

**BESSH -15****Accelerating Economic Development Strategy Through Trade Sector Development in Surabaya City**Nurul Istifadah<sup>1\*</sup>*Faculty of Economics and Business, University of Airlangga Indonesia*

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**Abstract**

Based on the components sector, the largest contributor to the economy of the Surabaya city is in the trade sector with a value of approximately twenty percent. Economic activities in the trade sector have linkages with other sectors of the economy, both in terms of inputs (backward linkages) and outputs (forward linkages). This sector also has a major economic impact on the performance acceleration of economic development in the Surabaya city. The objectives of this study were to (1) analyze the economic performance of the trade sector, both in terms of input and output, (2) identify the sectors that have relevance to the forward and backward linkages with the trade, and (3) develop a strategy accelerating economic development through the development of the trade sector in the Surabaya city. The analytical tool used is a model of Input-Output and SWOT analysis. The analysis showed that the trade sector have backwards and forwards linkages were great with the trade itself. In addition, the trade sector also has great relevance to the transport sector, communications, banking, food industry and fish processing industry. This sector also has a higher forward linkages with construction, industrial metals and basic metal goods, food industry, and the dairy processing industry. Accelerating economic development strategy through the development of trade sectors prioritized by improving access to the distribution of goods, both for inter-regional trade and international trade, such as licensing, warehousing, port, and other trade supporting infrastructure.

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*Keywords*— Economic Performance, Backward Linkages, Forward Linkages, Accelerating Economic Development Strategy, Trade Sector.

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**Introduction**

Surabaya city has a strategic position of geographical and economic aspects. Surabaya city located at the entrance of the flow of goods and services go to Eastern Indonesia. Surabaya city have economic infrastructure and adequate infrastructure so that it can become the center of economic growth not only in East Java but also in Eastern Indonesia.

Surabaya is one of the largest metropolitan cities in Indonesia after Jakarta capital. Surabaya is the capital of East Java province. Surabaya city's economy contributes over 25% to the GDRP (Gross Domestic Regional Product) of East Java. This indicates that the acceleration of economic development in the Surabaya city will affect the acceleration of economic development in East Java. Therefore, the right strategy to accelerate economic development in the Surabaya city will greatly affect the performance of the economy in East Java and also at the national level. By contrast, economic development at the national level and in the province of East Java, will also affect the performance of the economy in the Surabaya city.

During the period 2009-2013, the value of GDP Surabaya shows an increasing trend, both at current prices and at constant prices. Changes in GDP at constant prices reflect the level of economic growth in the Surabaya city. Economic growth in the Surabaya city is the highest compared to the economic growth of national and East Java. In that period, the average rate of economic growth in Surabaya is 5.87%. See Figure 1.1 below.

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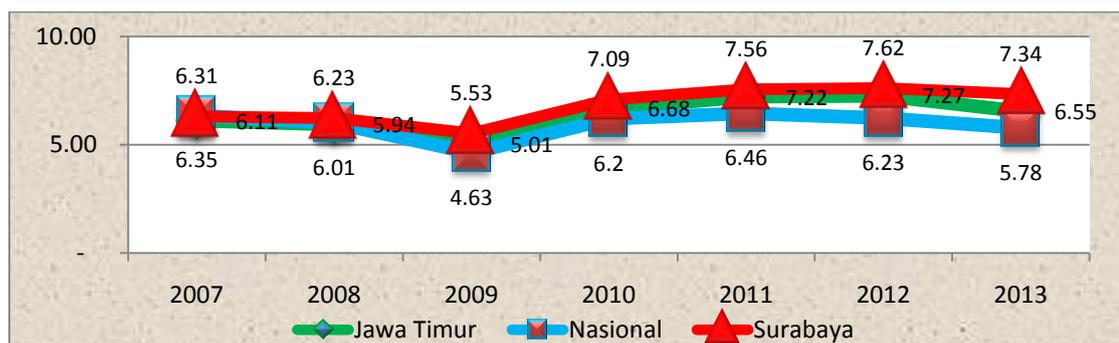
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Source: BPS kota Surabaya, processed.

Figure 1.1: Economic Growth in Surabaya, East Java, and Indonesia.  
Year 2007-2013 (%)

On the demand side, the economy of the Surabaya city consists of private consumption, private investment, government spending, and export-import. Export-import indicates the magnitude of the outflow and inflow of goods to and from the territory of the Surabaya city, which are the international trade and inter-regional trade. Based on Table 1.1 below shows that the volume of trade in goods and services between regions (inter-regional trade) greater than international trade. Thus, the main focus for the development of the movement of goods from and to the Surabaya city is to increase trade between regions and between islands.

