

PAPER • OPEN ACCESS

## Priority economic sector and household income in Indonesia (an analysis of input output)

To cite this article: S Subanti *et al* 2018 *J. Phys.: Conf. Ser.* **983** 012071

View the [article online](#) for updates and enhancements.

### Related content

- [Riots in Indonesian Main Island: Peace Action of Defend Islam Impact on Economic Environment in Local Media Discourse](#)  
Junaidi Junaidi, Aleksander Yandra and Budianto Hamuddin
- [The Relevance of Vocational High School Program With Regional Potency Priority in Indonesia](#)  
Amat Mukhadis, Andika Bagus Nur Rahma Putra, Ahmad Mursyidun Nidhom et al.
- [Impact of Fishery Policy on Fishery Manufacture Output, Economy and Welfare in Indonesia](#)  
Firmansyah, Shanty Oktavilia, F.X. Sugiyanto et al.



**IOP | ebooks™**

Bringing you innovative digital publishing with leading voices to create your essential collection of books in STEM research.

Start exploring the collection - download the first chapter of every title for free.

# Priority economic sector and household income in Indonesia (an analysis of input output)

S Subanti<sup>1,2,\*</sup>, Mulyanto<sup>3</sup>, A R Hakim<sup>5,6\*</sup>, I Mafruhah<sup>3</sup> and I M Hakim<sup>4</sup>

<sup>1</sup>Department of Statistics, Faculty of Mathematics and Natural Science, Universitas Sebelas Maret, Indonesia

<sup>2</sup>Research Group for Applied Statistics, Universitas Sebelas Maret, Indonesia

<sup>3</sup>Department of Economic Development, Faculty of Economics and Business, Universitas Sebelas Maret, Indonesia

<sup>4</sup>Department of Industrial Engineering, Faculty of Engineering, Universitas Indonesia, Indonesia

<sup>5</sup>Faculty of Economics and Business, Universitas Indonesia, Indonesia

<sup>6</sup>Institute for Research and Social Services, Universitas Sebelas Maret, Indonesia

Corresponding author: sri\_subanti@yahoo.co.id, arhaqkm@gmail.com

**Abstract.** This purpose of study aims to identify the roles of priority economic sectors on household incomes in Indonesia. Analyse in this paper used nine economic sectors, that representing result of classification from input output table. This study found that (1) priority economic sector are manufacturing sector & trade hotel and restaurant; (2) sector that have looking forward orientation included agriculture, mining & quarrying, and financial ownership & business services; and (3) electricity, gas, and water supply sector give the biggest impact to household income in Indonesia. The suggestion that policies aimed at increasing productivity and raising skills while encouraging individual participation in the formal labour market are essential.

## 1. Introduction

Economic development needs to pay attention to the development of every sector in the economy. The development of the economic sector could have an impact on increasing output although it does not necessarily reflect the equitable distribution of people's income and job opportunity. Thus, the determination of priority economic sectors is important as the development of this sector is expected to increase income distribution and provide employment. Thus, the priority economic sector needs to get attention because this sector has a strong foundation to support the economic activity [1]. The priority economic sector is a community activity, either in the form of outward-oriented goods or services, in other words, the sector must be export oriented sector to other regions, otherwise the economic sector is not to be the imported sector's, in other words, all products (goods and services) came from other regions [2,3].



The purpose of this paper is to know the priority economic sectors and the role of the sector on household income so that the development of this sector is expected to reduce unemployment, to increase the number of laborforce, and to improve the welfare of the community. This paper focuses on the case of the Indonesian state and uses the input output analysis approach as an analytical instrument.

## 2. Methods

### 2.1. Data

The data sources in this paper came from Indonesia's input output data in 2008. This data published by the Central Bureau of Statistics. The use of data is expected to capture the changes occurring along this periods as well as to know the impact of a priority sector on household income. The data are classified into 10 sectors. These are agriculture, other crops, forestry and hunting; mining & quarrying sector; manufacturing industry sector; electricity gas and water supply; construction; trade, hotel and restaurant; transportation sector; communications sector; financial, ownership, & business services; and services sector.

### 2.2. Input output method

W. Leontief first introduced the Input-Output Table, commonly called as Table I-O, in the 1930s. Table I-O is a table that provides information about transactions of goods and services that occur between production sectors within an economy. It's presented in the form of a matrix [2,8]. The data in table I-O shows trade relationships between sectors within a country's economy. Each line shows the number of sales from a sector. Since a sector does not sell its goods to an existing sector, it is common to find zeros in a row in table I-O. The columns in the I-O table record purchases made by a sector on goods and services produced by various sectors within the region. If the numbers within the columns of a sector are numerous zeros, this is because a sector does not always buy goods and services from all sectors in the country's economies [3,5,6,8]. The simplest form of the I-O table is shown in Table 1.

**Table 1.** Simple Form for Input Output Table

Seller Sector	Buyer Sector				Final Demand	Total Production
	1	2	...	n		
1	$X_{11}$	$X_{12}$	...	$X_{1n}$	$f_1$	$X_1$
..	...	...	...	...	...	...
N	$X_{n1}$	$X_{n2}$	...	$X_{nn}$	$f_n$	$X_n$
Value Added	$V_1$	$V_2$	...	$V_n$		
Import	$M_1$	$M_2$	...	$M_n$		
Total Input	$X_1$	$X_2$	...	$X_n$		

From Table 1, we can made two balanced balance equations:

Row:

$$\sum_{j=1}^n x_{ij} + f_i = x_i; \forall i = 1, 2, 3, \dots, n \quad (2.1)$$

Column:

$$\sum_{i=1}^n x_{ij} + v_j + m_j = x_j; \forall i = 1, 2, 3, \dots, n \quad (2.2)$$

