

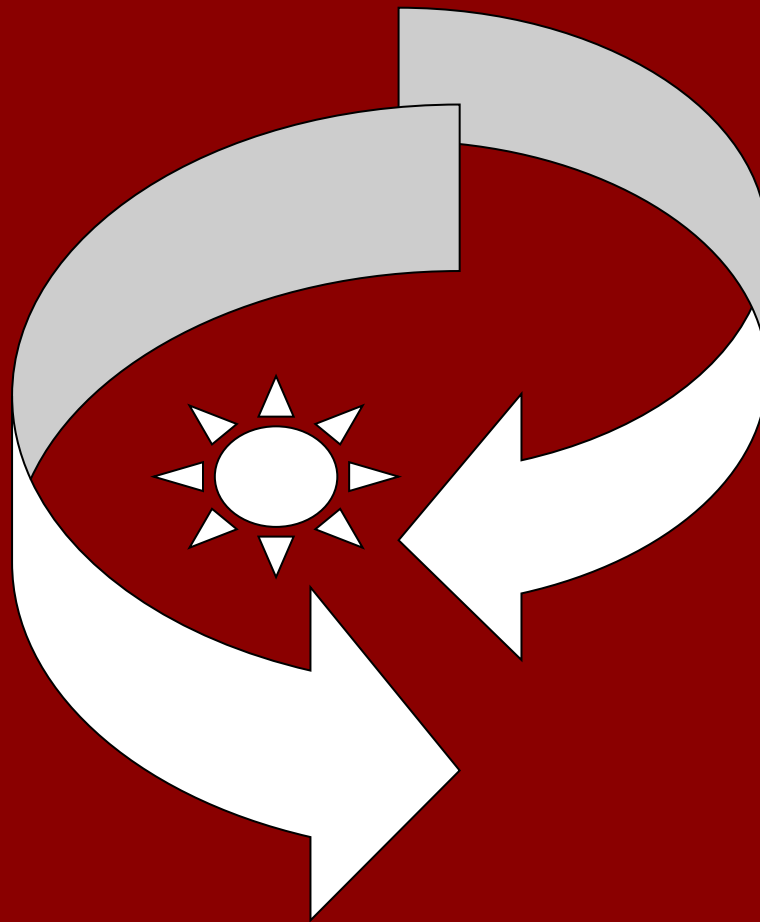
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Jurnal Perspektif Pembiayaan dan Pembangunan Daerah (Journal of Perspectives of Financing and Regional Development)

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Editor's Note

Since Volume 6, Issues 2 (September – October 2018), the Journal of Perspectives on Financing and Regional Development has been nationally accredited with a SINTA (Science and Technology Index) score of S2, based on the Decree of the Director-General of Development and Research Enhancement, Ministry of Research, Technology & Higher Education of the Republic of Indonesia, Number 10/E/KTP/2019 concerning the Ranking of Scientific Journal.

In Volume 8 Issue 5, 2020 is presented nine articles that come from Universitas Jambi (Indonesia), Academic City University College (Ghana), Trunojoyo University (Indonesia), Andalas University (Indonesia), Universitas Padjadjaran (Indonesia), Universidad Autonoma de Queretaro (Mexico)/

Hopefully, in the next issue can be presented articles with issues and from more diverse circles.

Happy joy reading

Editorial

Corporate social responsibility spending of commercial banks: determinants and consequence

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Abstract

The contribution of firms towards society in the form of corporate social responsibility has attracted significant concern for many stakeholders, especially among banks in Ghana. It is perceived that; banks especially do Corporate Social Responsibility just because they are the most profitable sector in Ghana. The study sort to examine the kind of relationship that exists between bank performance and CSR in Ghana. Also, to determine how bank size and profitability and it's listing status and foreign ownership influence CSR spending in Ghana. The study sampled 24 commercial banks over seven years from 2010 to 2016. The study analyzed data using statistical tools such as descriptive statistics, correlation analysis, and panel regression analysis. The study found out that engaging in CSR activities increases banks' profitability in Ghana, especially for ROE. Besides, the study concluded that bigger and larger banks are more profitable than small companies, so they are more involved in CSR activities. The study also investigated whether foreign ownership and the listing status of banks influence CSR spending. On this aspect, the study found out that banks' listing status influences CSR spending, but foreign ownership does not. The result implies that listed banks are more public and faces more social pressure hence they spend more on CSR to legitimize their operations.

Keywords: *CSR spending, Commercial banks, Performance, Ghana.*

JEL Classification: G30, G31, M14, M41

INTRODUCTION

Research has shown that banks in Ghana view CSR as a strategic tool for competitive advantage (Ofori, Nyuur & Darko, 2014; Islam et al., 2013) and profitability and sustainability. Customers are becoming more environmentally concerned; hence, banks must ensure sustainable development through corporate social responsibility through which the organization will have been ethical (Bhagawan & Mukhopadhyay, 2018; Almamun et al., 2013). The banking sector is one of the most competitive sectors since its liberalization in the 1980s that allowed private sector participation (Musah et al., 2019). There is also a growing non-bank financial institution providing similar services and competing with commercial banks (Ofori et al., 2014). Banks have been compelled by the increased competition to adopt innovative strategies to attract and retain customers as the banks' failure to give customers a reason to stay will allow competitors to give them a reason to leave.

Corporate social responsibility has attracted researchers' attention in the last few centuries amid concerns over climate change (Coffie et al., 2018; Welbeck et al., 2017; Ofori et al., 2014). A literature review has shown that these studies have been skewed towards developed and western countries and emerging markets with less studies in developing countries (Fifka, 2013). Fifka (2013) further argued that the need for corporate social responsibility is more pronounced in developing countries than developed countries, but the reality is the opposite (Coffie et al., 2018; Hassn, 2014).

The higher proportion of multinational companies and banks in developing countries and the gap in the provision of social and economic amenities in developing countries make corporate social responsibility more important in developing countries than in developed countries. The legitimacy theory assumes that firms engage in corporate social responsibility to legitimize their operations and also as a means of public relations (Coffie et al., 2018; Aboagye-Otchere et al., 2020). This suggests that the firm's CSR engagement is not geared towards improving their financial performance, but to help banks look good in their major stakeholders' eyes and gain legitimacy. This notwithstanding, modern organizations, including banks, use CSR as a corporate strategy to gain a competitive advantage, attract and retain customers, and improve their brand, translating into improved financial performance (Ofori et al., 2014).

The need to evaluate Ghanaian commercial banks' social responsiveness to the citizen through their corporate social responsibility is premised on some perceptions about the banking industry in Ghana. The banking sector in Ghana has been the most profitable over the years and is perceived to make an abnormal profit, hence giving back to society. Secondly, the service sector has been the largest contributor to Ghana's gross domestic product in the last few years, with the banking sector dominating the sector in terms of growth and required to contribute more to society (Musah et al., 2019). Finally, commercial banks enjoy more visibility in terms of the beauty of their structures. The higher branch numbers and the continuous media attention on the sector increase social pressure on these banks to be socially responsible. According to Connett et al. (2014), banks globally take corporate social responsibility more seriously than other non-bank firms.

On the global stage, studies that have examined the effect of CSR and financial performance have been well researched in other jurisdiction but have produced mixed results (Bhagawan and Mukhopadhyay, 2018; Connett et al. 2014; Lee et al. 2013; Islam, 2013; Samina, 2012; Garcia-Castro et al. 2010; Griffin & Walsh, 2003). For instance, Bhagawan and Mukhopadhyay (2018) reported a positive association between CSR and firm performance, while Connett et al. (2014) reported a negative association between CSR and firm performance. Moreover, CSR studies have focused mainly on the extractive sector and manufacturing companies because of the consequence of their operations on the environment, with little on the banking sector (Aboagye-Otchere et al., 2020).

The few studies on CSR and bank financial performance have also produced mixed results (Fijałkowska et al., 2017; Ofori et al., 2014; Wu & Shen, 2013; Samina, 2012; Soana, 2011). For instance, while Ofori et al. (2014) and Wu & Shen (2013) reported a positive association between CSR and bank performance, Fijałkowska et al. (2017) reported no significant association between CSR and bank performance. The contrary evidence from previous studies makes this study very important and the fact that banks in Ghana compete over brand image to attract and retain customers.

Several studies have examined CSR activities, reporting, and disclosures in Ghana but little on the effect of CSR spending and financial performance of firms or banks (Aboagye-Otchere et al., 2020; Coffie et al., 2018; Welbeck et al., 2017; Hinson et al., 2010; Rahaman et al., 2004). The only study that has examined the effect of CSR and

financial performance is the study by Ofori et al. (2014), even though the study did not use CSR spending as a measure of CSR activities of banks in Ghana. Commercial Banks in Ghana have been known for their corporate social responsibility in various sectors of the economy. It is against this background that the research seeks to: 1) investigate the relationship between bank performance of Commercial Banks in Ghana and CSR activities; 2) find out to what degree does bank size and profitability influence CSR spending in Ghana; 3) to examine the influence of foreign ownership and listing status on CSR spending in Ghana of commercial banks

CSR studies have primarily used disclosures and reporting as a basis for measuring CSR of the selected institutions (Coffie et al., 2018; Abukari & Abdul-Hamid, 2018). Few studies have relied on firm CSR spending to measure CSR activities (Islam, 2013). Few studies have also examined what drives firms' CSR spending, especially banks. The study simple wanted to understand why some banks spend more money on CSR than others to help drive the CSR conversation in the Ghanaian banking sector.

This study is based on the legitimacy theory, which argues that banks engage in CSR to legitimizes their activities, and hence no reward is expected. Legitimacy theory, therefore, does not anticipate a positive association between firm CSR spending and profitability. However, the theory expects that larger banks and foreign-owned banks, and perhaps listed banks, will spend more on CSR because of the degree of their exposure (Aboagye-Otchere et al., 2020; Coffie et al., 2018; Taskin, 2015). Banks with these characteristics suffer from higher public scrutiny, which compels them to respond through more CSR spending. Therefore, the study's general purpose is to examine the association between bank CSR spending and its profitability and examine bank-specific characteristics that drive its CSR spending in Ghana.

The study makes significant contributions to literature in terms of both theory and empirical analysis. First, the study is among the few studies that seek to understand why banks spend money for CSR purposes using their CSR expenditure. Second, the study relies on legitimacy theory to explain the relationship between CSR and profitability and determinants of CSR that have not been examined in the Ghanaian context. The study also extends previous studies on CSR in Ghana by using a more reliable CSR measure: CSR's amount. The study's result is also useful to policymakers, especially as Ghana is yet to develop a full policy on Ghana's firm CSR.

LITERATURE REVIEW

Corporate social responsibility research in Ghana

Several studies have been conducted on a different aspect of CSR in Ghana in different industries and sectors. Corporate social responsibility studies in Ghana have gained significant attention in the last decades with studies on firms' CSR activities, disclosures, and reporting, among others. Rahaman et al. (2004) examined social and environmental issues using the Volta River Authority as a case study and reported that CSR was motivated by stakeholder pressure. Ofori and Hinson (2007) looked at the CSR perspective of top firms in Ghana based on the top 100 firms' ranking in Ghana. The study compared CSR of local firms and foreign-owned firms in Ghana and reported that CSR appreciation among the local firms was less than the foreign firms. The study also found that foreign firms engage in more CSR dimensions compared to local firms.

Hinson et al. (2010) focused on CSR reporting on the websites of commercial banks in Ghana. The study found that banks that have won CSR awards organized by the Ghana Bankers Association had lower reporting of their CSR activities on their website than

those who have not won such awards. The result suggests that banks do not appreciate the importance of reporting on their website's CSR activities.

In a related study, Hinson & Kodua (2012) focused on CSR activities of some selected foreign and local entities in Ghana. The study found that foreign firms' CSR activities are based on legal prescription, while local firms were based on discretionary motives. The study attributed the discretionary CSR by local Ghanaian firms to the cultural practice where those who have must provide help to the less privileged.

The study that is most related to the current study is the one by Ofori et al. (2014), where they examined CSR's effect on banks' financial performance in Ghana. The study relied on the mixed approach of data collection, including questionnaires and secondary data from the banks' financial statements. The study results showed a positive relationship between CSR activities and banks' financial performance and the fact that banks use CSR as a strategic tool to legitimize their operations. Other studies on CSR in Ghana focused on social and environmental disclosures with less attention to its financial performance impact (Aboagye-Otchere et al., 2020; Coffie et al., 2018; Mahmoud et al., 2017; Boateng & Abdul-Hamid, 2017; Welbeck et al., 2017). Even though these studies examined CSR disclosures, they did not link it to the firms sampled's financial performance. Also, only two of the above studies focused on the banking sector in Ghana.

The impact of CSR on bank performance

Generally, many research works have gone into the study of the relationship between CSR and bank performance. According to Orlitzky et al., (2003), the overall empirical results have shown a positive relationship between CSR and business performance. Besides, Shen & Chang (2009) revealed that firms with strong CSR environments perform much better across various financial scale (metrics) than their competitors with weaker CSR environment. Also, El Ghouli et al. (2011) research work revealed that firms with strong CSRs have lower operating risk, lower cost of equity, and higher overall firm valuation. Also, Cheng et al. (2014) posit that firms with better CSR have more investment opportunities and higher firm value due to easy access to capital liquidity from customers and stakeholders.

In research conducted by Bolton (2013) on the topic “CSR and bank performance and the risks for US banks” came up with complex salient findings. His work revealed a positive relationship between CSR and bank operations and profit/value of the firm. Aspects of his findings were, however, more pronounced in the largest banks and corporations. On the other hand, his findings also revealed a negative relationship banks' risk-taking and CSR environment, especially those aspects of the banks' CSR environment that are key to the banks' operating activities. Also, he revealed that those same aspects of the banks' CSR environment were negatively related to whether or not those US banks received Troubled Asset Relief Program (TARP) relief assistance to bail themselves during the 2008 global financial crisis. However, the overall result shows that improving CSR quality at banks might further improve individual banks and reduce the system of problematic risks associated with the banking sector.

Brian (2012) has also disclosed that even though enough works have been centered on specifics of CSR related issues, little has been done on CSR and Bank performance. A study by Islam et al. (2012) work studied the relationship between CSR and bank performance. Their work revealed a positive but insignificant relationship of CSR enhancing the operating performance of a sample of banks in Bangladesh.

Marcia et al. (2013) explored the extent to which commercial banks in the United States and determine if the banks' level of social responsibility has changed after the financial crisis and to determine if such CSR activities are being rewarded by way of

improved financial. The study relied on secondary data from the financial statement of the banks. The study result showed that large banks have consistently shown strong interest in CSR over the study period, but that reduced after the financial crisis. The study also found that larger banks engaged more in CSR and that their CSR activities were positively associated with return on assets and return on equity. The larger banks also took steps to repair their damaged reputation due to their role in the financial crisis by continuously engaging in CSR.

A study by Sweeny (2009) used structural equation modeling to determine CSR's effect on firms' financial performance. The study used primary data collected by administering questionnaires to the sampled SMEs and large firms used for the study. The study also complimented the questionnaire with structured interviews of top executives in the respective organizations. The study found that the organizations had integrated CSR activities into their operations and had also formalized it. However, the concept of CSR differed from SMEs to large organizations, and as such, the study found a correlation between CSR activities and firm size.

In a related study, Carmen-Pilar et al. (2011) examined CSR's effect on the short and long-term financial performance of entities listed on the Stoxx Europe 600 index and the Stoxx Europe sustainability index. The study results showed that entities' corporate social performance was positively associated with their return on equity. The study found that firms that invest more in being socially responsible are associated with improved financial performance in Europe, which justifies firms' need to be socially responsible in these countries. The study also found a positive association between corporate social performance and the return on equity of the same firms, but this was also associated with the country's development level.

Okiro et al. (2013) established the association between CSR activities and commercial banks' growth in Kenya. The study relied on primary data through the use of a questionnaire as the data collection instrument. The study found that banks used CSR as a means to attract and retain customers for their banks. The study also reported a positive coefficient between CSR investment and the growth of the banks sampled for the study. However, the association between CSR and growth was described as weak based on the correlation coefficient between the two variables. In a related study, Okoth (2012) reported a positive coefficient between CSR activities and large and medium-sized banks' financial performance but no significant association between CSR and small banks. In addition to the above, Mudugu & Okafo (2016) study on Nigerian banks tested the relationship between CSR and firm performance of Nigerian banks. The study results showed that CSR activities were negatively associated with earnings per share and dividend per share but a positive association between CSR and return on capital employed.

Furthermore, Fijałkowska et al. 2017 studied CSR's effect on accounting data of sampled firms in Poland. The study found that even though the bank had invested in CSR activities over the study period, it did not reflect its bottom line. Finally, Bhagawan and Mukhopadhyay (2018), in their study based on a sample of Indian firms, found that CSR activities were positively associated with improved financial performance and firm value.

Determinants of firm CSR spending

Previous studies show that corporate social responsibility determinants in accounting literature have focused on disclosures with very little on factors that influence firm CSR spending (Coffie et al., 2018; Abukari & Abdul-Hamid, 2018; Fifka, 2013). Several studies have found a positive and significant association between firm characteristics and CSR disclosures. Recent studies have revealed a few studies focusing

on CSR expenditure and profitability and its potential determinants. The legitimacy theory argues that firm characteristics determine how firms respond to social pressure by engaging in CSR to legitimize their activities (Coffie et al., 2018; Hassn, 2014). This means that banks with high visibility, more profitable, and foreign-owned will likely spend more on CSR to legitimize their operations in Ghana. The analysis below is a few empirical studies that have examined some of these firm characteristics in other contexts.

Chauhan (2014) examined firm characteristics that determined corporate social responsibility spending. The study used a sample of 30 listed firms over six years from 2007 to 2012. The firm characteristics examined in the study include firm size, firm profitability, firm leverage, and firm sales. The study results showed that firm size, firm profitability, and firm sales significantly influence CSR expenditure.

Mamun et al. (2013) studied the determinants of CSR expenditure of commercial banks in Bangladesh over two years from 2011 to 2012. The study results showed that the number of branches, total investment, and numbers of employees significantly influence bank CSR spending in Bangladesh.

Ahmed & Akter (2015) examined CSR's determinants by banks listed on the Dhaka Stock Exchange. The study measured bank CSR using their CSR spending. The regression results revealed that promotional expenditure and the number of branches significantly influenced bank CSR spending.

Samina (2012) examine the adherence of Islamic banks in Bangladesh to the prescribed form of CSR activities, which included examining the potential determinants of these banks' CSR spending. The study results showed a strong positive correlation between bank CSR expenditure and bank deposit, loan, and profitability.

Islam (2012) examined the impact of profitability on bank CSR expenditure, and the study also included variables such as firm size, return on equity, assets quality, and capital adequacy ratio. The study results revealed that firm size, asset quality and return on equity were positively associated with firm CSR expenditure. In contrast, the capital adequacy ratio was negatively associated with bank CSR expenditure.

Hypothesis development

Several studies have examined CSR's impact on the banking industry and firm performance, especially in developed countries. Most of these studies have reported a positive and significant association between CSR and bank profitability (Ofori et al. 2014). What is somewhat different in this study from previous studies is the measurement of CSR. Most studies rely on bank CSR performance, or index on CSR activities disclosed as a CSR measure and not necessarily focusing on the amount spent on CSR. That notwithstanding, the amount of money spent on CSR determines the bank's commitment towards CSR.

Previous studies have established a positive relationship between bank CSR and financial performance (Cornett et al., 2016 in U.S., Adeyanju, 2012; Ofori et al., 2014; Tafti et al., 2012; Weshah et al., 2012). In Taskin (2015), mixed relationships were found, while no relationship between CSR and financial performance was presented in Soana (2011). Based on the findings of previous studies, the study hypothesizes that:

H1: There is a positive and significant association between CSR spending and bank performance in Ghana measured by ROA and ROE.

Firm characteristics have been among the most research variables in terms of determinants of bank CSR activities. The majority of previous studies report a positive association between firm size and its CSR activities. Profitability has also been another firm characteristic that influences bank CSR activities. This study examines how bank

size, bank profitability measured by ROA and ROE, foreign ownership of banks, and the banks' listing status.

Previous studies have reported a positive association between bank sizes, bank profitability, and bank CSR (Chauhan, 2014; Mamun et al., 2013; Samina, 2012; Islam, 2012). Foreign ownership and listing status have rather received little attention in the literature. Based on the legitimacy theory, foreign banks have greater legitimacy responsibility towards their communities and are expected to spend more in CSR to legitimize their operations. From the perspective of stakeholders' theory, the foreign bank has more stakeholders and is likely to face tougher regulations. They will have to use CSR to reduce those pressures. Based on these arguments, it is expected that there will be a positive association between foreign bank ownership and bank CSR spending/expenditure.

On the last variable listing status of commercial banks, it is expected that listed banks face a greater degree of pressure to legitimize their operations. This pressure from their numerous stakeholders and regulators will compel them to spend more on CSR in an attempt to legitimize their operations. This means that listed banks are expected to spend more in the area of CSR as compared to non-listed banks. Based on the above arguments, the following hypothesis can be drawn from the determinants of bank CSR spending in Ghana.

H2: There is a positive association between bank size and CSR Spending

H3: There is a positive association between bank profitability and CSR spending

H4: There is a positive association between foreign ownership of banks and CSR spending

H5: There is a positive association between the listed banks and CSR spending.

METHODS

The study is based on a quantitative research design and makes use of secondary data. Annual reports of some selected commercial banks were used for the study. Since the public would be interested in making an investment or buying shares in these firms, social information disclosed in their annual reports makes it easy to get a fair idea about the firms' affairs. Commercial banks operating in Ghana constitute the study population, and at the time of data collection, there were 33 licensed commercial banks by the Bank of Ghana.

The study adopted the panel data approach to improve the sample size since quantitative studies' quality and reliability depend largely on sample size. In a study by Stutely (2003), it was argued that the minimum sample size for quantitative analysis is 30. The sample selection from the licensed commercial banks was based on data availability, especially the extent to which the banks publish their financial statements and banks who have financial statements covering 2010 to 2016. The sample period covered 2010 to 2016, with 24 banks meeting the sample selection criteria.

The study adopted two empirical models to achieve the objectives of the study. The first model focused on the effect of CSR expenditure on banks' financial performance in Ghana, where banks' performance was represented by return on assets and return on equity. The second model focused on the determinants of bank CSR spending in Ghana.

The following panel regression models were adopted to examine the effect of CSR spending/expenditure on bank financial performance,

$$ROA_{it} = \beta_0 + \beta_1 CSREXP_{it} + \beta_2 SIZE_{it} + \beta_3 LIST_{it} + \beta_4 OWN_{it} + \varepsilon_{it}$$

$$ROE_{it} = \beta_0 + \beta_1 CSREXP_{it} + \beta_2 SIZE_{it} + \beta_3 LIST_{it} + \beta_4 OWN_{it} + \varepsilon_{it}$$

The following panel regression model was also adopted to examine the determinants of banks CSR spending or expenditure in Ghana,

$$CSREXP_{it} = \beta_0 + \beta_1ROA_{it} + \beta_2ROE_{it} + \beta_3SIZE_{it} + \beta_4OWN_{it} + \beta_5LIST_{it} + \varepsilon_{it}$$

Where

ROA (Return on Assets) = Profit before tax divided by Total Assets

ROE (Return on equity) = Profit after tax divided by Total equity

CSREXP (Corporate social responsibility expenditure) = Natural logarithm of bank CSR expenditure

SIZE (Size of Commercial banks) = Natural logarithm of Total Assets

OWN (Foreign Ownership) = Dummy, 1 if the bank is a foreign bank, 0 otherwise

LIST (The listing status of commercial banks) = Dummy, 1 if a bank is listed on the Ghana Stock Exchange, 0 otherwise

RESULTS AND DISCUSSION

Descriptive statistics

The average return on assets for commercial banks over the study period is 3%, with a minimum of negative 5% and a maximum of 12%. The results are similar to Musah (2018) findings, whose study based on commercial banks in Ghana reported an average ROA of 3% but a maximum of 8.5%. However, the average ROA is lower than that reported by Awunyo-Vitor (2012), who reported a 4.3% average profit based on a sample of listed banks on the Ghana Stock Exchange. On the second measure of profitability, the average return to equity holders of commercial banks in Ghana averaged 15% with a minimum of negative 5% and a maximum of 51%.

