector-to-sector multipliers matrix, respectively.

The next step is to conduct the calculations in order to explore the characteristics of Indonesian industrial sectors on the period of analysis, especially the Indonesian creative industries. The approaches applied in the calculations are the index of the power of dispersion and sensitivity of dispersion. The former index is used to examine the strength of one specific industrial sector in impacting entire industries. A greater impact is aligned with the higher index value. The detail of the index is elucidated by Ministry of Internal Affairs and Communications Japan (n.d.) as follows:

$$\text{Index of the power of dispersion by sector} = \frac{b_{*j}}{\bar{B}}. \quad (3)$$

The numerator is each sum of column in the table of inverse matrix coefficients while the denominator expresses the mean value of the entire vertical sum in the table of inverse matrix coefficients. More specifically, the equations of numerator and denominator are clarified as follows:

$$b_{*j} = \sum_i^n b_{ij} \quad (4)$$

$$\bar{B} = \frac{1}{n} \sum_j b_{*j} = \frac{1}{n} \sum_i \sum_j b_{ij}. \quad (5)$$

Further, b_{ij} and n are the value of Leontief inverse from sector i to sector j and number of industrial sectors, respectively. The latter index is applied to examine the sensitivity of the specific industrial sector to the external influences. A greater sensitivity is aligned with the greater index value. More

specifically, one specific industry is defined more sensitive to the impacts from the external aspects if it has a higher index value. The detail of the index is explained by Ministry of Internal Affairs and Communications Japan (n.d.) as follows:

$$\text{Index of the sensitivity of dispersion by sector} = \frac{b_{i*}}{\bar{B}}. \quad (6)$$

In this index, the numerator is each sum of row in the table of inverse matrix coefficients while the denominator elucidates the mean value of the entire horizontal sum in the table of inverse matrix coefficients. Further, the equations of the numerator and denominator of the index are explained as follows:

$$b_{i*} = \sum_j^n b_{ij} \quad (7)$$

$$\bar{B} = \frac{1}{n} \sum_i b_{i*} = \frac{1}{n} \sum_i \sum_j b_{ij}. \quad (8)$$

In order to get a compatibility sense with the previous index, equation (7) is slightly transformed from the original format. More specifically, the part that clarifies the total number of industries, n , is added into the equation. As with the previous description, b_{ij} is the Leontief inverse value from sector i to sector j . The last step elucidates the conclusions of the study and suggested further studies.

3 Results and Analysis

Tables 2, 3, and 4 display the top five Indonesian industrial sectors viewed from the value of simple output multiplier in 1990, 1995, and 2005, respectively. Miller & Blair (2009) elucidate that an output multiplier for sector j is the total value of production in all industrial sectors of the economy that is wanted in order to fulfill a currency's worth of final demand for the output of sector j . They also express that, for the simple output multiplier, the total value of production is coming from the households exogenous model.

Table 2: Top Five Indonesian Industrial Sectors Viewed from the Value of Simple Output Multiplier, 1990 (Source: Zuhdi (2014) with Slight Modifications)

| No | Sector Number | Sector Name | Simple Output Multiplier |
|----|---------------|--|--------------------------|
| 1 | 97 | Plastic products | 2.973 |
| 2 | 112 | Machinery and apparatus | 2.943 |
| 3 | 66 | Made up textile goods except wearing apparel | 2.779 |
| 4 | 68 | Wearing apparel | 2.692 |
| 5 | 111 | Prime movers engine | 2.685 |

Table 3: Top Five Indonesian Industrial Sectors Viewed from the Value of Simple Output Multiplier, 1995 (Source: Zuhdi (2014) with Slight Modifications)

| No | Sector Number | Sector Name | Simple Output Multiplier |
|----|---------------|-------------------------|--------------------------|
| 1 | 124 | Aircraft and its repair | 2.792 |
| 2 | 112 | Machinery and apparatus | 2.777 |

| | | | |
|---|-----|--|-------|
| 3 | 66 | Made up textile goods except wearing apparel | 2.737 |
| 4 | 68 | Wearing apparel | 2.685 |
| 5 | 111 | Prime movers engine | 2.623 |