Where  $x_{ij}$  is the flow of goods and services from sector  $i$  to sector  $j$ ;  $F_i$  is the total final consumption;  $V_j$  is value added; and  $M_j$  is import. The definition of a balanced balance is the amount of production equal to the number of inputs. The flow can be transformed into coefficients by assuming that the number of purchases is fixed for a total output level and there is no possibility of substitution between

an input feed and another input material. From both equations we can constructed coefficient as follows:

$$a_{ij} = x_{ij} / x_j \quad (2.3)$$

or

$$x_{ij} = a_{ij} x_j \quad (2.4)$$

with substitute equation (2.4) to (2.1), we get :

$$\sum_{j=1}^n a_{ij} x_j + f_i = x_i; \forall i = 1, 2, 3, \dots, n \quad (2.5)$$

From equation (2.5), we have basic relationship in IO Table as follows:

$$(I - A)^{-1} f = x \quad (2.6)$$

Notation  $(I - A)^{-1} f = x$  is named as Leontief's inverse matrix. This matrix provides important information on how increased production of a sector will lead to the development of other sectors. Because each sector has a different pattern, then the impact of a sector's production changes on the total production of other sectors will be different. The Leontief matrix summarizes the entire impact of a sector's production change on the total production of another sector into a coefficient. It's often known as multipliers [4,5,7].

Since the purpose of this paper is to calculate the impact of the priority economic sector on household income, it is necessary to know the value of the income multiplier which is the amount of income created by the increased demand for sector j output by 1 unit. The income multiplier calculation formula as follows:

$$H_j = \sum_{i=1}^n v_{ij} \Pi_i \quad (2.7)$$

where  $H_j$  is the income multiplier sector j;  $v_{ij}$  is Leontief's inverse matrix; and  $\Pi_i$  is the income coefficient. The income coefficient can be calculated by dividing the total revenue of sector i by output from sector i.

Determination of priority economic sector in the analysis of input output obtained by calculating the linkage index. The value of this linkage index consists of two types : forward and backward linkages. The priority economic sector is determined by the value of both indexes greater than one. The calculation of linkage index as follows:

$$L_j = \frac{n \sum_{i=1}^n a_{ij}}{\sum_{i=1}^n \sum_{j=1}^n a_{ij}} \quad (2.8)$$

Where  $L_j$  is the linkage index of an economic sector;  $a_{ij}$  is the input coefficient between sector j derived from sector i.

### 3. Result and discussion

Based on Table 2, the value of the forward linkage index shows that the manufacturing industry sector has the highest value followed by the agriculture sector. While the sector with the lowest value is the communications sector. The value of forward linkage index is 2.013 for the manufacturing industry sector and 1.038 for the agricultural sector. This value indicates that both sectors have a strong ability to drive output growth in downstream industry. In addition, the output generated from both sectors is the intermediate output, then the output can be a raw material for industry or other economic sectors [1,2,6].

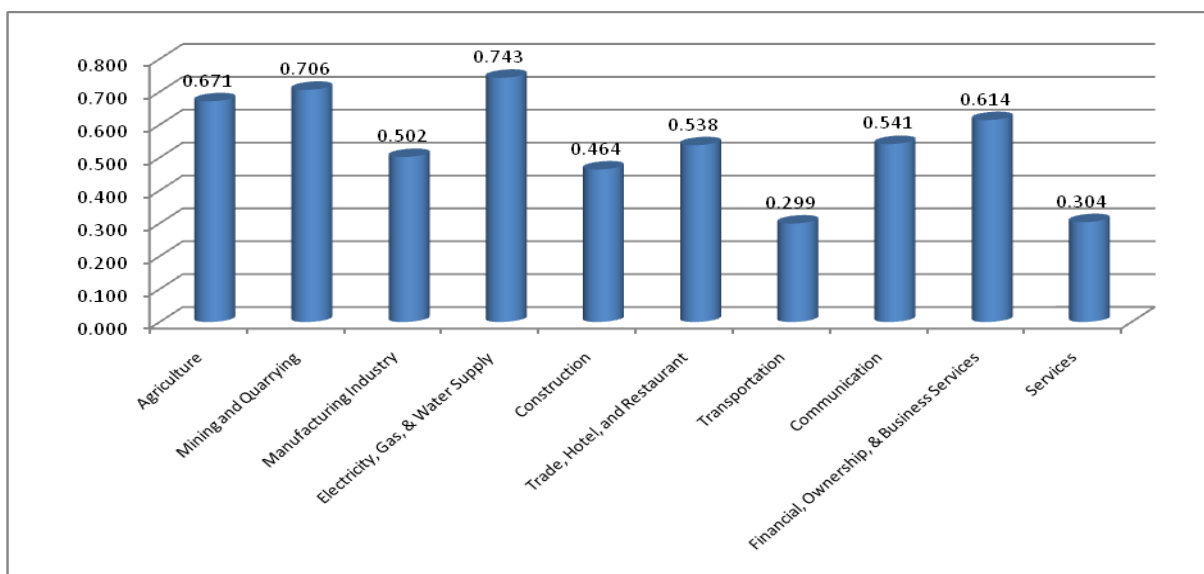
Next, from the value of the backward linkage index, it can be seen that the electricity, gas and water supply sectors have the highest value, then followed by the construction sector. While the sector with the lowest value is the mining and quarrying sector. The value of backward linkage index is 1.190 for the electricity, gas and water supply sector and 1.159 for the construction sector. This value indicates that the sector has a strong ability to encourage the growth of the upstream sector as each increase in one unit to the final demand will encourage an increase in output for this sector if it's used as an input.

