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**Article**

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# Determinants of Export Performance of Indonesian Coconut Companies

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*This research aims to identify several influential factors on export performance of superior coconut commodity in North Sulawesi Province, especially when it relates to the pricing strategy, firm characteristics, and export strategy during 2016-2017. The research is included into a descriptive and explanatory research that exerts quantitative approaches. The data are collected via questionnaire which was sent to nineteen export companies of superior coconut commodity in North Sulawesi. To analyze the data, this research uses the regression technique of data panel engaging Random Effect Model (REM) approach. The results of research show that: 1) The pricing strategy positively and significantly influences the export performance; 2) The firm characteristics positively and significantly influence the export performance; 3) The export strategy positively and significantly influences the export performance. From the identified variables in the research, the firm characteristics have a significant role in improving the export performance of the firm.*

***Keywords:*** *Export Performance, Pricing Strategy, Firm Characteristics, Panel Data*

***JEL Classification:*** *M19, M31, F10, C33*

## 1. Introduction

In this era of globalization, the business competition is intensifying and becoming more complex. The competition starts from the local and then moves to global business or international commerce. One of the global business activities is export. Export means an activity of manufacturing and sending the product or service from domestic markets to overseas, with the purpose to receive exchange payment. Actually, the purpose of the export activity is to improve the development and continuity of domestic economics, which will then impact to the citizen welfare (Stamate, 2014). Export performance is defined as a level of firm goal, from an economical and a strategical standpoint, by exporting the manufactured product to overseas markets. To enhance the export performance, the head of firm ought to have capability to produce a good and optimal sales performance. This goal is perceived by competitive pricing, firm characteristics, and strategy decision of making viable exports (Calantone et al., 2006; Maurel, 2009).

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Competitive pricing is an exact strategy within the business field in order to persistently survive in the more competitive situations. This is particularly the case as the pricing factor intensely relates to the level of market demand. If the product has a high cost, the market will hardly accept it, and then the product sales will also decrease. However, the product with a low price will reduce the firm income. Therefore, the competitive pricing strategy is very significant in improving the export sales performance. Moreover, this strategy is also able to maintain the image of firm and bring the firm into one of export companies which highlight the quality in the market (Chacholiades, 1978). In the context of a firm capability, firm characteristics are regarded as significant point in advancing the export value. The bigger the firm is, the higher the enthusiasm of firm will be to improve high export performance and better export activity. The higher the export activities are, the higher the ability of the firm to persistently improve the export performance will be. (Thirkell, 1998; Grandinetti and Mason, 2012).

Export strategy is included into additional factors to influence the export value. The export strategy analyzes the products which are going to be exported and the export companies which are going to be cooperated with. The fact that the export strategy is able to influence the export value is proven by the idea of Maurel (2009) which asserted that, theoretically, the determinant factor of export performance could be divided into internal, external, and determinant factors of strategy.

Several export commodities of finished goods and fabricating material goods of Indonesia have been familiar in foreign countries such as furniture, textile, craft, plantation crop, and some food products. Particularly, for the commodity of plantation crop, precisely of coconut, North Sulawesi successfully reaches the selling market in foreign countries and then it commonly turns into a superior commodity of North Sulawesi all at once. The province of North Sulawesi is a province in Indonesia which is directly abutted on Philippines that participates in the exporting activity. According to the data of Ministry of Commerce of Republic Indonesia, North Sulawesi has contributed a great economic value of Indonesia's export proportion. As noted in 2015, the export total of North Sulawesi has reached US$807.531.067. In 2016, this figure improved to US$849.129.137. However, in November 2017, the export value of North Sulawesi decreased by 4.88%, compared to the similar period of November 2016, and the export value would only reach US$728.592.984.

One of superior plantation crops in North Sulawesi is the coconut plant. According to the Directorate General of Plantation, in 2016, the landmass of coconut plantation area in North Sulawesi reached 276.693 hectare (Ha). Comparing to the other provinces in Indonesia, North Sulawesi is on the third rank after Province of Riau, which reached 515,145 hectare (Ha), and Province of East Java, which reached 286,673 hectare (Ha). Therefore, it indicates that the commodity of coconut plant becomes one of superior export commodity of North Sulawesi. One of processed food of coconut which has contributed in improving the economics of North Sulawesi is coconut oil or crude coconut oil (CCO). From the previous years, this superior commodity takes the highest position of export produced by North Sulawesi.