Table 1. Descriptive statistics

Variable	Mean	Std. Dev	Min	Max
ROA	0.0297	0.0275	-0.053	0.12
ROE	0.1518	0.3887	-0.452	0.511
CSR EXP	1,463,533.97	0.97345	2,000	5,000,000
OWN	0.5892	0.4934	0	1
SIZE	9.0892	0.5834	7.8084	12.72336
LIST	0.3333	0.4728	0	1

On the CSR spending of commercial banks in Ghana, the descriptive statistics reveals that commercial banks in Ghana spend an average of GH¢1,463,533.97 over the study period. The bank with the highest spending on CSR was GH¢5,000,000, and the one with the least expenditure on CSR was GH¢2,000. The results also revealed that 59% of commercial banks sampled for the study are foreign-owned, suggesting that foreign banks dominate Ghana's banking industry. Finally, the results show that a third (33.33%) of the sampled commercial banks is listed on the Ghana Stock Exchange.

Correlation analysis

On the relationship between banks' CSR expenditure and profitability, two analyses are presented based on the two measures of profitability ROA and ROE whiles on the determinants of banks CSR spending. Only one correlation analysis is presented with CSREXP dependent variable. The results of the correlation analysis are presented in Tables 2, 3, 4.

The correlation analysis presented in Table 2 shows a positive but statistically insignificant correlation between return on assets and bank CSR spending. The results suggest that an increase in bank CSR spending improve profitability even though the

relationship is weak. This study is contrary to the findings of Bill (2012). Hotels in the communities mostly engaged in social initiatives just to be in harmony with the community's people. So they can be seen as part of the bigger family, which is the community and not because of how profitable CSR is to them.

Ansong (2017) found out that there existed an indirect effect of CSR on SMEs' financial performance through stakeholder engagement, which was also in agreement with the findings of Donaldson & Preston, (1995) and Freeman, (1983). Nnachi & Isu (2017) also concluded a significant relationship between corporate social responsibility expenditure and bank profitability in Nigeria. The result further shows a positive and significant correlation between a bank's size and its profitability. Also, foreign ownership has a positive and significant correlation with return on assets, just as banks' listing status positively correlates with return on assets. This finding is consistent with Musah (2018), which infers that the size of a company and some other factors are important determinants of profit. It draws the community's attention towards urging these big companies to be socially responsible. When this happens, more customers are attracted, which, in turn, increases profits.

Table 2. Correlation analysis between ROA and other independent variables

	ROA	CSREXP	SIZE	OWN	LIST
ROA	1.00				
CSREXP	0.0363	1.00			
SIZE	0.3085***	0.4732	1.00		
OWN	0.2502**	-0.2294	-0.0842	1.00	
LIST	0.1918*	0.2278	0.2808	-0.1027	1.00

(*** denote significant at 1%, ** significant at 5%, * significant at 10% significance level)

The second correlation analysis in Table 3 shows a positive and significant correlation between bank CSR spending and return on equity. The result confirms the study's expectations and shows that bank spending in CSR improves profitability to equity holders. The control variable, bank size, foreign ownership, and banks' listing status were all positively correlated with return on equity even though only bank size is statistically significant. The results are contrary to Bowerman and Sharma (2016) findings, who found no significant association between CSR and financial performance of firms in the United Kingdom and Japan.

Table 3. Correlation analysis between ROE and other independent variables

	ROE	CSREXP	SIZE	OWN	LIST
ROE	1.00				
CSREXP	0.1593**	1.00			
SIZE	0.2087***	0.4732	1.00		
OWN	0.1146	-0.2294	-0.0842	1.00	
LIST	0.1237	0.2278	0.2808	-0.1027	1.00

(*** denote significant at 1%, ** significant at 5%, * significant at 10% significance level)

Finally, the last one in Table 4 examined the potential determinants of bank CSR spending on the correlation analysis. The result of the correlation analysis reveals that profitability is a potential determinant of bank CSR spending. Both ROA and ROE positively correlated with bank CSR spending even though only ROE had a significant correlation with bank CSR spending. The results suggest that profitable banks invest more in the area of CSR as compared to less profitable ones. In other words, the more profitable a bank is, the more it will spend on CSR.

The study's result is consistent with Sabri & Sweiss (2016) findings, who also reported a positive and statistically significant coefficient between CSR and return on equity. The result also confirms previous studies such as Yeung (2011) and Nwaneri (2015), whom all reported a positive coefficient between CSR and firms' financial performance. A study of Indian banks revealed that only ROA, ROE, and EPS were influenced by CSR spending, which shows that the companies' key financials are affected if there is a change in CSR spending. The results also revealed a positive and statistically significant correlation between the bank's size and its CSR spending. The results suggest that larger banks spend more in the area of CSR as compared to smaller banks. According to Coffie et al. (2018), the size of a company and some other factors are important to CSR. It draws the community's attention towards urging these big companies to be socially responsible. In this case, there focus most of their CSR activities on attracting customers. Therefore, the bigger the firm size, the bigger CSR activities is carried out since it will also be another means of reaching out to customers.

On the other hand, the correlation results showed a negative and significant association between foreign ownership and bank CSR spending. The result shows that foreign banks spend less in the area of CSR as compared to local banks. Finally, the correlation results showed a positive and significant correlation between banks listed on the Ghana Stock Exchange and CSR expenditure. The results suggest that banks listed on the Ghana Stock exchange spend more on CSR than non-listed banks.

Marfo et al. (2016), in his study, found out that profitability does not have a significant influence on the level of voluntary CSR reporting by companies listed on the Ghana Stock Exchange, which means that spending on CSR is not dependent on the fact that a company is listed or not. Based on the results, the researcher also concludes that being listed on the Ghana Stock Exchange does not influence or associate with the disclosure of corporate social responsibility activities; hence, it does not affect CSR spending (Raynolds, 2015). According to Oppong (2014), CSR is less likely to be a key driver of investment decisions. As a result, CSR will not affect listed companies' financial performance, let alone unlisted ones due to underdeveloped stock exchange market such as GSE, thereby concluding that a bank listed or unlisted does not affect CSR spending.

Table 4. Correlation analysis of determinants of bank CSR spending

	CSREXP	ROA	ROE	SIZE	OWN	LIST
CSREXP	1.0000					
ROA	0.0363	1.0000				
ROE	0.1593**	0.4307	1.0000			
SIZE	0.4732***	0.3085	0.2027	1.0000		
OWN	-0.2294***	0.1502	0.1146	-0.0842	1.0000	
LIST	0.2278***	0.0918	0.1237	0.2808	-0.1027	1.0000

(*** denote significant at 1%, ** significant at 5%, * significant at 10% significance level)

Regression analysis

Table 5 shows that the independent variables can explain 31% of the dependent variable's variations. The probability of the F-Statistic is significant, suggesting that the model is well fit. There is a positive relationship between bank CSR expenditure and bank profitability. However, the relationship is statistically insignificant. The results suggest that banks' CSR spending does not significantly improve profitability as measured by return on assets. The result is contrary to the first hypothesis's expectation, which expects a positive and significant association between bank CSR spending and profitability. The results suggest that customers do not reward banks for spending more

on CSR, which could be attributed to several factors. This finding is consistent with the legitimacy theory's expectations, which sees CSR as a means to legitimize banks' operations and not for profit purposes.

On the control variables, bank size is positively associated with bank profitability (statistically significant at 1%). The bigger banks enjoy economies of scale, which allows them to improve their profitability. The results are consistent with previous studies such as Musah (2018), Awnuyo-Vitor & Badu (2012), and other similar studies in Ghana. Table 5 also revealed a positive association between the listing status of commercial banks and profitability. The banks listed on the Ghana Stock Exchange are more profitable than the non-listed banks. Finally, the relationship between foreign ownership bank profitability is statically insignificant.

Table 5. Regression results between ROA and independent variables

Variable	Coefficient	Std. Err
CSREXP	0.0010303	0.0014459
SIZE	0.01348808***	0.0039016
OWN	0.0049425	0.0064400
LIST	0.08671***	0.0036375
CONST.	-0.0834328**	0.0727922
R-Square	0.3141	
Wild Chi2 (4)	13.8	
Prob> Chi2	0.0095	

(*** denote significant at 1%, ** significant at 5%, * significant at 10% significance level)

Table 6 shows that there is a positive association (insignificant) between bank CSR spending and return on equity. This result is consistent with the legitimacy theory, which predicts an insignificant association between bank CSR and profitability. On the control variables, bank size is positively associated (significant) with return on equity.

The result confirms that larger banks can take a bigger risk and enjoy economies of scale, enhancing their profitability. The result also shows a positive association and significance between foreign ownership and return on equity. The result shows that foreign banks in Ghana generate greater returns to equity holders compared to local banks. Finally, the study found a positive association (insignificant) between commercial banks' listing status in Ghana and return on equity.

Table 6. Regression results between ROE and independent variables

Variable	Coefficient	Std. Err
CSREXP	0.02060429	0.0208088
SIZE	0.1701048***	0.0600463
OWN	0.2056457**	0.0811808
LIST	0.0656297	0.0851397
CONST.	-0.9417934*	0.5085073
R-Square	0.4532	
Wild Chi2 (4)	11.33	
Prob> Chi2	0.02	

(*** denote significant at 1%, ** significant at 5%, * significant at 10% significance level)

The analysis of bank CSR expenditure determinants shows a negative association between ROA and CSR spending. However, the relationship is statistically insignificant. The more profitable a bank, the less it spends on its CSR. In other words, profitable banks spend less on CSR in Ghana than less profitable ones using ROA to measure profitability. Contrary to the second hypothesis's expectations, the result predicts a positive association between bank profitability and CSR spending.

Table 7 further revealed a negative association and significance between return on equity and profitability of commercial banks in Ghana. The result shows that banks with a higher return on equity spend more on CSR and vice versa. The result is consistent with the expectation of hypothesis 2b and confirms the results of previous studies. In previous studies, like Nawaiseh et al. (2015), more ROE companies are more likely to increase the extent of their corporate social disclosure, and less ROE companies are more likely to reduce the extent of their CSR disclosures about employees. The result also shows a positive and statistically significant association between bank size and CSR spending. The results show that larger banks spend more on CSR as compared to smaller banks.

Table 7. Regression results on determinants of bank CSR spending

Variable	Coefficient	Std. Err
ROA	-4.189033	3.966491
ROE	0.3527581***	0.1172208
OWN	-0.5512974	0.4644785
SIZE	0.7561119**	0.33606
LIST	0.6177136***	0.20888419
CONST.	5.372853*	2.891918
R-Square	0.5614	
Wild Chi2 (5)	76.61	
Prob> Chi2	0.000	

(*** denote significant at 1%, ** significant at 5%, * significant at 10% significance level)

The result is consistent with the expectation of legitimacy theory, which argues that larger corporations have huge exposure and will need to legitimize their operations by engaging in CSR. These larger banks spend more on CSR to enhance their corporate image, which is part of the legitimization process. The result is consistent with the expectations of hypothesis H3, which predicts a positive association between bank size and CSR expenditure and the legitimacy theory.

On the contrary, Nawaiseh et al. (2015) discovered that evaluating the explanatory variables' slope coefficients reveals a negative relationship between the number of corporate social responsibility disclosures about employees and Firm Size at a significance level of 5%. An analysis by Monsuru (2014) showed that the banks' size positively and significantly affects banks' profitability. The higher the expansion of banks' size, the higher the profitability of banks. The results revealed a negative association between foreign ownership and bank CSR expenditure on the issue of ownership. The relationship however, is statistically insignificant. The results suggest that foreign banks spend less in the area of CSR as compared to local indigenous Ghanaian banks.

Contrary to the legitimacy theory's expectations, foreign banks have greater responsibility in legitimization than local banks. Finally, the regression result shows a positive association between commercial banks' listing status and CSR expenditure. The result is statistically significant at 1% significance level. The result shows that banks listed on the Ghana Stock Exchange spend more on CSR than non-listed banks. The result is consistent with the expectations of the legitimacy theory and confirms the expectations of hypothesis H4. The result confirms the stakeholders' theory's expectations and assumes that listed firms have more stakeholders to address their concerns, increasing CSR expenditure.

CONCLUSION AND RECOMMENDATION

Conclusion

Quite a reasonable amount of money is invested in doing CSR, which has also increased over the years. Also, engaging in CSR activities helps increase the banks' profitability both in ROE and ROA but more for ROE than ROA. Without the people of society, businesses cannot flourish, and without businesses, people in society cannot live comfortably. It is therefore wise for these two entities to be in a mutually benefiting relationship.

The listing status of commercial banks in Ghana has a lot to do with CSR activities and spending. The reason is that listed firms are considered bigger; therefore, the bigger the firm, the more likely it will be listed on the stock exchange. Since the study discovered that bigger firms engage more in CSR activities, listed firms are of no exemption. Therefore, the study concludes that bigger firms listed on the Ghana Stock Exchange engage more in CSR activities and spend more in that regard.

Recommendation

Government ensure that measures are put in place to ensure that all banks, listed or unlisted, foreign or local, big or small, should give back to society by engaging in CSR activities. This emphasis should be made strongly on foreign-owned banks since the study found that they do not engage more in CSR activities and spend relatively less on CSR.

Limitations of the study

One of the study's significant limitations is the reliance on secondary data as the primary source of data. The findings' validity is hinged on the secondary data's credibility extracted from the banks' annual reports. Given that almost all the data extracted were audited, it stands to reason that they are credible. Secondly, quantitative analysis through secondary data does not allow for netter introspection of the motives for banks' CSR spending, which can be improved through a qualitative study in the future. Finally, data unavailability did not allow some banks to be included in the study, enhancing the study's findings.

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Effects of financial development on income inequality in East Java Province

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Abstract

The research purposes are: (1) to determine the effect of financial sector development on income inequality in East Java Province, (2) to determine the effect of regional characteristics on income inequality in East Java Province. The study uses descriptive quantitative methods. The analysis method uses panel data regression with time series from 2013 to 2017 and cross-sections of 38 districts in East Java Province. The study results are as follows: (1) financial development has a negative and significant effect on income inequality, (2) the regional budget has a positive and significant effect on income inequality in East Java Province, (3) population density has a positive and significant effect on income inequality, (4) poverty has a positive and significant effect on income inequality, and (5) unemployment has no influence and is not significant in income inequality.

Keywords: *Financial development, Panel data, Regional economics*

JEL Classification: O23, R11, C23

INTRODUCTION

Financial development is considered a strategic element that plays a fundamental role in the economic development process. The financial sector is primarily regulated because it is considered a supporting economy (Mishkin, 2009). The development of the financial sector is expected to be a function of financial intermediation that can develop and create a better economy. According to Bagehot (1873) explained, the financial sector was significantly able to trigger economic growth by mobilizing a banking sector capital. Furthermore, King & Levine (1993) also show that the financial system is proven to increase economic growth.

Economic growth can be an appropriate indicator of the development process but must consider other factors such as income inequality issues. According to Greenwood & Jovanovic (1990), based on the Kuznets hypothesis, it shows that the financial sector will encourage inequality in the early stages of development. Nevertheless, after the financial sector is at the peak point, inequality will decrease because the financial sector tends to strengthen. This condition indicates a U-reverses hypothesis between financial sector development and income inequality (Tan & Law, 2012). Shortness of access to finance has long been recognized as a potential problem in increasing the gap between poor and rich.

Kappel (2010) investigated the effects of financial sector development on poverty and income inequality, using a panel data regression model. The independent variable of the financial sector development is measured from the banking sector, namely private credit per GDP. It is also covered from the stock sector's development, including the stock market capitalization to GDP, the total market value of shares traded to GDP, and market turnover ratio. The conclusions show that inequality and poverty are reduced through increased market lending and more developed stock markets. In comparison, the effect of financial inclusion on income inequality in Asia was reviewed by Park & Mercado (2015). The study examined the effect of financial inclusion and supporting variables on income inequality and poverty. The result of financial inclusion has a significant reduction effect on income inequality and poverty in selected countries.

The situation of income inequality in East Java Province still needs attention. The income inequality problem is that not all people get the same income from each asset because of the frequently centralized financial resources of prosperous households with access to financial markets (World Bank, 2016). Even though East Java's economic growth is progressing, there is severe inequality in East Java.

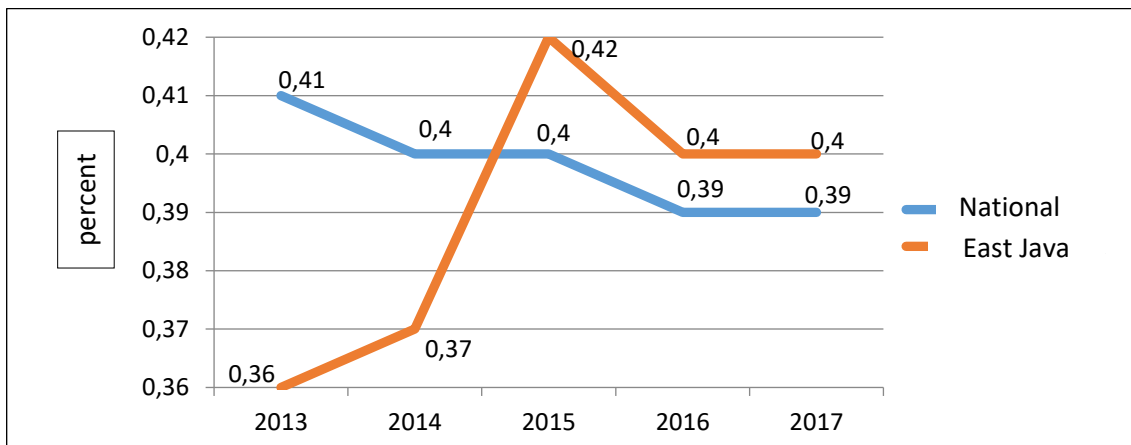


Figure 1. Gini Ratio of East Java Provinces and National, 2013-2017
 Source: BPS East Java Province

The Gini ratio's situation in 2013-2014 East Java Province is lower than the national Gini ratio. In 2015-2017, the East Java Province ratio was more leading than the national level Gini ratio. In 2015 there was the highest income inequality, which was 0.42 percent, although it declined in the following year; the problem of inequality must still be considered. In 2017, the province of East Java was rated tenth at the national level with the highest level of income inequality and included in moderate-income inequality, so that if it remains. It can affect the national economy because East Java is a province that plays an important role and is realized as the center of eastern Indonesia, which presents relatively high and significance to the national economy. Therefore, efforts are still needed to alleviate income inequality, one of which is financial development.

This study is revised from Jaumotte (2008), and Seven & Coskun (2016) explain that significantly the financial sector's development positively influences income disparities in selected countries. They use the same financial sector development indicators, particularly private sector credit to GDP, however in the study of Jaumotte (2008), using financial disclosure variables includes FDI, an equity portfolio, financial derivatives, and total reserves minus gold. This research implies that the financial sector's development harms income inequality performed through a credit ratio per GDRP, also providing significant. It indicated that the financial sector is getting deeper (financial

deepening), which means that credit access to the public is getting higher (Lynch, 1996). It can decrease the income gap at the regional level district/city of East Java province. Financial sector development measures are also used only in the banking sector's scope and use regional characteristic factor variables to see their income inequality effects.

METHODS

The used in this study are secondary data. This study's data type is panel data, covering annual time series data from 2013 to 2017 and cross-sections covering 38 districts/cities in East Java Province. Time series do not use 2018-2019 data because the Gini ratio data used is not yet available, and the latest data is only until 2017. The variable includes the Gini ratio, Financial Sector Development as measured by credit/GDRP ratio, asset ratio/GDRP, Third Party Funds/GDRP ratio, and regional characteristics use APBD, population density, poverty, and open unemployment rates. Sources of data were obtained from the Regional Economic and Financial Statistics through the official website of Bank Indonesia and publications in the East Java Provincial Statistics Agency.

The theory underlying the model in this study is the theory of financial development. According to the International Monetary Fund, in the financial sector development, there are three institutional financial indexes: a financial institution depth index, an index of access to financial institutions, and an index of financial institutions' efficiency.

This study employs various independent variables from many sources. For the bank credit ratio/GDP variable; and the ratio of third party funds/banking GDP, using Bank Indonesia's opinion (2015). For the regional revenue using Hur's opinion (2014). For population density variables using research by Sylwester (2003), for poverty variables using Ahmad & Triani (2019), and for unemployment variables using the idea of Deyshappriya (2017).

The research uses a quantitative approach. The data analysis used is the panel data regression method. The panel data equation model can be written as equation (1) – (3):

$$GRit = \beta_1 - \beta_2FD_{1it} - \beta_3Yit + \beta_4KPit + \beta_5PMit + \beta_6TPTit + uit.....(1)$$

$$GRit = \beta_1 - \beta_2FD_{2it} - \beta_3Yit + \beta_4KPit + \beta_5PMit + \beta_6TPTit + uit.....(2)$$

$$GRit = \beta_1 - \beta_2FD_{3it} - \beta_3Yit + \beta_4KPit + \beta_5PMit + \beta_6TPTit + uit.....(3)$$

GRit = Gini Ratio, β_2FD_{1it} = ratio Credit/GDRP (FD1), β_2FD_{2it} = ratio asset/GDRP (FD2), β_2FD_{3it} = ratio of third party fund/GDRP (FD3), β_3Yit = APBD (regional revenue), β_4KPit = density population, β_5PMit = number of poor population, β_6TPTit = unemployment rate.

RESULTS AND DISCUSSION

Chow test and Hausman test

The Chow test is used to classify between Common Effect Model or Fixed Effect Model methods (Baltagi, 2005). If the P-value is smaller than the significance level of 0.05, the selected model is a fixed model. Otherwise, the model used is the Common Effect Model. Based on Table 1, the best method for the three models is the Fixed Effect Model.

Table 1. Chow test results

Redundant Fixed Effect Test	Model 1 (FD1)	Model 2 (FD2)	Model 3(FD3)
Chow Test (Prob).	0.000000	0.000000	0.000000
Cross-Section F (Statistic)	3.743542	3.848648	3.786771

Hausman test is used to choose the Random Effect Model or Fixed Effect Model. If the chi-square probability value is smaller than the significance level of 0.05, the Fixed Effect Model model is used. Otherwise, the model used is the Random Effect Model. Based on Table 2, the best method for the three models is the Fixed Effect Model.

Table 2. Hausman test results

Correlated Random Effects	Model 1(FD1)	Model 2(FD2)	Model 3(FD3)-Hausman Test
Uji Hausman (Prob.)	0.0061	0.0059	0.0085
Cross-section random (Chi-Sq. Statistic)	16.278636	16.354333	15.465474

Panel data regression estimation

The FD1 (credit ratio per GRDP) has a negative and significant effect on income inequality (Table 3). The results of this study are in line with research conducted by Beck & Levine (2004), Marsossetiawan & Saleh (2016), and Mohsen & Ruixin (2014), explaining that financial development proxied through private sector credit to GRDP has a negative and significant effect on income inequality. Besides, Neaime & Gaysset (2018) found that financial inclusion affected reducing income inequality. The development of the financial sector, especially in the banking sector, can increase access and use of banking services by the public. The public expects open access to banking services through lending to use it for productive economic activities. Conversely, if access to financial services becomes increasingly difficult, the poor can only rely on limited savings to invest, and small entrepreneurs must rely on profits to continue their business. As a result, income inequality does not decrease (Allen, 2012).

