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"Entrepreneurship on Global Economics Development in the Era of Society 5.0"

Factors Analysis of Regional Superior Agricultural Product Development**Delyana R Pulungan^{1*}, Remus Hasiholan², Murdhiyati Hilma Purba², Dina Arfianti Saragih¹**¹Institut Teknologi Sawit Indonesia
Jl. Williem Iskandar, Medan, Indonesia²Universitas Sumatera Utara***Email:** delpulungan@itsi.ac.id**ABSTRACT**

This study purposes to develop a measurement instrument for the regional superior agricultural product development program of Deli Serdang. This research population is the target population of Deli Serdang MSMEs who produce cassava. The sample was randomly selected 300 MSMEs. The study method using confirmatory factor analysis by Amos. The data collection technique was a questionnaire. Study results was using the maximum likelihood method showed that the validity and reliability instruments met the ideal loading factor value > 0.5 and a significant value of p (0.000). The model built also meets the fit criteria based on the Goodness of Fit Model Standard. All instruments are presented to build and measure the superior cassava product development program by Deli Serdang MSMEs. This superior product development program comprises (1) economic contribution has a significant effects with estimate value 0,773 (2) social aspects has a significant effects with estimate value 0,797 (3) cultural aspects has a significant effects with estimate value 0,986 and (4) institutional has a significant effects with estimate value 0,884. Cultural has the biggest effect on product development of regional superior agricultural. This result means that all instruments have proven construct validity.

Keywords: Analysis, Regional superior agricultural product, Development

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INTRODUCTION

Leading commodities in the regional economy determine the economic growth of the region as a whole, in addition to those originating from the commodity in question as well as other related sectors. The greater the activities of this sector in the region, the greater the flow of income into the region thereby increasing the demand for goods and services from the results of this sector and other sectors, which in turn, this demand will increase the volume of activity in other sectors, which in turn will simultaneously increase regional income. One of the strategies that can be used in regional economic development through the agricultural sector in the current era of regional autonomy is through the development of regional superior commodities. (Arsyad, Satriawan, Mulyo, & Fitradhy, 2011)

Deli Serdang Regency is one of the largest regencies in North Sumatra Province with the capital of Deli Serdang Regency in Lubuk Pakam, known as one district that has a large diversity of natural resources with promising investment opportunities. Major commodities in Deli Serdang Regency are Food Agriculture, Smallholder Plantation, Large Plantation, Marine Fisheries, Aquaculture, Poultry Farming and Tourism. For the Food Crops sub-sector, cassava is one of the major commodities in Deli Serdang Regency (Purwono dan Purnamawati, 2009). Cassava is one of the carbohydrate-producing crops and ranks the 3rd largest carbohydrate provider in Indonesia, after rice and corn. But the development of the quality of MSMEs is still not optimal because they still face classic problems such as low productivity of business actors (Tambunan, 2002). There are several production and market problems that do not support the sale of processed cassava products in Deli Serdang. This productivity problem is related to the low quality of the workforce (human resources), competence of business actors in entrepreneurship, limited capital, limited information, technology and other production factors.

Deli Serdang Regency is great potential regency to develop cassava farming in North Sumatra Province. Deli Serdang Regency is also one region that is preparing itself to carry out regional development to improve the level of welfare. One method used by the government is to develop areas based on Deli Serdang's superior commodities, which involve the role of Deli Serdang MSMEs. The target is to manage the development of mainstay areas to increase the competitiveness of the area and its superior products.

Although from the available supporting factors such as infrastructure, the level of productivity of cassava, availability of land and mastery of technology for farmers, the great prospect of cassava cultivation and Agro-industry could not increase the income of farmers and Agro-industry entrepreneurs or cassava MSMEs. Therefore, it takes various efforts from all relevant stakeholders to encourage the cassava Agro-industry development which will increase the income of the population and regional income.

