

## **Determinant Factors Of Small And Medium-Sized Enterprises Investments And Its Impact On Economic Growth Of South Sulawesi**

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**Abstract:** *This research attempts to show an analysis of contributions from various macroeconomic variables which assumably affect investments of Small and Medium-sized Enterprises (SMEs) and impact the economic growth of South Sulawesi. Data for this research were collected from multiple sources spread in 24 regencies/cities of South Sulawesi during the period 2010-2017.*

*There are two primary aims of this research: 1. To investigate the effects of the Human Capital Index especially the education index as well as labors, interest rate, the Indonesian Rupiah exchange rate and inflation on SMEs investments; 2. To ascertain the effects of SMEs investment, the number of labors, interest rate, the Indonesian Rupiah exchange rate and inflation on the economic growth of South Sulawesi.*

*As for the method used, this research applied a survey method with an explanatory approach. It conducted Path Analysis using AMOS V.22 software through its panel data, which is the merging of time series data and cross sections intended to examine the determinants factors of small and medium-sized enterprises investments and its impact on economic growth of South Sulawesi.*

*Further results show that there is an empirical evidence that the Human Capital Index (education index), labors, interest rate, the Indonesian Rupiah exchange rate and inflation has no significant effect on the SMEs investments in Sulawesi Selatan. Similarly, except the Indonesian Rupiah exchange rate, several factors such as SMEs investments, the number of labors, interest rate, and the Indonesian Rupiah inflation do not affect significantly on the economic growth of South Sulawesi.*

**Keywords:** *Economic Growth; the Human Capital Index (Education Index); Labors; SMEs*

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### **I. Introduction**

The past decade has seen the rapid economic growth in South Sulawesi Province which occupies a position above 2% of the National Economic Growth and even included as the top five contributors to the Gross Domestic Product in Indonesia. Nevertheless, it is still dealt with several major problems such as the high number of open unemployment where the most miserable part is the total number of unemployed which is above 50% comes from high school and bachelor graduates. Another crucial problem is the high income gap reflected from the high Gini ratio about an average of 0.40 points in the span of the past seven years.

Preliminary work on economic growth was undertaken by Sumitro (in Kompas, 1989) that it leads us to prosperity. On the contrary, if it cannot bring prosperity as increasing the number of poor people preceded by the increasing of unemployment, then it is an unfair and unqualified growth. Those are marked by injustice and uneven prosperity since the beginning of the planning.

As regards, the cause of an unqualified economic growth according to Amartya Sen, an Indian expert of world economic development (in 'The Rise of India' by Niranjana Rajadyaksa, 2007), there are several strategic sectors that should support a nation's economic growth which not managed optimally to encourage as expected where the most important part is the insignificant effort by the nation to provide economic opportunities to (the community of) Small and Medium-sized Enterprises (SMEs). Additionally, Sen as an economist and a winner of the Economics Nobel Prize, reveals that the case of unqualified growth is not only experienced by under-developed or developing countries, but in developed countries, such as in the United States, France, Britain, where uneven growth often occurred. It is added by a fact that in those developed countries, the government is more oriented to the market economy (or free market).

### **PREVIOUS RELATED STUDIES**

One study by Roberts (2003) examined the trend in public investment and interest rate which affect private investment in the United States. Similarly, Suwarsih (2004) argued that except for variables of interest rate and exchange rate, all variables have a significant effect on private investment in Indonesia. This view is

supported by Ouattara (2004) who writes that public sector investment variable has positive effect on private investment, while variables of private sector credit and terms of trade have negative effect on private investment.

In the same vein, Jongwanich & Kohpaiboon (2006) note that inflation and public investment variables have a negative impact on private investment in Thailand, while several variables of GDP growth, real cost of capital growth, funding availability, terms of trade, real exchange rate and output gap have a positive effect on private investment.

In their major study, Chibber & Wijnbergen (1988), it is said that the use of capacity and availability of credit for the private sector has a positive effect on private investment as well as the real interest, whereas government investment has a positive effect. Also, Carruth, Dickerson, & Henley (1998) propose an analysis result which indicates that economic growth and profit variables have a positive effect on capital formation, while the real interest rate and world gold price have a negative effect on the investment. In line with that, Ribeiro & Teixeira (2001) conclude that economic growth, public investment and credit for the private sector have a positive effect on private investment, while the inflation and exchange rate variables have a negative effect on it.

Likewise, Agrawal (2001) holds the view that variables of public investment, real interest rate, terms of trade, cross-border private capital inflows and exchange rate affect private investment. In addition, Seruvatu & Jayaraman (2001) point out that inflation rate has a significant negative effect on private investment. Commenting on it, Ribeiro & Teixeira (2001) remind us that inflation and the exchange rate have a negative effect on investment, whereas Acosta & Roza (2005) see inflation as a significant negative effect on private investment. As regards, variables of real GDP, credit for the private sector, and foreign debt have a significant positive effect on private investment.