Based on the two values of the linkage index, the priority economic sector can be determined if the value of the two indexes is greater than one. We show that the manufacturing industry sector and the trading hotel and restaurant have both indexes greater than one. So, both sectors can be the priority economic sectors. The development of priority sectors of the economy in the long run can encourage the growth of other sectors in an economy so it is expected to create sustainable growth [1].

**Table 2.** Forward and Backward Linkage

Sector	Backward	Forward
Agriculture	0.869	1.038
Mining and Quarrying	0.764	1.006
Manufacturing Industry	1.090	2.013
Electricity, Gas, & Water Supply	1.190	0.755
Construction	1.159	0.742
Trade, Hotel, and Restaurant	1.075	1.005
Transportation	1.125	0.817
Communication	0.803	0.732
Financial, Ownership, & Business Services	0.896	1.037
Services	1.029	0.855

Based on Figure 1, the results of income multipliers show that the electricity gas and water supply sector has the greatest value when compared to other sectors. Then, it has followed the mining and quarrying sector and the agriculture sector. For the smallest income multipliers is the transportation sector. The multiplier value of electricity gas and water supply sector is 0.743, this value indicates that every increase of one-billion-rupiah output was generated from this sector, then the total income of the community will increase by 743 million rupiah. Next, the multiplier value of transportation sector is 0.299, this value indicates that every increase of one-billion-rupiah output was generated from this sector, then the total income of the community will increase by 299 million rupiah. This finding suggests that it is possible that the high-income multipliers generated from the electricity gas and water supply sector come from the contribution of priority economic sectors. Where the priority economic sector is a collection of activities that are expected to create employment opportunities and increase revenues in the sector that this sector can be the foundation of an economy [7].



**Figure 1.** Income Multiplier

From our findings, we must be careful if the investment is focused on priority economic sector only i.e manufacturing and trade hotel and restaurant. However, we do not pay an attention about both sectors have a smaller income multiplier contribution than other sectors that not include in priority economic sector i.e agriculture, financial financial, ownership, & business services, mining and quarrying, and electricity gas & water supply [9]. There are some arguments, for example that agricultural sectors in LDCs have few income linkage effects eventhough sectors which generate significant income and employment for each unit increase in final demand are mainly agricultural sub-sectors. Thus, the conclusion from this view point that "agricultural sector is not capable of generating significant household" is not correct. From table and figure have shown above, makes it possible to compare different economic sectors in terms of their contribution to economic and household income. The results of this comparison should have brought up an interesting results: agriculture, mining and quarrying, manufacturing, trade, hotel and restaurant, and financial, ownership, & business services, are those that have contemporaneous contribution to economic and household income growth and thus must be given priority in any " *growth and household income-oriented* " development plan [10].

#### 4. Conclusion

According to the analysis and findings, this study found that (1) priority economic sector during this period are manufacturing sector & trade hotel and restaurant sector; (2) sector that have looking forward orientation included agriculture, mining & quarrying, and financial ownership & business services; and (3) electricity, gas, and water supply sector give the biggest impact to household income in Indonesia. The suggestion that can be given, (1) the Indonesian government should push the activities of national economy with concern in priority economic sector; (2) the policies aimed at increasing productivity and raising skills while encouraging individual participation in the formal labor market are essential.

#### References

- [1] Nazara S 2005 *Input – Output Analysis 2<sup>nd</sup> Edition [In Bahasa Indonesia]* (Jakarta: Publisher Institution of Faculty of Economics and Business Universitas Indonesia)
- [2] Resosudarmo B P, Hartono D, Tauhid A, Nina I L S , Olivia and Anang N 2002 *Coast. Ocean* **4** 17
- [3] Central Bureau of Statistics 2009 *Input Output Table 2008 [In Bahasa Indonesia]* (Jakarta: Publisher of Central Bureau of Statistics)
- [4] Virgowansyah C and Nazara S 2007 *Journal of Economy Policy [In Bahasa : Jurnal Kebijakan Ekonomi]* **2** 1
- [5] Pirasteh H and Karimi F 2005 *Iran. Econ. Rev.* **10** 119
- [6] Miller R E and Blair P D 1985 *Input – Output Analysis : Foundations and Extensions* (Prentice Hall, New Jersey)
- [7] Subanti S and Hakim A R 2009 *Journal of Economy and Development Studies [In Bahasa : Jurnal Ekonomi dan Studi Pembangunan]* **10** 13
- [8] Zuhdi U 2017 *J. Phys. : Conf. Ser.* **820** 1
- [9] Isard W, Azis I J, Drennan M P, Miller R E, Saltzman S and Thorbecke E 2017 *Methods of interregional and regional analysis* (Milton Park, Abingdon-on-Thames, Oxfordshire: Taylor & Francis)
- [10] Melo P C, Abdul-Salam Y, Roberts D, Colen L, Mary S, Gomez Y and Paloma S 2016 *Income growth and malnutrition in Africa: Is there a need for region-specific policies?.* In 90<sup>th</sup> Annual Conference, April 4-6, 2016 (Warwick University, Coventry, UK)

# Priority economic sector and household income in Indonesia (an analysis of input output)

*by* Izza Mafruhah

---

**Submission date:** 12-Jun-2020 03:40PM (UTC+0700)

**Submission ID:** 1342460879

**File name:** 6.1\_-\_Prosiding\_Internasional.pdf (828.65K)

**Word count:** 2587

**Character count:** 13650

## PAPER • OPEN ACCESS

8

## Priority economic sector and household income in Indonesia (an analysis of input output)

14

To cite this article: S Subanti *et al* 2018 *J. Phys.: Conf. Ser.* **983** 012071

View the [article online](#) for updates and enhancements.