The FD2 (asset ratio per GRDP) negatively and significantly affect income inequality. The study results are in line with Clarke et al. (2006), which analyzes the relationship between finance and income inequality for 83 countries. One measure of financial development variables is banking assets, which statistically negative significant.

The FD3 (ratio of third party funds per GRDP) has a negative and significant effect on income inequality. According to Supartoyo et al. (2018), third-party funds as a source of bank funds used for banking activities such as credit can affect the amount of credit distributed to the public. So that more and more third-party funds will increase the amount of credit extended. More and more loans are channeled so that people can also get large loans to reduce income inequality through investment or the development of community-owned businesses obtained from bank credit capital.

The APBD (Y) significantly and positively influenced income inequality in East Java Province in 2013-2017. It is not by the hypothesis in which the Regional Revenue and Expenditure Budget have a negative and significant effect on income inequality in East Java Province. The results are from research by Wardhana (2013) and Qibthiyyah (2017). Wardhana (2013) states that the increasing income inequality is caused by differences in potential, resources, inadequate infrastructure facilities, and high dependency burden. Besides, there is a tendency for differences in the potential sources of revenue in each province, one of which is that regional income can increase income inequality. Meanwhile, Qibthiyyah (2017) regional income has a positive effect on economic inequality. It seems that provinces with high-income sources have high inequality.

Table 3. Panel data regression results

Model 1 (FD1) Credit Ratio/GDRP				
Variabel	Coefficient	Std. Error	t-Statistic	Prob.
C	0.199803	0.034575	5.778895	0.0000
FD1	-0.032977	0.016465	-2.002871	0.0470*
Y	1.19E-14	1.56E-15	7.604509	0.0000*
KP	3.61E-05	9.74E-06	3.705200	0.0003*
PM	0.000404	0.000233	1.735935	0.0847**
TPT	0.001862	0.002215	0.840563	0.4020
Model 2 (FD2) Asset Ratio/GDRP				
C	0.197677	0.034581	5.716293	0.0000
FD2	-0.011862	0.005508	-2.153492	0.0329*
Y	1.17E-14	1.56E-15	7.495113	0.0000*
KP	3.39E-05	9.21E-06	3.685106	0.0003*
PM	0.000415	0.000232	1.789863	0.0755**
TPT	0.001749	0.002210	0.791324	0.4300
Model 3 (FD3) Third Party Funds Ratio/GDRP				
C	0.201046	0.034483	5.830202	0.0000
FD3	-0.021692	0.010436	-2.078658	0.0394*
Y	1.18E-14	1.56E-15	7.576894	0.0000*
KP	3.35E-05	9.19E-06	3.649327	0.0004*
PM	0.000410	0.000232	1.763982	0.0798**
TPT	0.001732	0.002213	0.782814	0.4350
F-statistic Model 1 (FD1)		8.738883	Prob.	0.000000
F-statistic Model 2 (FD2)		8.789621	Prob.	0.000000
F-statistic Model 3 (FD2)		8.763953	Prob.	0.000000
Adjusted R-squared Model 1 (FD1)		0.632319		
Adjusted R-squared Model 2 (FD2)		0.633837		
Adjusted R-squared Model 3 (FD3)		0.633071		

* Significant at the level 5%, ** Significant at the level 10%

The population density (KP) variable significantly and positively influenced income inequality in East Java Province in 2013-2017. A parallel study was conducted by Matondang (2018) that population density is one factor that can increase inequality in income distribution. Population densities that are increasingly dense or continue to increase decrease income per capita and causing inequality conditions increasingly lame.

The poverty (PM) significantly and positively influenced East Java Province's income inequality in 2013-2017. The results are following research by Ahmad & Triani (2019) and Prastowo (2018), who found that poverty has a positive and significant effect on income inequality. Poverty is closely related to income inequality. Income inequality occurs due to the unequal distribution of community income between high-income and low-income groups and the level of poverty or the number of people below the poverty line (Tambunan, 2001).

The unemployment (TPT) has a positive and not significant effect on East Java Province's income inequality in 2013-2017. The unemployment rate is not affected because the open unemployment rate in 38 districts/cities in East Java is relatively low, affecting income inequality (Hariyani, 2019). Proper research conducted by Hindun, Ady, & Hariyati (2019) states that unemployment does not affect Indonesia's income inequality.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

This study proposes to examine the impact of financial sector development and regional characteristics on income inequality in East Java Province. The estimation shows that the development of the financial sector, which is proxied by the ratio of credit per GDRP, the ratio of assets per GDRP, and the ratio of three-party funds per GDRP, has a negative and significant effect on income inequality in East Java Province.

For regional characteristic factors, it is determined that new things from the APBD variable have a significant positive effect but are not following the hypothesis. Because East Java Province has an unequal portion of local revenue, around 37 percent of the APBD is used for personnel expenditure, while only about 20 percent for capital expenditure. This distribution makes the budget for regional economic development to occur the lowest, making it difficult to improve people's welfare and increase inequality.

Population density and poverty variables have a positive and significant effect on income inequality in East Java Province. However, the unemployment variable does not affect income inequality in East Java Province because the open unemployment rate in 38 districts/cities of East Java is relatively low, affecting income inequality.

Recommendations

Income inequality is still a problem that is usually handled by a country and even in regional areas. To mitigate inequality, developing the financial sector, especially banking, is very important because of its affordability in society. With easy access, people can receive credit and investment to encourage economic improvement, improve income, and are also supposed to succeed in income inequality. The government must also give more attention to regional characteristic factors such as regional income, population density, poverty, and unemployment, affecting income inequality. It is expected that the government's policies will be more cautious so that inequality can be decreased.

This study has several conditions, the shortage of literature on the banking financial sector's development variables, such as assets and third-party banking funds. Also, research only reaches in 2017 because the latest available data is not available until 2019. So that in forthcoming studies, it is better to utilize other income inequality notices such as the Williamson Index and Inflation Rate. Furthermore, it can additionally include more variable independent variables, such as government social assistance programs. Furthermore, we can apply different methods to achieve more conclusive results.

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Jambi City community transportation modes and influencing factors

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Abstract

This study aims to analyze the Jambi City community transportation modes' needs and diversity and influencing factors. This study uses primary data and secondary data. Primary data comes from a sample of households in Jambi City. Meanwhile, secondary data comes from related agencies or institutions at the National, Provincial, and City of Jambi levels related to transportation macro conditions. This study uses descriptive statistical analysis to analyze the diversity of transportation modes used in Jambi City. Meanwhile, to analyze the factors that influence transportation mode choice, it is estimated using logit ordinal regression models. The analysis results found that the primary mode of transportation used by the Jambi City community was personal motorbikes. Public transportation is the second choice, and the use of private cars is the third option. The choice of transportation mode is influenced by gender, main activity, car ownership, motorcycle ownership, and household income.

Keywords: *Ordinal logit, Transportation modes, Urban*

JEL Classification: O18, R22, R41

INTRODUCTION

The transportation sector has an important role and relationship with economic growth. Adequate transportation will improve accessibility and the allocation of resources and time (Maryanta, 2005). Especially in urban areas, transportation is vital because the city functions as the center of community activities, both social and economic. A good transportation system will create a city that is efficient, with high growth, and can provide optimal welfare to its people. On the other hand, a city with a poorly organized transportation system will cause chronic congestion, inefficiency, and hamper urban growth.

As the capital city of Jambi Province, Jambi City is one of Indonesia's urban areas that has overgrown in terms of the economy and various other development fields. It has attracted the public's interest in doing activities in this city, both in Jambi Province and people outside Jambi Province. It has an impact on the high level of urbanization in Jambi City. Data for 2019 shows that the population density of Jambi City reaches 2,602 people per km², which is far above the average population density of 62 people per km² in Jambi Province (BPS, 2020b).

High urbanization in urban areas will trigger a high level of population density. It shows that the city has functioned as an innovation engine that provides many jobs and social services. On the other hand, the high population density will trigger high demand for population mobility (Böhler-Baedeker et al., 2014; Sekhar, 2014). This fact is also found in Jambi City. The need for transportation in Jambi City has increased rapidly. It can be seen from the increase in traffic volume due to increased vehicles and increased frequency of community trips. During the 2014-2018 period, two-wheeled vehicles in Jambi City reached 23.12 percent per year, and four-wheeled vehicles reached 38.10 percent per year (BPS, 2020a).

On the other hand, during this period, the road's length did not increase, which only grows 0.19 percent per year (BPS, 2019). This condition causes high levels of congestion on the main roads in Jambi City during peak hours. Research by Hardiani, Junaidi, and Achmad (2015) and Amril and Junaidi (2019) found high traffic jams in Jambi City during peak hours, especially on roads leading to housing offices.

Based on this, reducing traffic congestion is one of the main targets that must be carried out in transportation policy in Jambi City. It is necessary considering the economic losses caused by the massive traffic congestion, such as travel delays, wasted fuel consumption, wasted time, and others. Travel delays reduce economic productivity and quality of life.

Jambi City can implement various policies to reduce congestion. However, for the policy to be effective and on target, it requires information and studies on community needs for transportation and the choice of the mode of transportation used. This study aims to analyze the needs and diversity of transportation modes used by the people of Jambi City and the factors that influence the choice of transportation modes for the people of Jambi City.

LITERATURE REVIEW

Transportation and modes of transportation

Transportation is a significant component in life and living systems, government systems, and social systems. The transportation system is a fundamental infrastructure element (Amin & Hasbullah, 2018) that affects urban development patterns (Aminah, 2007). The vital role of the transportation sector for economic activity requires an effective and efficient transportation system. An effective transportation system refers to a transportation system that can meet the transport capacity. It is integrated between modes, orderly, regular, smooth, fast and precise, safe, safe, comfortable, and economically affordable. Efficient transportation will positively impact the public burden as transportation service users become low and have high utility. According to (Dwiatmoko, 2019), these things at the next stage will increase competitiveness, productivity, and innovation that can trigger economic growth.

Transportation is a tool for activities that aim to move, transport, and divert goods and people from their place of origin to their destination to be more useful or can be used for specific purposes (Andriansyah, 2015; Tamin, 2000). There are two essential transportation elements: moving and physically changing goods (commodities) and passengers to other places (Salim, 2016).

Community travel activities in meeting household need better and cheaper have encouraged various tools or modes (Rahmani, 2000). Mode of transportation is a type of transportation infrastructure used to move people and goods from their place of origin to

their destination, influenced by geographical conditions and technological developments (Azis & Asrul, 2018). The findings of Alfadin et al. (2018) suggest that the choice of transportation mode is simply related to the type of transportation used. The types of transportation used are usually private vehicles (bicycles, motorbikes, cars) or public vehicles (buses, public transportation, rickshaws, trains, etc.).

Demand and choice of transportation modes

Demand for transportation services is a demand derived from human needs to carry out activities from one place to another and the need for the availability of goods at the destination place (Andriansyah, 2015). Therefore, the more human activities, and the more human needs, the more demand for transportation services increases. Every individual or household always tries to maximize utility, which is directly faced with the choice of various opportunities they have (Maryanta, 2005). So, to increase effectiveness when traveling, people need to choose the best mode of transportation used.

Travel behavior and the pattern of choosing transportation mode affect traffic congestion (Sugiyanto, 2013). Therefore, an understanding of the factors that influence transportation mode choice can be used as a basis for determining appropriate transportation policies.

According to (Bottai et al., 2006; Cao et al., 2007; Handy et al., 2006; Limtanakool et al., 2006; Setyodhono, 2017), there are two groups of factors that influence transportation demand, which is also aspects of community consideration in choose the mode of transportation. First, it is the socio-economic factors of an individual or household: income level, vehicle ownership, type of work, age, gender, marital status, number of dependent children, number of workers, etc. The second is the travel characteristic factor. In this case, travel characteristics include travel distance, travel purpose, travel time, and travel costs.

Previous research

Various studies have been carried out regarding the factors that influence transportation modes in cities in Indonesia. Indra and Sukarman (2014) found that travel time and distance affect private and public transportation modes in Palembang City. Riani et al. (2018), in their research regarding the choice of travel mode to shopping centers using private vehicles (motorbikes and cars), found that factors that influence the choice of travel mode are gender, expenditure, motorcycle ownership, trip length, and the relative travel time of the car.

Research on transportation modes has also been carried out in cities in various countries in the world. Sugiyanto (2013), in his research in the Philippines, found that daily travel patterns, trip characteristics, socio-economic characteristics, and transportation policies' effectiveness influenced transportation modes' choice. (Madhuwanthi et al., 2016) in West Sri Lanka Province found that factors that influence the choice of transportation modes are vehicle ownership, safety, and comfort. (Ashalatha et al., 2013) examined the choice of mode for commuters in Thiruvananthapuram City and found that the significant influencing factors were age, gender, income, vehicle ownership, distance traveled, time per distance, cost per distance. (Salarvandian et al., 2017) researched the city of Tehran, Iran. His research found that transportation mode choice for work trips is influenced by gender, car ownership, income, education, age, number of dependent children, working family, house outside the two traffic zones, and house in OEZ.

METHODS

Primary data comes from selected households. The population in this study were all households in Jambi City. The sampling method used was stratified two-stage sampling:

The First Stage, selecting the *rukun tetangga* (RT= neighborhood) sample to be the research location. Conducted by purposive sampling with the following considerations and approaches:

1. Jambi City has 11 sub-districts. Of the 11 sub-districts, two were determined with the largest population. Based on the data, it was obtained from Alam Barajo District and Paal Merah District.
2. From each sub-district, one *Kelurahan* (urban village) with the largest population is determined. Based on this, the Kenali Besar Village in the Alam Barajo District and the Talang Bakung Village in the Paal Merah District were determined.
3. From each selected *Kelurahan*, three RT are assigned randomly.

The Second Stage, selecting a sample of 25 households in each selected RT. The number of selected RTs is 6 RT, so that the sample size is 150 household samples. Sampling was done by random sampling.

The instrument for collecting data on household samples used a questionnaire. The data were analyzed descriptively to obtain the diversity of transportation modes used in Jambi City. Factors affecting the choice of mode of transportation were analyzed using a logit ordinal regression model:

$$g(x_{ki}) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_{3D1} X_{3D1} + \beta_{3D2} X_{3D2} + \beta_{3D3} X_{3D3} + \beta_{4D1} X_{4D1} + \beta_{4D2} X_{4D2} + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \beta_{10} X_{10} + \beta_{11} X_{11} + e_i$$

Information:

$g(x_{ki})$ = Transportation Mode

1 = Public Vehicle

2 = Motorcycle

3 = Car

X1= Age

X2= Dummy for gender, 1 = Man, 0 = Woman

X3= Formal Education Level (with the basic category of college)

X3D1 = 1 = If Graduated From Elementary School, 0 = Others

X3D2 = 1 = If Graduated From Junior High School, 0 = Others

X3D3 = 1 = If Graduated From Senior High School, 0 = Others

X4= Main Activities (With Basic Categories of Household / Other Affairs)

X4D1 = 1 = If It Works, 0 = Others

X4D2 = 1 = If School, 0 = Others

X5= Number of Household Members

X6= Average (Typical) Daily Trip Traveled Distance

X7= Average Daily Trip Costs (As Usual)

X8= Total Household Income

RESULTS AND DISCUSSIONS

Characteristics of Jambi City community trips

Trip characteristics were analyzed based on average daily travel time, average daily travel time, and average daily trip costs. The average daily travel time for the people of Jambi City is 33.93 minutes. Based on the distribution, 45.3 percent traveled more than

30 minutes, 36.7 percent traveled between 15-30 minutes, and only 18.0 percent traveled less than 15 minutes. This study's findings are almost in line with the research findings (Firdaus & Gunawan, 2013) in Tanjung Pinang City, where the average travel time is between 20-30 minutes.

Table 1. Distribution of respondents according to the average daily travel time in Jambi City in 2020

Travel Time (minutes)	Frequency	%
< 15	27	18.0
15 – 30	55	36.7
> 30	68	45.3
Total	150	100.0
Average (minutes)	33.93	

Furthermore, in terms of daily travel distance, the average is 20.68 Km. Based on the distribution, 48.0 percent of the population took daily trips of more than 15 Km per day, followed by distances of 10 - 15 Km (32.7 percent) and less than 10 Km (19.3 percent).

Table 2. Distribution of respondents according to the average daily travel distance in Jambi City in 2020

Travel Distance (Km)	Frequency	%
< 10	29	19.3
10 – 15	49	32.7
> 15	72	48.0
Total	150	100.0
Average (km)	20.68	

Based on the Jambi City community's daily travel costs, on average, it is IDR 19,707. By distribution, the largest proportion is in the cost group of Rp. 10,001 - Rp. 20,000

Table 3. Distribution of respondents according to average daily travel costs in Jambi City in 2020

Travel Cost (Rp)	Frequency	%
=< 10.000	58	38.7
10.001 - 20.000	63	42.0
> 20.000	29	19.3
Total	150	100.0
Average (Rp)	19.707	

Jambi City Community transportation mode

The research findings show that only 22.7 percent of Jambi City people choose public transportation as their daily means of transportation. Most (60.7 percent) use private motorbikes, and 16.7 percent use private cars.

Table 4. Distribution of Respondents by Mode of Daily Travel Transportation in Jambi City in 2020

Transportation Modes	Frequency	%
Public Vehicle	34	22.7
Motorcycle	91	60.7
Car	25	16.7
Total	150	100.0

The use of motorbikes as the main choice in this mode of transportation is in line with several other research findings such as those (Firdaus & Gunawan, 2013) in Tanjung Pinang City (Batti, 2011) in Palu City, (Sari, 2019) in Bogor City. The motorbike's choice is due to its flexibility and travel time, which is faster than public transport causes. Besides, research (Widiarta, 2010) found that the difference between the cost of public transportation and private transportation (especially motorbikes) also triggers the increase in motorbike use.

Factors affecting the choice of community transportation mode in Jambi City

The Goodness of Fit test using the Deviance method test aims to see whether the ordinal logistic regression model obtained is feasible to use. Deviance represents a measure of how much variation the logistic regression model cannot explain. The higher the deviance value, the less accurate the model will be.

Table 5. The goodness of the fit test model

	Chi-Square	df	Sig.
Pearson	236.956	269	.921
Deviance	173.123	269	1.000

Link function: Logit.

Based on Table 5, it is known that the Chi-Square value of the Deviance method is 173.123, with a significance value of 1.00. Because the significance value is greater than $\alpha = 0.05$; thus, the conclusion is that the logit model obtained is feasible to use. Furthermore, the model significance test is carried out by comparing the model without the predictor variable (intercept only model) with the predictor (final model). The following shows the results of the model fitting information.

Table 6. Model fitting information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	281.478			
Final	173.123	108.355	11	.000

Link function: Logit.

Based on Table 6, it is known that the -2log Likelihood value of the intercept only model is 281.478, and the -2log Likelihood value for the Final model is 173.13. The statistical value of G (Chi-Square) is 108,355 with a significance of 0,000. Because the significance value is smaller than $\alpha = 0.05$, the decision taken is to reject Ho. Thus, the conclusion is that there is either $\beta_p \neq 0$ or a suitable model is a model that contains predictors / independent variables (final model).

Estimated parameters and partial test (Wald test) of the model are given in Table 7. The Wald parameter test results show that of the eight variables proposed in the model, five of them significantly affect the choice of public transportation modes in Jambi City. The variables that significantly affect gender, education, main activities, daily travel costs, and family income. On the other hand, the variables that did not significantly affect age, number of household members, and distance traveled on daily trips.

The significant influence of gender on the choice of transportation mode is in line with several previous studies such as (Toar et al., 2015; Riani et al., 2018; Anderson, 2010; Kamba et al., 2007; Ashalatha et al., 2013; Ashalatha 2013; Salarvandian et al., 2017). Referring to Sari's research results (2019), men find it easier to use public transportation, and women prefer to use private cars and private motorbikes for comfort and safety reasons.

Table 7. Estimation of model parameters and Wald's Test

		Estimate	Std. Error	Wald	DF	Sig.
Public Vehicle		2.033	1.158	3.080	1	.079
Motorcycle		7.191	1.345	28.601	1	.000
Age		.033	.021	2.358	1	.125
Gender	Man	.690	.408	2.854	1	.091
	Woman	0 ^a			0	
Education	Elementary School	-1.481	.806	3.376	1	.066
	Junior High School	-1.814	.776	5.468	1	.019
	Senior High School	-1.943	.626	9.626	1	.002
	College	0 ^a			0	
Main Activity	Work	1.254	.570	4.851	1	.028
	School	3.363	.830	16.426	1	.000
	Others	0 ^a			0	
Number of household member		.011	.138	.006	1	.936
Distance		.005	.015	.100	1	.752
Daily Cost		.054	.020	7.157	1	.007
Income		.436	.098	19.893	1	.000

The influence of education and main activities on transportation modes' choice is also in line with Salarvandian et al.'s (2017) research. In this context, it is argued that public transportation users are much lower than those of private vehicles for work trips.

The daily travel costs affect the choice of mode of transportation. It is in line with the findings of research conducted (Gito Sugiyanto & Malkhamah, 2009), (Kamba et al., 2007), (Kamba et al., 2007). Furthermore, the influence of family income on the choice of transportation modes is also supported by several previous research findings including (Bella et al., 2013), (Toar et al., 2015) (Wibowo & Rudiarto, 2017), (Madhuwanthi et al., 2016)), (Anderson, 2010) (Kamba et al., 2007) (Ashalatha et al., 2013). The reason people choose public transportation as a mode of transportation because of the low income, so they do not have the savings to own a private vehicle.

CONCLUSION AND RECOMMENDATION

Conclusion

The main mode of transportation used by the community of Jambi City is private motorbikes. Public transportation is the second choice, and the use of private cars is the third option.

The choice of transportation mode is influenced by gender, main activity, car ownership, motorcycle ownership, and household income. These initial findings will be followed by more in-depth studies related to the phenomenon of choosing this mode of transportation.

Recommendation

The lack of dominance of community transportation modes' choice is due to the limited and less comfortable public transportation as a means of transportation for Jambi City people. Apart from that, it is also caused by the relatively high cost of public transportation. Therefore, government policy is needed to improve public transportation services and provide subsidies for public transport businesses.

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Population administration service satisfaction in Lima Puluh Kota District, West Sumatera

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Abstract

Assessment of public satisfaction with an agency's performance that organizes public services needs to be assessed by involving all service attributes because service attributes cannot stand alone, and performance improvement cannot be made separately. Assessment of service attributes is one way to track consumer ratings so that service providers can understand the causes of service problems. This study uses the Importance Performance Analysis (IPA) method. From this study, it was found that the priority that needs to be improved to improve public satisfaction with population administration services is to increase the discipline of officers in serving the community, certainty of service costs, and speed of service.

Keywords: *Importance Performance Analysis, Population administration, Public satisfaction*

JEL Classification: M15, O33, R58

INTRODUCTION

Improving the quality of public services is one of the government's main tasks, which is carried out through the bureaucratic process (Rasyid, 2000). As a legal standard to achieve the proclaimed quality of public services, Law Number 25 of 2009 concerning Public Services has been issued and has been followed up with Government Regulation Number 96 of 2012 concerning the implementation of Law Number 25 of 2009 concerning Public Services. Meanwhile, on the public side as consumers, the implementation of a modern bureaucracy that is responsive to the people's will and the current situation is seen as one aspect that can increase customer satisfaction (Febrianda, 2009). Therefore, the implementation of bureaucratic reform to improve the quality of public services needs to be monitored continuously with active participation from both parties, both organizers and consumers, so that the services provided are more responsive and accountable.

