THE ROLE OF COFFEE AND TEA EXPORTS IN DRIVING REGIONAL ECONOMIC GROWTH: A QUANTITATIVE ANALYSIS

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Abstract

This study endeavors to meticulously scrutinize the causal relationship between the exportation of coffee and tea and the dynamics of the Bandung Regency's GRDP. Employing a quantitative research approach, the study leverages a comprehensive documentation method. Its analytical framework hinges on secondary data, specifically time-series data spanning from 2018 to 2022. These invaluable data sources are culled from official reports furnished by the Bandung Regency Department of Trade and Industry, the West Java Provincial Department of Trade and Industry, Plantation Company Associations, the Central Statistics Agency (BPS) of the Bandung Regency, and the Central Statistics Agency (BPS) of West Java. The methodological cornerstone of this study is the utilization of multiple regression analysis, a robust tool for dissecting intricate relationships. The empirical results, derived from rigorous statistical testing, illuminate noteworthy insights. Specifically, the t-test outcomes underscore the salience of the impact of coffee exports on the GRDP. The calculated significance value (Sig.) of 0.003, well below the conventional significance threshold of 0.05, indicates a robust, positive, and statistically significant influence of coffee exports on the GRDP. Equally compelling is the analogous analysis applied to tea exports. Here, the significance value (Sig.) of 0.000, likewise below the 0.05 threshold, signifies a potent, positive, and statistically significant effect of tea exports on the GRDP. Of paramount significance is the application of the F-test, providing a holistic evaluation of the combined influence of coffee and tea exports on GRDP. The calculated F-value (410883.205) convincingly surpasses the tabulated Fvalue (6.94), cementing the inference that coffee and tea exports jointly exert a substantive, positive, and statistically significant impact on GRDP. The plantation sector emerges as an indispensable driver of economic expansion in the Bandung Regency.

Keywords: Coffee Exports, Tea Exports, GRDP, Economic growth

A. INTRODUCTION

Life is fundamentally characterized by interdependence or mutual reliance. In this contemporary era of information, individuals transcend their roles as mere citizens of specific nations to become integral members of the global community, often referred to as the "global village." This transformation has profound implications, particularly within the field of International Business, where the exchange of goods and services between economic entities of different countries is central (Ibrahim & Halkam, 2021). This heightened interdependence underscores the fact that no country operates in isolation, as each nation encounters inherent limitations in autonomously satisfying its diverse needs. Consequently, nations engage in relationships, collaborations, and transactions, exemplifying the intricate web of interdependence among nations. These international interactions are commonly recognized as import and export activities, constituting an indispensable facet of the modern global landscape (Gallhofer & Haslam, 2006; Michaels, 2009; Pekarskiene & Susniene, 2015; Giulianotti, 2015).

As Griffin & Pustay (2015) expound, exports involve the sale of products manufactured within one country to be utilized or traded in foreign nations. In contrast, imports entail the procurement of products produced in other countries for domestic consumption. Import and export activities are further categorized into two primary domains. The first encompasses the trade in tangible goods, including items such as clothing, computers, raw materials, and agricultural products. The second domain encompasses the trade in intangible services, such as banking services, travel, and accounting.

Research by Ramadhan et al. (2023) reaffirms that exports encompass the movement of products, encompassing both tangible goods and intangible services, from a domestic setting to foreign nations, governed by pertinent regulations and guidelines. Typically, exporting is undertaken by countries with the capability to generate goods and services in significant quantities, surpassing domestic demands. As an integral component of the international trade system, exporting is a multifaceted endeavor that demands specific skillsets and adherence to established protocols.

It is pivotal to acknowledge that exports exert a profound influence on the Gross Regional Domestic Product (GRDP) of a given region. Prior scholarly inquiries have demonstrated that various factors, including exports, imports, investments, the labor force, and even economic crises, influence GRDP. Nevertheless, focused research examining the specific impact of coffee and tea exports on GRDP within a particular region remains conspicuously limited, rendering this study both novel and consequential (Yuliana et al., 2022; Kuntadi et al., 2023; Noviyanti, 2021; Kusumaningrum & Yuhan, 2019).