Moreover, the other products like coconut flour, copra, copra residue, shell carbon are also superior export products based in North Sulawesi which have a great prospect of export. From this, the commodity of coconut is admitted as one of superior export products in North Sulawesi. According to Department of Industry and Commerce of North Sulawesi, realization of export commodity value of coconut in North Sulawesi has persistently fluctuated. In 2013, the volume of export of North Sulawesi achieved 285,236,428 kilograms with an approximate value of 220.629.470 US$. In 2014, the export volume has decreased by only reaching 274,256,391 kilograms. But, the export value was increased more than the export value in 2013, to 331,063,142 US$. So, in 2015, the export volume and value of North Sulawesi has experienced a significant improvement, which reached 597,925,256 kilogram at a value of 555,674,692 (US$). From here, the export performance has fluctuated persistently year by year. To identify the causal factor of this export volume and value fluctuation, a study needs to clarify the factors that might cause the fluctuation in export performance of superior commodity of coconut in the Province of North Sulawesi. In particular, this research aims to observe the effect of competitive price, firm characteristics, and export strategy.

## 2. Theoretical Framework

### 2.1. Export Performance

Export performance is identified as a result or output of firm activity in export sector. This export activity consists of how the firm makes the effort to sell the product in overseas markets, how to adjust the product, and how to determine the price of product in international markets (Calantone et al., 2006). In this research, the export performance is measured from the total export value of firm in every year. The export value is the value of the product or service which is being exported. In this export activity, the firm will receive compensation in the form of foreign exchange. The value of export commodity of coconut in Province of North

Sulawesi clarifies a value derived from the bargaining of superior commodity of coconut in North Sulawesi to the international markets.

### 2.2. Strategy of Pricing

Price is one of main factors which is significant for the firm's advancement because this price determination, the firm is able to estimate the profit. The price of the product cannot be apart from a variety of pricing method. Commonly, there are three methods in price determination, are: 1) Cost Oriented Pricing: to determine the price of the product according to the expenses during the product manufacturing; 2) Demand Oriented Pricing: to determine the price according to the total of competitor's demand and situations in international markets. The higher the demand is, then the higher the price would be; 3) Competition Oriented Pricing: to determine the price according to the competitor's price. This method aims to adjust its own price not to be higher than the competitor's one (Chacholiades, 1978). The strategy of Competition Oriented Pricing or strategy of competitive pricing is chosen as a strategy to determine the price in this research. This competitive pricing is supposed to be one of the factors that could influence the export performance which then impacts on the decrease of export value. Besides the product quality, pricing is the one thing to be well considered by the consumer when deciding to purchase the product. In the hope that the business will improve and advance and be able to compete with other foreign companies (Lee and Griffith, 2002). More formally stated:

*H1: Pricing strategy is positively influential and significant to the export performance.*

### 2.3. Characteristics of the Firm

Characteristics of the firm are specific features owned by a firm. It includes the capability and disability of firm, the total of capital, and the total or situation of firm resources (Zou and Stan, 1998). One highlight point is the comparative superiority of a firm that could be determined by the attributes that are found within firm. If the situation of those attributes is in good, then it will automatically bring the comparative superiority of the firm. The variable of firm characteristics refers to the research done by Stoian et al. (2011) and Myers et al., (2002) who have analyzed the characteristics of a firm from the firm size, exporting experience, and commitment on the investment. More formally stated:

*H2: Firm characteristics are positively influential and significant to the export performance*

### 2.4. Strategy of Export

Recently, export activity becomes another alternative from various business strategy applied by the businessmen. Not only to is it important to introduce the comparative superiority of firm, but also to advance the continuity and growth of firm performance. Therefore, the selection of good strategy of export is significantly regarded as an effective sales strategy. If the taken strategy is appropriate, it will automatically impact to the export performance of the firm. Based on Maurel (2009) and Lee and Griffith (2004), a single factor could influence the export performance, which is a strategy of export. Some components of export strategy has been discussed in the existed literatures, but only could be classified in the area of export products and partners. More formally stated:

*H3: Export strategy is positively influential and significant to the export performance*

## 3. Methodology

### 3.1. Population and Sample

The population of this research is taken from the head of companies of all coconut export companies in North Sulawesi, approximately nineteen companies. This research uses the period of research from 2016 to 2017. Since, the examined population is restricted, all population are taken to be examined as this research objective. The total of sample is the total of cross sectional (19) x the total of time series (2) = 38 total of sample. Then, the analysis technique exerted in this research is the technique of data panel (data pooling).