Table 4: Top Five Indonesian Industrial Sectors Viewed from the Value of Simple Output Multiplier, 2005 (Source: Zuhdi (2014) with Slight Modifications)

| No | Sector Number | Sector Name | Simple Output Multiplier |
|----|---------------|--|--------------------------|
| 1 | 112 | Machinery and apparatus | 3.004 |
| 2 | 124 | Aircraft and its repair | 2.992 |
| 3 | 111 | Prime movers engine | 2.809 |
| 4 | 127 | Musicals instruments | 2.608 |
| 5 | 66 | Made up textile goods except wearing apparel | 2.595 |

Analyzed creative industries do not include in the tables. By using this result, one can claim that the industries did not make the attractive effect to the economy of Indonesia on the period of analysis through an additional final demand. Another interesting point from the multiplier is the industries number 66, 111, and 112 can be observed in the tables. Those industries are made up textile goods except wearing apparel, prime movers engine, and machinery and apparatus, respectively. This fact defines the steadiness of the industries in stimulating the Indonesian economy from 1990 through 2005. Machinery and apparatus industry occupies the second rank in table 3 which the value is 2.777. This value shows that in order to satisfy a rupiah's worth of final demand for the industry's output in 1995, all Indonesian industries needed to produce the products which the total value was Rp 2.777.

Figure 1 elucidates the simple output multiplier values of analyzed industries on the period of analysis. Based on the information in the figure, one can argue that many patterns could be seen on the discussed industries from 1990 through 2005. For example, we could see the decreasing-increasing pattern on the sector 81, printing and publishing, on the analysis period. The same pattern is owned by the sector 155, private motion picture and its distribution. One can argue that the economic crisis happened in Indonesia in the late 1990s was the cause of the pattern.

The other pattern is the increasing. On the analysis period, the pattern was owned by trade, the sector number 137. One can argue that this phenomenon indicated that, from 1990 through 2005, Indonesian trade activities had the increasing influence on the Indonesian economic activities. The other sector that had the same pattern on the period of analysis was business services, the sector number 150.

The decreasing pattern could also be seen on the analysis period. More specifically, the sector that had this patter from 1990 through 2005 was the sector number 132, residential and non-residential buildings. The simple output multiplier values of the sector in 1990, 1995, and 2005 were 2.504, 2.424, and 2.330, respectively. Meanwhile, the increasing-decreasing pattern on the analysis period was owned by the sector number 115, communication and electrical equipment and apparatus. For this sector, the simple output multiplier values in 1990, 1995, and 2005 were 2.381, 2.541, and 2.455, respectively.