MSMEs empowerment by the Regional Government is superior commodities use, which by definition are the mainstay commodities of an area that have the potential to be developed and have profitable market potential. Even superior commodities can be a source of income for farmers / entrepreneurs who support regional economic movements (Antara, Satriawan, Sukaatmaja, Rimbawan, & Tuningrat, 2011). Sukesti & Iriyanto (2011) also state that the development of superior commodities and the development of MSMEs are effective strategies for developing regional economies

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Therefore, an accurate measurement instrument is needed as a predictor to build a variable of superior product development for the superior commodity of cassava in Deli Serdang so that developing this superior product can achieve the desired target, specifically an increase in the income of Deli Serdang MSMEs. In order to develop this superior product successfully, it requires measuring tools that are precise and meet the requirements, specifically the correctness of the construct validity and reliability. This validity test relates to the group being measured because it will only apply to the group being tested or can apply to other groups but with the same conditions and characteristics (Suryabrata, 1984).

The testing model that is comprehensive in testing the validity of the constructs in this study used is confirmatory factor analysis. This analysis is used with a structural equation model which is simply done by correlating the item scores with the total scores for test kits that have been tested first. (Ferdinand, 2006).

METHOD

The research sample was 300 MSMEs Deli Serdang, which developed superior cassava products. This type of study is research and development to determine the measurement instrument for the variable development of superior cassava products in Deli Serdang. Measurement of variables aims to get the validity and reliability of indicators that measure or develop variables for superior product development of cassava. I collected data using a questionnaire. The data analysis technique is the confirmatory factor analysis (CFA) test with a simple method of construct validity by (1) discussing confirmatory factor analysis as part of the structural equation model to test the construct validity of superior product development (2) testing the construct validity with the equation model structural using empirical test data on superior product development variables. The analysis tool is AMOS software.

RESULT AND DISCUSSION

Validity Test

Validity testing uses the product-moment correlation technique by correlating the score of each item with the total score. Valid or invalid criteria is if the correlation r is less than the value of r table with a significance level of $\geq 5\%$, it means that the question item is invalid.

I carry the validity test out on all construct items that represent the superior product development variables.

Table 1. Validity Test of the Leading Commodity Development Factors Variable

Variable	r-count	Sig-2 tailed	Information
Y1.1 Item1	.647**	0.000	Valid
Y1.2 Item2	.671**	0.000	Valid
Y1.3 Item3	.991**	0.000	Valid
Y1.4 Item4	.930**	0.000	Valid

Source: Data Processed (2020)

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Based on Table 1. above, 4 question items from the variable of superior commodity development are stated valid because the Sig-2 tailed value < 0.05 , then next test will use all questions for these variables.

Reability Test

The results of the reliability test also show that the items on the superior product development variable are reliable to represent the measurement instrument for the superior product development variable. It is known because the value of the Sig-2 tailed (0.000) < 0.05 .

CFA Test Result (Confirmatory Factor Analysis)

This study tested the measurement instruments of the superior product development variables perform by Deli Serdang MSMEs. This measurement comprises factors (1) economic contribution (2) social aspects (3) cultural aspects (4) institutional.

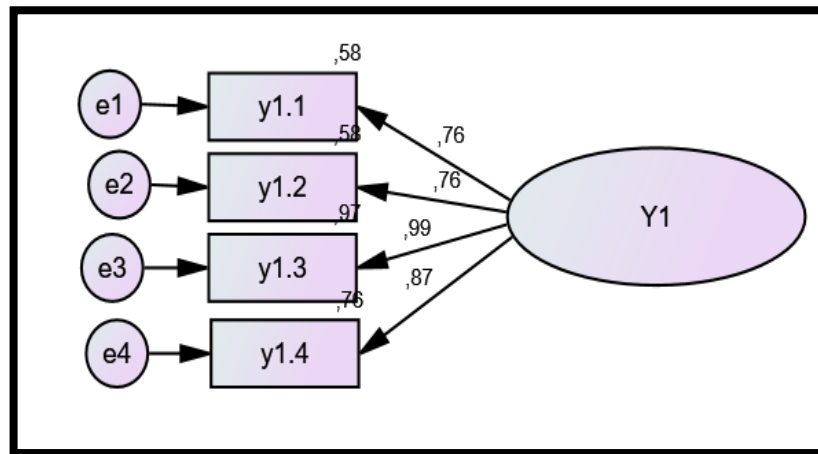


Figure 1. Superior Commodity Development CFA Test

Figure 1 shows that superior products development is measured by several factors, including (1) economic contribution (y1), (2) social aspects (y2) (3) cultural aspects (y3) (4) institutional (y4). This research model is then tested for the suitability of the model, so the model is fit with the Goodness of Fit Index model in Table 2.:

Table 2. Goodness of Fit Index

Goodness of Fit Index	Cut-Off Value	Analysis Results	Evaluation Model
χ^2 - Chi-square	expected to be small	52,345	Fit
probability	≥ 0.05	0,025	Fit
RMSEA	≤ 0.08	0,050	Fit
GFI	≥ 0.90	0,955	Fit
AGFI	≥ 0.90	0,920	Fit
TLI	≥ 0.90	0,955	Fit
CFI	≥ 0.90	0,972	Fit

Source: Data Processed (2020)

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The data presents in Table 2. The superior product development model has the appropriate measuring instrument so that the model formed shows conformity with the goodness-of-fit index. All factors that used as a predictor instrument for superior product development are stated as fit models, the factors raised are capable of measuring the variable development of superior cassava products in Deli Serdang.

Testing this instrument does not end here, the next step is to test the significance of each relationship between the factors that are a predictor instrument with the superior product development variables. This significance relationship is shown in the following results of the regression weight test:

Table 3. Result of Regression Weight Test for Superior Commodity Development

		Estimate	P	Outcome
Economic contribution	→ Superior product development	,773	***	significant
Social Aspect	→ Superior product development	,797	***	significant
Culture Aspect	→ Superior product development	,986	***	significant
Institutional	→ Superior product development	,884	***	significant

Source: Data Processed (2020)

The results of the confirmatory test show that all predictor instruments that build the superior commodity development variable for cassava in Deli Serdang have an estimated value that meets the loading factor value > 0.30 . All the factors that become benchmarks for superior products development for the development of cassava as Deli Serdang's superior product are structurally effective because they meet the requirements for the loading factor value.

DISCUSSION

Analysis results using the confirmatory factor analysis technique show that all the factors that build and measure the variable of Deli Serdang's superior product development meet the loading factor values which are the construct validity value. Economic contribution factors, social aspects, cultural and institutional aspects can be a predictor instrument that builds superior products development in Deli Serdang, which then uses as a strategy for increasing the income of Deli Serdang MSMEs. The increase in the income of Deli Serdang MSMEs will certainly support the improvement of Deli Serdang's economy

The cultural aspect is the factor that has the greatest influence on developing superior cassava products in Deli Serdang. Cassava as a superior product which is part of Deli Serdang's superior commodity has become a daily part of the life and is the pride of the people of Deli Serdang. Local economic development is one strategy for overcoming poverty and overcoming regional inequality. This local economic development strategy is based on the characteristics of the local economy belonging to the region in which maximumly uses

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regional resources (Fauzi, Mulyadi, Santoso, & Kustini, 2019). This economic development must be based on superior regional products.

The selection of regional potential as a superior product of cassava is expected to encourage MSME players to be more actively involved in the agricultural product processing industry (Agro-industry) which can introduce Deli Serdang further outside the Deli Serdang area through its typical cassava food. At the same time this industrial development process that uses superior products will help develop the local economy, there is a process for the public, business and community sectors working together to create better conditions for economic growth and job creation (Sovacool, Walter, Graaf, & Andrews, 2016).

This superior product development must provide an economic contribution to the region, with the development of MSMEs that use local culture and wisdom, the potential of the region based on good commitment and coordination between local governments, entrepreneurs and non-business institutions and local communities with positive and real support towards the development of human resources (training), technology, information, access to funding, assistance with access to marketing, access to capital must be fulfilled (Sukesti & Iriyanto, 2011).

Kusdiana & Gunardi, (2014) in their research stated that superior commodities development is the addition of added value and high selling value to their processed products, which requires a strategic role in the production process that involves the role of capital, infrastructure, technology, human resources as labor, raw materials and additives. Then there is the availability of a market that is under consumer demand so that the product can be accepted, the existence of a potential market that makes products with high selling value will make the sales of processed products in large numbers and will increase the income of MSMEs in Deli Serdang Regency.