Population administration public services strongly correlate with the Indonesian state's character, which has a large population. Based on BPS projections, Indonesia's total population in 2019 is recorded at 268,074.6 thousand people, where approximately 34.67 percent of the population are residents aged 0-19 years (BPS, 2013). Records or data that record population dynamics as compiled in population administration products are crucial for their role in human development, one of the principles of national

development (BAPPENAS, 2009). Also, population administration deals with various aspects of life, such as law, taxation, general elections, recording land assets, assistance, buildings, permits, and development planning to provide education and health service facilities.

Therefore, the administration of bureaucracy in population administration must be carried out in an organized manner from the center to the regions to produce an accurate and up-to-date population database. The importance of improving the quality of population data is the basis for the government in issuing population administration policies through Law of the Republic of Indonesia Number 24 of 2013 concerning Amendments to Law Number 23 of 2006 concerning Population Administration. This law mandates the implementation of a comprehensive arrangement and control of population documents.

Although several rules and legal standards cover the implementation of the population administration bureaucracy to run in its corridors, it turns out that there are still some cases of population maladministration in various regions. The Indonesian Ombudsman announced that there were maladministration in the issuance of population documents, especially electronic identity cards, spread across 34 provinces in Indonesia (RI Ombudsman, 2017). Another problem related to population administration that is often found nationally is the Final Voter List (DPT) problem, which always occurs in every General Election (Prayudi, 2018).

The Indonesian Ombudsman representing West Sumatra in 2017 released 7 reports on population maladministration, where one of these reports occurred in Lima Puluh Kota District. The report stated that the public's complaints regarding the unclear time for completing the electronic identity cards did not receive service and follow-up from the Population and Civil Registry Office of Lima Puluh Kota District. (Haluan, 2016) revealed that there are people who deal with the Population and Civil Registry Office of the Lima Puluh Kota District complaining about the completion of services beyond the maximum 1-day time limit as determined and promised. In the context of public services, (Khadka & Maharjan, 2017) argues that the disruption of consumers' psychological side will reduce feelings of attachment and motivation to use services later.

Therefore, the low performance of service attributes related to the time aspect has the potential to hinder the Population and Civil Registry Office of Lima Puluh Kota District in achieving targets that require community participation, such as the coverage of residents who have population documents. This service attribute's low performance can be seen from the low achievement of the Minimum Service Standards (SPM) for the service performance of the Population and Civil Registry Service of Lima Puluh Kota in 2016. The coverage of the issuance of family cards (KK) is only 89.50 percent, and the coverage of the issuance of identity cards is 93.39 percent, which should have been 100 percent by 2015. Likewise, seen from the percentage of ownership of birth certificates for children aged 0-18 years, it was recorded that 74.26 percent has not reached 100 percent.

Although the various population administration phenomena that occur have created a negative stigma against the government, they reveal one of the good points of the current openness era. The public is slowly becoming more open in evaluating population administration service providers' performance to convey various media aspirations. Furthermore, various reports and satisfaction assessments continue to be contributed and published through various means and media. The consumer assessment needed includes perceptions of satisfaction and consumers' expectations of various service attributes' performance because the smaller the gap between expectations and satisfaction, the

higher the service quality (Wilson, Zeithaml, Bitner, & Gremler, 2016). Thus, the demand for improving the quality of population administration public services is necessary that cannot be postponed, starting from the lowest level to the highest in the central government. So it is necessary to research to analyze the policies needed to improve services and overcome problems found in the field.

From previous research, they were generally using Importance Performance Analysis (IPA), Community Satisfaction Index (IKK), and SWOT (Kamarni, 2011; Nugraheni, 2015; Syoyan, 2013; Retwando, 2015). This study's difference and previous research are the study's object and location and the analysis used. This research was conducted in Lima Puluh Kota District. The research object is the performance of population services using IPA analysis, correlation analysis, and IKK analysis in the management of Population Administration. Policy formulation is not only based on identifying priorities for improving service attributes through IPA but also assessing how strong the correlation between service attributes is to one another so that the improvement policy can consider linkages with other attributes. The IKK score is used as a guideline for how progressive performance improvement policies need to be implemented by the Population and Civil Registry Office of Lima Puluh Kota District.

METHODS

This study's population is the Lima Puluh Kota community who has taken care of population administration in the Population and Civil Registry Office in Lima Puluh Kota District during 2017. This study's population size is the total number of population documents issued by the Office of Population and Civil Registry of Lima Puluh Kota in 2017, amounting to 62,756 documents.

Determination of the number of samples in this study using the formula Taro Yamane (1967). Furthermore, the determination of sample allocation per district is calculated based on the proportional method. By using the sampling formula, the research sample allocation was obtained for all sub-districts in the Lima Puluh Kota District.

Furthermore, sampling was carried out in each district using a questionnaire. A questionnaire is a list of questions given to others willing to respond (respondents) according to user requests. The questionnaire used in this study is an open and closed questionnaire.

The process of collecting data through a questionnaire in the sub-district area began with a search for prospective respondents' identity recorded in the history of population administration affairs in 2017 at each Wali Nagari (Village) office. After the prospective respondent's identity is obtained, it is followed by a visit to the house or the prospective respondent's residence to be interviewed using a questionnaire. For a closed questionnaire, the Likert scale is used

Data were analyzed using the Importance Performance Analysis technique. This technique was first introduced by Martilla & James (1977). Importance Performance Analysis (IPA) is an analytical technique used to identify priority performance factors owned by an organization to meet service users' satisfaction (consumers).

According to Martilla & James (1977), IPA is an analysis that aims to determine the priority scale of improvement based on the results of measuring the performance of all observed service attributes. The IPA analysis is divided into two sub-analysis stages, namely:

1. Analysis of the level of conformity (TK)

This analysis aims to provide a priority score for improvements to all observed attributes based on the ratio between the level of satisfaction and the level of consumer expectations for each service attribute. The smaller the ratio between the expectations and satisfaction, the lower the priority order for the attribute improvement

2. Quadrant analysis

This analysis aims to classify all service attributes ranked into four quadrants based on the average level of expectation and total satisfaction. By notating the level of expectation and satisfaction with an attribute with h_i and k_i , and the average level of expectation and satisfaction with \bar{h} and \bar{k} , the criteria for grouping attributes based on priority are as follows:

$h_i > \bar{h}$ and $k_i < \bar{k}$: quadrant A (priority for improvement)

$h_i > \bar{h}$ and $k_i > \bar{k}$: quadrant B (priority to maintain performance)

$h_i < \bar{h}$ and $k_i < \bar{k}$: quadrant C (low priority)

$h_i < \bar{h}$ and $k_i > \bar{k}$: quadrant D (not priority)

RESULTS AND DISCUSSION

Characteristics of respondents

Respondents were 107 people representing all consumers served at the Population and Civil Registry Office of Lima Puluh Kota in all Lima Puluh Kota districts in 2017. The respondents' composition was described according to some characteristics, including gender, education, employment, and age, as presented in Table 1.

Table 1. Characteristics of respondents

Characteristics	Frequency	%
Gender		
Male	35	32.71
Female	72	67.29
Education		
Elementary school	4	3.74
Secondary school	17	15.89
High School	55	51.40
D1/D2/D3/D4	9	8.41
Strata-1	21	19.63
Strata-2 and above	1	0.93
Employment		
Government employees/ Indonesian national army/Police	8	7.48
Private employees	4	3.74
Entrepreneur/businessman	17	15.89
Student	23	21.50
Others *	55	51.40
Ages		
≤ 18 Old	13	12.15
19 – 24 old	25	23.36
25 – 50 old	61	57.01
> 50 old	8	7.48

Note: * the status of free workers, family workers and take care of the household

Table 1 shows that 67 percent of the Lima Puluh Kota District Population and Civil Registry Office consumers are women. In terms of employment, 51,40 percent of consumers are recorded as other professions, namely freelance workers, family workers,

and household workers. By age, almost 60 percent of consumers are of working age (25-50 old). Even so, the number of consumers in school-age (24 old and under) is also relatively large at around 36 percent. The relatively large proportion of school-age consumers reflects the urgency of population service products and civil registration in Lima Puluh Kota District for residents of that age. Most consumers are recorded to have completed high school education (51,40 percent) and undergraduate degrees (19,63 percent).

Measurement of conformity level (TK)

The gap between expectation and the level of community satisfaction can be seen in Table 2. Of the 14 service attributes, the biggest gap is service personnel's discipline (-0.79), followed by the certainty of service cost attributes. (-0.66) and service speed (-0.51). This minus value shows that the community is not satisfied with the Population and Civil Registry Service of Lima Puluh Kota' services.

Table 2. The level of conformity (TK) between people's expectations and satisfaction according to the service attributes in the Population and Civil Registry Service Lima Puluh Kota District, 2017

Service Attributes	The average level of expectation	The average level of satisfaction	Gap	TK (percent)	The priority order is based on TK
Service procedure	4.70	4.27	-0.43	90.85	8
Service Requirements	4.60	4.26	-0.34	92.68	9
Clarity of service personnel	4.70	4.21	-0.50	89.46	4
Discipline of service officers	4.71	3.92	-0.79	83.13	1
The responsibilities of the service officer	4.66	4.18	-0.49	89.58	5
The ability of service officers	4.65	4.22	-0.43	90.76	7
Speed of service	4.59	4.07	-0.51	88.80	3
Justice gets service	4.50	4.23	-0.26	94.18	12
Courtesy and friendliness of the officers	4.59	4.26	-0.33	92.87	10
Fairness of service fees	4.13	3.95	-0.18	95.70	14
Certainty service costs	4.60	3.93	-0.66	85.57	2
Certainty service schedules	4.52	4.10	-0.42	90.70	6
Environmental comfort	4.44	4.21	-0.23	94.74	13
Service security	4.59	4.32	-0.27	94.09	11
Average	4.57	4.15	-0.42	90.94	

The level of conformity (TK) between the expectations and satisfaction of consumers who receive services at the Population and Civil Registry Service is presented in Table 2. Of the fourteen service attributes that are considered, none of them meet consumer expectations because all TK scores are <100 percent. The average TK score for all the assessed service attributes was 90.94 percent, with an average GAP value of -0.42. As in research (Himurke, 2012), all indicators of services provided have a negative GAP value. When viewed from the average GAP score, Himurke found -2.536, while in this study, only -0.42. As a result of the GAP value, which is quite large, Himurke concluded that it needs a comprehensive increase in all aspects of service provision.

Then in more detail, the calculated TK value for each attribute will determine the priority order of service improvements. The lower the TK score, the higher the priority for improving performance. Table 3 lists the TK scores for each service attribute at the Population and Civil Registry Office of Lima Puluh Kota District. Table 3 shows that the

discipline attribute of service personnel (4th attribute) is the main priority in improving service performance at the Population and Civil Registry Service of Lima Puluh Kota. Meanwhile, the service cost fairness attribute (10th attribute) gets the last priority for performance improvement.

Quadrant analysis of IPA

The priority order for performance improvement attributes is grouped by the average level of expectation (vertical blue line) and the average level of satisfaction (horizontal line). Determination of an attribute entered into a quadrant is based on the expectation score's coordinates versus each attribute's satisfaction. Group fourteen attributes into four IPA quadrants while dividing the order of priorities calculated as TK scores into simpler groups, namely quadrant A (priority for performance improvement), quadrant B (priority for maintaining performance), quadrant C (low priority), and quadrant D (not priority).

As illustrated in Figure 1, as many as seven service attributes are included in quadrant B, namely groups whose performance needs to be maintained. While the attributes included in quadrants A, C, and D are 3, 2, and 2. The results of the grouping of these quadrants indicate that the performance of the Population and Civil Registry Office of the Lima Puluh Kota District is quite good, with several records of improvement.

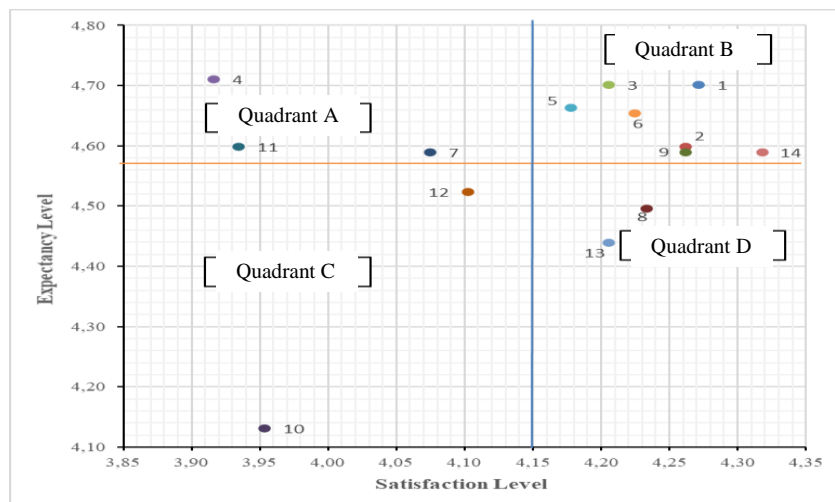


Figure 1. The Cartesian quadrant of IPA service performance in the Lima Puluh Kota Population and Civil Registry Service

Service attributes included in quadrant A are attributes that need to be improved because the level of satisfaction with the performance of these attributes is still below average. However, consumer expectations for these attributes' performance are above average. In other words, this is a top priority that the Population and Civil Registry Office of Lima Puluh Kota District should work on. From the results of the quadrant analysis, the main priority in improving the performance of the Population and Civil Registry Office of Lima Puluh Kota District lies in the discipline of the service apparatus (4th attribute), the certainty of service costs (11th attribute), and speed of service (7th attribute) which is represented in quadrant A. Similar to research (Rizq, 2018), Quadrant A consists of 3 items, namely requirements for ease of handling, speed of service processes, facilities, and physical conditions of office buildings, with service processing speed as the item that holds the highest expectations.

Meanwhile, from the research (Windyani, 2011), service attributes in quadrant A are other supporting materials, immediate attitude to provide service, and immediate attitude to help when busy. From this research, it can be seen that the community's expectation of the speed of service is high while the performance is still low. According to Rizq, this happened due to a lack of human resources in services and an unclear queuing system.

Other aspects of service officers (clarity of service officers (3rd attribute), the responsibility of service officers (5th attribute), the ability of service officers (6th attribute), and politeness and friendliness of service officers (9th attribute)), can meet the average level of respondent satisfaction. So it needs to be maintained (quadrant B). Other service attributes that need to be maintained by the Population and Civil Registry Office of Lima Puluh Kota District include: service procedures (attribute 1), service requirements (attribute 2), and service security (attribute 14).

The quadrant analysis results also show that the certainty of service schedules (12th attribute) and the fairness of service costs (10th attribute) are included in the C quadrant, which is a low priority in improving performance. Besides, the attributes that tend to be in the form of excessive-performance, in other words, the level of satisfaction exceeds the average but considered not too necessary by consumers, are collected in the D quadrant, and justice in receiving services (attribute 8). In contrast to Rizq's research, Quadrant D's attributes are variable costs that must be incurred. The community is not too concerned with costs, prefers good services, and is willing to pay for these services. The resources used in Quadrant D's attributes can be transferred to other attributes to increase Customer satisfaction.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The level of education and employment determine the assessment of expectations and service satisfaction of the Department of Population and Civil Registration of Lima Puluh Kota District. In the characteristics of education, there is a tendency where the lower the level of education, the lower the evaluation of the importance of service attributes will be. Consumers with a Strata-1 education and above have satisfaction ratings less than the average for all service attributes on the satisfaction side. Conversely, consumers who are educated below Strata-1 tend to give satisfaction ratings above average.

Consumers who work as Government employees/ Indonesian national army/ Police and Entrepreneur/ Businessman tend to put expectations above average but give lower than average satisfaction ratings for the services received. On the other hand, consumers with other occupations, namely those who work as free workers, family workers, or take care of the household, tend to put expectations below average but are more satisfied with their services. Meanwhile, consumers who work as private employees and students tend to assess expectations and satisfaction equal to or above average.

Recommendations

The analysis in this study has not touched on the relationship between cross-sectoral problems. So far, the research has attempted to present policy analysis and recommendations based on the Department of Population and Civil Registration perspective as service providers. Although there are such limitations, this study's purpose has been achieved by knowing the Population and Civil Registration Service of Lima

Puluh Kota' performance. It is reflected by the consumer satisfaction index and the contribution of several policy recommendations to improve specific service attributes' performance. For that, we need broader research from the consumer side as service recipients.

This study suggests several general strategies for performance improvement derived from implementing performance management techniques. From a scientific perspective, for the next few years, a quantitative study with a systematic analysis is needed to measure the effect of recommended performance management on improving performance in the Population and Civil Registry Office of Lima Puluh Kota District. The study in question is expected to use a longitudinal research design so that several influences on performance attributes can be more accurately identified.

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APPENDIX

Table 3. Correlation between priority service attributes

No.	Correlation	Expectations	Satisfaction
1	Officers Discipline and Service speed	0.42	0.36
2	Officers Discipline and certainty of service costs	0.21	0.13
3	Service speed and certainty of service costs	0.24	0.06

Among the three correlations assessed, officer discipline was found to have a relatively strong correlation with service speed on both the expectation score and the satisfaction score with a value of 0.42 and 0.36. It means that the increase in performance that will be carried out on officers' discipline will affect the performance of service speed and vice versa.

Tabel 4. Calculation of the Community Satisfaction Index (IKK) of Population and Civil Registry Office of Lima Puluh Kota District, 2017

Attribute	The level of importance per attribute	Satisfaction rate per attribute	Weights per attribute	Weighted average per attribute
(i)	(\bar{y}_i)	(\bar{x}_i)	($w_i = \frac{\bar{y}_i}{\sum \bar{y}_i}$)	($w_i \bar{x}_i$)
1	4.70	4.27	0.073	0.314
2	4.60	4.26	0.072	0.306
3	4.70	4.21	0.073	0.309
4	4.71	3.92	0.074	0.288
5	4.66	4.18	0.073	0.305
6	4.65	4.22	0.073	0.307
7	4.59	4.07	0.072	0.292
8	4.50	4.23	0.070	0.297
9	4.59	4.26	0.072	0.306
10	4.13	3.95	0.065	0.255
11	4.60	3.93	0.072	0.283
12	4.52	4.10	0.071	0.290
13	4.44	4.21	0.069	0.292
14	4.59	4.32	0.072	0.310
$\sum \bar{y}_i = 63.98$			IKK' =	4.154
			IKK =	83.08

According to the Regulation of the Minister for Empowerment of State Apparatus and Bureaucratic Reform Number 14 of 2017, the IKK score is classified as good service quality. These results indicate that the performance of public services organized by the Population and Civil Registry Office of Lima Puluh Kota District has met most consumers' expectations.



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Bulk store as an effort to reduce marine debris in Bajo Pulau

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Abstract

Damage to coastal ecosystems and shallow waters of the Bajo Pulau Village, Sape Sub-district, Bima District, West Nusa Tenggara Province is caused by the accumulation of household waste that is not managed by the community from year to year. It resulted in a reduction in the quality of seawater. This study examines the various factors behind it and synthesizes the solution to the problem by proposing a bulk store. The research method used is descriptive-analytic with a qualitative approach. Data collection was carried out by observation, field studies, literature studies, and interviews. The results showed that Indonesia (as the largest archipelagic country) has a low interconnectivity level. It causes small islands to be vulnerable to environmental degradation. This vulnerability is also caused by the lack of a business system that considers sustainable environmental capabilities. Therefore, it is necessary to reduce the amount of household waste scattered on land and in the sea that threatens the surrounding ecosystem with the concept of a minimal garbage collection facility based on a cooperative system.

Keywords: Bulk store, Cooperative, Consumerism, Pollution, Waterfront city

JEL Classification: Q22, Q25, Q26

INTRODUCTION

The waste problem is a significant problem that Indonesia is currently facing, particularly the contamination of waste in the sea. Long ago in the archipelago, which now occupies the Republic of Indonesia's territory, people have the slogan '*Jales Viva Jayamahe*' ('in our glorious sea'). However, this phrase is less applicable to the problems currently facing Indonesia (Zuhdi, 2006). It has been estimated that 150 million tons of plastic waste are in the oceans of the world. This will continue to increase to 250 million tons of production, consumption, and urbanization continue. As much as 50% of the waste in the ocean is the responsibility of 5 of the 192 largest waste producer countries, one of which is Indonesia. Indonesia has a strategic position between the continents of Asia and Australia and the Indian and Pacific Oceans (Joesoef, 2014: 83). The source of waste entering the ocean comes from human activities (Cozar et al., 2014). This is inseparable from the three factors that cause the waste problem, including a culture of consumerism. This business structure does not pay attention to the carrying capacity of a sustainable environment. It does not optimally apply the definition of a waterfront city, especially in Indonesia, as the world's largest archipelago country (Burhanuddin, 2017).

Consumerism, in economic terms, was born out of a deviation in the orientation of consumption practices. According to (Hasan, 2018), consumption is a practice that often tries to achieve the highest degree of satisfaction in consumption activities. Acknowledging the habits of the Indonesian people from year to year continues to show negative patterns, particularly in daily consumption, resulting in large household waste.

Indonesia's consumer culture has culminated in Indonesia being the world's second-largest contributor to marine debris, amounting to 3.2 million tons (Purba, 2017). Besides, certain forms of waste generated cannot be degraded within a relatively short period. Based on the study results, at least inorganic waste (plastic, cigarette butts, and soft drink cans) will take about 50-100, 10, and 80-100 years (Petungsewu Wildlife Education Center, 2019). This phenomenon will continue to occur if the Indonesian Government does not take preventive steps to reduce household waste's "production" by promoting changes in people's habits comprehensively and continuously.

According to Dahuri, Rais, Sapta, and Sitepu (2001), as cited by Efendy (2009), almost 65 percent of Indonesia's population resides in coastal and marine areas. The situation is getting worse due to the high culture of consumerism in Indonesia, especially in coastal areas that affect environmental pollution that has already been stated. This is attributable to the insufficient implementation of the definition of the waterfront city in Indonesia. According to (Munandar, 2013), the waterfront city is a definition of settlement growth facing the sea or river to enhance and coordinate the area's quality. In general, the waterfront city model's implementation is supposed to address pollution, environmental instability, and waste (Annisa, 2016).

The idea of a low-waste shop has been adapted from a bulk store that is well known to international cultures such as Germany, Canada, Singapore, and the Netherlands (Bahagijo, 2019). Bulk stores are unique compared to mini markets, supermarkets, hypermarkets, department stores, and wholesalers that we may find in various regions. The minimum waste shop is a business enterprise that regularly serves the city's diverse needs by applying the zero waste principle. In this report, the idea of a minimal waste shop will have cooperated with a cooperative business structure that opens up opportunities for local community involvement to enhance collective welfare while reducing environmental emissions due to waste and household waste.

This research is located in Bajo Pulau, Sub-district of Sape, District of Bima, Province of West Nusa Tenggara (NTB). Bajo Pulau is a coastal village. Based on Village Potential data or *Potensi Desa* (PODES), out of 82,190 villages, 12,827 villages, or around 15,61 percent, were coastal villages (*Badan Pusat Statistik*, 2016).

This study aims to analyze: 1) the causes of environmental degradation in Bajo Pulau Village, 2) the impact of the culture of consumerism in Bajo Pulau Village on the sustainability of the marine ecosystem, 3) the idea of bulk storage as an attempt to minimize marine pollution in the Bajo Pulau Village.