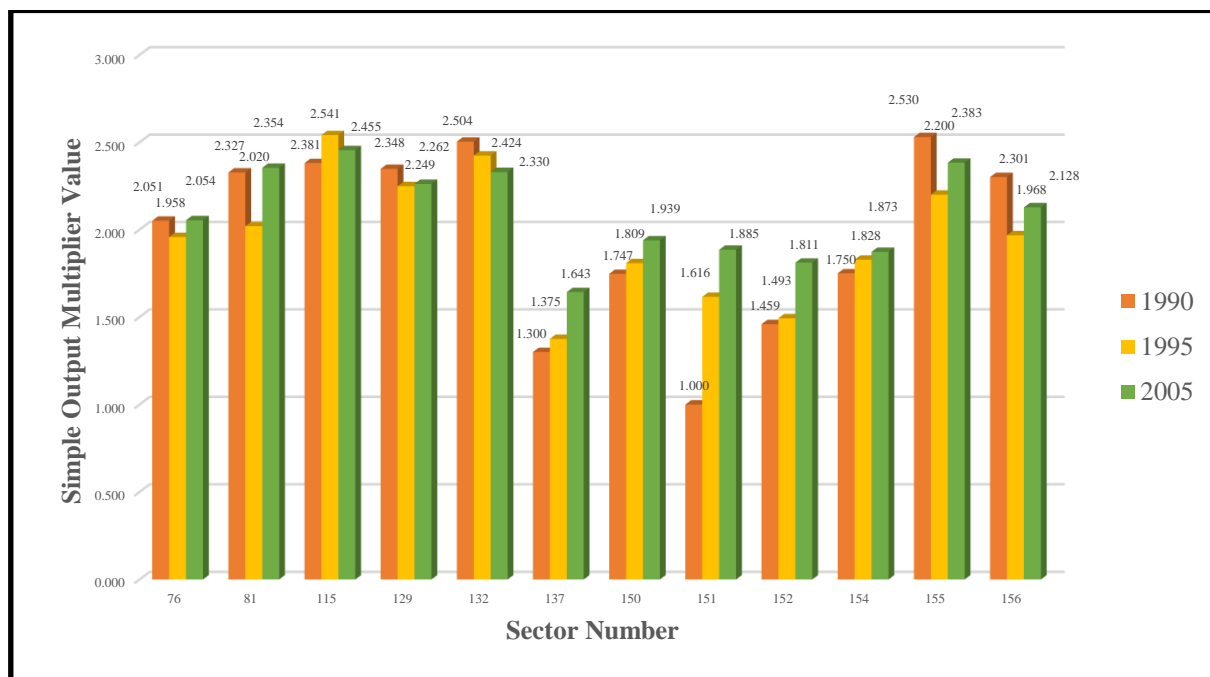


Figure 1. The Values of Simple Output Multiplier of Analyzed Industries, 1990-2005

Tables 5, 6, and 7 display the top five Indonesian industrial sectors viewed from the values of simple household income multiplier in 1990, 1995, and 2005, respectively. Miller & Blair (2009) clarify that the multiplier is used to elucidate the economic effects of new final demand as measured by new households income by employing the households exogenous model. The arrangements of the tables on the multiplier are different if it compared with the former multiplier.

Table 5: Top Five Indonesian Industrial Sectors Viewed from the Value of Simple Household Income Multiplier, 1990 (Source: Zuhdi (2015a) with Slight Modifications)

| No . | Sector Number | Sector Name | Simple Household Income Multiplier |
|------|---------------|--------------------------|------------------------------------|
| 1 | 151 | General government | 0.952 |
| 2 | 154 | Other community services | 0.629 |
| 3 | 152 | Education services | 0.579 |
| 4 | 11 | Rubber | 0.523 |
| 5 | 140 | Railway transport | 0.519 |

Table 6: Top Five Indonesian Industrial Sectors Viewed from the Value of Simple Household Income Multiplier, 1995 (Source: Zuhdi (2015a) with Slight Modifications)

| No . | Sector Number | Sector Name | Simple Household Income Multiplier |
|------|---------------|--------------------------|------------------------------------|
| 1 | 151 | General government | 0.758 |
| 2 | 152 | Education services | 0.666 |
| 3 | 154 | Other community services | 0.659 |
| 4 | 11 | Rubber | 0.523 |

| | | | |
|---|-----|----------------------|-------|
| 5 | 127 | Musicals instruments | 0.508 |
|---|-----|----------------------|-------|

Table 7: Top Five Indonesian Industrial Sectors Viewed from the Value of Simple Household Income Multiplier, 2005 (Source: Zuhdi (2015a) with Slight Modifications)

| No . | Sector Number | Sector Name | Simple Household Income Multiplier |
|------|---------------|---|------------------------------------|
| 1 | 151 | General government | 0.643 |
| 2 | 154 | Other community services | 0.602 |
| 3 | 152 | Education services | 0.598 |
| 4 | 11 | Rubber | 0.477 |
| 5 | 155 | Private motion picture and its distribution | 0.454 |