The GRDP serves as a metric signifying the economic revenue of a specific region. The GRDP metric stands as a litmus test for a region's developmental achievements, where a higher GRDP value correlates with a more successful regional development, and conversely, a lower value indicates the opposite (Prasetyani & Sumardi, 2020). According to the statistical reference of the BPS Kabupaten Bandung (2022), GRDP is defined as the cumulative value added by all business entities within a region or the aggregate value of all final goods and services produced by every economic unit in a region.

Within this context, the sphere of export activities takes on a compelling, significant, and worthy role. Exporting emerges as a pivotal sector with the potential to not only expand international markets on a national scale but also to galvanize swift economic growth at the local level. This expansion has a direct bearing on income augmentation and the overall prosperity of various strata of society, including the most marginalized segments (Gabungan Perusahaan Perkebunan, 2022; Siregar et al., 2019; Puspandari et al., 2022; Adnan et al., 2022). Against this backdrop, the central

inquiry of this study hinges upon the extent to which coffee and tea exports affect the GRDP of the Bandung Regency. The primary aim of this research is to unearth the latent potential of coffee and tea exports, thereby enriching the repository of data concerning the GRDP of the Bandung Regency. The ultimate outcome of this endeavor lies in the enhancement of information quality, benefiting both the academic milieu and pertinent policy-making entities.

This research is dedicated to the examination of a singular variable: local export activities, with coffee and tea exports taking center stage. It is posited that local export activities have the capacity to elevate economic growth and bolster regional income, particularly within the GRDP framework, ultimately facilitating widespread affluence. In response to these imperatives, this study is geared towards a comprehensive investigation of the impact of coffee and tea exports on the GRDP of the Bandung Regency.

B. METHODS

This research is a quantitative study employing a descriptive methodology. Descriptive methods encompass various approaches, with two notable ones being the documentation and correlation approaches. Descriptive methods are utilized to delineate specific variables and explore the causal factors behind particular phenomena (Abdullah, 2015). The documentation data utilized is secondary data in the form of time-series data spanning from 2018 to 2022, sourced from reports issued by the Bandung Regency Department of Trade and Industry, the West Java Provincial Department of Trade and Industry, Plantation Company Associations, the Central Statistics Agency (BPS) of the Bandung Regency, and the Central Statistics Agency (BPS) of West Java.

The hypotheses formulated in this study are as follows:

- H1. Coffee exports have a positive and significant influence on Gross Regional Domestic Product (GRDP).
- H2. Tea exports have a positive and significant influence on Gross Regional Domestic Product (GRDP).
- H3. Coffee and tea exports have a positive and significant simultaneous influence on Gross Regional Domestic Product (GRDP).

To augment the research, various data and references are also extracted from a multitude of literature sources, mass media outlets (such as agricultural and trade news), and the internet, via the official websites of pertinent institutions, including the National BPS and the open data portal of the West Java BPS, the Ministry of Trade and Industry's website, and the West Java Department of Agriculture/Plantation's website. The correlation approach is applied to investigate relationships or correlations among various variables and determine the extent to which independent variables contribute to the dependent variable, along with ascertaining the direction of these relationships (Abdullah, 2015).

The data analysis method employed in this study is multiple linear regression analysis. Multiple linear regression analysis, as per Yuliara (2016), is an analytical technique that elucidates the relationship between two or more independent variables (predictors), denoted as X1, X2,...Xn, and one dependent variable (response), or Y. The primary objective of multiple linear analysis is to comprehend the linear relationship

between two or more independent variables, in this case, coffee and tea exports, and the dependent variable, GRDP. In alignment with this, Abdullah (2015) underscores that regression analysis concerns the dependence of one variable (the dependent variable) on another variable (the independent variable), elucidating explanatory variables, with the aim of estimating and/or predicting the mean count or mean value of the non-independent variable, taking into consideration known or fixed values.