As previously stated by Carruth *et al.* (1998) that real interest rate and world gold price have a negative effect on capital formation (investment), Dehn (2000) also concludes that the credit availability for private sector has a positive effect on private investment. In contrast, the domestic real interest rate and the real price of capital goods have a negative effect on private investment. As explained earlier, Seruvatu & Jayaraman (2001) identify that real interest rate, inflation rate and labor costs per unit have a significant negative effect on private investment, while the variable of exchange rate and terms of trade index affect the private investment significantly.

Musa & Hasan (2018) highlight their findings which show that the economic (earnings and work experience) and demographic (age and gender) effects are crucial for SMEs employees' working hours, while social characteristics (education) has no any significant effect. Equally important, earnings and age level show some negative effects, while education, work experience, and gender have positive effect on the optimality of working hours.

## II. Methodology

The methodological approach taken in this research is an explanatory research design with its descriptive and verification method. Data for this research is secondary data obtained from official publications issued by the Ministry of Cooperatives and SMEs of the Republic of Indonesia, *Bank Indonesia (BI)*, Central Bureau of Statistics (*BPS*), Ministry of Finance of the Republic of Indonesia, Indonesia Investment Coordinating Board (*BKPM RI*) and other related institutions. As for data period from 2010 to 2017, they are in the form of panel data, that is annual time series data and cross section data including human capital index, labors, interest rate, exchange rate, inflation rate, SMEs investments and economic growth of South Sulawesi Province.

With respect to the analytical model used for the effect of the independent variables on the dependent ones, it is conducted through the Path Analysis supported by AMOS V.22 software and using panel data for the merging of time series data and cross section data. In a detailed description, panel data is obtained from the observational results of different entities, where the variables are measured over a certain number of years. At the same time, the method used to estimate the model is the random effect model approach. This is in accordance with the amount of cross section data that is greater than time series data (Nachrowi & Usman, 2008).

**Table 1. The Operational Definitions of Variables**

No	Variable	Measurement	Symbol	Unit	Scale
1.	<i>Human Capital</i>	Using index proxy of educational attainment of the labor force from elementary school to higher education	HC	Index	Ratio
2.	Labors	Proportion of population employed (labors) in the formal sector	TK	Percentage	Ratio

3.	Interest Rate	The amount of the interest rate for SMEs investment credit at commercial banks	i	Percentage	Ratio
4.	Exchange Rate	The amount of the Rupiah real exchange rate against the prevailing US Dollar	ER	Rupiah	Ratio
5.	Inflation	The amount of inflation calculated based on the CPI	INF	Percentage	Ratio
6.	SMEs Investments	The amount of the total value of SMEs investment realization in the province of South Sulawesi	SMEs	Rupiah	Ratio
7.	Economic Growth	The amount of the GRDP growth value in the province of South Sulawesi	GRT	Percentage	Ratio

### III. Results

**Table 2. The Results of Causality Test on Macroeconomic Indicators in South Sulawesi for Periods from 2010-2017**

Causality Among Variables		Estimation	S.E.	C.R.	P	Label
SMEs Investments	< Education Index	-2591,1260	5779,8960	-0,4483	0,654	Insignificant
	< A Number of Labors	-1430,3100	5312,8300	-0,2692	0,788	Insignificant
	< Reference Interest Rate	3147192,5000	16484002,0120	0,1909	0,849	Insignificant
	< Exchange Rate	191,3430	99,9120	1,9151	0,055	Insignificant
	< Local Inflation	-33745,8230	24160,2400	-1,3968	0,162	Insignificant
Regional Economic Growth	< Education Index	0,1900	0,8090	0,2349	0,814	Insignificant
	< Reference Interest Rate	3129,9980	2510,7180	1,2467	0,213	Insignificant
	< Exchange Rate	-0,1250	0,0150	-8,3333	***	Significant
	< Local Inflation	4,1510	3,6980	1,1225	0,262	Insignificant
	< SMEs Investments	0,0000	0,0000	0,8660	0,387	Insignificant

Source: AMOS V.18 output reports of the secondary data

Data interpretation of respective path coefficient referring to the previous table of the research results are elaborated as follows:

1. Education index shows negative result and has no effect on SMEs investments. This can be seen from the path coefficient of -2591,1260 with a value of C.R. equal to -0.44483 and obtains a significant probability of 0.654. This probability value is greater than the significance level ( $\alpha$ ) determined at 0.05;
2. The number of labors shows negative result and has no effect on SMEs investments. This is referred to the path coefficient of -1430.3100 with a value of C.R. equal to -0.2692 and obtains significant probability of 0.788. This probability value is greater than the significance level ( $\alpha$ ) determined at 0.05;
3. Reference interest rate shows positive result and has no effect on SMEs investments. This can be seen from the path coefficient of 3147192,5000 with a value of C.R. equal to 0.1909 and obtains a significant probability of 0.849. This probability value is greater than the significance level ( $\alpha$ ) determined at 0.05;
4. Exchange rate shows positive result and has no effect on SMEs investments. This can be seen from the path coefficient of 191.3430 with a value of C.R. of 1,9151 which obtains a significant probability of 0, 0.0550.1909. This probability value is greater than the significance level ( $\alpha$ ) determined at 0.05;
5. Local inflation shows negative result and has no effect on SMEs investments. This can be seen from the path coefficient of -33745.8230 with a value of C.R. equal to -1.3968 and obtains a significant probability of 0.162. This probability value is greater than the significance level ( $\alpha$ ) determined at 0.05;
6. The number of labors shows positive result and has no effect on regional economic growth. This can be seen from the path coefficient of 0.1900 with a value of C.R. equal to 0.2349 and obtains a significant probability of 0.814. This probability value is greater than the significance level ( $\alpha$ ) determined at 0.05;
7. Reference interest rate shows positive result and has no effect on regional economic growth. This can be seen from the path coefficient of 3129.9980 with the value of C.R. equal to 1.2467 and obtains a significant probability of 0.213. This probability value is greater than the significance level ( $\alpha$ ) determined at 0.05;
8. Exchange rate shows negative result and has an effect on regional economic growth. This can be seen from the path coefficient of -0.1250 with a value of C.R. equal to 0.0150 and obtains a significant probability of 0,000. This probability value is smaller than the significance level ( $\alpha$ ) determined at 0.05;
9. Local inflation shows positive result and has no effect on regional economic growth. This can be seen from the path coefficient of 4.151 with a value of C.R. equal to 1.1225 and obtains a significant probability of 0.262. This probability value is greater than the significance level ( $\alpha$ ) determined at 0.05;
10. SMEs investments show positive result and has no effect on regional economic growth. This can be seen from the path coefficient of 0,000 with a value of C.R. equal to 0.866 and obtains a significant probability of 0.387. This probability value is greater than the significance level ( $\alpha$ ) determined at 0.05.

#### **IV. Discussion**

In particular, education index has no effect on SMEs investments because it is a general education and there are only few which categorized as entrepreneurship education. Also, the number of labors has no effect on the investments because they are commonly educated not to become small and medium entrepreneurs, but as a workforce that will be absorbed by investors in industrial companies. In line with that, interest rate does not affect SMEs investments because not all sectors connected to banking services. Most of them even start businesses with intra-family loan, or get helps from fellow colleagues. With a view to exchange rate, it affects SMEs investments because oftentimes changes in exchange rate only have an effect on market prices and sales value, especially when using imported raw materials. As a matter of fact, the investments are generally oriented to the absorption of local raw materials. On the other hand, local inflation has no effect towards SMEs investments because changes in inflation only have an impact on selling prices of SMEs products.

As far as it is concerned, the number of labors does not affect regional economic growth due to their main expertise which is irrelevant to most of investments developed in South Sulawesi, especially in mining, fisheries, chemical industry and marine. It is similar to the interest rate which has no effect on regional economic growth because it is highly dependent on agricultural products, plantations, forestry, and fisheries. Though exchange rate affects regional economic growth because its changes has an impact on exporters, mainly exports of cocoa, shrimp, fish, debt yield, and local handicrafts. Furthermore, SMEs investments have no effect on regional economic growth due to a high reliance on agricultural products, plantations, forestry, and fisheries.

#### **V. Conclusion**

Education index, total labors, interest rate, exchange rate and local inflation have no effect on SMEs investments; Total labors, interest rate and SMEs investments have no effect on regional economic growth; Exchange rate affects regional economic growth due to its changes with an impact on exporters, which mainly of them are exports of cocoa, shrimp, fish, debt yield, and local handicrafts; To achieve quality economic growth, higher educations and its alumni must be the pioneers of economic growth. That is why at least 10 percent of college alumni is expected to be able to create jobs and employment opportunities.

#### **VI. Suggestions**

1. Education index can increase SMEs investments and enhance regional economic growth by developing human resources in the form of expertise development, especially entrepreneurship education, so that their competence can be absorbed in the industrial sector, and become a more independent actor in SMEs;
2. The number of labors can increase SMEs investments and regional economic growth by increasing the amount of production as well as the frequency of labors' or workforce's placement which match their competence;
3. Interest rate can increase SMEs investments and enhance regional economic growth by increasing sales volume, especially export-oriented sales;
4. Exchange rate can increase SMEs investments and regional economic growth as long as it is under control which is marked by lower inflation risks and falling imports;
5. Local inflation can increase SMEs investments and regional economic growth with one condition that inflation and its causes can be controlled, specifically low domestic investment and production;
6. SMEs investments can increase regional economic growth as long as the investments can absorb labor growth and be oriented on export products.

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