Several analyzed creative industries include in the tables. More specifically, the industries include in the tables are general government, education services, and other community services. For general government, the values of the multiplier in 1990, 1995, and 2005 were 0.952, 0.758, and 0.643, respectively. On the other hand, for education services, the values in the years were 0.579, 0.666, and 0.598, respectively. Meanwhile, the values for other community services on the analysis period were 0.629, 0.659, and 0.602. In 2005, the value of the multiplier of the general government was 0.643. This value indicates that, in 2005, an additional rupiah of final demand for the sector would generate Rp 0.643 of new household income when all direct and indirect impacts were modified into rupiah estimates of income.

Based on the results, one can argue that the industries generated the attractive effect to the Indonesian economy on the period of analysis through an additional final demand. General government, based on the values of the multiplier, had the decreasing pattern on the analysis period. Meanwhile, education services and other community services had the increasing-decreasing pattern on the period of analysis. The other interesting point is the rubber sector includes in the tables. Besides, private motion picture and its distribution industry included in the 2005 table.

Figure 2 explains the simple household income multiplier values of analyzed industrial sectors from 1990 through 2005. Based on the results, one can argue that many patterns could be detected on the discussed industries from 1990 through 2005. For example, we could get the increasing pattern on the sector 137, trade, on the period of analysis. The simple household income multiplier values of the sector in 1990, 1995, and 2005 were 0.191, 0.232, and 0.278, respectively. The same pattern is owned by the sectors 76 and 115.

The other pattern is the decreasing one. On the analysis period, the pattern was owned by other manufacturing industries, the sector number 129. The simple household income multiplier values of the sector in 1990, 1995, and 2005 were 0.311, 0.301, and 0.281, respectively. The other sectors that had the same pattern on the period of analysis were sectors 151 and 156.

The decreasing-increasing pattern could also be observed on the analysis period. More specifically, the sector that had this pattern from 1990 through 2005 was the sector number 81, printing and publishing. The simple household income multiplier values of the industry in 1990, 1995, and 2005 were 0.341, 0.254, and 0.279, respectively. The same pattern was owned by sector 155 on the analysis period. Meanwhile, the increasing-decreasing pattern on the period of analysis was owned by the sector

number 132, residential and non-residential buildings. For this industry, the simple household income multiplier values in 1990, 1995, and 2005 were 0.307, 0.329, and 0.293, respectively. The other sectors that had the same design from 1990 through 2005 were sectors 150, 152, and 154.