Nevertheless, prior to conducting regression analysis, it is prudent to perform a correlation analysis to confirm the presence of a correlation between variable X (coffee and tea exports) and variable Y (GRDP). In the absence of a correlation between variable X and variable Y, regression analysis is rendered superfluous, as, from a technical perspective, if no correlation exists between variable X and variable Y, variable X cannot anticipate variable Y, and thus, variable X exerts no influence on variable Y. The formula for calculating the regression coefficients is as follows: $Y = \alpha + \beta 1X1 + \beta 2X2$

Y = 0.10 + 0.741X1 + 0.996X2

C. RESULTS AND DISCUSSIONS

The dataset utilized in this research comprises two independent variables, namely coffee exports (X1) and tea exports (X2), along with one dependent variable, the Gross Regional Domestic Product (GRDP) of Bandung Regency (Y). In the interest of comprehensively portraying and analyzing the influence of these variables, this section offers a detailed account of the data derived from secondary data sources obtained from the Bandung Regency Department of Trade and Industry (Disperindag Kabupaten Bandung), Plantation Company Associations, the Central Statistics Agency (Badan Pusat Statistik/BPS) of the Bandung Regency, and the Central Statistics Agency (Badan Pusat Statistik/BPS) of West Java. The data description encompasses the following components: the Value of Coffee Exports from Bandung Regency over the Last 5 Years, the Value of Tea Exports from Bandung Regency over the Last 5 Years, outcomes of the normality test as observed in the SPSS output's histogram, findings from the multicollinearity assessment derived from the coefficients table and tolerance values, results of correlation tests, regression analysis, and the Percentage of Coffee and Tea Exports in relation to the Gross Regional Domestic Product of Bandung Regency over the Last 5 Years.

The variables scrutinized and analyzed for their impact in this study encompass Coffee Exports (X1), Tea Exports (X2), and the Gross Regional Domestic Product (GRDP). The ensuing narrative presents the data collected from pertinent sources.

1. Coffee Exports

Coffee stands as a pivotal commodity and a cornerstone of Bandung Regency's economy. Its significance becomes evident through the substantial impact it has on the Gross Regional Domestic Product (GRDP) of the region. The cultivation and export of coffee have placed Bandung Regency at the forefront of regional economic development. This remarkable contribution can be attributed to several key factors. Firstly, the geographical and climatic conditions of Bandung Regency create an ideal environment for the cultivation of high-quality coffee. The fertile soil and the region's elevated terrain enable the production of coffee beans renowned for their exceptional

taste and aroma. Moreover, coffee farmers in Bandung Regency have elevated the quality of their produce through the adoption of modern and sustainable agricultural practices. Their involvement spans the entire coffee processing journey, from harvest to bean milling, resulting in the production of high-quality coffee. The value of coffee exports, stemming from the efforts of these farmers, has exhibited a consistent increase year after year, as depicted in the table below:

| Year | | 2018 | 2019 | 2020 | 2021 | 2022 |
|------------------|--------|---------|-----------|---------|-------|-----------|
| Export | Volume | 1 201 0 | 1 250 642 | 1 250 6 | 1 565 | 1 626 662 |
| (Tons) | | 1.321,2 | 1.339,042 | 1.559,6 | 1.565 | 1.030,002 |
| Export | Value | 22.02 | 28 55 | 21 07 | 24.42 | 15.82 |
| (Billion Rupiah) | | 55.05 | 28.33 | 51.27 | 34.43 | 43.63 |

 Table 1. Value of Coffee Exports from Bandung Regency over the Last 5 Years

Source: Disperindag (2022)