Table 1.1:  
Economy Surabaya Based Expenditure, 2010

Componenet	Value (Million Rp)	Contribution (%)
Consumption	135,887,048	65.08
Government spending	5,847,393	2.80
Gross fixed capital formation	41,439,975	19.85
Change in stoct	10,517,210	5.04
Export abroad	2,251,749	1.08
Export between the regions outside Surabaya	68,670,482	32.89
Import from abroad	3,039,816	1.46
Import from other areas outside Surabaya	52,770,583	25.27
GDRP Surabaya	208,803,458	100.00

Source: Input Output Table of Surabaya in 2010, processed.

By sector, the trade sector is a major contributor to the formation of the value of GDRP Surabaya, ie more than 20% with an upward trend. The sector is also able to absorb a large labor force. Therefore, the trade sector is the leading sector in the economy of the Surabaya city. Based on the data in the Input-Output table of Surabaya 2010, there are three types of trade sector. Identification of strengths, weaknesses, opportunities and threats of each sub-sector of the trade can be used as the preparation of the acceleration of the economic development strategy in the Surabaya city through the development priorities in the trade sector. Therefore, based on the background of the above, the purpose of this study was (1) to analyze the economic performance of the trade sector, both in terms of input and output, (2) identify the sectors that have relevance to the forward and backward linkages with sectors trade, and (3) accelerating economic development strategy through the development of the trade sector in the Surabaya city.

#### Literatur Review

##### Local Economic Development

Basically, the notion of development can be explained by two different views (Widodo, 2006: 3-4). The traditional view (old) defines development as the efforts made to enhance the growth of GDP / GDRP, output of production, and employment. The modern view of development is a multidimensional process that includes changes in the social structure, the attitude of the people and institutions in achieving the goals of economic growth, the reduction of income inequality and the expansion of employment opportunities. Thus, the concept of development implies a very broad and includes changes to the economic arrangements of society as a whole.

In the context of welfare economics, the concept of modern development refers to the three pillars, namely the efficient allocation of resources, equitable distribution of opportunities for communities, and activities that maintain environmental sustainability (Setiono, 2011: 290). The first pillar stated that to promote development must make efficient allocation of resources. While the second pillar means that if the success of the development is not accompanied by a sense of justice and equal distribution of income, it will cause a decline in quality of life. The third pillar guarantee is the creation of a sustainable development process.

In general, development in some developing countries focused on economic development. This is because economic development can support the achievement of goals and encourage other field changes (Tjokroamidjojo (1986: 44). However, the success of economic development does not guarantee the success of the development process if it is not accompanied by progress in other fields.

Definition of economic local government is as a process of economic development occurring in the region. Economic development of the region is the region's ability to find (create) a specific role in the division of labor through efficient and creative use of resources owned by the regional economic system (Capello, 2007: 85). Local economic development is also defined as a process in which local governments and communities to manage resources that exist and form a pattern of partnership between local governments and the private sector to create new jobs and stimulate economic growth in the region (Arsyad, 1999; 108).

The basic concept of the regional economic development is that development must rely on endogenous strength by utilizing human resources, institutional, and physical resources locally. This concept leads to the uniqueness of the area, the potential of the region, and regional initiatives in the development process to create employment opportunities and stimulate increased economic activity. Each region has different conditions and economic potential. Identify activities that illustrate the potential and comparative advantages of the area is the main task of the local government (Azis, 1994: 65).

Policy and regional development strategies must adapt to the local conditions. In real conditions can occur that a region has a comparative advantage which includes several commodity compared to the surrounding area. Such as Ricardo opinion (in Setiono, 2002: 230) that the area should determine the specialization in commodities that have the greatest comparative advantage, or who have a lack of comparative smallest seed. The principle of comparative advantage needs to calculate the cost of transportation because it contains an element of inter-regional linkages. Inter-regional linkage is a positive factor when seen from the interests of national economic integration (Azis, 1994: 66-67).