***Table 1.*** *Research Sample*

| No. | Firm | No. | Firm | No. | Firm | No. | Firm |
|---|---|---|---|---|---|---|---|
| 1 | PT. Agro Makmur Raya | 6 | PT. Tropica Cocoprima | 11 | CV. Indo Damai | 16 | PT. Global Coconut |
| 2 | CV. Kelapa | 7 | PT. Cargill Indonesia | 12 | PT. Dimembe Nyiur Melambai (DNA) | 17 | PT. Tina Coconut (Poleko) |
| 3 | CV. Puri Bitung Gemilang | 8 | PT. Royal Coconut | 13 | PT. Dwipa Mitra Organik | 18 | PT. Janur Kawanua Indonesia |
| 4 | CV. Gunung Intan Permata | 9 | PT. Putra Karangetang | 14 | CV. Anak Mas | 19 | PT. Tritis Internasional |
| 5 | PT. Mapalus Makawanua C. Industry | 10 | PT. Mustika Cocominaesa | 15 | PT. Melati Minsel Makmur | | |

*Source*: Department of Industry and Commerce of North Sulawesi, 2017

### 3.2. Research Instrument and Item Measurement

The data collection of the data based on the questionnaire as to send the survey to the head of firm, comprising of a number of written questions to obtain the needed information from the respondents. The total number of instrument items depends on the total of research variables which have been developed as indicators. The scale of this data collection is via Likert scales with the values from 1 up to 5. So, each indicator will be useful for making questions in the questionnaire given to the respondents. Here, the researchers tried to apply some items from previous tested researches. This research applies a dependent variable and two independent variables, which are presented in Table 2.

***Table 2.*** *Research Instrument*

| Variable | Indicator | Definition | Items Number |
|---|---|---|---|
| Competitive Pricing ($x_1$) | - Technology orientation<br>- Competitiveness of export markets | The technique of pricing is based on competitors' price and adaptation of international pricing policies. This method is established in order to avoid determination of higher prices than the competitors' price (Lee and Griffith, 2004; Katsikeas and Theodosiou, 2001). | 1-9 |
| Firm Characteristics ($x_2$) | - Exporting experience<br>- Firm size<br>- Commitment on the investment | Characteristics of the firm would be different from the other firm according to Stoian et al. (2011), Myers et al. (2002). | 10-18 |
| Export Strategy ($x_3$) | - Exporting product<br>- Exporting partner | Strategy of export analyzes the exporting product and partners. This export strategy is relevant to construct a continuous competitive superiority (Maurel, 2009; Lee and Griffith, 2004). | 19-25 |
| Export Performance (y) | - Sales volume<br>- Export Value | How far the firm target in both economically and strategically relates to the product export in foreign market, this could be achieved by planning and realization of export strategy according to Calantone et al., (2006), Maurel (2009). | 26-32 |

*Source:* Secondary Data, Processed by the researchers, 2017

### 3.3. Technique of Data Analysis

The instrument of data analysis in this research is the model of regression analysis of data panel, which was analyzed using the statistics programs Eviews 10.0 and Microsoft Office. Data panel is the data owns number of cross section and number of time series. In this research, the data of cross section is based on executives from nineteen companies of superior commodity export of coconut in North Sulawesi Province, meanwhile the data of time series is two years of research period from 2016 to 2017.

This research applies data panel of balance. Since, the cross-sectional unit and time-series total observation is the same. There are three approaches used frequently in the analysis of a data panel model, namely Common Effect Model (CE), Fixed Effect Model (FE), and Random Effect Model (RE). To identify which model is suitable for the research, the researchers execute a few tests, namely Chow Test (to determine which one from the CE or FE model is relevant) and Hausman test (to select the more proper model from the FE or RE model) (Gujarati and Porter, 2009).

In the process of testing, the researchers use Eviews 10.0 software. If the p-Value < a, then we reject the H0 value and accept the value H1. And, if the p-Value > a, then we accept the value associate with H0 and reject the value of H1. The hypotheses in this Chow test are:

*H0: CE Model* *H1: FE Model*

***Table 3.*** *Chow Test* - Redundant Fixed Effects Tests

| Effects Test | Statistic | d.f. | Prob. |
|---|---|---|---|
| Cross-section F | 1.454114 | (18,16) | 0.2282 |
| **Cross-section Chi-square** | 36.830225 | 18 | 0.0055 |

According to table 3, the calculation results of Chow Test, from Eviews 10.0, on the cross-section line of Chi-square, Prob column, the value is 0.005. This result indicates that the Probability value Cross section Chi-square < 0.05, then based on the Chow Test we select the FE model. Since, FE model is selected in the step of Chow Test, then the next step is to execute the Hausman Test. This Hausman Test is conducted to help decide which model from FE and RE will be a more relevant model for the research. If the Hausman statistics is greater than the Chi-square statistic, then this means that the reject the H0 value and we select model RE, and vice versa. In the process of this test, the researchers use Eviews 10.0, and conclude that if the P-Value < a then reject the H0 value and accept the H1 value. Otherwise, if P-Value > a, then we accept the H0 value and reject the H1 value. The hypotheses of this Hausman Test are:

*H0: RE Model* *H1: FE Model*

***Table 4.*** *Hausman Test* - Correlated Random Effects

| Test Summary | Chi-Sq. Statistic | Chi-Sq. d.f. | Prob. |
|---|---|---|---|
| Cross-section random | 2.513783 | 3 | **0.4728** |

According to the calculation results exerting from the Hausman Test, the result is Prob value is 0.4728 which means a greater value than the significance standard of 5% as 0.4728 > 0.05. Therefore, we accept the H0 value and reject theH1 value, and the selected model is based on a Random Effect Model (REM).

## 4. Analysis and Results

### 4.1. Descriptive Analysis

This research analysis aims to obtain an image of the research's executive respondents, especially as it relates to the variables of pricing strategy, firm characteristics, export strategy and export performance. This research analysis is executed by applying an index analysis, with the purpose to identify the respondent responses upon the questionnaire items. According to the lowest value and highest value obtained from the questionnaire result, number 1 is used to describe the minimal value, whereas 5 describes the maximum. Then, from these values, the researchers determine the interval distances, from the highest value minus the lowest one, and divided by the number of criterion.

#### 4.1.1. Pricing Strategy

Table 5 shows the descriptive statistics results obtained by applying the technique of index measurement.

***Table 5.*** *Index of Pricing Strategy*

| **Question** | **Answer Frequency of Respondent** | | | | | **Total** | **Total Score** | **Average** |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | | | |
| 1 | - | - | - | 16 | 3 | 19 | 79 | 4.15 |
| 2 | - | - | 1 | 14 | 4 | 19 | 79 | 4.15 |
| 3 | - | - | 3 | 14 | 2 | 19 | 75 | 3.94 |
| 4 | - | - | 4 | 12 | 3 | 19 | 75 | 3.94 |
| 5 | - | - | 2 | 13 | 4 | 19 | 78 | 4.10 |
| 6 | - | - | 5 | 14 | - | 19 | 71 | 3.73 |
| 7 | - | - | 3 | 15 | 1 | 19 | 74 | 3.89 |
| 8 | - | - | 5 | 13 | 1 | 19 | 72 | 3.78 |
| 9 | - | - | 3 | 13 | 3 | 19 | 76 | 4.00 |
| | | | | | | | **Total Index Average** | **3.96** |
| | | | | | | | **Minimum Value** | **3.73** |
| | | | | | | | **Maximum Value** | **4.15** |

*Source:* Primary Data, Processed by the Researchers, 2018

The descriptive results of this research show that within the export companies of superior commodity of coconut, the strategy of pricing is commonly appropriate to the internal and external condition of firm. Based on table 5, from the average value 105, the export firm of superior commodity of coconut in North Sulawesi has the total index average around 3.96, which indicates that the pricing strategy is included into the exact category. The highest index is shown by the statement 1 and 2 about the condition of competitive export market and the commitment of firm technology (4.15). Meanwhile, the lowest index is indicated from question 6 which relates to the real situation of pricing. This matter is regarded as significant since this could influence the export commodity of coconut in North Sulawesi and their own the commitment in having a technology orientation. It refers to the specific technology and product uniqueness, and they are supported by the labor commitment in the business labor and keep advancing into the competitive export.

### 4.1.2. Characteristics of the Firm

The results of descriptive statistics are shown in the table below:

***Table 6.*** *Index of Firm Characteristics*

| Question | Answer Frequency of Respondent | | | | | Total | Total Score | Average |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | | | |
| 10 | - | - | 2 | 14 | 3 | 19 | 77 | 4.05 |
| 11 | - | - | 2 | 16 | 1 | 19 | 75 | 3.94 |
| 12 | - | - | 1 | 13 | 5 | 19 | 80 | 4.21 |
| 13 | - | - | 2 | 12 | 5 | 19 | 79 | 4.15 |
| 14 | - | - | 3 | 14 | 2 | 19 | 75 | 3.94 |
| 15 | - | - | 4 | 14 | 1 | 19 | 73 | 3.84 |
| 16 | - | - | 5 | 13 | 1 | 19 | 72 | 3.78 |
| 17 | - | - | 4 | 14 | 1 | 19 | 73 | 3.84 |
| 18 | - | - | 5 | 14 | - | 19 | 71 | 3.73 |
| **Total Index Average** | | | | | | | | **3.94** |
| **Minimum Value** | | | | | | | | **3.73** |
| **Maximum Value** | | | | | | | | **4.21** |