Several previous studies related to marine water contamination analysis due to lifestyle and environmental protection policies have not been carried out optimally and comprehensively. For example, the National Development Planning Agency (2017) discussed maritime development policies in Indonesia's realization as the world maritime axis region. Other research explored cooperatives, waste concerns, and consumerism as the key topics for a maritime country such as Indonesia. State of the marine crisis (Greenpeace, tt), sea, rivers and society creation (Zuhdi, 2006), marine debris (Purba, 2017), marine waste management (Burhanuddin, 2017), human economic empowerment cooperatives (Mulyono, 2010), use of space in the waterfront (Annisa, 2016), a marine waste irony in maritime countries (Purba, 2016), the status of marine debris (Purba, 2017).

METHODS

This research was conducted in Bajo Pulau Village, Sape Sub-district, Bima District, Tenggara Province, West Nusa. The region that will become the subject of this research study is located in Bajo Pulau Village, classified as 3T (Tertinggal, Terdepan, and Terluar) or Left Behind, Frontier Outermost in Indonesia.

The data collection method used was purposive sampling with the residents of West and Central Bajo and Pasir Putih's hamlets as samples. The total number of heads of households in the three hamlets is 533. Samples from the three hamlets were each taken by one respondent, that is, the residents who own houses by the sea. The data was then processed into a transcript of the results of the interview.

This study used a qualitative approach to analyze observations, interviews, field studies, literature studies, and numerous other online sources. The data analysis approach used is descriptive and analytical. According to (Sugiyono, 2003) in (Sulipan, t.t), descriptive is a method used to identify the value of an independent variable, either one or more (independent variables without making comparisons or comparing one variable to another). Analytical is an attempt to explain what has been described in an investigative, subtle, in-depth, systematic, and reasonable manner to know the cause and effect.

RESULT AND DISCUSSION

Condition of territory and community of Bajo Pulau Village

Bajo Pulau Village is two small, populated islands not far from Sape Harbor, Bima Regency. Sape Harbor is about 45 kilometers east of Bima City. Bajo Pulau Village is divided into three hamlets, West and Central Bajo Hamlets on Bajo Island (Nisa) and Pasir Putih Hamlet on Nae Island (Nisa).

Bajo Pulau Village inhabitants are socially divided into several community units or *rukun warga* (RW) and neighborhood units or *rukun tetangga* (RT). Influential local community leaders usually hold each head of RW and RT. Punggawa is another name for chief of the Bajo ethnicity (Kurais, 2016). In their religious and cultural life, the Bajo Pulau Village people are considered to be religious. They conserve some of their ancestral cultural heritage, which is still important to live in today. Bajo Pulau Village contains a wide variety of potential biological resources and natural ecosystems, such as coral reefs still in good condition (Ekspedisi Nusantara Jaya Unpad, 2018).

There are several remote areas in Indonesia. One of them is Bajo Pulau Village, which is a small island area. These areas require infrastructure development that is more suitable and in line with the needs of the local population, such as cold storage, health centers, education (secondary and vocational), literacy (village libraries), information (cellular networks), and culture (Magdoff and Foster, 2018: x). Bajo Pulau Village is one of the villages in Sape District where most of the population is ethnic Bajo (sea tribe). The socio-economic conditions in Bajo Pulau are generally lower-middle-income people, with the majority of the community being fishermen. Apart from being a fisherman, many people have dual careers as a sea bike taxi, a transport word that links the Bajo Pulau Village to the Sape District (Sudirman, 2018). Another very striking feature of the settlement of the Bajo Tribe is its position on the coast or in coral clusters (Baskara, 2011).

Grouper and lobster are the two most valuable commodities for the people of Bajo Pulau Village. However, currently, it is increasingly difficult to obtain these two commodities in Bajo Pulau Village's waters. This is due to the damage to the marine ecology due to household waste polluting the sea and the massive use of fishers' fish bombs. Therefore, people have started to cultivate these two commodities. At this time, many people become entrepreneurs by making grouper and lobster cages in the waters around the settlements (Mustikari et al., 2019) (Greenpeace, t.t).

"The record of the reduction of many species of open-sea fish, to the point of near extinction, is an example of how 'renewable resources' can run out. It is estimated that one-third of commercial fishing enterprises can now produce only 10%... and... almost all species will experience overfishing by the middle of this century (Magdoff & Foster, 2018: 77)"

The lack of development of fish pond entrepreneurship in Bajo Pulau Village is due to a lack of infrastructure availability. The infrastructure needed by fishermen includes access to clean water, electricity, and large-scale cold storage.

To meet their daily food needs, such as rice, vegetables, and fruit, they rely on the Sape people's crops, who usually work in rice fields and field farmers. Likewise, the Sape people depend on the supply of fish from the catch of Bajo Island people to meet their protein needs. Bajo Pulau Village and Sape District spatially represent a mutually complementary symbiotic relationship.

Consumerism culture in Bajo Pulau Village

Consumerism is an understanding that promotes a consumptive lifestyle. The motivation of consumer behavior in a traditional economic perspective is related to efforts to achieve self-satisfaction/desire maximization

The culture of consumerism consists of two terms, culture and consumerism. According to Levi Strauss, culture manifests the social system components that originate from the human mind and are replicated in habitual forms. (Maxmanroe, 2019). Consumerism is an understanding that emphasizes a consumptive lifestyle. In a traditional economic perspective, consumer behavior's motivation is related to efforts to achieve self-satisfaction or desire maximization (Hasan, 2018). The pervasive consumerism culture does not emerge spontaneously and does not exist within the Bajo Pulau Village society. According to Bachtiar (1979), the thoughts we manifest are often not our unique thoughts. Most of our thought consists of cultural elements that we derive from our experiences in culture and education. Many cultural elements have become the regulators of our thought, attitudes, and behavior (Handoyo, Astuti, Iswari, Alimi, & Mustofa, 2015). Concerning the argument above, culture is typically collective in society.

This consumerism culture is a popular symptom seen in Bajo Pulau Village's everyday lives. This is demonstrated by society's high consumption patterns, particularly in snacks, cigarettes, and packaged beverages (plastic, cans, or glass).

Dozens of stalls may be located next to each other, only in one hamlet. Why do Bajo Pulau Village, a 3T area group, have a consumptive lifestyle? Based on the observations, Bajo Pulau Village citizens or other coastal communities have relatively the same regular period. E.g., men and young men typically go to sea at 17.00/18.00 WITA, while fishing at 18.00-2.00/3.00 WITA in the morning brings food, drinks, and cigarettes.

Most of the supplies are consumables purchased from the Sape Market, which are then resold to the fishermen by stalls in the Bajo Pulau Village. This phenomenon is inspired by a high degree of mobility of fishers and a materialistic mindset since they have a strong entrepreneurial spirit. Besides, they usually enjoy high personal and group prestige (Handoyo, Astuti, Iswari, Alimi, & Mustofa, 2015). The above behaviors are a factor of support for the consumer nature of coastal communities employed as fishermen. On the other hand, however, carrying packed food from home with their food container to eat and drink has not become a routine for fishers because it is considered impractical and fills the room available on the boat for fish and fishing gear.

"Overconsumption is a lifestyle to consume excessively. In this case, consumption is not always related to food. In the definition of sociology, consumption is the use of something, it can be anything, to satisfy something. Modern humans tend to show

their social class with the items they consume" (Handoyo, Astuti, Iswari, Alimi, & Mustofa, 2015).

Things like this also happen to Bajo Pulau Village people, particularly the fishermen who go to sea every day to catch fish sold for export to the fish market in Sape, Lombok or Bali. One of the benchmarks for fishermen's consumption actions as a measure of their social status is the cigarette brand they drink—the more expensive the price, the higher the community's status, and vice versa.

The concept of consumerism culture is like a virus that affects one part of the body and then spreads to other parts of the body. If ignored, causing other parts of the body to be "infected" by consumerism culture. The coastal region's degree of vulnerability varies depending on the intrusion, natural factors, and the effect of human (anthropogenic) behavior (Handiani, Darmawan, Heriati, & Aditya, 2019). Coastal populations in close interaction with the sea have a major impact on the ecosystem due to their consumptive lifestyle. Of course, this is correlated with the degree of environmental contamination caused by household waste and garbage. Neolaka (2008) analyses a list of lifestyles that affect the environment: (1) a lifestyle that emphasizes enjoyment, leisure, partying; (2) a lifestyle that emphasizes material things; (3) a consumptive lifestyle; and (4) a selfish lifestyle (Handoyo, Astuti, Iswari, Alimi, & Mustofa, 2015).

Unfortunately, sociologically, living with the opportunity to be over-consuming is a measure of happiness (Handoyo, Astuti, Iswari, Alimi, & Mustofa, 2015). In many countries, the existence of consumerism is one of the consequences of growth. On this basis, the zero-growth principle was born, a strategy that seeks to be applied worldwide to suppress economic and population growth. This strategy is not very common in developed countries (Rohmad, 2016: 100). More specifically, if the zero-growth hypothesis offered is replaced by balanced growth in an environmentally friendly sustainable development framework. Pollution of the marine environment due to household waste from Bajo Pulau's population, the bulk of the waste is food and beverage packaging.



Figure 1. Household trash floating in the West Bajo pier

Source: UNPAD ENJ Documentation Team, 2018.

Ernest Collenbach (1999), for healthy living, including waste and garbage. In the old principle, modern people find it cheaper and easier to buy wipes and throw them in the garbage than to use a washable handkerchief. The old law says, "buy cheap and throw away". In the meantime, in the new principle, nothing is necessarily thrown away by the natural principle. We are expected to learn how to emulate nature's values and cycles by recycling everything from plastic, metal, concrete, asphalt, etc. (Handoyo, Astuti, Iswari, Alimi, & Mustofa, 2015).

The first thing most likely to be done by Bajo Pulau Village citizens is to reject advertising brochures that are not required from many demands to live in an environmentally friendly manner. Second, minimize waste in any manner whatsoever.

Third, do not purchase or use disposable products. Fourth, the recycling of household waste that can still be used. Various measures can be taken to minimize environmental harm due to waste management that is not optimal and spread consumerism.

The population has not dismissed the ideology of consumerism in the Bajo Pulau Village for any reason whatsoever. High mobility, combined with the open nature of coastal people to society from outside, has bridged the acceptance of this culture to the diverse community of Bajo Pulau. Another reason is inter-regional dependence, which renders the region unable to separate itself to meet its everyday needs (dependency theory) and, on a larger scale, the dependence between the provinces and the state.

The nonoptimal concept of waterfront city in Bajo Pulau

The development of cities/regions with a waterfront city concept has long been recognized throughout the world as part of a city defined by water boundaries, whether rivers, seas, or lakes (Munandar, 2013). The definition aims to make community settlements near the water (rivers, lakes, and sea) face the house towards the water. The expectation of applying this principle is, connected to most Indonesians' tendency, in general, to the location of their homes facing the rivers and the sea. This definition implies that if community settlements face waterfront areas, it can be ascertained that the majority of the community would not dispose of the residual "production" of their household by river or sea. On the opposite, they can take care of their front yard as best they can, whether it be a river, a lake, or a sea.

Analyzing *Lontarak Assalenna Bajo*, one of the texts of the Bajo Tribe, the Bajo Tribe established the sea as a place to live (before living permanently) and to make a living. They respect the sea and take good care of it, which is inversely proportional to Bajo Pulau's village's present situation. It is ironic that people throw garbage there carelessly and pay little attention to the sea's health, which is their source of life. A healthy culture must therefore be maintained as mandated by *Lontarak Assalenna Bajo*. The logic of thought needs to be developed since it will direct people to behave as individuals and societies (Riyanto, 2018: 41). Various other archipelago regions in Indonesia, particularly the Bajo Pulau Village, are experiencing the waterfront city's unfavorable concept. The people of Bajo Pulau Village usually have an average elementary school education level. Much lower than the Bima City population, which has a higher average human development index than other central Indonesian provinces. The low education level often affects public understanding of environmental management and sustainable sanitation by paying attention to environmental capacity building.

The issues with the mediocre concept of waterfront cities are industrial waste, livestock waste distribution, household waste, vital property or land-use changes, changes in community habits, reduction of water supplies, and lax law enforcement. However, what is more important is government policies that direct the pattern of settlement development by the principle of maintaining a sustainable environment. Another explanation of why the above definition is not ideal is due to changes in people's perception of nature—Humans position nature as subservient to human life. Society considers nature an object of life that can be 'empowered' to serve human needs without paying attention to aspects of natural law subordinate to nature. In the same way, nature is the master, while humans are servants, what happens today is the reverse. Man is the master, and nature is the worker. There is also an imbalance in the relationship between nature and human beings.

The execution of waterfront city policies is usually the central Government and local governments' outcome, which serve as program implementers. In public policy, it is referred to as recognizing the central government's authority to the regions. However, from a sociological perspective, social change ultimately happens by the social system's

modifications to changes coming from outside (extra structural change) (Nasikun, 2015). The aims and advantages of a seaside town concept in Bajo Pulau Village have not yet been achieved. However, one day it may be achieved if existing community groups are willing to become active collaborative partners of the central or regional government and non-government organizations (NGOs) such as Zero Waste Indonesia (ZWID).

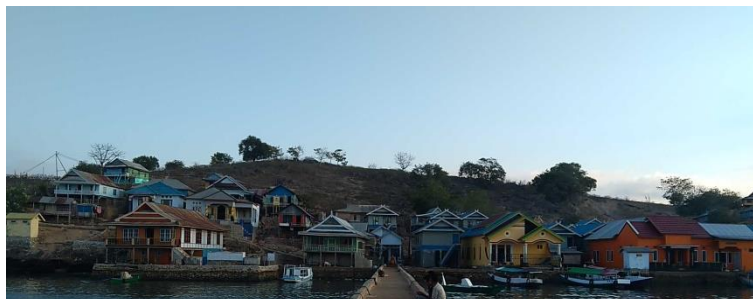


Figure 2. The residential landscape of Bajo Tengah hamlet

Source: Aziz Ali Haerulloh, 2018.

A waterfront city's concept is not optimal due to the low level of public awareness and understanding (Mustika, 2017). There is a paradigm in society regarding "the sea can still be considered to manage waste" (Purba, 2017).

Another cause of the not optimal waterfront city concept is the limited access to collect, dispose, and process waste. Bajo Pulau is a village in the sub-district of Sape, which is geographically isolated from the mainland. Restricted accessibility prohibits local people from gathering and disposing of waste to transfer to the Environment and Forestry Office of the Bima District.

Even if some of the people's houses were facing the sea, this still does not change their attitudes. This may also be inspired by the everyday lives of people who are not clean and healthy. For example, people tend to pay more attention to and care for their clean home environment and neglect the cleanliness of the surrounding environment from household waste and livestock manure, such as poultry and goats.

Bajo Pulau's village has a population of at least 452 people whose welfare conditions are up to 10% lower in the Province of West Nusa Tenggara (BPS Provinsi Nusa Tenggara Barat, 2015). Poverty faced by some people in Bajo Pulau Village is a form of situational or natural poverty caused by reduced regional capacity (marine fish) due to environmental pollution caused by household waste and garbage (Simanjuntak, Tanjung & Nasution, 2017: 210). Poverty is increasingly noticeable in coastal fishing communities, which typically live in deprivation due to their poor business skills and consumerism in the community (Nurlaili, Witomo, & Zamroni, 2014).



Figure 3. Marine debris (organic and inorganic) on the shores of the Bajo Tengah hamlet

Source: Unpad ENJ Documentation Team, 2018.

Garbage and its impact on land and marine ecosystems in the Village of Bajo Pulau

The health of Indonesia's seas is of great concern. Indonesia is the second-largest contributor of waste to the sea after China (Purba, 2017). The current waste problem, including marine debris, is a central problem for the world and cannot be handled partially (Coordinating Ministry for Maritime Affairs, 2018). Indonesia directly borders both land and sea with ten countries, so that the waste problem is not only Indonesia's responsibility but regionally and even globally. According to the origin of the waste in the sea comes from fishers, transborder (cross-border), tourists, traders, and the community (household waste) (Purba, 2017). The debris in the sea knows no national, cultural, legal, or ideological boundaries..

The port of Sape in Bima's district is the gateway to East Nusa Tenggara's Province as a province with various national tourist destinations, including Komodo Island, Padar Island, Labuhan Bajo, and others. The Sape Strait is an important connecting route and is quite busy with maritime traffic, tourism, and logistics vessels. However, besides that, we can see a phenomenon of marine debris that floats up to tens or even hundreds of meters in length, as evidence of human behavior patterns that do not pay attention to and take proper care of the environment. Apart from the ocean's garbage, much rubbish is found along the shoreline or near the jetty in Bajo Pulau Village and the western, central, and Pasir Putih hamlets.

"If you look at the constellation of Indonesia as an archipelago and following the flow of the world, waste in the sea comes from two sources. First, waste originating from human activities that flow directly into the sea or flow through rivers. Second, waste from other countries diverted by world currents and trapped in Indonesian waters "(Purba, 2017).

Garbage spread around the Port of Sape and the Pier in Bajo Pulau Village usually comes from household waste in residential areas. This needs to be expected, let alone the bad behaviors repeatedly maintained, becoming a normal culture in society. Here are several preventive measures that can be taken. First of all, educating the youth. Second, increase awareness among policymakers. Third, cross-sectoral collaboration (Penta helix) and fourth, the mission of minimizing plastic waste by reducing the production and usage of single-use plastics (Burhanuddin, 2017). There are various things affected by plastic waste in the ocean—first, the interruption of tourist operations along the coast. Second, life existence and the recovery of millions of aquatic life are at risk, and thirdly, more than three fish caught by fishermen have been found to eat plastics or microplastics (Burhanuddin, 2017). Of course, all of this will reduce the tourist area's original revenue, reduce the level of community wellbeing, and harm the marine environment. The influence is not just short-term but also long-term.

According to (Burhanuddin, 2017), five pillars must be preserved by all Indonesian people in reducing plastic waste in the ocean.: 1. Increased habit change, 2. Reduced soil leakage, 3. Reduced underwater leakage, 4. Industrial markets, and 5. Research and Growth. Research and Development. This is followed by five strategies of the National Action Plan, including the cooperation between local and regional governments, Central Government, Foreign (between countries or regional organizations, such as ASEAN), Industrial markets, and Research development.

The Government of Indonesia 2014-2019, under the leadership of President Joko Widodo and Vice President Jusuf Kalla, declared Nawacita. One of the points to be sought is number two, "Building Indonesia from the periphery by strengthening regions and villages within the framework of a unitary state" (Kominfo, 2015). However, the reality that exists and can be seen in the Bajo Pulau Village shows that the Government is still quite overwhelmed in developing rural areas, such as the Bajo Pulau Village, adjacent to

the NTT Province as the nation's leading tourist destination. However, Bajo Pulau Village's reality shows that the Government is still quite overwhelmed in developing rural areas as the nation's leading tourist destination.

"Technically, our important role is not to manage the oceans themselves but to manage the people who manage nature. At the moment, ocean garbage trapping technology has been implemented using a different method. However, if this method were not accompanied by human awareness, it would be a constant problem. ... It is not funny if we are a maritime country, but at the same time it is also called a trash country" (Purba,2016)

Bulk store based on the concept of production-consumption cooperative

The low-waste shop concept is an adaptation of several overseas shops that apply the zero waste concept (generally referred to as bulk). This shop sells a wide variety of products with an eye on environmentally friendly products that eliminate single-use packaging and is usually used to pack sale items. Since different goods sold do not use packaging, buyers must supply their containers/containers. Based on field analysis results, this concept is by the community's needs in Bajo Pulau Village. This concept can also reduce household waste, which is generally in packaging for food, beverages, and other daily consumption items such as detergents, shampoo, and soap. This concept also contributes to increasing public awareness of the importance of stopping single-use items that can damage marine ecosystems because they are difficult to decompose. Besides, this concept impacts people's lifestyles to be cleaner, more economical, and healthier.

This research combines the concept of a minimally-waste shop with a cooperative business entity. Choosing a cooperative work system is that cooperative is a business organization of a self-help nature. As a people's economic institution, cooperatives are a non-capitalist economic structure since they are managed by mutual and self-sustaining public funds (Munif, 2017).

A low-waste shop with a production-consumption cooperative system will increase the Bajo Pulau Village community's participation in protecting the environment and entrepreneurship (selling a variety of products made to low-waste shops). Village-level cooperatives have a more significant inclusive position as they seek to improve members' wellbeing (Kuntowijoyo, 2018: 93). Apart from being a member of the minimum waste shop cooperative, the collective also serves as a manufacturer, dealer, and customer. This method can be called a circular economy since it can be assured that the process of production, distribution, and use does not leave any waste at all if there is a minimal amount of waste.

In line with the Government's pledge to minimize plastic waste in the ocean by reducing-reuse-recycles by up to 70% by 2025 (Burhanuddin, 2017), the theory of a minimum waste shop combined with a production-consumption cooperative work system would accelerate the achievement of the Government's targets. The community's transformation supports this into a 'learning community organization' and promotes responsible community understanding (Joesoef, 2014: 182). This significant move can be started by applying this concept in the Bajo Pulau Village as a pilot to be tested, optimized, and implemented in all small island areas of Indonesia.

The aim of collaborating with the concept of bulk stores in production-consumption cooperatives is to create a form of economic independence for the community of Bajo Pulau Village, which seeks to obtain a much larger and even higher income while retaining the ecological capacity to balance and conserve the environment. If people's consumption needs can be met by a bulk store located in Bajo Pula Village, the effect will be much better. It will break away from the structure that makes a community of people dependent because there is no economic independence.

Independence in the economic sector can be done because the structure is 'made up from members, by members, and for members.' Regardless of the Indonesian economy's status, the bulk store cooperative can still provide services to the community as long as it requires it as a business organization that meets the community's diverse needs in Bajo Pulau Village.

It is not impossible to develop it if the bulk store cooperative in Bajo Pulau Village can expand its consumers' reach to Sape District in the next ten years. Of course, to reach this stage, there is a need for cooperative management of a low-waste store that is strong in the dynamic era. Local communities' empowerment in terms of educated human resources (HR) needs to be improved to perform management, promotion, finance, and logistics functions. The requirements to become a cooperative manager must be followed by a gradual and continuous coaching process to ensure proven capabilities.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Bajo Pulau Village's geographical location, which is separated from the mainland (Pulau Sumbawa Besar), causes the community to find it difficult to carry out independent waste management. Besides, the low level of public education also affects the awareness of protecting the environment sustainably. The culture of consumerism in Bajo Pulau and their vigorous daily activities also affects household waste production.

A low-waste shop with a production-consumption cooperative system can improve people's welfare while reducing dependence on various basic needs from outside. Simultaneously, the concept of a minimally-waste shop can also empower the potential of the local community. A bulk store will be more practical in various small inhabited islands to prevent the marine environment's direct pollution, threatening life's survival under the sea.

Recommendation

The application of the concept of a minimally-waste shop with a production-consumption cooperative system requires the support of public policies both through regional regulations and the Decree of the Governor of West Nusa Tenggara Province. Besides, the central/local government is also expected to facilitate various collaborations with external parties to improve the community's daily needs that cannot be fulfilled by the various products produced by members of the minimally waste shop cooperative.