2. Tea Exports

Tea, akin to coffee, holds a paramount role within the economy of Bandung Regency. In recent years, tea has emerged as a primary commodity, significantly impacting the Gross Regional Domestic Product (GRDP) of the region. The production and export of tea have substantially bolstered the regional economy, and the growth of the tea industry in Bandung Regency has made an invaluable contribution to the GRDP. Key factors that render Bandung Regency's tea industry exceptional encompass the following: First and foremost, the geographical conditions. Bandung Regency's geographic and climatic characteristics provide an optimal environment for the cultivation of high-quality tea. The region's elevation and fertile soil create the perfect conditions for growing tea with distinctive flavors and aromas. Second, the adoption of modern agricultural practices. Tea farmers in Bandung Regency have enhanced the quality of their output through the application of contemporary and sustainable farming methods. This includes the selection of superior tea varieties, precise fertilization, and efficient pest control. Third, tea processing and production. Tea farmers and industry stakeholders in Bandung Regency engage in the entire tea processing cycle, from harvesting to drying and leaf sorting, ensuring that the produced tea complies with high-quality standards. Fourth, the establishment of an effective distribution network. Similar to the coffee industry, the development of a robust and efficient distribution network has been instrumental in promoting the export of tea products from Bandung Regency to various countries worldwide. The most recent data underscores the significant growth in tea exports from Bandung Regency, as summarized in the following table:

| Year | 2018 | 2019 | 2020 | 2021 | 2022 |
|----------|----------|------------|----------|------------|----------|
| Export | | | | | |
| Volume | 22.999,2 | 23.001,128 | 10.012,8 | 28.507,256 | 27.079,2 |
| (Tons) | | | | | |
| Export | | | | | |
| Value | 660 11 | 546 27 | 109.65 | 612 01 | 642 17 |
| (Billion | 009.41 | 540.27 | 100.05 | 013.21 | 042.17 |
| Rupiah) | | | | | |

| 2 | | U | | |
|----------|-----------------|-------------------|----------------|------------------|
| Table 2. | Value of Tea Ex | ports from Bandun | g Regency over | the Last 5 Years |

Source: Disperindag (2022)

3. Gross Regional Domestic Product (GRDP)

The Gross Regional Domestic Product (GRDP) serves as a vital metric for assessing the economic well-being of a region across its various strata. Bandung Regency, as an integral component of West Java Province, Indonesia, maintains its distinct GRDP. Several products and commodities, including coffee and tea, exert a substantial influence on the GRDP of this region. The ensuing data offers insights into the contributions of coffee and tea to the GRDP:

Table 3. Percentage of Coffee and Tea Exports to the Gross Regional Domestic Product of Bandung Regency over the Last 5 Years

| Year | 2018 | 2019 | 2020 | 2021 | 2022 | | | | |
|--------|-----------|-----------|-----------|-----------|-----------|--|--|--|--|
| Coffee | 33.03 | 28.55 | 31.27 | 34.43 | 45.83 | | | | |
| Tea | 669.41 | 546.27 | 108.65 | 613.21 | 642.17 | | | | |
| GRDP | 112982.08 | 123985.75 | 123602.78 | 130476.83 | 143002.07 | | | | |

Source: Disperindag (2022)

The data within Table 3 provides a lucid depiction of the contributions made by coffee and tea exports to the Gross Regional Domestic Product (GRDP) of Bandung Regency over the past five years. This underlines the pivotal role played by these two economic sectors in enhancing the well-being of the local populace and propelling the regional economy.

Building upon the previously gathered data, the researcher proceeded with the implementation of statistical tests, specifically, classic assumption tests, serving as the foundational step for subsequent hypothesis testing through regression analysis. Classic assumption tests involve the scrutiny of several crucial assumptions and prerequisites essential in a regression model. In this context, the researcher initially undertook the transformation of time series data into interval data using the method of successive intervals (MSI). This preliminary step facilitated the utilization of the SPSS statistical software for data analysis. The classic assumption tests encompass the examination of the following regression prerequisites:

1. Normality Test

The normality test was executed by analyzing the histogram presented in the SPSS output, as illustrated below:



Figure 1. Normality Test Results

Based on the histogram graph depicted above, it can be deduced that the data collected and processed from the acquired sources conforms to a normal distribution. This conformity is evident through the bell-shaped characteristic exhibited in the histogram. Notably, the histogram displays no skewness to the right or left. In essence, it can be affirmed that the normality assumption in the regression model has been satisfactorily met.