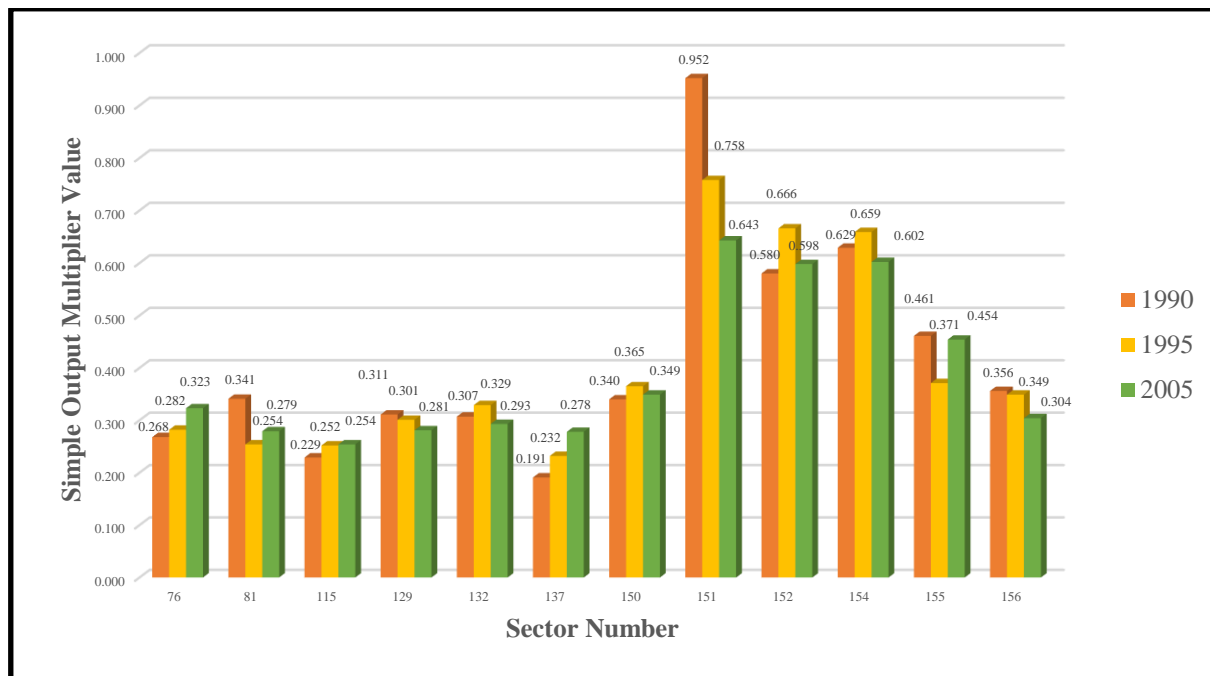


Figure 2. The Values of Simple Household Income Multiplier of Analyzed Industries, 1990-2005

Table 8 plots the quadrants of analyzed creative industries from 1990 through 2005. The quadrants come from the mixture of both indices used in this study, namely the index of the power of dispersion, and the index of the sensitivity of dispersion. The mixture itself produces four quadrants. Each analyzed creative industry has a peculiar quadrant in the table.

Table 8: The Quadrants of Indonesian Creative Industries, 1990-2005

| Sector Number | Sector Name | Quadrant | | |
|---------------|---|----------|------|------|
| | | 1990 | 1995 | 2005 |
| 76 | Manufacture of other products mainly made of wood, bamboo, rattan, and cork | IV | IV | IV |
| 81 | Printing and publishing | IV | IV | IV |
| 115 | Communication and electronical equipment and apparatus | IV | I | IV |
| 129 | Other manufacturing industries | IV | IV | IV |
| 132 | Residential and non-residential buildings | I | IV | IV |
| 137 | Trade | II | II | II |
| 150 | Business services | II | II | II |
| 151 | General government | III | III | III |

| | | | | |
|-----|--|-----|-----|-----|
| 152 | Education services | III | III | III |
| 154 | Other community services | III | III | III |
| 155 | Private motion picture and its distribution | IV | IV | IV |
| 156 | Amusement, recreational, and cultural services (private) | IV | IV | IV |

Each quadrant has explicit characteristics. More specifically, the quadrant I is a place where the values of both indices are more than one. In other words, the industries include on this quadrant are those most affected by the external aspects as well as have strong effects on the entire industries. The opposite phenomena can be observed on the sectors which include on the quadrant III. On the other hand, quadrant II is a place where the value of the index of the power of dispersion is less than one while the value of the other index is more than one. One can claim that the industries include on this quadrant are those which have feeble influences on the entire industries, but they get high impacts from the fluctuations of external aspects. The opposite characteristics are owned by the sectors which include on the quadrant IV.

Based on the information in the table, all quadrants appeared from 1990 through 2005. For example, sector 115 was in the quadrant I in 1995. One can claim that in that year the sector was very attractive in the Indonesian economy. Sector 132 was also in quadrant I but in 1990. On the other hand, quadrant II was occupied consistently by sectors 137 and 150 from 1990 through 2005. Consistency was also seen in sectors 151, 152, and 154 in occupying quadrant III on the analysis period. Meanwhile, the sectors that consistently in quadrant IV from 1990 through 2005 were sectors 76, 81, 129, 155, and 156.