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Female autonomy and rural tourism in Tzibanzá, Cadereyta de Montes, Querétaro, Mexico

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Abstract

One of the elements that are disrupted by development is gender roles. These changes are not always negative, and the objective is to identify whether the participation of women in the fishing cooperative and the tourism project of La Isla makes it possible to build autonomy. Ever since the 90s, the Tzibanzá village has been the target of a series of development projects that have included or excluded them in decision-making. However, every project impacted the organization and productive activities and their daily life. Results of an investigation still in progress are presented, which start from the qualitative approach combining quantitative information-gathering techniques: a questionnaire to cooperative members and not cooperative members; and qualitative: non-participant observation, qualitative interviews, and focus groups. The tourism production and project cooperative have operated for just over 20 years with relative success in income, job creation, and participation. Women have been incorporated not necessarily by their own decision, but in their husbands' absence due to migration or the position was inherited. However, participating in activities considered "masculine" leads them to reconsider their role in the community and family, enabling decision-making to previously had no access. Autonomy indeed needs social recognition to be exercised; however, we consider that joining actively and as protagonists in productive activities allows progress.

Keywords: *Autonomy, Rural tourism, Gender, Women*

JEL Classification: I31, J16, R29

INTRODUCTION

The development processes that have marked the history of the rural environment in Mexico took place since the 90s in the last century; furthermore, those have included women to cover a gender quota to promote equality or with the idea of empowerment. The gender quota it's a measure that seeks to respond to the current gender imbalance in decision-making institutions, and it can be used to refer to the participation of women in development projects

Not in all cases have they been considered protagonists of the processes, and many of the proposals reinforce traditional gender roles that place them as mothers, caregivers, and homemakers. However, in the case of Tzibanzá, women have been participants in the changes, succeeding in repositioning themselves in the public space due to their inclusion in the sports and commercial fishing cooperative activities as tourism projects.

Particularly regarding commercial fishing and decision-making that had been considered male activities linked to providers' role. The pages that follow come from an investigation that has not yet been concluded. It aims to identify whether women's participation in development programs and projects could be considered a female autonomy trigger, the changes perceived and found in private and public spaces.

LITERATURE REVIEW

It is important to understand the context and concept we used to analyze their reality, to understand the impact that development programs and projects have had on the lives of the people of Tzibanzá, specifically on women.

Geospatial and sociodemographic context

Tzibanzá, it's a rural community that politically is part of one of the nine delegations that make up Cadereyta de Montes' municipality in the state of Querétaro (Figure 1). This area has been marked by poverty and marginalization conditions, making it difficult for groups to reproduce, regardless of the federal and state governments' efforts.

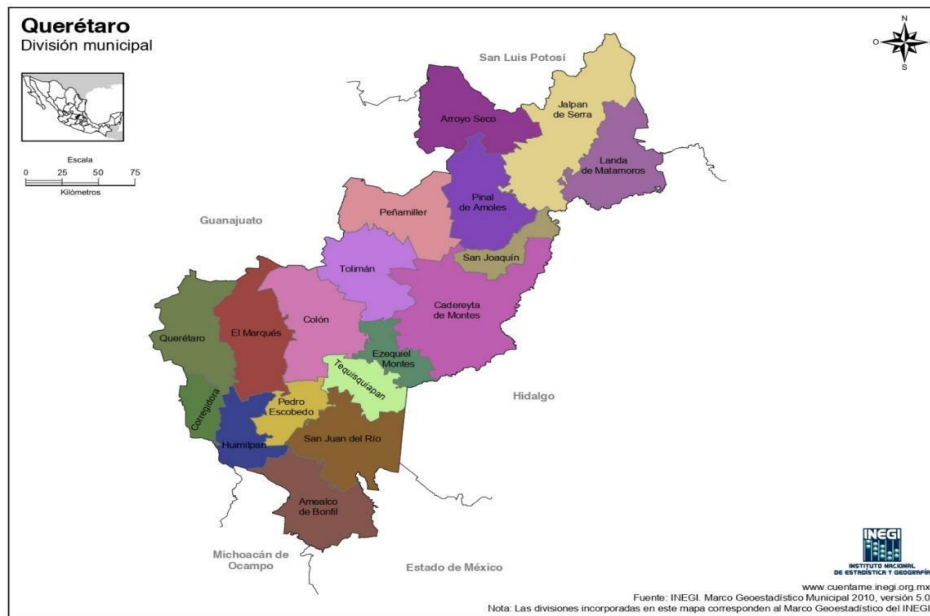


Figure 1. Querétaro, Division municipal

The municipality has 243 localities, of which 241 are considered rural and the other two urban. According to data from the Municipal Development Plan 2018-2021, it has a total population of 69,549 inhabitants (Presidencia Municipal de Cadereyta de Montes, 2018). In Tzibanzá, there are 372 inhabitants, of which 178 are men and 174 women (INEGI, 2019), distributed in 128 families (Information recovered from the interview with the nurse Elsa Ramírez in 2018). According to the National Council for the Evaluation of Social Development Policy (CONEVAL, 2010), 72.9% of the municipality's population lives in poverty.

Poverty is understood from the perspective of CEPAL: as a situation of deprivation, economic resources, or living conditions that society considers basic by reference social standards that reflect minimum social rights and public objectives. These norms are expressed in both absolute and relative terms and are variable in time and different national spaces (cited in Velázquez & Castillo, 2015). Tzibanzá is one of the 95 localities

with a high level of marginalization at the municipal level (SEDESOL, 2018), which explains, among other things, the arrival of development programs and projects.

From rural development to female autonomy

This investigation arises from a previous proposal. Universidad Autónoma de Querétaro, México (UAQ) professors were invited to carry out a diagnosis before constructing the new El Anzuelo hotel-spa-restaurant, which had an investment of 64.3 million Mexican pesos and was inaugurated in December 2018. The intervention had the objective of identifying the problems they have faced in the organization of the different projects and possible solutions. Hence, we start from the critical approach of development, considering that it cannot only be understood as economic growth but that the "beneficiaries" must either be protagonists or re-appropriate the proposals in order to achieve their goals.

Rural territorial development is taken as a reference, understood as one that considers the territory as a social construction, beyond space, as a place that creates identity and culture. Processes must be understood from the interaction of those who make everyday life possible. This perspective includes governmental and non-governmental institutions, producers, private capital, and social leaders, up to the inhabitants who depend on and exploit the natural and social resources that they have to survive on their own (Demattis & Governa, 2005; Flores, 2007; Giménez, 1996; González Casanova, 2004; Rodríguez, 2015; Sosa, 2012).

One of the development projects is rural tourism. It was first defined as a dynamizing factor of local economies that affects the design and planning of economic, social, and cultural policies. Therefore, tourism is a factor that can detonate development (this is understood as economic growth). Also, tourism is considered one of the contemporary capitalist system's expressions, said tourism-development relationship involves several conflicts ranging from access, use of resources, and distribution of benefits (López & Palomino, 2015).

Rural tourism is a term that was coined in the mid-90s. In opposition to conventional or traditional beach tourism, rural tourism arises in the face of new consumption demands and tourists' leisure needs from the middle and upper classes of highly industrialized urban areas. In Mexico, it has been defined as: "the trips that have the purpose of carrying out activities of coexistence and interaction with a rural community, in all those daily social, cultural and productive expressions of it" (Guevara, 2019). It includes agro-tourism and all types of sports, cultural, gastronomic activities, among others that occur in rural areas and depend on each region's natural, geographic, and ethnological characteristics (Serrano & Molina, 2002). In Tzibanzá, this activity began together with the Zimapán dam's inauguration. It sought to promote the natural landscape and fishing activities - such as sport fishing - generating new employment and income opportunities for the community in general and the cooperative members in particular.

This work aims not to delve into the dam's construction, since it has already been reviewed in previous articles: Guevara, Rivera, and Hernández (2018), Guevara, 2019^a, Guevara 2019^b. So, I will only mention that its construction is included in the megaprojects proposal that seeks to detonate the economy and/or provide services -in this case, electricity- to a larger population than the one affected. It is within the limits of Querétaro and Hidalgo's states and was built between 1980 and 1990. However, it was inaugurated in 1995, and this is the watershed of development programs and projects that reach the community.

Further on, women have been included in development processes since the term gender was included in international social policy. The concept is understood as the cultural construction of sexual difference, that is, being a woman or a man, and it is not a trait that derives directly from belonging to one sex or the other. It is a category to analyze how sexual differences are defined, represented, and symbolized in a given group, which grants characteristics, behaviors, and beliefs about femininity and masculinity. Therefore, women and men's duty is found at a certain time and space and varies between different cultures (García, 2007; Lamas, 2002; Lagarde, 2000).

Gender relationships allow the creation of roles. The roles are a way of living the social rules and behaviors as if they were natural ones. Their function responds to interaction, and they portray ways of being, acting, and feeling that a given social group confers on its members and how those are assumed and expressed in everyday life. They are also reflected in collective and subjective expectations and demands that are assigned based on different criteria such as age, gender, social class, etc. Gender roles are the norms and prescriptions from which tasks and responsibilities are assigned; those are part of a historical and socio-cultural context on female and male behavior. They are socially accepted and generate prohibitions and expectations among the individuals that make up the group. They can vary according to culture, social class, ethnic group, and even people's generational stratum. They are delimited according to the set of responsibilities and obligations of women and men, limiting the performance of both. These can be of the productive type (activities developed in the public sphere generating income, recognition, power, authority, and status), reproductive (activities related to life care) and community (participation in the community to ensure family reproduction) (García, 2007; Lamas, 2002; Murguialday, 2000; Sáenz, 2011).

For this reason, participation in development programs and projects, particularly commercial and sport fishing and decision-making, is considered as an element that modifies gender roles and at the same time enables the construction of female autonomy.

Autonomy is part of the power relationships that are built from gender roles, it does not exist fully because it is in constant construction (Lagarde (2013). It refers to women's ability to carry out a certain activity without requiring the consent of their husbands or some other family member, which means having the capacity and specific conditions to freely make decisions that affect their lives (Casique, 2004). The following types of autonomy can be identified: a) economic autonomy, linked to the possibility of controlling assets and resources; b) physical autonomy, referring to the ability to freely decide on sexuality, reproduction and the right to live a life free of violence and; c) autonomy in decision-making, which implies full participation in decisions that affect the lives of women, their families, their communities and society in general (CEPAL, 2016).

Autonomy it's a social pact that needs recognition and social support. It is built both in vital social processes and in economic ones, in political ones, and it is also a process with a sexual and psychological foundation. To understand this, it is necessary to analyze the entire set of normative aspects of life: legal and non-legal norms and processes (customary) that regulate life and determine gender roles (Guevara, 2019).

It has been said that autonomy, in the case of Tzibanzá, is built from participation understood as communitarian and implies doing, possessing, transforming, and being in movement, going from the collective to the individual and vice versa. It is a consciously assumed voluntary process, which occurs from multiple social constructions. It is subject to contextual values and circumstances that arise at a certain moment in the place where it is carried out. It acquires a systematic development in time and space. It has the group's organization as its fundamental tool, and it must be freely and inclusive (Contreras, 2000,

Montero, 2004). It enables the achievement of shared objectives that have their origin in group membership. Since it arises from the ability to possess common attributes or qualities, to participate is to share, a condition of being related to a larger whole and consequently feeling included in order to be able to take an equitable part of something. It involves both social awareness of its importance and the individual commitment of people (Gil et al., 2008; Tamayo, 2002).

It enables the ability to decide on certain changes, which may reach increasing autonomy levels; that is, participation is intricately linked to power. It implies achieving independence concerning resource management and decision-making that are the group's responsibility, which can differentially affect the individuals that compose them (Contreras, 2000).

For this reason, I consider women's participation in development processes as a trigger for autonomy since it implies being part of the economic-productive activities that had been considered "masculine" and gives them the ability to decide about their future and that of their community.

METHODS

I share the idea that reality can only be knowable if the researcher coexists with it; that is why the proposal is made from a qualitative perspective, which allows us to approach phenomena from the perception of those who live them (Corbetta, 2007; Lerner, 1999).

This research was looking to answer the question: is the participation of women in the cooperative activities a detonator for female autonomy? If so, what kind of participation is more important? And why? The research period was from October 2018 to June 2020; we combined a specialized bibliography review with fieldwork.

Initial fieldwork was designed to accomplish rapport with the community, particularly with the women, so we visited the community more than 45 times on different days. We participated in different activities, in meetings and fishing contests, for instance, where the cooperative members make decisions and work together. We combined participatory and non-participatory observation and informal interviews, and we stayed for a couple of days on four different occasions.

Once we got to know people and they recognized us, the questionnaires were created. The objective of those was to gather quantitative information about gender roles, participation, and autonomy. The questionnaires focused on the topics we considered to be the most important: gender roles in the community and the perception of freedom in the decision-making process at home and cooperative affairs. To compare and find out whether the cooperative allows them to build autonomy, we design questionnaires for women who don't belong to the cooperative. In this case, the questions focused on whether they perceived differences between themselves and the cooperative women, and if they participated in community activities themselves, which ones, and if those are exclusively for women and why. We selected this particular community because, in a previous intervention, we wondered if this could be an example of the positive impact that development projects can have on people, particularly for women when they've decided actively to participate in them.

Questionnaires were applied to 20 cooperative women and 32 non-cooperative women (the original intention was to apply them to all 29 women who participated in the cooperative, for reasons beyond the proposal, only 20 were achieved). The selection of non-cooperative members was made based on those women who wanted to participate. The questionnaires included three topics: a) gender roles and patterns, with closed

questions using multiple choice; b) activities carried out in the cooperative, particularly decision-making, to determine whether or not there is a differentiation between what women and men can or cannot do, with closed and open questions; and c) a Likert scale to measure attitudes regarding autonomy, which sought to identify whether women perceive that they have more or less decision-making capacity regarding their individual, economic, family and community life based on their participation in cooperative activities.

Questionnaires were modified for the non-cooperative women. The difference was to ask them about community affairs and if they perceived a difference between those who are part of the cooperative and themselves. Data were analyzed to determine the percentage of women who consider those activities at home. They are divided by gender, who is making the decisions at home, and the difference between those who participated in the cooperative and those who did not. We wanted to know through the Likert scale, whether they like independent women or not and how they perceive women's economic participation.

An interview script was prepared to emphasize women's feelings, specifically, if they perceived that participating in the cooperative modified the possibility of making individual, economic, family, and community decisions. Two interviews were held with two women who participated in the cooperative. Due to the difficulties involved in agreeing on schedules, the decision was made to apply a focus group in which six women participated, also cooperative members. That information was analyzed using speech analysis. We were looking for the perception of women about their freedom once they started working as commercial fisherwomen.

For this paper, the analysis has been compiled from these questionnaires, interviews, and preliminary conclusions from the focus group.

RESULTS AND DISCUSSION

The participation of women in Tzibanzá began in 1995 with the Zimapán hydroelectric plant's inauguration and the arrival of the “Women in Solidarity” program. That had the objective of incorporating women in the fight against poverty based on their inclusion in a proposal for infrastructure changes, housing relocation, and productive reconversion to improve their living conditions, feeding, and sometimes generate employment. It was a starting point, as it included the construction of houses that had been relocated with the dam's flooding, the clearing of the land, and the construction of an irrigation system for tomatoes and Zucchini's commercial production. Although only 20 women and their families indeed participated, its impact on their daily lives, particularly on the way women were perceived, was enormous.

Thus, for example, Mrs. Toña and her husband remember how: *we all participated ... even though it was for women, we all worked equally ... in what we could, but no house was built alone, everyone also did the clearing of the land and Irrigation since they only gave us the materials* (2019). They also remember how irrigation agriculture allowed them to have enough products to sell wholesale. The participation of women positioned them as protagonists of change, with the possibility of leaving their home and doing other activities. It does not mean that gender role will change towards equality. In the questionnaires, we find that for all women, both cooperative and non-cooperative, the main activity continues to be their home, which includes domestic and caregiving tasks. However, they consider that these types of activities have become "simpler" for those who are part of the cooperative since they carry out household chores when they have no other commitments; at least they stated this in the focus group (see graphic 1 and 2)

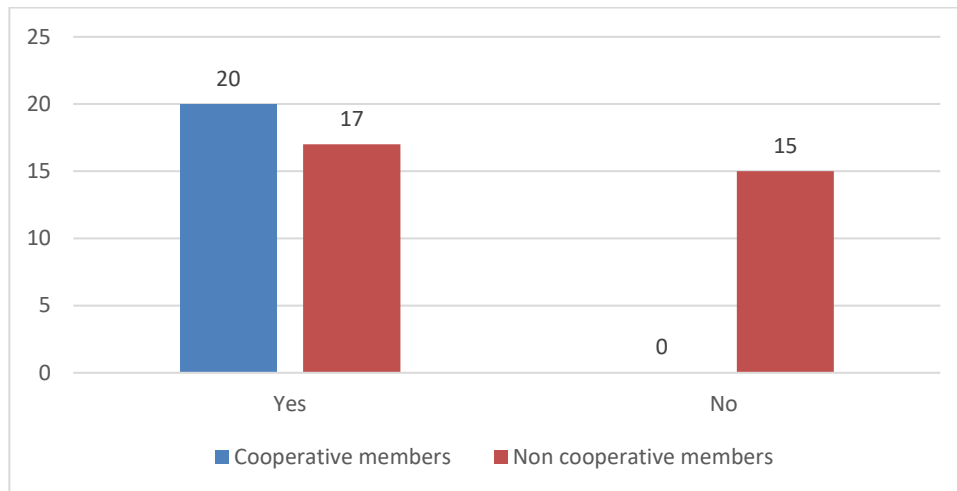


Figure 2. Women who have paid work outside their homes
 Source: Own elaboration based on the questionnaires raised during 2019.

On the other hand, irrigation agriculture gave them an economic income that made it possible to pay for work in the fields and to have the possibility for new generations to continue studying. The cooperative also arises because of the dam's construction, which, by flooding most of the farmland, leads the inhabitants of Tzibanzá to commercial fishing, initially without permission. Fines and the problems caused by this activity with the authorities led them to explore the possibility of establishing a production cooperative.

The cooperative's formalization was a job that required organization and community participation since it involved hours of work, financial contributions, and other unpaid activities. However, by 2000, 93 cooperative members were already consolidated, including 29 women who work from 4 different committees coordinating each of the activities: commercial fishing, restaurant, hotel El Anzuelo, and La Isla. Even though the committees' functions were unpaid for almost a decade, they have 40 formal jobs in the different areas today.

The income received from the different tourist activities is distributed among all members by equal parts. As for commercial fishing, it is an activity that is carried out independently. Each one of the 93 cooperative members has their permission and their boat, and what they fish is collected by the cooperative, and they have a wholesaler who periodically goes to the town and buys the fish. Each one receives a payment per kilo, at an approximate price of 30 pesos per kilo in 2019.

Although there was no restriction to be a cooperative member based on gender, most of the women entered in the absence of their husbands who were migrants or inherited permission from someone who no longer lives in the community. However, they recognize that when participating, *nobody makes them less ... we learned to fish by looking, a brother taught some of us, if not a son or a husband*. In addition to that, for them going out to fish represents that: *I get to relax, I like it because I get distracted, we are our boss, and we can earn our own money*. Women having their income has made it possible for them to decide how resources are used at home, deciding what to do with the money they earn makes them feel freer than their mothers were (GFC, 2019).

Both cooperatives and non-cooperative perceive themselves with greater autonomy, which they find in the possibility of working and receiving an income, decision-making at home, and the possibility of doing other activities outside their house.

On the Likert scale, we can see it, where totally agree indicates a negative attitude towards autonomy –decision-making– and totally disagree with a positive attitude. We can see a difference between cooperative members and non-cooperative members (Figure 3 and 4). (horizontal axis numeric code: 1). Women don't suppose to work outside their homes; 2). Women have to ask their husbands' permission for any activities they want to do; 3). Women who work are more irresponsible with their homes than women who do not work; 4). When a women work, she is free to decide what happens with the money she earns; 5). Women can be independent when they have their own money; 6). Man prefers women who don't work to be their wives.)

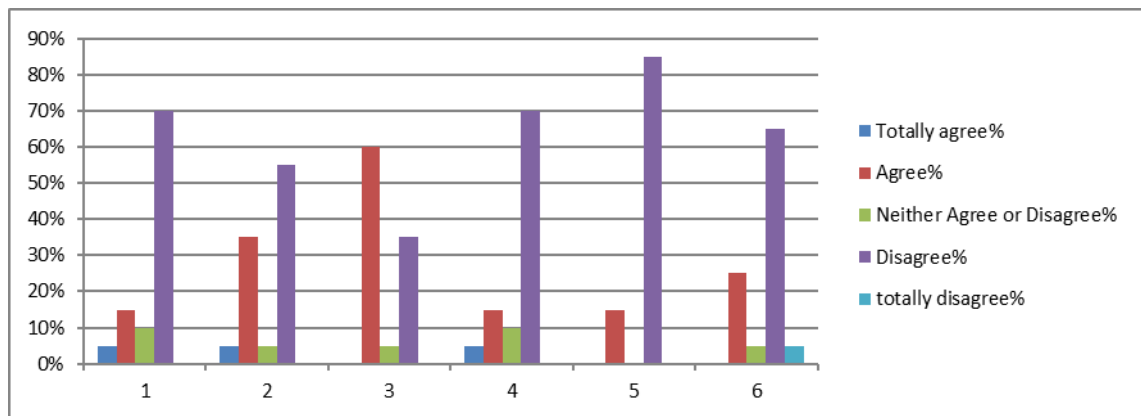


Figure 3. Women's attitudes regarding autonomy (cooperative members)
 Source: Own elaboration based on the questionnaires raised during 2019

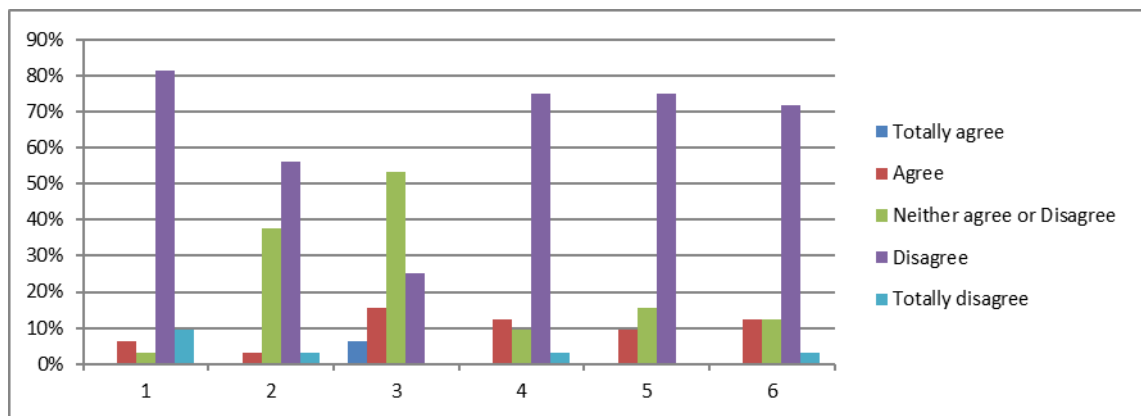


Figure 4. Women's attitudes regarding autonomy (non-cooperative members)
 Source: Own elaboration based on the questionnaires raised during 2019

When they disagree, give us an indication of how they feel about work, earning money, and making their own decisions at home and in the community. Even though the difference is not big, it gives an idea of how women feel about themselves and others when participating in economic activities and decision-making processes.

CONCLUSION AND RECOMMENDATION

Female autonomy is a social capacity that women can gain through different activities, in Tzibanzá, for example participating in commercial fishing and the cooperative project. Moreover, autonomy is a process that needed the active participation of women. It's important to recognize the gender roles women have been carrying for

generations as mothers and caregivers. In the awareness of gender roles, they can move forward to changes. Walking towards female autonomy does not mean either that they stop taking care of their houses and families, but gives them the possibility of doing that not as an obligation but as another activity that can be combined with commercial fishing and other cooperative responsibilities. Therefore, it is possible to say that participating in decision-making on an equal basis with men in the cooperative is a trigger that can lead to the construction of autonomy because this allows them to be perceived with the same opportunities as men.