*Source:* Primary Data, processed by the researchers, 2018

The research results explain that the export companies of superior commodity of coconut in North Sulawesi have good characteristics of their firms. According to table 6, from the index value distance 1-5, the export companies of superior commodity of coconut in North Sulawesi have the total index average 3.94 which means that they have good characteristics. The highest index is shown by the third question about the formal planning system of firm in export activity (4.21). Meanwhile, the lowest index is shown by the ninth question relates to the quantity and quality of the firm human resource (3.73). This result indicates a significant point that the export companies of superior commodity of coconut in North Sulawesi have resource allocations which have to be supported by the assets of firm. Moreover, the export experience of each firm should be advanced, especially the skill and knowledge of human resource relating to the export markets.

### 4.1.3. Export Strategy

Table 7 presents the descriptive statistics related to the export strategy.

***Table 7.*** *Index of Export Strategy*

| Question | Answer Frequency of Respondent | | | | | Total | Total Score | Average |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | | | |
| 19 | - | - | 3 | 12 | 4 | 19 | 77 | 4.05 |
| 20 | - | - | 2 | 15 | 2 | 19 | 76 | 4.00 |
| 21 | - | - | 5 | 14 | - | 19 | 71 | 3.73 |
| 22 | - | - | 3 | 13 | 3 | 19 | 76 | 4.00 |
| 23 | - | - | 3 | 14 | 2 | 19 | 75 | 3.94 |
| 24 | - | - | 2 | 12 | 5 | 19 | 79 | 4.15 |
| 25 | - | - | 2 | 12 | 5 | 19 | 79 | 4.15 |
| **Total Index Average** | | | | | | | | **4.00** |
| **Minimum Value** | | | | | | | | **3.73** |
| **Maximum Value** | | | | | | | | **4.15** |

The research results show that the export companies of superior commodity of coconut in North Sulawesi have great strategy of export activity. This means that the strategy they are implementing has already proven suitable for both internal and external factors of the firm. According to table 7, from the index value average 1-5, the export companies of superior commodity of coconut in North Sulawesi have total index average 4.00 which means that they have a great strategy. The highest index is shown by the sixth and seventh question relating to the good relationship with the export partners, and the selection of export market destination (4.15). Meanwhile, the lowest index is shown by the third question relating to the product quality that have to be owned and maintained by each export firm by keeping good relationship with their export partners. In this result, the country destination of export has to be supported by the good quality of the product which persistently follows the legal policy relating to the export activity existed in export market.

### 4.1.4. Performance of Export

The results of descriptive statistics for export performance are presented in Table 8.

***Table 8.*** *Index of Export Performance*

| Question | Answer Frequency of Respondent | | | | | Total | Total Score | Average |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | | | |
| 26 | - | - | 3 | 11 | 5 | 19 | 78 | 4.10 |
| 27 | - | - | 4 | 10 | 5 | 19 | 77 | 4.05 |
| 28 | - | - | 6 | 10 | 3 | 19 | 73 | 3.84 |
| 29 | - | - | 7 | 12 | - | 19 | 69 | 3.63 |
| 30 | - | - | 6 | 11 | 2 | 19 | 72 | 3.78 |
| 31 | - | - | 3 | 14 | 2 | 19 | 75 | 3.94 |
| 32 | - | - | 8 | 11 | - | 19 | 68 | 3.57 |
| **Total Index Average** | | | | | | | | **3.84** |
| **Minimum Value** | | | | | | | | **3.57** |
| **Maximum Value** | | | | | | | | **4.10** |

*Source:* Primary Data, Processed by the Researchers, 2018

The research results refer to the export companies of superior commodity of coconut in North Sulawesi that have a good performance of export activity. Although, the economic conditions is not stable yet, the export companies of superior commodity of coconut in North Sulawesi struggle to achieve the target of total export sales. According to table 8, from the index value distance 1-5, the export companies of superior commodity of coconut in North Sulawesi have a total index average 3.84, which means that the export performance during 2016 and 2017 is counted into good export category. The highest index is shown by the first question which relates to the yearly intensive activity that has been achieved by the firm in export sales (4.10). On the other hand, the lowest index is shown by the seventh question (3.57) about the segment of market which is not sufficient enough to fulfill the target. Most of the respondents agree with the statement that a successful export performance is measured by the growth level of export sales and the enhancement of export value, although the export volume of firm tends to be stable and improved, and the condition of unstable enhancement, the export companies of superior commodity of coconut in North Sulawesi have already perceived the intended value as the enhancement of export performance which is fulfilled.