### Related content

11

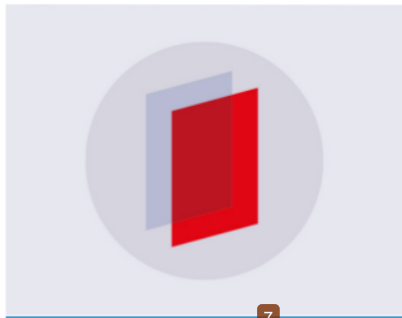
- [Riots in Indonesian Main Island: Peace Action of Defend Islam Impact on Economic Environment in Local Media Discourse](#)  
Junaidi Junaidi, Alessander Yandra and Budianto Hamuddin

13

- [The Relevance of Vocational High School Program With Regional Potency Priority in Indonesia](#)  
Amat Mukhadis, Andika Bagus Ni Ahma Putra, Ahmad Mursyidun Nidhom *et al.*

7

- [Impact of Fishery Policy on Fishery Manufacture Output, Economy and Welfare in Indonesia](#)  
Firmansyah, Shanty Oktavilia, F.X. Sugiyanto *et al.*



## IOP | ebooks™

Bringing you innovative digital publishing with leading voices to create your essential collection of books in STEM research.

Start exploring the collection - download the first chapter of every title for free.

7

This content was downloaded from IP address 36.81.6.102 on 17/03/2020 at 04:04



## 8 **Priority economic sector and household income in Indonesia (an analysis of input output)**

**S Subanti<sup>1,2,\*</sup>, Mulyanto<sup>3</sup>, A R Hakim<sup>5,6\*</sup>, I Mafruhah<sup>3</sup> and I M Hakim<sup>4</sup>**

<sup>1</sup>Department of Statistics, Faculty of Mathematics and Natural Science, Universitas Sebelas Maret, Indonesia

<sup>2</sup>Research Group for Applied Statistics, Universitas Sebelas Maret, Indonesia

<sup>3</sup>Department of Economic Development, Faculty of Economics and Business, Universitas Sebelas Maret, Indonesia

<sup>4</sup>Department of Industrial Engineering, Faculty of Engineering, Universitas Indonesia, Indonesia

<sup>5</sup>Faculty of Economics and Business, Universitas Indonesia, Indonesia


<sup>6</sup>Institute for Research and Social Services, Universitas Sebelas Maret, Indonesia

Corresponding author: sri\_subanti@yahoo.co.id, arhaqkm@gmail.com

**Abstract.** This purpose of study aims to identify the roles of priority economic sectors on household incomes in Indonesia. Analyse in this paper used nine economic sectors, that representing result classification from input output table. This study found that (1) priority economic sector are manufacturing sector & trade hotel and restaurant; (2) sector that have looking forward orientation included agriculture, mining & quarrying, and financial ownership & business services; and (3) electricity, gas, and water supply sector give the biggest impact to household income in Indonesia. The suggestion that policies aimed at increasing productivity and raising skills while encouraging individual participation in the formal labour market are essential.

### 1. Introduction

Economic development needs to pay attention to the development of every sector in the economy. The development of the economic sector could have an impact on increasing output although it does not necessarily reflect the equitable distribution of people's income and job opportunity. Thus, the determination of priority economic sectors is important as the development of this sector is expected to increase income distribution and provide employment. Thus, the priority economic sector needs to get attention because this sector has a strong foundation to support the economic activity [1]. The priority economic sector is a community activity, either in the form of outward-oriented goods or services, in other words, the sector must be export oriented sector to other regions, otherwise the economic sector is not to be the imported sector's, in other words, all products (goods and services) came from other regions [2,3].

 Content from this work may be used under the terms of the Creative Commons Attribution 3.0 licence. Any further distribution of this work must maintain attribution to the author(s) and the title of the work, journal citation and DOI.

Published under licence by IOP Publishing Ltd

The purpose of this paper is to know the priority economic sectors and the role of the sector on household income so that the development of this sector is expected to reduce unemployment, to increase the number of laborforce, and to improve the welfare of the community. This paper focuses on the case of the Indonesian state and uses the input output analysis approach as an analytical instrument.

**2. Methods**

**2.1. Data**

The data sources in this paper came from Indonesia's input output data in 2008. This data published by the Central Bureau of Statistics. The use of data is expected to capture the changes occurring along this periods as well as to know the impact of a priority sector on household income. The data are classified into 10 sectors. These are agriculture, other crops, forestry and hunting; mining & quarrying sector; manufacturing industry sector; electricity gas and water supply; construction; trade, hotel and restaurant; transportation sector; communications sector; financial, ownership, & business services; and services sector.

**2.2. Input output method**

W. Leontief first introduced the Input-Output Table, commonly called as Table I-O, in the 1930s. Table I-O is a table that provides information about transactions of goods and services that occur between production sectors within an economy. It's presented in the form of a matrix [2,8]. The data in table I-O shows trade relationships between sectors within a country's economy. Each line shows the number of sales from a sector. Since a sector does not sell its goods to an existing sector, it is common to find zeros in a row in table I-O. The columns in the I-O table record purchases made by a sector on goods and services produced by various sectors within the region. If the numbers within the columns of a sector are numerous zeros, this is because a sector does not always buy goods and services from all sectors in the country's economies [3,5,6,8]. The simplest form of the I-O table is shown in Table 1.