Concurrently, the outcomes of the normality test, referencing the P-P Plot from the SPSS output, are observable in the subsequent depiction:



Figure 2. P-P Plot Normality Test Results

The P-P Plot chart presented above clearly indicates that the distribution of data points is clustered around and closely aligns with the diagonal line. This observation conclusively affirms that the data adheres to a normal distribution pattern.

2. Multicollinearity Test

The multicollinearity test constitutes the subsequent stage in the classic assumption tests for regression analysis. The fundamental objective of this multicollinearity test is to evaluate the existence of substantial correlations among the independent variables within the regression model. In a well-structured regression model, the occurrence of multicollinearity should be minimized. Decision-making within the multicollinearity test can be based on two distinct approaches:

- a. Tolerance-Based Approach:
 - If the tolerance value is greater (>) than 0.10, it indicates the absence of multicollinearity.
 - If the tolerance value is less (<) than 0.10, it suggests the presence of multicollinearity.
- b. VIF-Based Approach:
 - If the VIF value is less (<) than 10.00, it indicates the absence of multicollinearity.
 - If the VIF value is greater (>) than 10.00, it suggests the presence of multicollinearity.

The outcomes of the multicollinearity test for each independent variable are presented in the subsequent table:

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| | Tabel 4. Multicollinearity Test Results | | | | | | | |
|-------------------------|---|-----------|-------|--|--|--|--|--|
| | Coefficients ^a | | | | | | | |
| Collinearity Statistics | | | | | | | | |
| Mode | el | Tolerance | VIF | | | | | |
| 1 | (Constant) | | | | | | | |
| | Coffee Exports | .430 | 2.328 | | | | | |
| | Tea Exports | .430 | 2.328 | | | | | |

a. Dependent Variable: GRDP

Based on the coefficients output table above, it can be discerned that the tolerance value for the coffee exports variable (X1) is 0.430, and for tea exports (X2), it is also 0.430. Both tolerance values exceed 0.10 (>0.10), signifying the absence of multicollinearity in the regression model. This condition is further corroborated by inspecting the VIF values for each variable, with the VIF for coffee exports (X1) standing at 2.328, and for tea exports (X2), it is likewise 2.328. These VIF values are below the 10.00 threshold (<10.00), which is the designated VIF cutoff value. Thus, it is evident that multicollinearity is not present in the utilized regression model.

Hypothesis Testing Results

The model developed in this study is depicted in Figure 3, representing the Research Regression Analysis Model.



Figure 3. Research Regression Analysis Model

The preceding classic assumption tests have affirmed that the model mentioned above fulfills the prerequisites for a sound regression analysis. In order to evaluate the constructed hypotheses, the researcher conducted a multiple regression analysis, utilizing the established regression model. This analysis aimed to elucidate the impact of coffee exports (X1) and tea exports (X2) on the Gross Regional Domestic Product (GRDP) (Y).

To bolster the findings of this research, prior to the regression analysis, the researcher performed a correlation test among the variables employed in this study. The correlation test employed the Spearman's rank correlation method and served two primary purposes:

- 1. To assess the strength and direction of the relationships among the research variables.
- 2. To scrutinize the significance of the relationships among the variables under investigation..

In assessing the strength of these relationships (correlations), the following criteria were applied:

1. A correlation coefficient value between 0.00 and 0.25 was indicative of a very weak relationship.

- 2. A correlation coefficient value between 0.26 and 0.50 denoted a weak relationship.
- 3. A correlation coefficient value ranging from 0.51 to 0.75 signified a strong relationship.
- 4. A correlation coefficient value between 0.76 and 0.99 demonstrated a very strong relationship.
- 5. A correlation coefficient value of 1.00 indicated a perfect relationship.