### *Performance Theory*

The concept of performance is an abbreviation of "kinetic energy work" is equivalent in English as performance. Definition of performance is often defined as work or work performance. Performance is about what to do and how to do it. Performance is the result of work that has a strong relationship with strategic objectives, and contributes to the economy (Nuswantara, 2012: 133). Performance can also be interpreted as the output generated by the function or a job indicator within a certain time. A job has a number of indicators to measure the outcomes of these jobs.

Performance in relation to the economic field has several aspects, including: efficiency, technological progress, and the balance in the distribution (Jaya, 2001: 16). Definition of efficiency is the maximum output value is generated by using a specific input, both measured physical quantity as well as the economic value (the price). Efficiency in question is the efficiency in the allocation of resources. Economic resources are allocated in such a way so that the production can increase the value and output.

Performance measurement is a process of assessing the progress of work towards the goals and objectives that have been defined previously, including information on the efficiency of resource use in producing goods and services as well as quality. Size of business performance is often formulated in the form of proceeds of sales, business profits, market share, development of production and cost reduction (Dharma, 2005). In the perspective of the production output of the business, financial performance variables usually measured by indicators: revenues, profits, growth in business as well as financial ratios.

### *Method*

This study uses a quantitative method approach. The analytical tool used is the Input-Output model and SWOT analysis. The data used is secondary data obtained from sources BPS and other publications.

Input-output analysis is used to measure the performance of the trade sector in terms of input and output as well as to identify sectors that have a high linkage with the trade sector in the Surabaya city. SWOT analysis is used to develop a strategy of accelerating economic development through the development of the trade sector in the Surabaya city. This study focused on the trade sector of the Surabaya city based table Input Output of Surabaya in 2010 using a 89 x 89 matrix of transactions, namely:

1. the large trade instead of cars and motorcycles (code IO=46)
2. the retail trade, instead of cars and motorcycles (code IO=47)
3. trade, repair, maintenance of cars and motorcycles (code IO=48)

*Input-Output Analysis*

Input-output model is described in the following table:

Output Input	Intermediate output				Final Output C+I+G+X	Number of Output	
		1	2	3 n			
Intermediate input	1	$z_{11}$	$z_{12}$	....	$z_{1n}$	$Y_1$	$X_1$
	2	$z_{21}$	$z_{22}$	....	$z_{2n}$	$Y_2$	$X_2$
	..	...	...	....	...	....	....
	n	$z_{n1}$	$z_{n2}$	$z_{n3}$	$z_{nn}$	$Y_n$	$X_n$
Value added		$V_1$	$V_2$	...	$V_n$		
Import		$M_1$	$M_2$	...	$M_n$		
Number of input		$X_1$	$X_2$	...	$X_n$		

From the above table, according to the line output equation is as follows:

$$\begin{aligned}
 z_{11} + z_{12} + z_{13} \dots + z_{1n} + Y_1 &= X_1 \\
 z_{21} + z_{22} + z_{23} \dots + z_{2n} + Y_2 &= X_2 \\
 \sum_{j=1}^n z_{ij} + Y_i &= X_i \quad ; (i = 1,2,3 \dots n) \dots \dots \dots \text{Equation 3.1}
 \end{aligned}$$

and the equation of total input according to the column is as follows:

$$\begin{aligned}
 z_{11} + z_{21} + z_{31} \dots + z_{n1} + V_1 &= X_1 \\
 z_{12} + z_{22} + z_{32} \dots + z_{n2} + V_2 &= X_2 \\
 \sum_{i=1}^n z_{ij} + V_j &= X_j \quad ; (j = 1,2,3, n) \dots \dots \dots \text{Equation 3.2}
 \end{aligned}$$

description:

- $z_{ij}$  =total output of the sector-i it is used as an input sector-j to produce an output of  $X_i$ .
- $Y_i$  = final output sector-i
- $V_j$  =input primer sector-j

In encouraging other economic sectors to produce or use products, linkages analysis of the trade sector in Surabaya can be divided into direct and indirect linkages. The sum of the two linkages is total linkage. To calculate the direct linkage using technology coefficient matrix (matrix A), while the total linkage is calculated using the inverse matrix of Leontief ((I-A)<sup>-1</sup>). Technology coefficient denoted by  $a_{ij}$ . Technology coefficient values for each cell can be calculated by the formula:

$$a_{ij} = \frac{z_{ij}}{X_j}$$

description:

$a_{ij}$  = technology coefficient of the sector-i of column j (located on line i column j)