4 Conclusions and Further Researches

This study analyzes the roles of Indonesian creative industries in the Indonesian national economy by using IO analysis. More specifically, this study applies simple output multiplier, simple household income multiplier, index of the power of dispersion, and index of the sensitivity of dispersion as analysis apparatuses. The analysis period of this study is from 1990 through 2005. There are twelve analyzed Indonesian creative sectors in this study.

The results show that, by using simple output multiplier, the analyzed creative industries did not include in the top five Indonesian industrial sectors on the period of analysis. On the other hand, from the perspective of the simple household income multiplier, several analyzed creative industries included in the top five Indonesian industrial sectors from 1990 through 2005, namely general government, education services, and other community services. By using both indices, one can claim that all quadrants were occupied by at least one industry on the analysis period. For example, sectors 115 and 132 occupied quadrant I in 1995 and 1990, respectively.

The understanding regarding the roles of Indonesian creative sectors in affecting the Indonesian national economy on the period of analysis is gained from the current study. However, the study would obtain a wider insight about the roles if the study could use the longer analysis period. Therefore, as further research, the study recommends the same analysis by employing the longer period of analysis, such as from 1990 through 2016. One of the vital points in conducting this further research is the prices and industrial sectors used on the analyzed IO tables should be same.

The other proposed further research from this study is to do an international comparison by using same methods. The comparison can be conducted among developed, developing, or developed-developing nations. The comparison might explore the roles of the creative industries of compared countries so the similarities and differences among those regarding the industries can be investigated. One of the examples of this further research is the comparison between Indonesia and Japan.

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Appendix: Indonesian Industrial Sectors (Source: Zuhdi et al. (2014) with Slight Modifications)

| Sector Number | Sector Name |
|---------------|---|
| 1 | Paddy |
| 2 | Maize |
| 3 | Cassava |
| 4 | Other root crops include sweet potatoes |
| 5 | Groundnut |
| 6 | Soybeans |
| 7 | Other beans |
| 8 | Vegetables |
| 9 | Fruits |
| 10 | Cereals and other food crops |
| 11 | Rubber |
| 12 | Sugarcane |
| 13 | Coconut |
| 14 | Oil palm |
| 15 | Fibre crops |
| 16 | Tobacco |
| 17 | Coffee |
| 18 | Tea |
| 19 | Clove |
| 20 | Other estate crops |
| 21 | Other agriculture |
| 22 | Livestock and livestock product except fresh milk |
| 23 | Fresh milk |
| 24 | Poultry and its product |
| 25 | Other livestock raising |
| 26 | Wood |
| 27 | Other forest product |
| 28 | Sea fish and other sea products |
| 29 | Inland water fish and its product |
| 30 | Coal |

| | |
|----|---|
| 31 | Crude oil |
| 32 | Natural gas and geothermal |
| 33 | Tin ore |
| 34 | Nickel ore |
| 35 | Bauxite ore |
| 36 | Copper ore |
| 37 | Gold and silver ore |
| 38 | Other mining |
| 39 | Crude salt |
| 40 | Quarrying, all kinds |
| 41 | Meat and entrails of slaughtered animal |
| 42 | Processed and preserved meat |
| 43 | Dairy products |
| 44 | Canning and preserving of fruits and vegetables |
| 45 | Drying and salting of fish |
| 46 | Processed and preserved fish |
| 47 | Copra, animal oil, and vegetables oil |
| 48 | Rice |
| 49 | Wheat flour |
| 50 | Other flour |
| 51 | Bakery product and the like |
| 52 | Noodle, macaroni, and the like |
| 53 | Sugar |
| 54 | Peeled grain, chocolate, and sugar confectionery |
| 55 | Milled and peeled coffee |
| 56 | Processed tea |
| 57 | Soya bean products |
| 58 | Other foods |
| 59 | Animal feeds |
| 60 | Alcoholic beverages |
| 61 | Non-alcoholic beverages |
| 62 | Tobacco products |
| 63 | Cigarettes |
| 64 | Yarn and cleaning kapok |
| 65 | Textile |
| 66 | Made up textile goods except wearing apparel |
| 67 | Knitting mills |
| 68 | Wearing apparel |
| 69 | Manufacture of carpet, rope, twine, and other textile |
| 70 | Leather tanneries and leather finishing |
| 71 | Manufacture of footwear and leather products |
| 72 | Sawmill and preserved wood |