The results of the correlation test using the Spearman's rank correlation method for all variables in this study are summarized in Table 4.7, which presents the Correlation Test Results:

| | | | Coffee | Tea | |
|------------|-------------|-----------------|---------|---------|---------|
| | | | Exports | Exports | GRDP |
| Spearman's | Coffee | Correlation | 1.000 | .821 | .821 |
| rho | Exports | Coefficient | | | |
| | | Sig. (2-tailed) | | .049 | .049 |
| | | Ν | 5 | 5 | 5 |
| | Tea Exports | Correlation | .821 | 1.000 | 1.000** |
| | | Coefficient | | | |
| | | Sig. (2-tailed) | .049 | | |
| | | Ν | 5 | 5 | 5 |
| | GRDP | Correlation | .821 | 1.000** | 1.000 |
| | | Coefficient | | | |
| | | Sig. (2-tailed) | .049 | | |
| | | N | 5 | 5 | 5 |

Table 5. Correlation Test Results Correlations

**. Correlation is significant at the 0.01 level (2-tailed).

The results of the correlation test, as demonstrated in the table above, yield the following insights:

- 1. Strength of Relationships Among Variables
 - In the preceding SPSS output table, it is evident that the correlation coefficients among the researched variables, namely coffee exports (X1), tea exports (X2), and GRDP (Y), exhibit a range of values. The smallest correlation coefficient is 0.821, while the highest correlation coefficient is 1.000, in the case of tea exports and GRDP. In accordance with the criteria established earlier, these correlation coefficients signify a very strong level of relationship (0.76-0.99) among the variables or sub-variables in this study.
- 2. Direction of Relationships Among Variables The test results reveal positive correlation coefficient values, indicating that the relationships among the investigated variables share the same positive direction. An increase in the level of one variable corresponds to an increase in the other variable.
- 3. Significance of Relationships Among Variables The test results further underscore the substantial significance of the relationships among the variables. This is evident in the Sig. (2-tailed) values, all of which are less than 0.5.

Upon confirming the robust correlation among all variables, the researcher proceeded with a regression analysis based on the formulated model. The outcomes

of this regression model examination furnish substantiating evidence for the hypotheses posited in this study. The subsequent results are as follows:

Table 6. Regression Test Results

| Model Summary ^b | | | | | | | | |
|--|-------------|-------------|------------------|---------------|---------|--|--|--|
| | | | Adjusted R | Std. Error of | Durbin- | | | |
| Model | R | R Square | Square | the Estimate | Watson | | | |
| 1 1.000 ^a 1.000 1.000 .000423 2.325 | | | | | | | | |
| a Prodic | tors (Const | ant) Tea Ev | ports Coffee Exp | orts | | | | |

a. Predictors: (Constant), Tea Exports, Coffee Exports

b. Dependent Variable: GRDP

| | ANOVA ^a | | | | | | | | |
|-------|--------------------|---------|----|-------------|------------|-------------------|--|--|--|
| | | Sum of | | | | | | | |
| Model | | Squares | df | Mean Square | F | Sig. | | | |
| 1 | Regression | .147 | 2 | .073 | 410883.205 | .000 ^b | | | |
| | Residual | .000 | 2 | .000 | | | | | |
| | Total | .147 | 4 | | | | | | |

a. Dependent Variable: GRDP

b. Predictors: (Constant), Tea Exports, Coffee Exports

| Coefficients ^a | | | | | | | | |
|---------------------------|-------------|----------|----------------------|--------------|---------|------|--|--|
| | | Unstanda | Unstandardized Stand | | | | | |
| | | Coeffici | ients | Coefficients | | | | |
| Model B | | В | Std. Error | Beta | t | Sig. | | |
| 1 | (Constant) | .010 | .001 | | 15.210 | .004 | | |
| | Coffee | .741 | .040 | .031 | 18.572 | .003 | | |
| | Exports | | | | | | | |
| | Tea Exports | .996 | .002 | .976 | 579.999 | .000 | | |

a. Dependent Variable: GRDP

The SPSS output table reveals that the significance values (Sig.) for both independent variables, namely coffee exports (X1) and tea exports (X2), are 0.003 and 0.000, respectively. These significance values are below the threshold of 0.05, indicating that in the constructed path coefficients, coffee exports (X1) and tea exports (X2) exert a positive and significant influence on Gross Regional Domestic Product (GRDP) (Y). The R Square value, as depicted in the Model Summary table, stands at 1.000. Consequently, the combined effect of coffee exports (X1) and tea exports (X2) on GRDP (Y) amounts to 100 percent.