In line with Sukesti & Iriyanto, (2011) states that one of the MSMEs development strategies is to carry out a strategy on the aspect of market access, namely carrying out market innovations through related agencies, promotion through e-commerce, improving product quality for exports so that they can compete with the international market, diversify products that can fulfill existing potential market niches, participate in exhibitions involving government support and develop business networks. The development of MSMEs is of course accompanied by the income of MSME actors which will support increasing regional economic income, especially the Deli Serdang area. In line with Susilowati, (2020) that one that supports the development of MSMEs that develop regional superior commodities is market availability (market access or product distribution) so that there is an increase in sales that will support regional income and the economy. The common problems faced by MSMEs are (1) marketing (2) capital (3) innovation and technology (4) use of raw materials (5) means of production (6) absorption and utilization of labor (7) business development plan (8) readiness to face external environmental challenges. It can be seen that the development of MSMEs is certainly the income earned and the marketing factor is a factor that is a problem for MSME actors to market their products. When marketing is done correctly, it will increase sales and income for entrepreneurs

Regional superior products are the special focus of local governments by issuing the Minister of Home Affairs Regulation (Permendagri) Number 9 of 2014 concerning Regional Superior Product Development. The formation of superior products of MSMEs in the Agro-

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industry sector contributes to regional economic development and growth (Fasyah, Daryanto, & Suprayitno, 2016).

Superior products development can increase competitiveness by developing the local economy. Local or localization connotes a limited area, where the use of various natural, human, social, physical, technological and institutional resources can be increased more intensively and interactively to increase local economic activities and a more prosperous level of life for local communities (Pramono, 2016).

The cultural aspect has become a hereditary habit of the development or cultivation of certain products that have become cultural cultures, which greatly determine the development progress of superior product development. This is in line with the conclusions presented by Sukesti & Iriyanto (2011) that product development through SME development must be carried out under the local culture and potential of the region concerned and based on good commitment and coordination between local governments, business people and non-business organizations and local communities by providing positive and tangible support human resources, technology, information, access to funding and marketing assistance development. The existence of the creative industry, where there are often differences in understanding of cultural products and creative products, will determine creativity for goods and services. The concept of cultural products here is articulated as a cultural representation that exists and accepted in society, it can also be a cultural product that has values according to its society.

Institutions as an important part for superior products development from the role of the government as an authorized institution as a catalyst, stimulator and regulator which is no less important in producing superior product development. The ability to use existing resources to design and develop the regional economy with an emphasis on development policies based on the specificities of the region concerned by using the potential of human resources, natural resources, financial resources and even institutional resources.

Identification of superior products in the regions cannot be separated from the concern of elites in the regions. This means that regional elites need to determine the direction of regional economic policy in the regions. The choice of local economic development strategy application is crucial to economic decentralization and regional autonomy. Regional autonomy also impacts regions to develop their ability to manage the production, allocation and distribution of several resources into a superior local product that is competitive locally, regionally and internationally. The program is part of a regional development strategy based on the concept of regional economic development (Duncan, 2017); (Feldman, 2014). Cassava as an agricultural product is quite a lot in Deli Serdang, making cassava the government's choice as a superior product for Deli Serdang.

One strategy that can be used in regional economic development through the agricultural sector in the current regional autonomy era is through regional superior commodities development. We expect regional development based on superior commodities to spur the growth of an area which can increase people's income. Utilization of the potential of superior and potential areas in an optimal and integrated manner is a requirement that needs to be considered so that they can achieve the welfare and prosperity of the community (Arsyad et al., 2011).

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CONCLUSION

Based on confirmatory factor analysis results, (1) economic contribution (2) social aspects (3) cultural aspects and (4) institutional aspects proved the validity of the construct as a predictor and measuring instrument for superior product development variables for superior commodity cassava Deli Serdang. This means that all factors are accepted as factors that build and support the successful development of superior products for Deli Serdang cassava, which will help increase the income of Deli Serdang MSMEs in particular and support the economic development of the Deli Serdang area.

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