| | |
|-----|---|
| 73 | Manufacture of plywood and the like |
| 74 | Wooden building components |
| 75 | Manufacture of furniture and fixtures mainly made of wood, bamboo, and rattan |
| 76 | Manufacture of other products mainly made of wood, bamboo, rattan, and cork |
| 77 | Manufacture of non-plastic plait |
| 78 | Pulp |
| 79 | Paper and cardboard |
| 80 | Paper and cardboard products |
| 81 | Printing and publishing |
| 82 | Basic chemical except fertilizer |
| 83 | Fertilizer |
| 84 | Pesticides |
| 85 | Synthetic resins, plastic, and fibre |
| 86 | Paints, varnishes, and lacquers |
| 87 | Drugs and medicine |
| 88 | Native medicine |
| 89 | Soap and cleaning preparation |
| 90 | Cosmetics |
| 91 | Other chemical products |
| 92 | Petroleum refineries products |
| 93 | Liquefied of natural gas |
| 94 | Smoked and crumb rubber |
| 95 | Tire |
| 96 | Other rubber products |
| 97 | Plastic products |
| 98 | Ceramic and earthenware |
| 99 | Glass products |
| 100 | Clay and ceramic structural products |
| 101 | Cement |
| 102 | Other non-ferrous products |
| 103 | Basic iron and steel |
| 104 | Basic iron and steel products |
| 105 | Non-ferrous basic metal |
| 106 | Non-ferrous basic metal products |
| 107 | Kitchen wares, hand tools, and agricultural tools |
| 108 | Furniture and fixed primarily made of metal |
| 109 | Structural metal products |
| 110 | Other metal products |
| 111 | Prime movers engine |
| 112 | Machinery and apparatus |

| | |
|-----|---|
| 113 | Electric generator and electrical motor |
| 114 | Electrical machinery and apparatus |
| 115 | Communication and electronical equipment and apparatus |
| 116 | Household electronics appliances |
| 117 | Other electrical appliances |
| 118 | Battery and storage battery |
| 119 | Ship and its repair |
| 120 | Train and its repair |
| 121 | Motor vehicle except motorcycle |
| 122 | Motorcycle |
| 123 | Other transport equipment |
| 124 | Aircraft and its repair |
| 125 | Measuring, photographic, and optical equipment |
| 126 | Jewelry |
| 127 | Musicals instruments |
| 128 | Sporting and athletics goods |
| 129 | Other manufacturing industries |
| 130 | Electricity and gas |
| 131 | Water supply |
| 132 | Residential and non-residential buildings |
| 133 | Construction on agriculture |
| 134 | Public work on road, bridge, and harbor |
| 135 | Construction and installation on electricity, gas, water supply, and communication |
| 136 | Other construction |
| 137 | Trade |
| 138 | Restaurant |
| 139 | Hotel |
| 140 | Railway transport |
| 141 | Road transport |
| 142 | Sea transport |
| 143 | River and lake transport |
| 144 | Air transport |
| 145 | Services allied to transport |
| 146 | Communication services |
| 147 | Banking and other financial intermediaries |
| 148 | Insurance and pension fund |
| 149 | Building and land rent |
| 150 | Business services |
| 151 | General government |
| 152 | Education services |
| 153 | Health services |

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| 154 | Other community services |
| 155 | Private motion picture and its distribution |
| 156 | Amusement, recreational, and cultural services (private) |
| 157 | Repair shop n.e.c |
| 158 | Personal and household services |
| 159 | Other goods and services n.e.c |

n.e.c: Not elsewhere classified

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