**Table 1. Simple Form for Input Output Table**

Seller Sector	Buyer Sector				Final Demand	Total Production
	1	2	...	n		
1	X <sub>11</sub>	X <sub>12</sub>	...	X <sub>1n</sub>	f <sub>1</sub>	X <sub>1</sub>
..	...	...	...	...	...	...
N	X <sub>n1</sub>	X <sub>n2</sub>	...	X <sub>nn</sub>	f <sub>n</sub>	X <sub>n</sub>
Value Added	V <sub>1</sub>	V <sub>2</sub>	...	V <sub>n</sub>		
Import	M <sub>1</sub>	M <sub>2</sub>	...	M <sub>n</sub>		
Total Input	X <sub>1</sub>	X <sub>2</sub>	...	X <sub>n</sub>		

From Table 1, we can made two balanced balance equations:

Row:

$$\sum_{j=1}^n x_{ij} + f_i = x_i; \forall i = 1, 2, 3, \dots, n \tag{2.1}$$

Column:

$$\sum_{i=1}^n x_{ij} + v_j + m_j = x_j; \forall j = 1, 2, 3, \dots, n \tag{2.2}$$

Where x<sub>ij</sub> is the flow of goods and services from sector i to sector j; F<sub>i</sub> is the total final consumption; V<sub>j</sub> is value added; and M<sub>j</sub> is import. The definition of a balanced balance is the amount of production equal to the number of inputs. The flow can be transformed into coefficients by assuming that the number of purchases is fixed for a total output level and there is no possibility of substitution between

an input feed and another input material. From both equations we can constructed coefficient as follows:

$$a_{ij} = x_{ij} / x_j \tag{2.3}$$

or

$$x_{ij} = a_{ij} x_j \tag{2.4}$$

with substitute equation (2.4) to (2.1), we get :

$$\sum_{j=1}^n a_{ij} x_j + f_i = x_i; \forall i = 1, 2, 3, \dots, n \tag{2.5}$$

From equation (2.5), we have basic relationship in IO Table as follows:

$$(I - A)^{-1} f = x \tag{2.6}$$

Notation  $(I - A)^{-1} f = x$  is named as Leontief's inverse matrix. This matrix provides important information on how increased production of a sector will lead to the development of other sectors. Because each sector has a different pattern, then the impact of a sector's production changes on the total production of other sectors will be different. The Leontief matrix summarizes the entire impact of a sector's production change on the total production of another sector into a coefficient. It's often known as multipliers [4,5,18]

Since the purpose of this paper is to calculate the impact of the priority economic sector on household income, it is necessary to know the value of the income multiplier which is the amount of income created by the increased demand for sector j output by 1 unit. The income multiplier calculation formula as follows:

$$H_j = \sum_{i=1}^n v_{ij} \Pi_i \tag{2.7}$$

where  $H_j$  is the income multiplier sector j;  $(I - A)^{-1}$  is Leontief's inverse matrix; and  $\Pi_i$  is the income coefficient. The income coefficient can be calculated by dividing the total revenue of sector i by output from sector i.

Determination of priority economic sector in the analysis of input output obtained by calculating the linkage index. The value of this linkage index consists of two types : forward and backward linkages. The priority economic sector is determined by the value of both indexes greater than one. The calculation of linkage index as follows:

$$L_j = \frac{\sum_{i=1}^n a_{ij}}{\sum_{i=1}^n \sum_{j=1}^n a_{ij}} \tag{2.8}$$

Where  $L_j$  is the linkage index of an economic sector;  $a_{ij}$  is the input coefficient between sector j derived from sector i.

### 3. Result and discussion

Based on Table 2, the value of the forward linkage index shows that the manufacturing industry sector has the highest value followed by the agriculture sector. While the sector with the lowest value is the communications sector. The value of forward linkage index is 2.013 for the manufacturing industry sector and 1.038 for the agricultural sector. This value indicates that both sectors have a strong ability to drive output growth in downstream industry. In addition, the output generated from both sectors is the intermediate output, then the output can be a raw material for industry or other economic sectors [1,2,6].

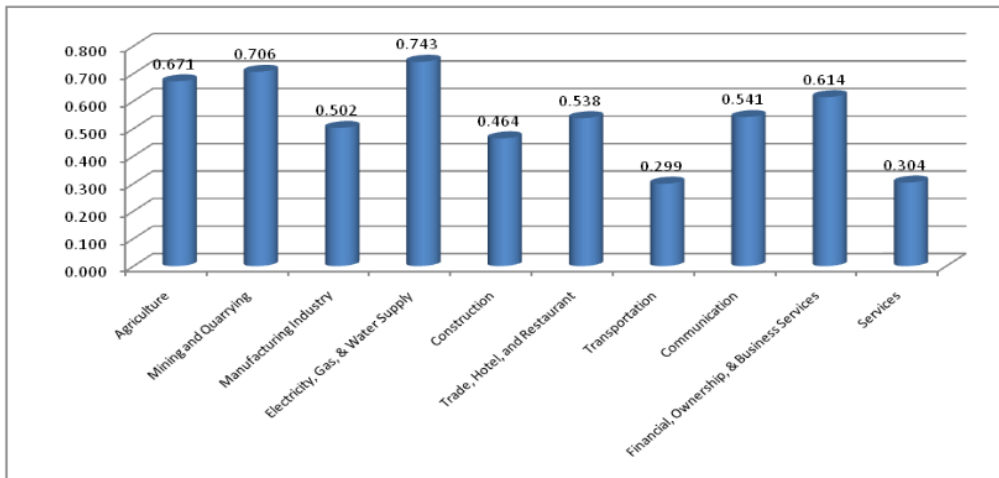
Next, from the value of the backward linkage index, it can be seen that the electricity, gas and water supply sectors have the highest value, then followed by the construction sector. While the sector with the low value is the mining and quarrying sector. The value of backward linkage index is 1.190 for the electricity, gas and water supply sector and 1.159 for the construction sector. This value indicates that the sector has a strong ability to encourage the growth of the upstream sector as each increase in one unit to the final demand will encourage an increase in output for this sector if it's used as an input.

Based on the two values of the linkage index, the priority economic sector can be determined if the value of the two indexes is greater than one. We show that the manufacturing industry sector and the trading hotel and restaurant have both indexes greater than one. So, both sectors can be the priority economic sectors. The development of priority sectors of the economy in the long run can encourage the growth of other sectors in an economy so it is expected to create sustainable growth [1].