$z_{ij}$  = use of inputs by sector-j from sector-i

$X_j$  = output sector-j

After getting the technology coefficients  $a_{ij}$ , algebraic manipulation of equation (3.1) above is  $X = AX + Y$ , where  $z_{ij} = a_{ij} \cdot X_j$ . Furthermore, the matrix notation can be simplified to:  $X = A \cdot X + Y$

$$X - (A \cdot X) = Y$$

$$X(1 - A) = Y$$

$$X = Y / (1 - A)$$

$$X = Y(1 - A)^{-1}$$

$$X = (1 - A)^{-1} Y$$

Matrix  $(1 - A)^{-1}$  is called Leontief Inverse Matrix. This matrix is a multiplier matrix reflecting the impact of the direct and indirect effects (also called total impact) of final demand changes in the trade sector of Surabaya to the total output of the economy of the city of Surabaya.

### Backward Linkages

Changes in the final demand of the trade sector in Surabaya impact on the sector to give input to the trade sector. The impact resulted in the power draw (pull) from the sectors that have linkages upstream / backward to change. That is, changes in the trade sector of the Surabaya city will attract the upstream sector to increase. The formula of direct backward linkages is  $B(d)_j = \sum_{i=1}^n a_{ij}$ , while the total backward linkages is  $B(d + i)_j = \sum_{i=1}^n \alpha_{ij}$ . Notation  $a$  is the coefficient matrix technology, while the notation  $\alpha$  is the Leontief inverse matrix ( $\alpha$ ). Backward linkage illustrates the effect of the increase in the final demand of a sector to other sectors.

### Forward Linkages

Forward linkage is formed by the total output increased trade sector output of Surabaya city through the mechanism of distribution of output in the economy of the Surabaya city. If an increase in the production output of the trade, then the additional output will be distributed to other production sectors in the economy of Surabaya city, including the trade sector itself. The formula of direct forward linkages are:  $F(d)_i = \sum_{j=1}^n a_{ij}$ , while the total forward linkage is:  $F(d + j)_{ji} = \sum_{j=1}^n \alpha_{ij}$ . Notation  $a$  is the technology coefficient matrix, while the notation  $\alpha$  is the Leontief inverse matrix ( $\alpha$ ). Forward linkage encourages the growth of the downstream sectors due to rising input provided by the upstream sector.

### SWOT Analysis Method

SWOT (Strengths-Weaknesses-Opportunities-Threats) analysis was used to evaluate four factors, namely: strengths, weaknesses, opportunities, and threats. Strengths and weaknesses are internal factors, while opportunities and threats are external factors. Identify the four components are:

External Factor	Opportunity	Threat
Internal Factor		
Strength	SO Strategy	ST Strategy
Weakness	Wo Strategy	WT Strategy

SO strategy is how the strengths of the trade sector of Surabaya able to take advantage of the opportunities that exist. WO strategy is how the trade sector of Surabaya overcome weaknesses that could potentially be prevented advantage of the opportunities that exist. ST strategy is how strenghts of trade Surabaya capable of facing threats are expected to emerge. And, WT strategy is how eliminating weaknesses of the trade sector in Surabaya city, where the vulnerability is able to make threats become real, or create a new threat to the development of the trade sector in Surabaya city.

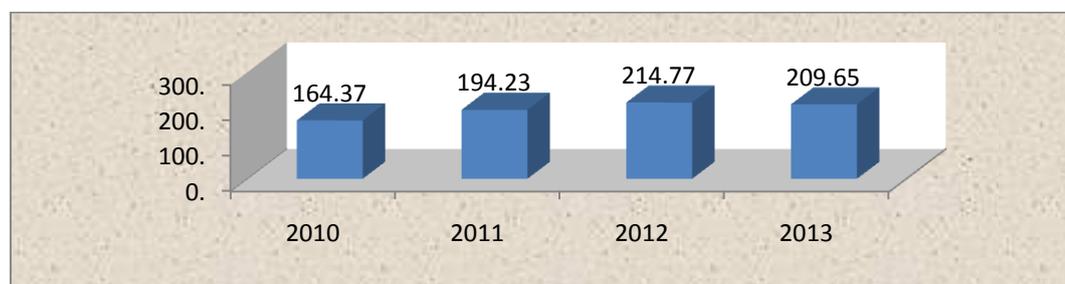
## Results and Discussions

*Performance of Trade Sector in Surabaya City*

The economic performance of the trade sector of the Surabaya city basically influenced not only by the interaction and linkages between the sector to other economic sectors in the Surabaya city, but also by economic development in East Java provincial level as well as at the national level. By sectors, the trade sector is the largest contributor to the economy of the Surabaya, which is more than 20%. This shows that the economy in the Surabaya increasingly specialized in the trade sector. Such as Ricardo opinion (in Setiono, 2002: 230) that the local government of Surabaya should establish specialization in commodities that have the greatest comparative advantage, or who have a lack of comparative smallest seed. The trade sector is a sector that has the greatest comparative advantage so that the leading sectors in the Surabaya city.