It is also a social recognition since men are aware that programs and projects would not be possible without women's participation. Those who are not cooperative members find the opportunity to obtain a paid job in the tourist activities that are created, small businesses, cleaning in the new buildings that are rented to visitors, or in other spaces outside the community. In other words, access to economic income has allowed them to feel the independence that enables them to make decisions in every aspect of their personal lives.

There are still questions to be answered regarding what the development proposals represent in the change in gender relationships. However, I can confirm that when the “beneficiaries” appropriate the proposal, economic income is not the most important thing, but, rather, the possibility of deciding on the direction their lives will take. At least in the case of the Tzibanzá’s women, which becomes a trigger that enables autonomy construction.

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Downstream development strategy of processing industry in Jambi Province

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Abstract

The food and beverage industry, the paper and paper goods industry, and the rubber industry, rubber and plastic goods are leading industries that play an important role in the regional economy of Jambi Province. Therefore, policies are needed to sustain leading industries' growth and development. This research aims to formulate a downstream strategy for the leading processing industry in Jambi province. The method used is the Analytical Network Process (ANP). The analysis results show that the priority strategy in the downstream development of the three leading industries in Jambi Province is optimizing the government's role in policy and funding for the downstream program.

Keywords: Leading industry, Downstream, ANP

JEL Classification: C02, O14, O25

INTRODUCTION

The manufacturing sector has a vital role in development. The industrial sector has advantages over other sectors with substantial capital values, the ability to absorb a large labor force, and the ability to create added value from each input or raw ingredients that are processed (Nila, 2014). Some regions have shown significant developments in the manufacturing industry's contribution to their economy, resulting in a change in the economy's structure from agriculture to the manufacturing sector. (Desfiando, 2014)

According to statistics (BPS), in 2019, the industrial sector's growth has decreased from 4.27% to 3.8%, where the industry's contribution was expected to be substantial in boosting economic growth, reducing poverty, and job creation to reduced unemployment. This decline in the contribution and growth of the industrial sector leads to a symptom of de-industrialization. Suppose the decline in the contribution of the industrial sector in Indonesia continues. In that case, the industrial sector can no longer be expected to be a driving force and play an essential role in the Indonesian economy in the future.

The province of Jambi consists of nine districts and two cities with various commodities scattered in these areas. Each district has natural resources, namely in several commodities supported by a reasonably large area. Jambi Province has been known to have three sub-sectors of the leading processing industry, which affect the regional economy, namely the food and beverage industry, the paper and paper products industry, and the rubber industry, rubber, and plastic products (Fauzi et al., 2019; Hardiwan et al., 2019). In terms of morphological growth, the three leading processing industries have significantly contributed to increasing economic growth and GDRP Jambi

Province formation. So it is indispensable to pay attention and be given encouragement for the development of its downstream.

For this reason, the progress of the regional economy in the future, the process of developing the processing industry in a planned and systematic manner, in this case, is the downstream development of the processing industry which will encourage the role of the manufacturing sector as the main source of regional economic growth in Jambi province. There are many downstream industry problems in the regions, including roads, availability of electrical energy sources, markets, quality workforce, regional security stability, well-managed natural resources, the industry's raw materials, and a good investment climate. In this regard, the Jambi provincial government is trying to optimize its potential with the regional development plan's industrial downstream target. It reduces social inequality and environmental sustainability, thus encouraging the government's role in managing diversity (Pike et al., 2013).

Based on the conditions, strategic steps are needed to overcome existing problems and increase the downstream industry's development in Jambi Province. The selection of strategic steps is made with clear priorities. All industrial stakeholders, including the Jambi Provincial Government, can make a real contribution to the processing industry's development.

METHODS

The types of data used in this study are secondary and primary data. Primary data is sourced by gathering experts or experts in a group discussion forum, questionnaires, and in-depth interviews with representative experts and practitioners who understand the issues discussed downstream industry Jambi district and province. Secondary data sourced from the Jambi Province Central Bureau of Statistics, Jambi Province Regional Development Planning Agency, Jambi Province Industry and Commerce Office, and the Jambi Province Plantation Office.

The technique of determining experts is carried out using the purposive sampling method (Andi et al. 2017), which is deliberately selecting experts who are competent and directly involved with the processing industry in Jambi Province, which consists of the local government as regulators, practitioners, academics and industry experts. The details of the list of experts who became sources are shown in Table 1.

Table 1. The list of experts in the research

No	Institutions	Number of experts
1	Jambi Province Regional Development Planning Agency	1
2	Jambi Province Industry and Trade Office	2
3	Jambi Provincial Plantation Office	1
4	Department of Agriculture and Food Security of Jambi	1
5	Hok Tong Crumb Rubber Jambi	1
6	Head of Investment DPMPSTP Jambi Province	1
7	Jambi University Economics Expert	1
8	Food and Beverage Business Actors	1
9	PT BGR (CPO) Jambi	1
10	PT Lontar Papyrus Pulp and Paper	2
Total		12

The method used in this research is the Analytical Network Process (ANP) method. The ANP analysis model is a mathematical theory that can analyze the effect using an assumptive approach to solve the problem. ANP depends on the alternatives and existing criteria (Saaty, 2005). This ANP method attempts to explain the technical

analysis of using pairwise comparisons on alternatives and project criteria. Then in the ANP network, the level in ANP is called a cluster, which can have criteria and alternatives in it.

The Analytic Network Process (ANP) is carried out at several stages, namely:

1. Model construction is compiled based on theoretical and empirical literature reviews and questions experts and industry practitioners. It conducts interviews through in-depth interviews to study and discuss in more depth to obtain the real problem.

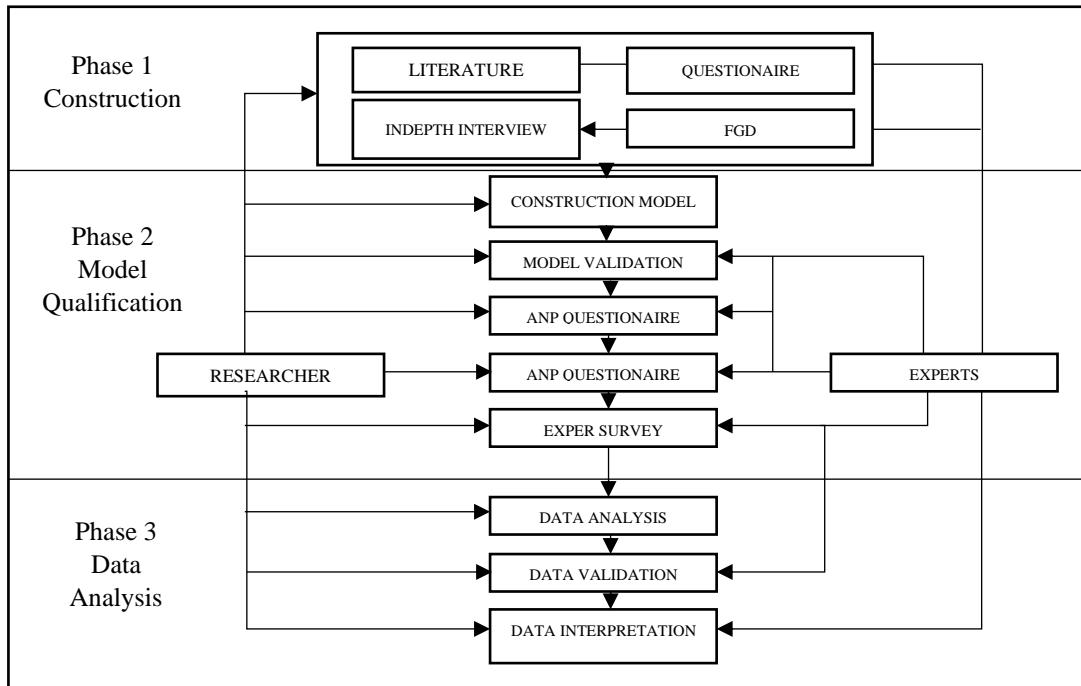


Figure 1. The stages of research with ANP

Source: Ascarya in Rusydiana (2013)

2. Model quantification, the stage of quantifying the model using questions that have been compiled in the ANP questionnaire, namely in the form of pairwise comparisons between elements in the cluster to the respondents. This questionnaire is distributed to respondents to determine which of the two is more influential (more dominant) (a numerical scale of 1-9). The data from the assessment results are then collected, and input through the super decision software to be processed to produce a supermatrix form. The results of each respondent will be inputted on a separate ANP network. In the grading process, problems may arise in the consistency of pairwise comparisons. The consistency ratio provides a numerical assessment of how inconsistent these evaluations may be. If the calculated ratio is less than 0.10, consistency is considered satisfactory.

3. Synthesis and Analysis

a. Geometric Mean

In this stage, the objective of calculating and knowing the results of individual assessments of respondents and determining the results of opinions in one group is carried out by calculating the geometric mean (Rusydiana, 2013). Questions in the form of comparison (Pairwise Comparison) of the respondents will be combined to form a consensus. The geometric mean is a type of average calculation that shows a certain tendency or value which has the following formula:

$$GM = (R1 * R2 * R3 * \dots * Rn)^{1/n}$$

b. Rater Agreement

The next step is to measure the Rater Agreement, what is meant by the rater agreement is a measure that shows the level of conformity (agreement) of the respondents (R1 - Rn) to a problem in one cluster. The tool used to measure the rater agreement is Kendall's Coefficient of Concordance (W; $0 < W \leq 1$). $W = 1$ indicates a perfect fit (Rusydziana, 2013). If the test value of W is 1 ($W = 1$), it can be concluded that the assessment or opinion of the respondents has a perfect fit. If W's value is 0 or getting closer to 0, it indicates a mismatch between the respondents' answers or the answers vary (Ascarya in Rusydziana, 2013). In this ANP model, there are three basic principles (Mardiyantoni, 2012), namely: Decomposition, Comparative Judgments, and Hierarchical Composition or synthesis of priorities:

1. The decomposition principle is applied to structure complex problems into a hierarchical framework or ANP framework consisting of cluster networks.
2. The comparative assessment principle is applied to construct pairwise comparisons of all combinations of elements in the cluster seen from the parent cluster. This pair comparison is used to get the local priority of elements in a cluster, as seen from the parent cluster.
3. The principle of hierarchical composition or synthesis is applied to multiply the local priority of elements in the cluster by the “global” priority of the parent element, resulting in the entire hierarchy's global priority.

ANP is used and applied to complex, complex decision making that requires various interactions and dependencies. As a development method of the AHP (Analytic Hierarchy Process) method, ANP still uses the Pairwise Comparison Judgment Matrices (PCJM) between similar elements. ANP pairwise comparisons are made between elements in components or clusters for each interaction in the network. Pairwise comparison using a numeric scale of 1-9 is a translation of the verbal assessment shown in Table 2.

Table 2. Comparison of verbal and numeric scales

Level of Importance	Definition
9	Very, very much influence
7	Very big influence
5	Bigger influence
3	It's a little bit bigger
1	Equally influential
2,4,6,8	Middle value among adjacent considerations

Source: Saaty, 2005

RESULTS AND DISCUSSION

The development strategy model for the downstream processing industry in Jambi Province and the alternative strategies that have been determined are shown by the model formed in Figure 2 using super decision software. The model is also feedback, where each arrow always points up and down (back and forth). The network can depend on the cluster but can also depend on strategy. Meanwhile, feedback increases priority and makes predictions more accurate (Azis, 2003). Therefore, ANP results are expected to be more stable.

Figure 2 explains that the purpose of developing this model is to comprehensively determine the downstream strategy of the leading processing industry in Jambi Province in order to obtain the right strategy to increase the downstream industry. The model consists of 3 clusters consisting of factors, problems, and strategies. The factors are divided into 4, namely resources, economy, social, and local government policies.

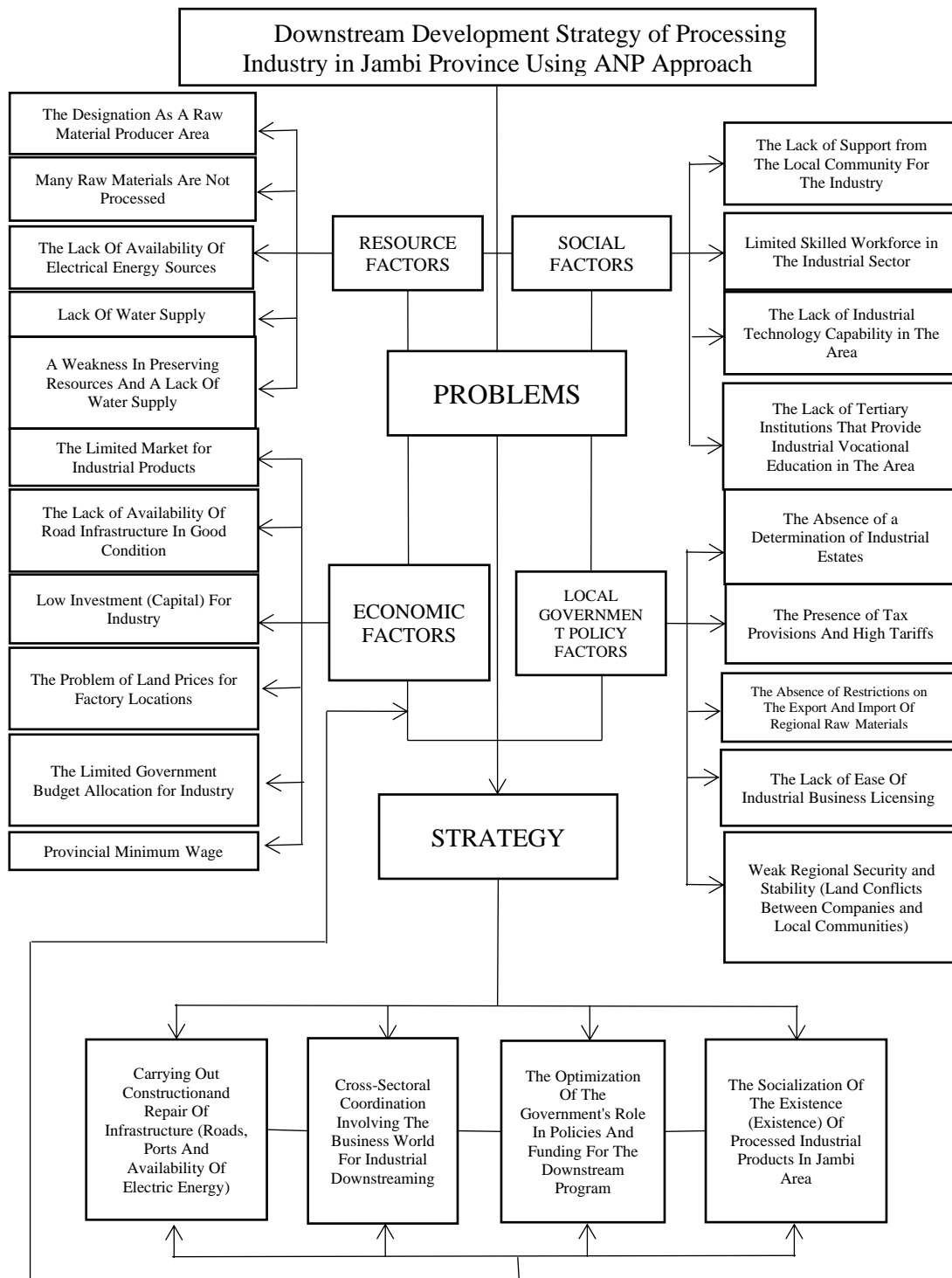


Figure 2. Structure of research models using *Software Super Decision*

Figure 2 also divides the strategy for the downstream problems of the leading processing industry in Jambi Province into four strategies. These strategies are undertaking infrastructure development and improvement (roads, ports, and availability of electrical energy), cross-sectoral coordination involving the business world for industrial downstream, optimizing government role in policies and funding for industrial downstream programs, and socializing the existence of local industrial processed products—Jambi through promotional media.

Super decision software presents the conclusion's results based on the average value to determine the overall priority order and the synthesis results for each respondent based on the existing categories. For more details, the following describes how each criterion and strategy's synthesis results in the ANP process. At this stage, the results will show the overall geometric mean and rater agreement level using a measure of Kendall's coefficient of concordance (W) (Lucke & Rowe, 2006).

Factor cluster synthesis

Figure 3 shows the results of the factor cluster. It can be seen that the rater agreement value is 38.06%. It means that the respondents' level of agreement on the priority cluster order of factors in the form of Regional Government, Economic, Resources, and Social Policies is 38.06%. Based on respondents' combined value, each priority order of determining the downstream strategy is government policy at 39.40%, followed by economic factors at 24.46%. Then the resource and social factors were 19.39% and 16.75%, respectively.

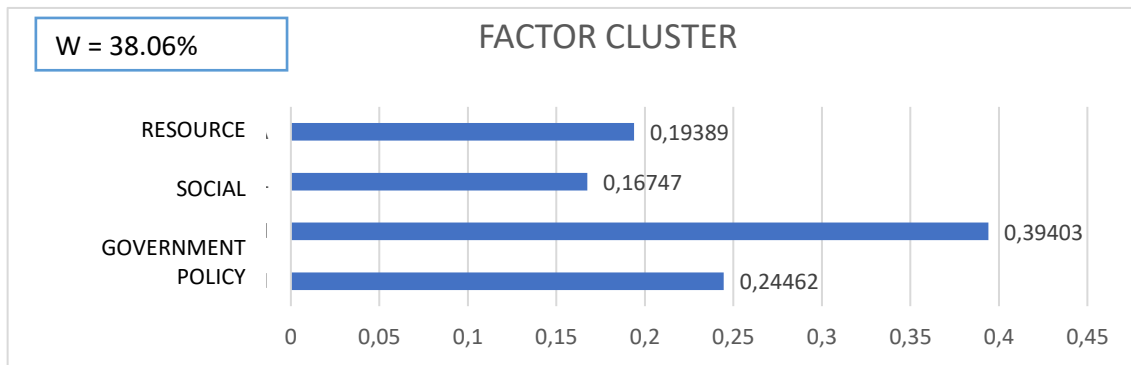


Figure 3. Synthesis Results of Factor Clusters Based on Geometric Mean Values

The result also aligns with Abdulai & Regmi's (2000) research in his research. The role of government is particularly involved in increasing the costs of industrial production from the external side of agro-industries. As is proper research from Fasyah, Daryanto, & Suprayitno (2016), regional governments are more likely to keep the market open by marketing incentives and cooperation with partners and industry quality to keep up with availability and improve the efficiency of the supply of raw materials.

Resource factor problems

Figure 4 shows that the main priority is resource factors in determining the downstream strategy for the leading processing industry is the problem of the large number of raw materials that have not been processed. These results represent the majority of respondents' answers with a value of 42.69%. The lack of electrical energy sources is the second priority problem in determining the industrial downstream strategy with a percentage of 16.17%, followed by a weakness in preserving resources and a lack of water supply by 15.30% and 14.86%.

Meanwhile, the one that ranks last is the designation as a raw material producer area at 10.96%. The result of obtaining the rater agreement of all respondents was 28.28%. The level of respondents agreement on the order priority resource issues are the large number of raw materials that have not been processed, the lack of availability of electrical energy sources, a weakness in preserving resources, a lack of water supply, and the designation as a raw material producer area by 28.28%.

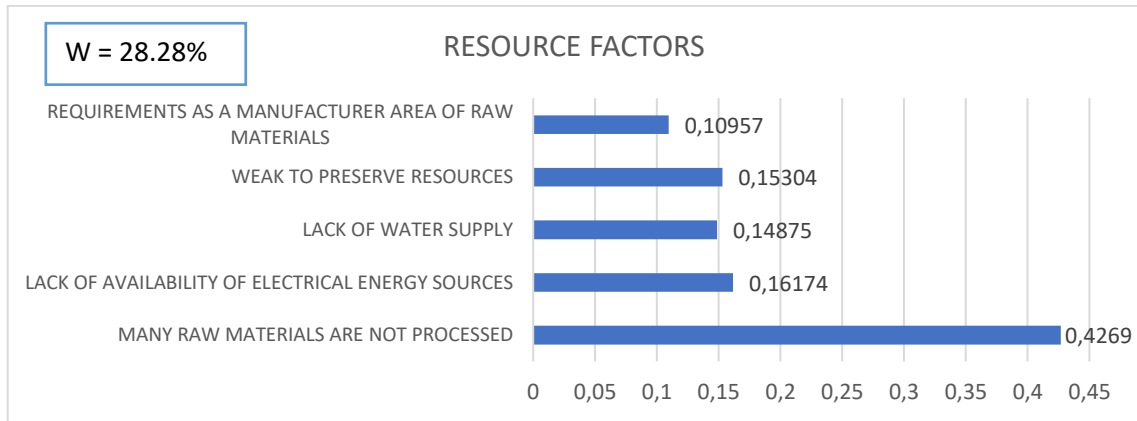


Figure 4. Synthesis results of resource factor priority problems based on the value of the geometric mean

The research aligns with Eriyatno (1993) that available raw material has an important role because it concerns the continuity of production and quantity of products. Mardiantony & Ciptomulyono's (2012) research that uses the raw materials and available labor to increase production capacity is an appropriate strategy for prioritizing industrial subsector development.

Economic factor problems

Figure 5 shows the results of the synthesis of economic factor problems. The overall combination of respondents on average answers the main priority problems of economic factors in determining the downstream strategy of the leading processing industry, namely the limited government budget allocation for the industry with a percentage level of 19.61%, followed by the problem of lack of availability of road infrastructure in good condition of 19.46%.

Furthermore, the third and fourth ranks were land prices for factory locations, high at 18.76%, and low investment (capital) for the industry at 16.60%. The last two priorities are occupied by the provincial minimum wage and the limited market for industrial products amounting to 15.28% and 10.30%, respectively. The result of obtaining the rater agreement of all respondents was 27.06%. It means that the level of respondent agreement on the priority order of economic problems in the form of limited government budget allocations for industry, lack of availability of road infrastructure in good condition, the problem of high land prices for factory locations, low investment (capital) industry, provincial minimum wages, and limited market. Industrial products amounted to 27.06%.

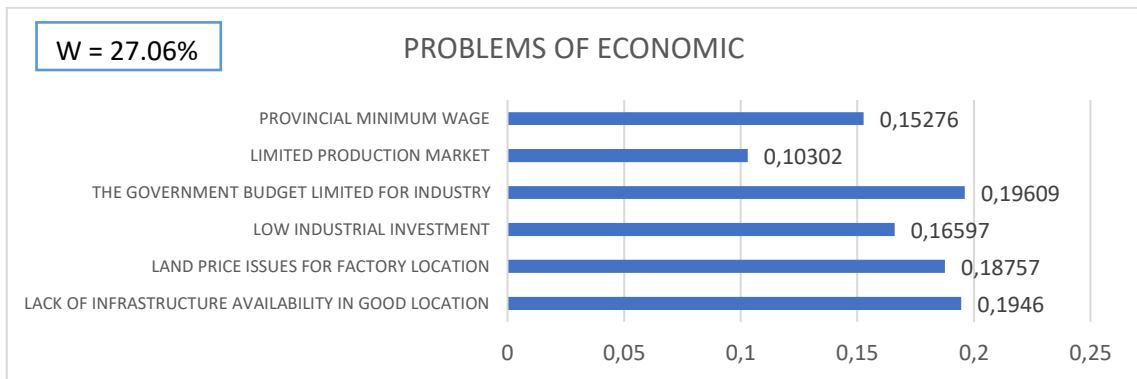


Figure 5. Results of the priority synthesis of economic factor problems based on the value of the geometric mean

This study's results are different from Hakim's (2014) findings, which states that building facilities and infrastructure are the right strategies for industrial development to increase superior industrial growth. However, this research is supported by Hadiyanto & Risman's (2015) research that government role as budgeting needs to be prioritized in industrial progress to boost exports an industry's competitive product of the manufacturing industry.