## 5. Hypothesis Testing

After processing the data regression of data panel, the researchers test the output result. The hypothesis testing aims to decide whether to accept or reject the hypothesis executed in this research. Moreover, it also purposes to identify whether the coefficient result of data regression has already fit to the existed theory or not. The result of testing between the influence of pricing strategy, firm characteristics, and export strategy on export performance can be summarized in table 9.

$$Y = a_1 + b_1x_1 + e \quad (1)$$
$$Y = a_2 + b_2x_2 + e \quad (2)$$
$$Y = a_3 + b_3x_3 + e \quad (3)$$
$$Y = a_4 + b_1x_1 + b_2x_2 + b_3x_3 + e \quad (4)$$

***Table 9.*** *Result of Panel Data Regression Test of Export Performance Equation (Y)*

| Variable | *Expected Sign* | Model (1) | Model (2) | Model (3) | Model (4) |
|---|---|---|---|---|---|
| Coefficient | | 0.3522 | 0.3759 | 0.4224 | 0.6595 |
| Strategy of Pricing | (+) | **0.0279**** | | | 0.0802 |
| Characteristics of Firm | (+) | | **0.0074*** | | **0.0471**** |
| Strategy of Export | (+) | | | **0.0283**** | 0.4821 |
| $R^2$ | | 0.1260 | 0.1861 | 0.1184 | 0.2955 |
| Prob (F-statistic) | | | | | **0.0071*** |

* Significant at level 1% or 0.01 ** Significant at level 5% or 0.05

*Source:* Primary Data, Processed by the Researcher, 2018

### 5.1. Strategy of Pricing on Export Performance

The first hypothesis of research asserts that the strategy of pricing is positively influenced to the export performance. According to the testing result of export performance similarity presented in the table 9, it shows the regression coefficient 0.02 which means that the significance value from that model is smaller than the significance level (α) = 5% or 0.05. This result shows that the pricing strategy has positively influential and significant to the performance of export. Therefore, the first hypothesis (H1) is accepted. This refers to the fact that the competitive pricing strategy signifies the persistent prospect of firm in both local and global competition. By applying the accurate strategy, the firm could adjust the precise price appropriately to the real conditions in international market. This research result supports the research outcomes of Katsikeas and Theodosiou (2001), Lee and Griffith (2004), Leonidou et al. (2002), and Myres et al. (2002), as they also found that the strategy of pricing has a positive effect to the value of export performance.

### 5.2. Characteristics of Firm on Export Performance

The second hypothesis asserts that the characteristics of firm have had a positive influence towards the performance of export. From testing result which is shown in table 9, the regression coefficient of 0.375 with the probability value of 0.007, means that significance value of that model is smaller than the significance level (α) = 5% or 0.05. This research result signifies that the firm characteristics influence positively and is significant to the export performance. Therefore, the second hypothesis (H2) is accepted. This result refers that the good firm characteristics could determine the comparative superiority of firm. It means that the operational activity of firm should be maintained by great asset and human resource to improve the performance of manufacture, the number of production, and expand the market segment. If the market segment is expanded, the sales activity is definitely improved and the firm is able to cover the expenses, the profit of firm is advanced, and the export performance is improved. This research result is in line with existing research done by Maurel (2009), Katsikeas (1994), Grandinetti and Mason (2012), Katsikeas et al. (1996), Thirkell (1998), Sterlacchini (2001), and Myers et al. (2002). They found that the firm characteristics positively and significantly influence the export performance.

### 5.3. Strategy of Export on Performance of Export

The third hypothesis of research finds that the strategy of export influences positively to the performance of export. From the testing result shown in the table 9, regression coefficient 0.422 with probability value 0.028, means the significance value of that model is smaller than the significance level (α) = 5% or 0.05. This research result signifies that the strategy of export influences positively and significantly toward the export performance. Then, the third hypothesis (H3) is accepted. This result shows that the export strategy becomes one of alternative variables to improve the performance of export. The product sale depends to the firm capability to market the product, good relationships with the export partners or country destination. Therefore, this research result supports the existing research results accomplished by Maurel (2009), Leonidou, et al. (2002), and Lee and Griffith (2004) who found that the export strategy positively and significantly influences the performance of export.