**Table 2.** Forward and Backward Linkage

Sector	Backward	Forward
Agriculture	0.869	1.038
Mining and Quarrying	0.764	1.006
Manufacturing Industry	1.090	2.013
Electricity, Gas, & Water Supply	1.190	0.755
Construction	1.159	0.742
Trade, Hotel, and Restaurant	1.075	1.005
Transportation	1.125	0.817
Communication	0.803	0.732
Financial, Ownership, & Business Services	0.896	1.037
Services	1.029	0.855

Based on Figure 1, the results of income multipliers show that the electricity gas and water supply sector has the greatest value when compared to other sectors. Then, it has followed the mining and quarrying sector and the agriculture sector. For the smallest income multipliers is the transportation sector. The multiplier value of electricity gas and water supply sector is 0.743, this value indicates that every increase of one-billion-rupiah output was generated from this sector, then the total income of the community will increase by 743 million rupiah. Next, the multiplier value of transportation sector is 0.299, this value indicates that every increase of one-billion-rupiah output was generated from this sector, then the total income of the community will increase by 299 million rupiah. This finding suggests that it is possible that the high-income multipliers generated from the electricity gas and water supply sector come from the contribution of priority economic sectors. Where the priority economic sector is a collection of activities that are expected to create employment opportunities and increase revenues in the sector that this sector can be the foundation of an economy [7].



**Figure 1.** Income Multiplier

From our findings, we must be careful if the investment is focused on priority economic sector only i.e manufacturing and trade hotel and restaurant. However, we do not pay an attention about both sectors have a smaller income multiplier contribution than other sec<sup>21</sup> that not include in priority economic sector i.e agriculture, financial financial, ownership, & business services, mining and quarrying, and electricity gas & water supply [9]. There are some arguments, for example that agricultural sectors in LDCs have few income linkage effects eventhough sectors which generate significant income and employment for each unit increase in final demand are mainly agricultural sub-sectors. Thus, the conclusion from this view point that "agricultural sector is not capable of generating significant household" is not correct. From table and figure have shown above, makes it possible to compare different economic sectors in terms of their contribution to economic and household income. The results of this compar<sup>5</sup>n should have brought up an interesting results: agriculture, mining and quarrying, manufacturing, trade, hotel and restaurant, and financial, ownership, & business services, are those that have contemporaneous contribution to economic and household income growth and thus must be given priority in any " growth and household income-oriented " development plan [10].

#### 4. Conclusion

Accord<sup>16</sup> to the analysis and findings, this study found that (1) priority economic sector during this period are manufacturing sector & trade hotel and restaurant sector; (2) sector that have looking forward orientat<sup>5</sup> included agriculture, mining & quarrying, and financial ownership & business services; and (3) electricity, gas, and water supply sector give the biggest impact to household income in Indonesia. The suggestion that can be given, (1) the Indonesian government should push the activities of national economy with concern in priority economic sector; (2) the policies aimed at increasing productivity and raising skills while encouraging individual participation in the formal labor market are essential.

#### References

- [1] Nazara S 2005 *Input – Output Analysis 2<sup>nd</sup> Edition [In Bahasa Indonesia]* (Jakarta: Publisher Institution of Faculty of Economics and Business Universitas Indonesia)
- [2] Resosudarmo B P, Hartono D, Tauhid A, Nina I L S , Olivia and Anang N 2002 *Coast. Ocean* **4** 17
- [3] Central Bureau of Statistics 2009 *Input Output Table 2008 [In Bahasa Indonesia]* (Jakarta: Publisher of Central Bureau of Statistics)
- [4] Virgowansyah C and Nazara S 2007 *Journal of Economy Policy* [In Bahasa : Jurnal Kebijakan Ekonomi] **2** 1
- [5] <sup>15</sup>asteh H and Karimi F 2005 *Iran. Econ. Rev.* **10** 119
- [6] Miller R E and Blair P D 1985 *Input – Output Analysis : Foundations and Extensions* (Prentice Hall, New Jersey)
- [7] Subanti S and Hakim A R 2009 *Journal of Economy and Development Studies* [In Bahasa : Jurnal Ekonomi dan Studi Pembangunan] **10** 13
- [8] <sup>10</sup>ndi U 2017 *J. Phys. : Conf. Ser.* **820** 1
- [9] Isard W, Azis I J, Drennan M P, Miller R E, Saltzman S and Thorbecke E 2017 *Methods of interregional and regional analysis* (Milton Park, Abingdon-on-Thames, Oxfordshire: <sup>3</sup> Taylor & Francis)
- [10] Melo P C, Abdul-Salam Y, Roberts D, Colen L, Mary S, Gomez Y and Paloma S 2016 *Income growth and malnutrition in Africa: Is there a need for region-specific policies?*. In 90<sup>th</sup> Annual Conference, April 4-6, 2016 (Warwick University, Coventry, UK)

# Priority economic sector and household income in Indonesia

## ORIGINALITY REPORT

23%

SIMILARITY INDEX

17%

INTERNET SOURCES

13%

PUBLICATIONS

14%

STUDENT PAPERS

## PRIMARY SOURCES

1	<a href="http://www.csiro.au">www.csiro.au</a> Internet Source	2%
2	<a href="http://earchive.tpu.ru">earchive.tpu.ru</a> Internet Source	2%
3	<a href="http://ideas.repec.org">ideas.repec.org</a> Internet Source	2%
4	<a href="http://msceis.conference.upi.edu">msceis.conference.upi.edu</a> Internet Source	1%
5	Submitted to Erasmus University Rotterdam Student Paper	1%
6	Clive Dobbs. "Patterns of pay: results of the Annual Survey of Hours and Earnings, 1997 to 2008", Economic & Labour Market Review, 2009 Publication	1%
7	Z Anna, P Hindayani. "A welfare study into capture fisheries in cirata reservoir: a bio-economic model", IOP Conference Series: Earth and Environmental Science, 2018	1%