Drawing from the results of the regression test, the following conclusions can be derived:

- 1. Based on the Coefficient output table, which is employed to gauge the significance of regression coefficients (t-test) in ascertaining the appropriateness of the parameters (regression coefficients) estimated to model a multiple linear regression equation, the decision-making criteria are as follows:
 - a. Based on the Significance Value
 - If the Sig. value < 0.05, the hypothesis is accepted.
 - If the Sig. value > 0.05, the hypothesis is rejected.
 - b. Based on the Comparison of t-value and t-table
 - If the calculated t-value > the tabulated t-value, the hypothesis is accepted.

- If the calculated t-value < the tabulated t-value, the hypothesis is rejected.

Referring to the Coefficient table above, it becomes evident that the significance value (Sig.) for the impact of coffee exports (X1) on GRDP (Y) is 0.003 (<0.05). Simultaneously, the t-value stands at 15.210. This value surpasses the tabulated t-value, which is 2.920 at a 0.5 confidence level. Consequently, this outcome can be construed as a direct, positive, and significant influence of coffee exports on GRDP. Thus, the hypothesis (H1) postulating a positive and significant impact of coffee exports on GRDP is substantiated and accepted.

- c. Referring to the Coefficient output table, it is evident that the significance value (Sig.) for the influence of tea exports (X2) on Gross Regional Domestic Product (GRDP) (Y) is 0.000, which is less than 0.05. Furthermore, the t-value stands at 18.572, surpassing the tabulated t-value of 2.920 at a 0.5 confidence level. This outcome can be construed as a direct, positive, and significant impact of tea exports on GRDP. As a result, H2, which posits a positive and significant influence of tea exports on GRDP, is empirically validated and accepted.
- d. As gleaned from the ANOVA output table, which serves as an indicator of the reliability of the regression model, the F-test probability value (Sig) is 0.000 or less than 0.05. This conveys that the multiple linear regression model under examination is indeed apt for elucidating the influence of coffee exports (X1) and tea exports (X2) on GRDP (Y). In this context, the criteria for decision-making are as follows:
 - a. Based on the significance value (Sig.)
 - If the Sig. value is less than 0.05, the hypothesis is accepted.
 - If the Sig. value exceeds 0.05, the hypothesis is rejected.
 - b. Based on the comparison of the F-value and the F-table
 - If the calculated F-value surpasses the tabulated F-value, the hypothesis is accepted.
 - If the calculated F-value falls short of the tabulated F-value, the hypothesis is rejected.

With reference to the statistical computations in the preceding ANOVA table, it can be deduced that the Sig. value generated is 0.000, signifying a positive and significant influence of the independent variables, namely coffee exports (X1) and tea exports (X2), on the dependent variable GRDP (Y). Furthermore, by comparing the F-value and the F-table, it becomes apparent that the F-value, amounting to 410883.205, exceeds the tabulated F-value, which is 6.94. Consequently, H3, positing a positive and significant simultaneous influence of coffee exports on GRDP, is corroborated and embraced.

The antecedent statistical analyses and examinations manifest that the independent variables impacting GRDP, namely coffee exports and tea exports, yield a constructive and significant contribution to the augmented value of the Gross Regional Domestic Product (GRDP) of Bandung Regency, West Java Province. In succinct terms, all the hypotheses proffered in the study have been empirically substantiated and endorsed.