## 6. Discussion and Recommendation

The condition of pricing strategy, firm characteristics, export strategy and export performance based on the results of descriptive analysis is categorized precisely and well. A strategy of pricing positively and significantly influences the performance of export in the export firm of superior commodity of coconut in Province of North Sulawesi during 2016-2017. This statement is suitable to the theory that the pricing strategy

influences the export performance and hypothesis 1 is accepted. The competitive pricing becomes one of determinant to advance the firm. Moreover, it could estimate the firm profit and be a determinant whether that product price could be able to compete with the other competitors' one or not. Characteristics of firm positively and significantly influence the performance of export in the export firm of superior commodity of coconut in North Sulawesi during 2016-2017. This statement suits the existed theory that the firm characteristics could affect the export performance and hypothesis 2 is accepted. In this research, the researchers obtained the empiric evidence that shows the change of firm size and exporting experience would influence the export performance in a firm. Strategy of export positively and significantly influences the performance of export in the export firm of superior commodity of coconut in North Sulawesi during 2016-2017. This statement suits the existed theory that the export strategy could affect the export performance and hypothesis 3 is accepted. In this research, the researchers perceived a strong empiric evidence that shows the change of exported product and export partner would influence the export performance in a firm, therefore, the more the export strategy becomes effective, the more it could improve the export performance, and vice versa.

Table 9 illustrates the whole variables in the export performance similarity. The hypothesis test results on the statement that the variable of pricing strategy has a positive and significant coefficient to influence the export performance, firm characteristics has positive and significant coefficient to influence the export performance, and also the variable of export strategy has positive and significant coefficient to influence the export performance. From the calculation result, the variable of pricing strategy has a coefficient value of 0.268 which means every strategy of pricing could improve the export performance 0.268 or 26.8%; the variable of firm characteristics has a coefficient value 0.292 which means every export strategy enhance the export performance 0.292 or 29%; the variable of export strategy has coefficient value 0.147 which means every export strategy advance the export performance 0.147 or 14.7%. The result of R2 0.295 indicates that the variable of pricing strategy, firm characteristics, and export strategy are able to describe the variable of export performance 29.5%.

Meanwhile, the rest might be affected by the other factors that has not been presented in the regression model of this research. The significance calculation on F Test is simultaneously counted according to the comparison between Prob value (F-statistics) and significance level value (0.05). Based on the table 4.10, the Prob value (F-statistics) about 0.0071 means that the significance value of this model is smaller than the significance level ($\alpha$) = 5% or 0.05. This result shows that the strategy of pricing, characteristics of firm, and strategy of export positively and significantly influence to the performance of export.

For the executives of North Sulawesi Province, relating to the variable that holds an important role for the firm continuity, is the variable of firm characteristics. The firm characteristic is capabilities owned by a firm which are indicated from owned capital. To obtain the great capital and credit, the government's role, related department and joint business with banking industries are needed. Those points would help the firm to obtain the capital, so the firm could advance the production and export activity.

For the firm, relating to the goal to improve the export performance, the firm should be more oriented to the recent technology and give more investments to his own labor. Moreover, the firm should improve the export experience and to keep a good relationship with the export partners. In the hope that the firm could improve the export volume, have economical expense, then the export value could be improved and the firm could advance more.

For the next studies, the researchers hope that future examinations could exert other variables like the management commitment, external factors of firm such as inflation, rate of exchange, and government's policy towards the export activity as a free variable to influence the performance of export. Second, the researchers hoped for the next researches to use more feedback of export companies in North Sulawesi Province, so that the focus is not only on a single commodity. And last, the researchers hoped for the next ones to execute a longer year period of observation.

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**Appendices**

**Appendix 1. Hypothesis Testing 1**

| Variable | | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|---|
| X1 | | 0.352267 | 0.153696 | 2.291967 | 0.0279 |
| C | | 13.79895 | 5.352215 | 2.578176 | 0.0142 |
| CROSSID | EFFECT | | | | |
| 1 | -0.140108 | | | | |
| 2 | -0.357158 | | | | |
| **3** | **0.359348** | | | | |
| **4** | **0.780379** | | | | |
| **5** | **0.793450** | | | | |
| **6** | **1.713936** | | | | |
| **7** | **0.469193** | | | | |
| **8** | **0.293994** | | | | |
| **9** | **0.861443** | | | | |
| 10 | -1.371780 | | | | |
| **11** | **0.482264** | | | | |
| 12 | -0.208101 | | | | |
| 13 | -0.017192 | | | | |
| **14** | **0.293994** | | | | |
| 15 | -0.059044 | | | | |
| 16 | -0.100895 | | | | |
| 17 | -1.358709 | | | | |
| 18 | -1.656824 | | | | |
| 19 | -0.778189 | | | | |
| Effects Specification | | | | | |
| | | | | S.D. | Rho |
| Cross-section random | | | | 1.272888 | 0.2989 |
| Idiosyncratic random | | | | 1.949443 | 0.7011 |
| Weighted Statistics | | | | | |
| R-squared | | 0.126068 | Mean dependent var | | 19.12105 |
| Adjusted R-squared | | 0.101792 | S.D. dependent var | | 2.068785 |
| S.E. of regression | | 1.960667 | Sum squared resid | | 138.3917 |