---

8	<a href="http://feb.uns.ac.id">feb.uns.ac.id</a> Internet Source	1%
9	Bu Hongyun, Zou Yantao. "Notice of Retraction: Industry status analysis based on input-output method", 2011 International Conference on Product Innovation Management (ICPIM 2011), 2011 Publication	1%
10	<a href="http://myassignmenthelp.com">myassignmenthelp.com</a> Internet Source	1%
11	<a href="http://suche.thulb.uni-jena.de">suche.thulb.uni-jena.de</a> Internet Source	1%
12	<a href="http://digilib.uns.ac.id">digilib.uns.ac.id</a> Internet Source	1%
13	<a href="http://iopscience.iop.org">iopscience.iop.org</a> Internet Source	1%
14	<a href="http://philpapers.org">philpapers.org</a> Internet Source	1%
15	<a href="http://dro.deakin.edu.au">dro.deakin.edu.au</a> Internet Source	1%
16	<a href="http://bangkitnusantara.blogspot.com">bangkitnusantara.blogspot.com</a> Internet Source	1%
17	<a href="http://edoc.site">edoc.site</a> Internet Source	<1%

---

---

18	Patricio Aroca. "Impacts and development in local economies based on mining:", Resources Policy, 2001 Publication	<1%
19	eprints.unm.ac.id Internet Source	<1%
20	Submitted to Universitas Hasanuddin Student Paper	<1%
21	www.ynypu.org.uk Internet Source	<1%
22	Submitted to University of Strathclyde Student Paper	<1%
23	Xing Wu, Zhihui Zhang. "Input–output analysis of the Chinese construction sector", Construction Management and Economics, 2005 Publication	<1%
24	journals.aserspublishing.eu Internet Source	<1%
25	www.cplire.ru Internet Source	<1%
26	Submitted to University of Glamorgan Student Paper	<1%
27	Submitted to Imperial College of Science,	

---



## Technology and Medicine

Student Paper

<1%

28

Budy P. Resosudarmo. "River water pollution in Indonesia: an input-output analysis",  
International Journal of Environment and Sustainable Development, 2003

Publication

<1%

29

Submitted to GRIPS National Graduate Institute for Policy Studies

Student Paper

<1%

30

Submitted to International University of Japan

Student Paper

<1%

31

Submitted to Vrije Universiteit Amsterdam

Student Paper

<1%

Exclude quotes Off

Exclude matches Off

Exclude bibliography Off

LEMBAR  
HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW  
KARYA ILMIAH : **PROSIDING** \*

Judul Karya Ilmiah (paper) : Priority economic sector and household income in Indonesia ( an analysis of input output)  
 Jumlah Penulis : 4 Orang (Sri Subanti, Mulyanto, Arif Rahman Hakim, **Izza Mafruhah**, Hakim IM)  
 Status Pengusul : ~~Penulis pertama~~ / penulis ke 4 / ~~penulis korespondensi~~ \*\*  
 Identitas Prosiding : a. Nama Prosiding : **International Conference on Mathematics, Science and Education 2017 (ICMSE2017)**  
 b. ISBN/ISSN : **ISSN : 1742-6588, ISSN : 1742-6569**  
 c. Tahun Terbit, Tempat Pelaksanaan : **2017**  
 d. Penerbit/organiser : **Institute of Physics (IOP) Publishing**  
 e. Alamat repository PT/web prosiding : <https://repository.feb.uns.ac.id/lihatpdf.php?lokasi=publikasi&kode=850>  
 f. Terindeks di (jika ada) :  
 Kategori Publikasi Makalah :  Prosiding Forum Ilmiah Internasional .....  
 (beri ✓ pada kategori yang tepat)  Prosiding Forum Ilmiah Nasional .....

Hasil Penilaian Peer Review :

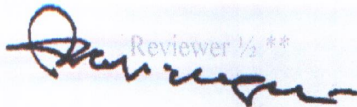
Komponen Yang Dinilai	Nilai Maksimal Prosiding 15		Nilai Akhir Yang Diperoleh
	Internasional <input type="checkbox"/>	Nasional <input type="checkbox"/>	
a. Kelengkapan unsur isi paper (10%)	1.5		1,5
b. Ruang lingkup dan kedalaman pembahasan (30%)	4.5		4,5
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	4.5		4,5
d. Kelengkapan unsur dan kualitas terbitan/prosiding (30%)	4.5		4,5
<b>Total = (100%)</b>	<b>15</b>		<b>15</b>
<b>Nilai Pengusul = (40% x 15)/4 = 1,5 (Penulis Keempat)</b>			