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The output value of the trade sector showed an upward trend (See Table 4.2). The trade sector in the Input-Output table of Surabaya in 2010 consists of three sub-sectors, namely: (1) a large trade, not cars, and motorcycles (IO code = 46), which accounts for the largest total output of Rp 37,054,867 million, or 9.9%, (2) retail trade, instead of cars and motorcycles Rp 25,744,231 million, and (3) trade, repair, maintenance of cars and motorcycles Rp 17,086,098 million. The conditions further strengthen the position of Surabaya as a major trading center (wholesale) in East Java and Eastern Indonesia.



Source: Input Output Table of Surabaya in 2010, processed

Figure 4.1

The Value of Output of the Trade Sector in Surabaya, Year 2010-2013 (Trillion Rp)

Table 4.1:

*The Value of Output of the Trade in Surabaya, Based on Subsector*

IO Code	Subsector	Value (Million Rp)	Contribution (%)	Ranking
46	The large trade instead of cars and motorcycles	37,054,867	9.90	1
47	The retail trade, instead of cars and motorcycles	25,744,231	6.88	3
48	Trade, repair, maintenance of cars and motorcycles	17,086,098	4.57	5
	Output of Trade Sector	79,885,196	21.35	
	Output of Surabaya City	374,218,422	100.00	

Source: Input Output Table of Surabaya in 2010.

Based on the input side, gross value added of the trade sector amounted to Rp 59,693,533 million or 28.59% of total gross value added in the economy of the Surabaya city (see Table 4.2 below). Gross value added of the large trade, instead of cars and motorcycles (IO code = 46) is the largest contributor to gross value added in the Surabaya city, which amounted to Rp 26,508,607 million or 12.70%. Gross value added is remuneration of the factors of production as a result of the production process. The amount is influenced by the value of production output and total costs of production processes.

Tabel 4.2:

*The Gross Value Added of Trade in Surabaya, Based on Subsector*

IO Code	Subsector	Value (Million Rp)	Contribution (%)	Ranking
46	The large trade instead of cars and motorcycles	26,508,607	12.70	1
47	The retail trade, instead of cars and motorcycles	20,417,032	9.78	2
48	Trade, repair, maintenance of cars and motorcycles	12,767,894	6.11	4
	Gross added value of trade	59,693,533	28.59	
	Gross added value of the economy Surabaya	208,803,458	100.00	

Source: Input Output Table of Surabaya in 2010.

Gross value added of the trade sector is formed from components: wages-salaries, operating surplus, depreciation, indirect taxes and subsidies. Gross value added of the trade sector contributed as much as 28.59% of the total gross value added of Surabaya and is the largest contributor to value added compared with other economic sectors.

Table 4.3

*Component of Gross Value Added of Trade Sector in Surabaya (Million Rp)*

IO Code	Subsector	Wages and Salary	Operating Surplus	Depreciation	Indirect Tax	Subsidies	Total NTB
46	The large trade	10,362,041	14,924,631	156,418	1,065,517	-	26,508,607
47	The retail trade	7,698,578	11,145,125	757,301	816,028	-	20,417,032
48	Trade, repair and maintenance	4,123,966	7,142,495	789,279	712,155	-	12,767,895
	NTB Perdagangan	22,184,585	33,212,251	1,702,998	2,593,700	-	59,693,534
	Kontribusi (%)	37.16	55.64	2.85	4.35	-	100.00

Source: Input Output Table of Surabaya in 2010.

The largest component of gross value added of the trade sector is operating surplus (profit) amounted to 55.64%, wage salary contributed by 37.16%, indirect taxes amounted to 4.35%, and depreciation amounted to 2.85%. The value added in the trade sector shows that trade is an alternative line of business that can generate profits (operating surplus) is relatively large. The amount of the added value of the wage salary can be used as an indicator of the magnitude of employment in the trade sector of the Surabaya city. This salary-wage rate will have an impact on purchasing power and the level of welfare of the people of Surabaya.