The statistical evaluations conducted proffer invaluable insights into the interplay among coffee exports (X1), tea exports (X2), and Gross Regional Domestic

Product (GRDP) (Y) within the framework of a multiple linear regression model. The ensuing interpretations of the findings are delineated as follows:

- 1. The Impact of Coffee Exports (X1) on GRDP (Y) The t-test findings unveil a significance value (Sig.) of 0.003, which is less than 0.05, elucidating that coffee exports exert a favorable and significant influence on GRDP. In other words, any upswing in coffee exports augments GRDP in a constructive and significant manner. Hence, Hypothesis (H1), which posits a positive and significant influence of coffee exports on GRDP, is vindicated.
- 2. The Influence of Tea Exports (X2) on GRDP (Y) The t-test results disclose a significance value (Sig.) of 0.000, which falls below the 0.05 threshold. This signifies that tea exports hold a constructive and significant sway over GRDP. Consequently, Hypothesis (H2), asserting a positive and significant influence of tea exports on GRDP, garners acceptance.
- 3. Reliability of the Multiple Linear Regression Model The ANOVA results affirm that the F-test probability value (Sig) is 0.000, indicating its suitability for explicating the impact of coffee exports and tea exports on GRDP. The ANOVA results reinforce the robustness of the multiple linear regression model. The F-test probability value (Sig) is calculated to be 0.000, which is well below the 0.05 threshold. This demonstrates the model's suitability in explaining the impact of both coffee and tea exports on GRDP. The statistical model effectively captures the dynamics between these variables, further supporting the findings.
- 4. Simultaneous Impact of Coffee Exports (X1) and Tea Exports (X2) on GRDP (Y) Comparing the F-value (410883.205) with the F-table (6.94) underscores the preeminence of the former. Thus, Hypothesis (H3), which posits a positive and significant simultaneous influence of coffee exports and tea exports on GRDP, garners validation. In essence, coffee exports and tea exports collectively make a constructive and significant contribution to GRDP expansion.

In recapitulation, the statistical scrutinies lend robust affirmation to the hypotheses proffered in this study, underscoring that coffee exports and tea exports exert a beneficial and significant sway over the GRDP of Bandung Regency. The research findings provide robust support for the hypotheses posited in this study, confirming that both coffee and tea exports have a positive and significant impact on the GRDP of Bandung Regency. Whether considered individually or collectively within the framework of a multiple linear regression model, these sectors play a pivotal role in the region's economic growth. This underscores the importance of optimizing and further developing the coffee and tea export sectors to enhance the well-being of the community and drive economic prosperity in the region.

D. CONCLUSIONS

In light of the findings derived from data processing, research analysis, and the discussions presented in the preceding Chapter IV, the following conclusions are evident: First, the results of the statistical tests and verificative analysis underscore the unequivocal and substantial influence of coffee exports (X1) on the Gross Regional Domestic Product (GRDP) of Bandung Regency. This impact is elucidated by a substantial coefficient of 0.741. In essence, a unitary increase in coffee exports (X1)

corresponds to a commensurate elevation in GRDP (Y) by 0.741 units. Second, the statistical examinations and verificative analyses illuminate that tea exports (X2) similarly wield a formidable and affirmative impact on the GRDP of Bandung Regency. With a noteworthy coefficient of 0.996, it is established that a one-unit increment in tea exports (X2) yields an equivalent surge in GRDP (Y) by 0.996 units. Third, the statistical inquests posit that coffee exports and tea exports are not isolated in their influence on GRDP. On the contrary, their combined effect is found to be profound and comprehensive. As ascertained, the cumulative contribution of the variables, namely coffee exports (X1) and tea exports (X2), to the GRDP of Bandung Regency in West Java amounts to a full 1.000.

This study underscores the pivotal role of the agricultural sector as a significant driver of economic growth and a crucial determinant of income levels, both for the populace and the local government of Bandung Regency. Consequently, it is imperative that the coffee and tea agriculture sector be optimized to ensure its continued and invaluable contribution to the welfare of the community.

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