**Catatan Penilaian artikel oleh Reviewer :**

- a. Kelengkapan dan kesesuaian unsur isi artikel :  
 Artikel ini membahas tentang prioritas di sektor ekonomi yang penting dalam pelaksanaan kegiatan pembangunan. Dan sesuai dengan gaya selingkung yang ditetapkan oleh panitia conference, sehingga layak untuk mendapatkan point 2
- b. Ruang lingkup dan kedalaman pembahasan :  
 Pembahasan paper ini adalah dengan menggunakan alat analisis ekonometrika yang sudah bisa digunakan untuk menguji hypothesis yang sudah dibangun. Hasil menunjukkan prioritas yang akan dipilih oleh sector ekonomi rumah tangga di Indonesia. Artikel ini cukup bagus sehingga layak untuk mendapatkan point 4,5
- c. Kecukupan dan pemutakhiran data/informasi dan metodologi :  
 Alat analisis dan data yang digunakan dalam penelitian yang menjadi dasar artikel ini menganut konsep terkini dan bisa dimanfaatkan oleh poengambil keputusan sehingga diberikan nilai 4,5
- d. Kelengkapan unsur dan kualitas terbitan :  
 Artikel ini diterbitkan oleh conference dengan prosiding yang terindeks scopus sehingga layak untuk diberikan nilai 4,5
- e. Indikasi Plagiat :  
 Tidak terdapat indikasi plagiarism dalam artikel ini yang ditunjukkan dengan turn it in yang dibawah 15%
- f. Kesesuaian bidang ilmu :  
 Bidang penulis adalah di ekonomi pembangunan sehingga sangat sesuai dengan topic yang diangkat dalam artikel ini



Surakarta, 19 Maret 2020

 Reviewer 1/2 \*\*

Prof. Dr. Julianus Johnny Sarungu., M.S

NIP 195107011980101001

Jabatan : Guru Besar

Pangkat, Gol Ruang : Pembina Utama Madya / IV/d

Unit Kerja : Fakultas Ekonomi dan Bisnis UNS

Bidang Ilmu : Ekonomi Pembangunan

\*Dinilai oleh dua Reviewer secara terpisah

\*\*Coret yang tidak perlu

LEMBAR  
HASIL PENILAIAN SEJAWAT SEBIDANG ATAU *PEER REVIEW*  
KARYA ILMIAH : **PROSIDING** \*

Judul Karya Ilmiah (paper) : Priority economic sector and household income in Indonesia ( an analysis of input output)  
 Jumlah Penulis : 4 Orang (Sri Subanti, Mulyanto, Arif Rahman Hakim, **Izza Mafruhah**, Hakim IM)  
 Status Pengusul : ~~Penulis pertama~~ / penulis ke 4 / ~~penulis korespondensi\*\*~~  
 Identitas Prosiding : a. Nama Prosiding : **International Conference on Mathematics, Science and Education 2017 (ICMSE2017)**  
 b. ISBN/ISSN : **ISSN : 1742-6588, ISSN : 1742-6569**  
 c. Tahun Terbit, Tempat Pelaksanaan : **2017**  
 d. Penerbit/organiser : **Institute of Physics (IOP) Publishing**  
 e. Alamat repository PT/web : <https://repository.feb.uns.ac.id/lihatpdf.php?lokasi=publikasi&kode=850>  
 f. Terindeks di (jika ada) :

Kategori Publikasi Makalah :  Prosiding Forum Ilmiah Internasional .....  
 (beri ✓ pada kategori yang tepat)  Prosiding Forum Ilmiah Nasional .....

Hasil Penilaian *Peer Review* :

Komponen Yang Dinilai	Nilai Maksimal <b>Prosiding 15</b>		Nilai Akhir Yang Diperoleh
	Internasional <input type="checkbox"/>	Nasional <input type="checkbox"/>	
a. Kelengkapan unsur isi paper (10%)	1.5		1,5
b. Ruang lingkup dan kedalaman pembahasan (30%)	4.5		4,5
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	4.5		4,5
d. Kelengkapan unsur dan kualitas terbitan/prosiding (30%)	4.5		4,5
<b>Total = (100%)</b>	<b>15</b>		<b>15</b>
<b>Nilai Pengusul = (40% x 15)/4 = 1,5 (Penulis Keempat)</b>			

**Catatan Penilaian artikel oleh Reviewer :**

**a. Kelengkapan dan kesesuaian unsur isi artikel :**

Penyusunan isi dari artikel ini sudah disesuaikan dengan dengan panduan panitia conference. Proprosiding dalam Conference tersebut terindeks scopus sehingga artikel mendapatkan nilai maksimal 2

**b. Ruang lingkup dan kedalaman pembahasan :**

Lingkup pembahasan artikel ini adalah tentang prioritas di sektor ekonomi yang penting dalam pelaksanaan kegiatan pembangunan. dengan menggunakan alat analisis ekonometrika yang sudah bisa digunakan untuk menguji hypothesis yang sudah dibangun. Hasil menunjukkan prioritas yang akan dipilih oleh sector ekonomi rumah tangga di Indonesia. Artikel ini cukup bagus sehingga artikel mendapatkan nilai maksimal 4,5

**c. Kecukupan dan pemutakhiran data/informasi dan metodologi :**

Alat analisis dan data yang digunakan dalam penelitian yang menjadi dasar artikel ini menganut konsep terkinikan dan bisa dimanfaatkan oleh poengambil keputusan sehingga diberikan nilai 4,5

**d. Kelengkapan unsur dan kualitas terbitan :**

Artikel ini diterbitkan oleh conference dengan prosiding yang terindeks scopus sehingga layak untuk diberikan nilai 4,5

**e. Indikasi Plagiat :**

Tidak terdapat indikasi plagiarism dalam artikel ini yang ditunjukkan dengan turn it in yang dibawah 15%

**f. Kesesuaian bidang ilmu :**

Bidang penulis adalah di ekonomi pembangunan sehingga sangat sesuai dengan topic yang diangkat dalam artikel ini

Surakarta, 18 Maret 2020

Reviewer 1/2 \*\*

Prof.Dr. Yunastiti Purwaningsih.,M.P

NIP 19590613 198403 2 001

Jabatan : Guru Besar

Pangkat, Gol Ruang : Pembina Utama Madya / IV/d

Unit Kerja : Fakultas Ekonomi dan Bisnis UNS

Bidang Ilmu : Ekonomi Pembangunan

\*Dinilai oleh dua Reviewer secara terpisah

\*\*Coret yang tidak perlu