*Inter-Sectoral Linkages of Trade Sector*

The trade sector has great intersectoral linkages, both upstream (backward) and downstream (forward) linkages. Output from the trade sector is widely used as inputs by other sectors, while the trade sector in the production process also uses input from other economic sectors. Progress in the trade sector could affect progress in other sectors. The trade sector has forward linkages larger than the backward linkages. The forward linkages of trade sector is the construction sector, basic metal and metal goods, food industry, and the dairy processing industry. And the backward linkages of the trade sector is its own trade sector, transportation, communications, banking, food industry, and industrial processing / canning fish.

Table 4.4  
*Backward and Forward Linkages to the Trade Sector in Surabaya*

IO Code	Subsector	Index Linkages	
		Backward	Forward
46	The large trade instead of cars and motorcycles	0.8692	4.3024
47	The retail trade instead of cars and motorcycles	0.7973	3.1843
48	Trade, repair, maintenance of cars and motorcycles	0.8057	2.4277

Source: Input Output table of Surabaya in 2010.

Based on Table 4.4, the high forward linkage that indicates power spread trade sector larger than the average of other subsectors. High forward linkages also indicate that the trade sector output is widely used as an input to the production process of other economic sectors in the Surabaya city.

Backward linkages of trade sector is under one (lower). This indicates that in the production process, the trade sector is not much related to or using inputs other economic sectors located in Surabaya. Lack of backward linkages is also due to the type of production process of the trade sector which produces more final output than the intermediate output, so most of the output is generated directly consumed by final consumers and does not require further production process.

#### *Accelerating of Economic Development Strategy in the Trade Sector*

Strategy of accelerating economic development of the trade sector using SWOT analysis. The result of identification of internal and external factors in the trade sector are as follows:

Strength:	Weakness:	Opportunity:	Threat:
<ul style="list-style-type: none"> <li>• Have a comparative advantage (share large)</li> <li>• High forward linkages</li> <li>• the potential for inter-regional trade</li> <li>• ability to differentiate products</li> </ul>	<ul style="list-style-type: none"> <li>• Logistics costs are expensive due to the cost of infrastructure and superstructure in the fields of trade</li> </ul>	<ul style="list-style-type: none"> <li>• The market is increasingly broad and open, not only overseas market but also the domestic market</li> </ul>	<ul style="list-style-type: none"> <li>• Competition is increasing</li> <li>• The entry of imported goods at low prices</li> </ul>

Based on the four components of internal and external factors, then analyzed and compiled formulation of policies and strategies in the development of the trade sector in the city of Surabaya with the formulation of the strategy as follows:

External Factor	Opportunity	Threat
Internal Factor		
Strength	Increase access for export, both among regions and outside the country (international trade) through the development of infrastructure (eg ports) and ease of policies (ie licensing)	Utilizing comparative advantage into competitive advantage. For example, by lower production costs and increase value added through efficiency
Weakness	Priority on the development of infrastructure and superstructure	Developing the trade area, regional warehousing, port and access road for the smooth distribution of goods that

	in the trade sector	can reduce the cost of access / logistics, especially for inter-regional trade logistics costs, so as to improve competitiveness
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Based on the matrix of the strategy of accelerating economic development of Surabaya with the priority in the trade sector, the formulations of the strategy are:

- to prioritize the development of infrastructure, trade access, enhanced customer service and government policy in the field of trade.
- Increasing the accessibility of the central business district, regional warehousing, port and transport infrastructure for the distribution of goods so as to streamline costs and improve competitiveness in the trade sector.
- Ease of licensing and support policies that are conducive to the development of the trade sector.

#### Conclusions and Policy Implications

The conclusions from this study are:

- The performance of the trade sector showed a further increase, both in terms of input and output. The trade sector has a comparative advantage compared to other economic sectors.
- There are forward linkages to large trade sector with other sectors of the economy, while the backward linkages relatively low.
- Economic growth acceleration strategy prioritized trade sector for increased trade between region (and between islands without undermining the smooth flow of movement of goods and services abroad (international trade)

The implication of this study is the local government to build trade infrastructure to improve the accessibility to the outflow and inflow of goods (between regions and between islands), such as road transport, railways, ports and marine transport modes.

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