| | | | |
|---|---|---|---|
| F-statistic | 5.193139 | Durbin-Watson stat | 1.987014 |
| Prob(F-statistic) | 0.028709 | | |
| Unweighted Statistics | | | |
| R-squared | 0.171431 | Mean dependent var | 26.02632 |
| Sum squared resid | 194.6920 | Durbin-Watson stat | 1.412417 |

**Appendix 2. Hypothesis Testing 2**

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| X2 | 0.375977 | 0.132488 | 2.837817 | 0.0074 |
| C | 13.46076 | 4.449585 | 3.025172 | 0.0046 |
| CROSSID EFFECT | | | | |
| 1 -0.030437 | | | | |
| 2 -0.778325 | | | | |
| **3 0.004331** | | | | |
| **4 1.158806** | | | | |
| **5 0.887040** | | | | |
| **6 1.054504** | | | | |
| **7 0.069616** | | | | |
| **8 0.545739** | | | | |
| **9 0.137027** | | | | |
| 10 -1.082735 | | | | |
| **11 0.819630** | | | | |
| 12 -0.200025 | | | | |
| **13 0.376150** | | | | |
| **14 1.669696** | | | | |
| **15 0.276097** | | | | |
| **16 0.278222** | | | | |
| 17 -1.252323 | | | | |
| 18 -2.102390 | | | | |
| 19 -1.830623 | | | | |
| Effects Specification | | | | |
| | | | S.D. | Rho |
| Cross-section random | | | 1.410161 | 0.3732 |
| Idiosyncratic random | | | 1.827577 | 0.6268 |
| Weighted Statistics | | | | |
| R-squared | 0.186159 | Mean dependent var | | 17.58399 |
| Adjusted R-squared | 0.163552 | S.D. dependent var | | 1.976140 |
| S.E. of regression | 1.807329 | Sum squared resid | | 117.5918 |
| F-statistic | 8.234661 | Durbin-Watson stat | | 1.954922 |
| Prob(F-statistic) | 0.006838 | | | |
| Unweighted Statistics | | | | |
| R-squared | 0.210216 | Mean dependent var | | 26.02632 |
| Sum squared resid | 185.5785 | Durbin-Watson stat | | 1.238736 |

**Appendix 3. Hypothesis Testing 3**

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| X3 | 0.422408 | 0.184892 | 2.284621 | 0.0283 |
| C | 14.34340 | 5.130157 | 2.795899 | 0.0083 |
| CROSSID EFFECT | | | | |
| 1 -0.069384 | | | | |
| 2 -0.132416 | | | | |
| 3 -0.100900 | | | | |
| **4 0.657177** | | | | |
| **5 0.883018** | | | | |
| **6 1.180652** | | | | |
| **7 0.282520** | | | | |
| **8 0.314036** | | | | |
| **9 0.314036** | | | | |
| 10 -0.398534 | | | | |
| **11 0.336789** | | | | |
| 12 -0.444042 | | | | |
| **13 0.454091** | | | | |

| | | | |
|---|---|---|---|
| **14** **0.914534**<br>**15** **0.187972**<br>16 -0.421288<br>17 -1.116334<br>18 -1.522507<br>19 -1.319420 | | | |
| Effects Specification | | | |
| | | S.D. | Rho |
| Cross-section random | | 1.139854 | 0.2548 |
| Idiosyncratic random | | 1.949119 | 0.7452 |
| Weighted Statistics | | | |
| R-squared | 0.118485 | Mean dependent var | 20.05592 |
| Adjusted R-squared | 0.093998 | S.D. dependent var | 2.126769 |
| S.E. of regression | 2.024347 | Sum squared resid | 147.5273 |
| F-statistic | 4.838773 | Durbin-Watson stat | 1.955901 |
| Prob(F-statistic) | 0.034332 | | |
| Unweighted Statistics | | | |
| R-squared | 0.163750 | Mean dependent var | 26.02632 |
| Sum squared resid | 196.4967 | Durbin-Watson stat | 1.468466 |