Social factors problems

Figure 6 shows the priority of resource factors. The social factor in determining a strategy to eliminate the seeded processing industry's top priority is the lack of tertiary institutions that provide industrial vocational education in 37.49%, rather than by a lack of industrial technology capability in the area of 27.07%. The third in the social factor problem is a limited skilled workforce in the industrial sector of 25.36%. Furthermore, the last order for social factors is the local community's lack of support for the industry at 10.07%. The result of the rater agreement value of all respondents was 22.50%.

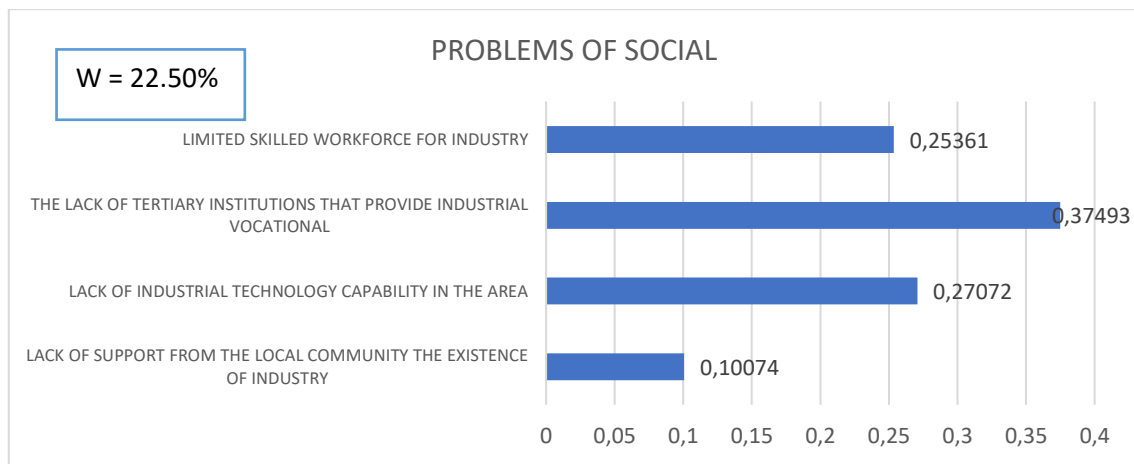


Figure 6. Synthesis results of social factors priority problems based on the value of the geometric mean

According to research by Wibowo & Nugroho (2018) that growth in human resources through formal training and education is a labor-intensive work strategy that is appropriate for addressing industrial problems. As with Adhadika & Pujiyono (2014), education positively and significantly impacts labor productivity.

Local government policy factors

Figure 7 shows the main priority of the problem of government policy factors in determining the downstream strategy for the leading processing industry was the lack of ease of industrial business licensing amounting to 27.37%. Meanwhile, the second place in the priority problem of local government policy factors is the absence of industrial estates' determination at 24.15%. Weak regional security and stability (land conflicts between companies and local communities) is the third priority at 19.86%. The fourth priority is the presence of tax provisions and high tariffs of 15.42%. Furthermore, with a percentage of 13.21%, the last priority sequence is the absence of restrictions on the export and import of regional raw materials. The result from all respondents' rater agreement value in addressing local government policies' priorities is 27.36%.

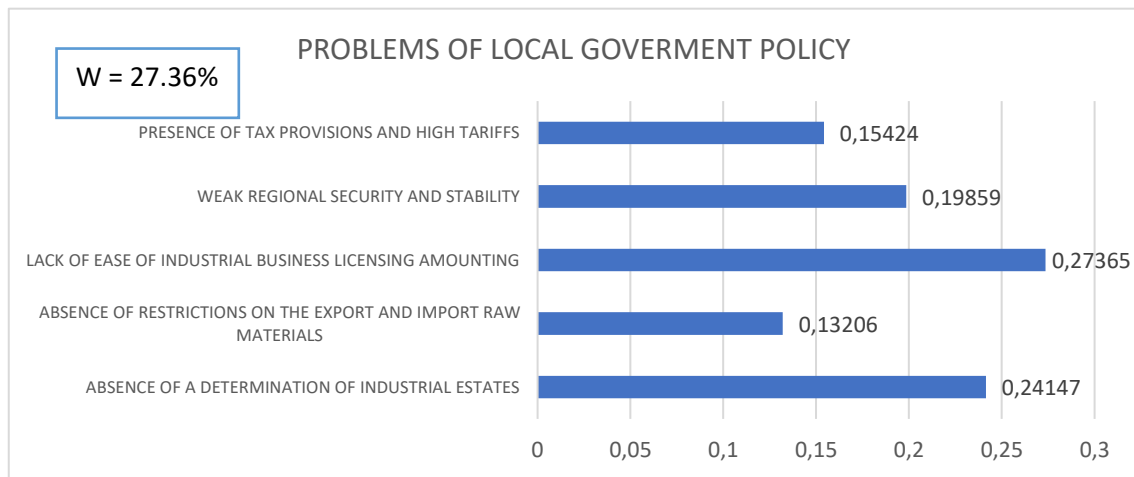


Figure 7. synthesis results of local government policy factors priority based on the geometric mean value

This research contradicts Winardi, Priyarsono, Siregar, & Kustanto (2017), who found that industrial sectors located in industrial areas have a better performance in increasing the added value factors in labor and capital, thereby increasing people's income. However, this research is supported by Chandra and Ardianti (2014) the problem with lack of permit from industrial enterprises is a major problem that governments should provide socialization of easier access to informal sectors to enter the formal sector.

Strategy cluster synthesis

Figure 8 shows respondents' combined opinion about the most prioritized strategy for determining the leading processing industry's downstream strategy. The most prioritized strategy in determining the downstream strategy for the leading processing industry is optimizing the government's role in policies and funding for the downstream program by 34.62%, followed by cross-sectoral coordination involving the business world for industrial downstream of 27.87%. Carrying out construction and repair of infrastructure (roads, ports, and electric energy) is the third priority at 21.70%. Furthermore, the last priority is the socialization of the existence (existence) of processed industrial products in the Jambi area of 15.80%. The result of the rater agreement value of all respondents was 18.06%.

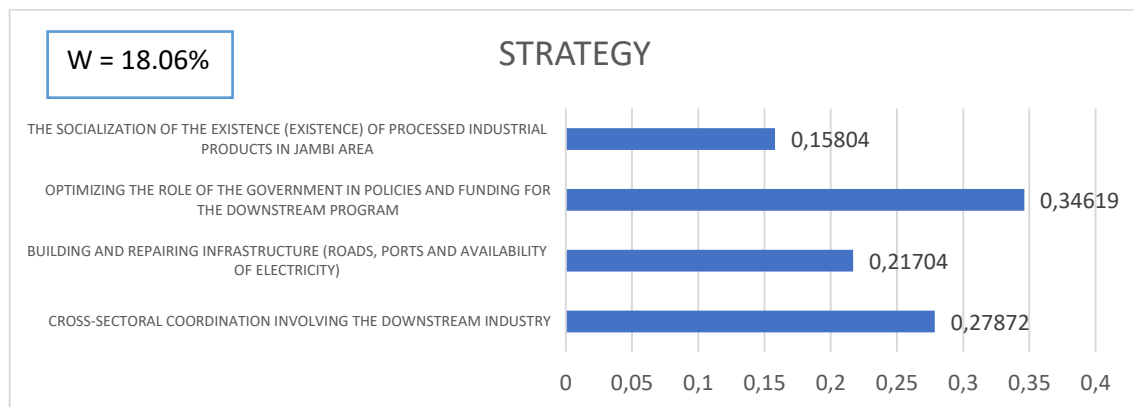


Figure 8. Synthesis results of strategy cluster priority based on geometric mean values

This study's results are following Nazara (2008), who stated that the role of government in formulating industrial development policies aims to provide new

directions for future industrial development and overcome problems that hinder industrial development today. The strategy can be used to promote regional economic growth in Jambi Province through the downstream development of leading processing industries must have strong policies for downstream development of leading processing industries. The need for local government policies to regulate industrial processing areas by the suitability of regions/regions for industry, and differences in economic and social structures between districts/cities in Jambi province. According to one of the policies related to industrial estates mandated in Law no. 3 of 2014, every industrial company must be located in an industrial area (Winardi, 2019).

According to (Mulyadi, 2012), processing industries located in industrial areas will spur higher economic growth. The processing industry's location/area is fundamental to several production processes in the processing industry. There is a selection of locations based on proximity to raw material sources (raw material-oriented) such as the palm oil processing industry (CPO), paper industry, wood industry, etc. Market Oriented Industries such as the Food and Beverage Industry, Service and Repair Industry and so on and processing industries free or can be established anywhere (Foot Loose Industry) such as the textile industry etc. For this reason, the Jambi Provincial government policy must make and Prepare a clear and regular Road Map for the manufacturing sector in Jambi Province as a guide in the future development of the processing industry in Jambi Province.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The priority strategies for the downstream development of the three processing industries in Jambi Province (the food and beverage industry, the paper and paper goods industry, and the rubber industry, rubber, and plastic goods) with a focus on regional government factors, namely optimizing the role of the government in policy and funding for the industrial downstream program processing. In contrast, the alternative strategy with the lowest priority is the socialization of the existence (existence) of industrially processed products in Jambi Province.

Recommendations

To implement the recommended strategy, cooperation between governments is needed in policy-making and all the downstream industry stakeholders (societies, industries, universities, and research institutions) to increase the growth of a high-value and competitive product to improve economic growth Jambi Province.

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Organizational performance in BAPAREKRAF Indonesia

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Abstract

This study aims to analyze the factors that influence the organizational performance of BAPAREKRAF (The Ministry of Tourism and Creative Economic). BAPAREKRAF is the spearhead of a government agency for developing Indonesia's creative economy. This study's respondents are whole civil servants and civil servant candidates in BAPAREKRAF, in 194 respondents. This research shows that transformational leadership, organizational culture, managerial competence, organizational structure, and organizational trust affect organizational performance, but transactional leadership does not affect organizational performance. Besides that, transformational leadership, organizational culture, organizational structure affect organizational trust, but transactional leadership and managerial competence do not affect organizational trust. Furthermore, transformational leadership, transactional leadership, organizational culture, and organizational structure can be mediated by the trust in organizational performance. However, managerial cannot be mediated by trust in BAPAREKRAF's performance in realizing.

Keywords: *Managerial competency, Organizational performance, Transformational leadership, Transactional leadership*

JEL Classification: M12, M14

INTRODUCTION

The development of free trade and the global economic crisis's threat requires all countries globally, including Indonesia, to compete in domestic and international markets. A creative economy is one solution to facing this competitive competition (Junaidi, 2017; Hardiani et al., 2019). The creative economy can contribute a considerable amount to Indonesia's Gross Domestic Product (GDP). Until the end of 2018, the creative economy's contribution to the national GDP was estimated to reach Rp 1,105 trillion and again increase to Rp. 1,211 trillion in 2019. Also, the increase in the creative economy workforce has increased, namely, in 2011, there were 13.45 million people who continued to increase until it reached 16,91 million people in 2016 (BAPAREKRAF, 2018).

The Indonesian government is well aware of the creative economy's potential for the development of national welfare. As the government's response to the creative economy, the Creative Economic Agency (BEKRAF) was formed and changed to the Tourism and Creative Economic Agency (BAPAREKRAF). Given the important role of BAPAREKRAF for the national economy, it is necessary to strengthen its organization. From the perspective of human resource studies, many factors affect organizational

performance.

One of the organizational performance is influenced by the leadership style. Arif & Akram's research (2018) concluded that transformational leadership affects organizational performance through organizational innovation's mediating role. Toufaily (2017) adds that transformational leaders prioritize subordinates' involvement, resulting in higher efficiency and satisfaction, leading to managerial and organizational performance. Ahmad & Ejaz (2019) added that a transformational leadership style positively influences organizational performance. Birasnav (2014) argues that leaders use values and ideologies that motivate their subordinates to specified achievement levels.

In addition to the transformational leadership style, there is also a transactional leadership style. Ahmad & Ejaz (2019) concluded that transactional leadership has the highest impact on organizational performance, followed by transformational leadership styles. According to Haq & Chandio (2017), in order to improve organizational performance, the transformational leadership style emphasizes the effectiveness and efficiency of employees, assesses organizational structure and structure, motivates employees by providing rewards and punishments to employees, follows strict rules and regulations, and monitors employee performance in the organization carefully

Organizational performance is inseparable from organizational culture. Sengottuvel & Aktharsha (2016) revealed that strategic emphasis has a potential impact on organizational performance among the various organizational culture dimensions. Kim & Chang (2018) found that clan culture and market culture were more prevalent than adhocratic cultures and that hierarchical and clan cultures would decline significantly over time. In contrast, adhocratic, clan, and market cultures have a consistently positive relationship and have the strongest impact on organizational performance. Meanwhile, Joseph & Kibera's research (2019) found that organizational culture significantly influences non-market performance.

An organization indirectly describes its managerial competence. Suárez, Martelo, & Franco (2018) found that managerial competence is a critical variable for achieving a healthy culture conducive to commitment quality and excellence in important educational institutions. Meanwhile, research by Ncube & Chimucheka (2019) concluded that managerial competence affects the performance of MSMEs.

An organization must have an organizational structure. Research by Nwonu, Agbaeze, & Obi-Anike (2017) concluded that the organizational structure of companies in manufacturing affects organizational performance. Estalaki (2017) finds a significant relationship between efficiency in industrial units and organizational structure and its components, including complexity, formality, and concentration.

Organizations need organizational trust. Organizational trust is about individuals' positive expectations from supervisors, colleagues, and the organization to be honest about promises, decisions, and behavior, and not act pragmatically. Research Guinot & Chiva (2018) found a mediating role for trust in organizations to improve job and organizational performance. Meanwhile, Singh & Desa (2018) examined the effect of organizational trust on job performance, and the results showed that organizational trust was positively correlated with job performance.

Thus, from some of the studies that have been described, it can be concluded that there is an influence of transformational leadership, transactional leadership, organizational culture, managerial competence, organizational structure, and organizational trust on organizational performance. Therefore, there are research gaps about organizational performance that can be researched at BAPAREKRAF.

Yue et al. (2019) show that transformational leadership and transparent communication are positively related to employee organizational trust, which positively

affects employees' openness to change. Yasir et al. (2016) revealed a positive and significant relationship between transformational leadership and employee trust. Uslu & Oklay (2015) demonstrated that leadership has a positive effect on organizational trust.

Yasir et al. (2016) found no significant relationship between transactional leadership and employee trust in the organization. Meanwhile, Mehmood's (2016) research in the banking sector in Pakistan shows that Transactional leadership except management by exception (passive) dimension has a significant impact on employee trust in the organization.

Fard, Babelan, & Sattari (2013) revealed that organizational culture conditions positively affect organizational trust. The findings of this study are consistent with Ahmad et al. (2011), Jafaei (2011), and Matin (2009). There is a relationship between organizational culture and its components and organizational trust. Jaben & Isakovic (2018) show that organizations with a culture type that are more focused on creation and collaboration tend to have a higher level of trust in top management.

Research conducted by Gabriel & Kpakol (2014) shows that perceived managerial competence is significantly correlated with employee cognitive and affective beliefs. Ghimire (2019) illustrates that many factors, including competence, integrity, and virtue, influence nurse behavior through organizational trust in management.

According to Setiawan et al. (2019), the organizational structure provides flexibility for the organization members to work according to their expertise. On the other hand, the delegation of authority and duties to members of the organization at certain organizational structure positions shows its members' trust. Kolaric & Radojeic's (2011) show that trust and cooperation among employees are not very high. Meanwhile, Latifi & Shooshtarian (2014) shows a significant relationship between organizational structure and trust dimensions. The organization can meet objectives, adapt to dynamic environments, and survive in the future.

Based on the empirical studies, it can be concluded that the influence of transformational leadership, transactional leadership, organizational culture, managerial competence, and organizational structure on organizational trust. Therefore, there are research gaps related to organizational trust that could be researched at BAPAREKRAF.

Previous empirical research has suggested that leaders' organizational trust mediates the relationship between transformational and transactional leadership and organizational performance. Public leaders need to continue to develop their leadership skills, especially their transformational leadership, as well as build trust to improve performance in their organizations (Asencio, 2016, Ugwu, Enwereuzor, & Orji, 2015). Employees' trust in leaders mediates the relationship between transformational and transactional leadership and organizational performance. (Asencio, 2016; Ugwu, Enwereuzor & Orji, 2015). When leaders consistently value, punish, and monitor performance, high or low performers will develop trust in their leaders. Empirical evidence suggests that leaders who engage in transactional leadership behaviors tend to be more trusted among followers (Bradberry & Tatum, 2002; Greenberg & Baron, 2003; Pillai, Schriesheim & Williams, 1999; Podsakoff et al., 1990). In turn, employees who trust their leader will perform at a higher level because they have confidence that their leader will continue to honor their contract over time (Avolio, Bass, & Jung, 1999).

Kamaamia (2017) states that organizational culture is considered unique for each organization and can improve performance. Research Fard, Babelan & Sattari (2013) revealed that the conditions of organizational culture and organizational trust are favorable for the company organization, and there is a relationship between organizational culture and the components of organizational trust. Based on this, it is expected that organizational culture has an indirect effect on organizational performance

through organizational trust.

Managerial competence is defined as a specific type of individual competence, namely, activities, knowledge, skills, attitudes, and personal characteristics needed to improve management performance (Martina et al., 2012). Nowadays, when measuring organizational performance, the better results are more and more referred to not as the organization's material resources, but for its human resources and competencies; competency development has become one of the organization's top priorities (Veliu & Manxhari, 2017).

The results of previous studies have provided empirical evidence to support the effect of structure on organizational performance. The results show that structure determines performance and that without a suitable structure, an organization is bound to fail (Nwonu, Agbaeze & Obi-Anike, 2017).

The delegation of authority and duties to members of the organization in certain organizational structure positions shows its members' trust (Setiawan et al., 2019). The significant relationship between organizational structure and trust dimensions will help organizations meet goals, adapt to dynamic environments, and survive in the future.

According to the results of previous research that have been described, it can be formulated the influence of transformational leadership, transactional leadership, organizational culture, managerial competence, and organizational structure on organizational performance. Therefore, a research gap regarding organizational trust as a mediator of organizational performance can be researched at BAPAREKRAF.

METHODS

The main data used in this study are primary data. This study's respondent is whole Civil servants and Civil Servant Candidates in BAPAREKRAF, in 194 respondents. A questionnaire with a Likert scale instrument five is used to collect the data.

This research uses inferential statistical analysis in the form of a causality analysis of SEM (Structural Equation Modeling) based on component or variance (known as Partial Least Square (PLS)). Figure 1 shows a preliminary research model

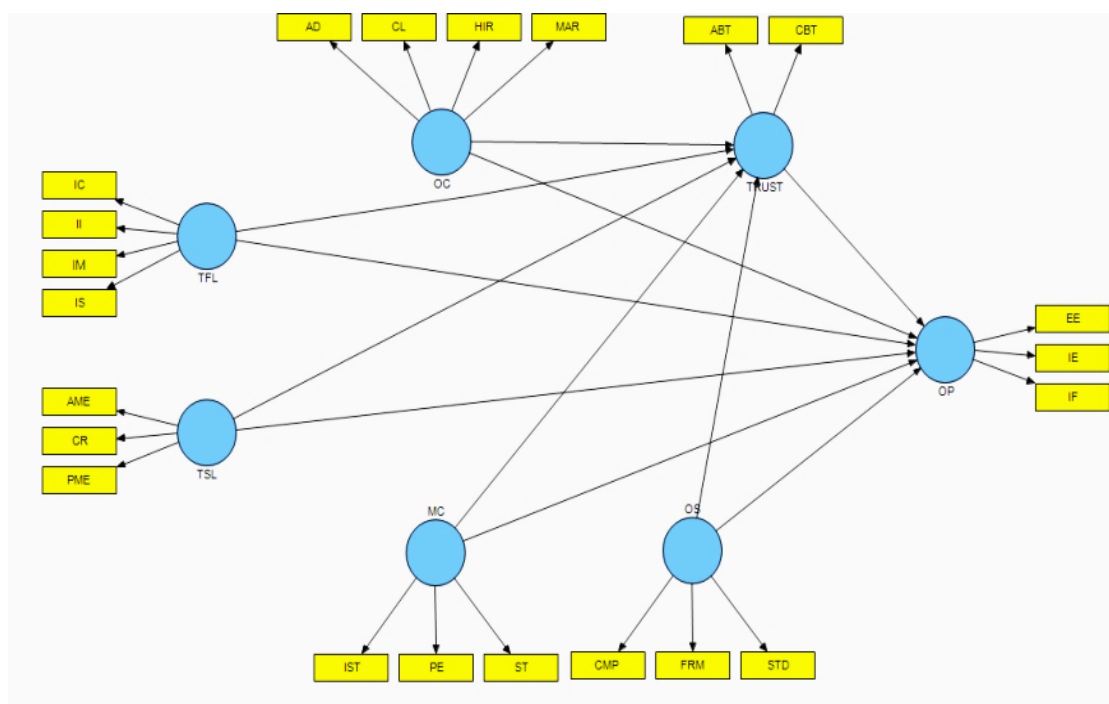


Figure 1. Initial research model

Table 1. Operational research variables

Variable	Definition	Indicator	Measurement Scale
Transformational Leadership (TFL)	A leadership style that creates an environment, so employees are motivated and energized in a climate that supports providing more effective customer service, strengthening organizational performance and leading to financial benefits for shareholders ((De Jong & Bruch, (2013), Giroux & McLarney, (2014).	<ol style="list-style-type: none"> 1. Idealized Influence 2. Inspirational Motivation 3. Intellectual Stimulation 4. Individualized Consideration 	Ordinal
Transactional Leadership (TSL)	A leadership style so the leader encourages the obedience of his subordinates through reward and punishment. (Khalil, Iqbal & Khan, 2016)	<ol style="list-style-type: none"> 1. contingent reward, 2. active management by exception 3. passive management by exception 	Ordinal
Organizational Culture (OC)	Culture is “the typical way of behavior and beliefs that a group of people has that develops over time and shares together” (Tarique et al., 2016, p. 124). Organizational culture is a concrete manifestation of the shared values and beliefs that influence it employee behavior (De Chernatony and Cottam, 2008; Hoque et al., 2013)	<ol style="list-style-type: none"> 1. Clan 2. Adhocracy 3. Market 4. Hierarchical 	Ordinal
Managerial Competence (MC)	Managerial competence is the skills, knowledge and attributes needed to perform managerial tasks effectively and efficiently with readiness and agility for all professions (Farah and Mwit, 2017)	<ol style="list-style-type: none"> 1. Strategic 2. Intra-strategic 3. Personal effectiveness 	Ordinal
Organizational Structure (OS)	Is a system that determines how tasks are formally, structured and coordinated in a group that is deliberately organized to achieve common goals (Robbins et al., 2014; McNamera, 2018)	<ol style="list-style-type: none"> 1. Complexity 2. Formality 3. Standardization 	Ordinal
Organizational Performance (OP)	The organizational performance consists of the actual output or organizational results that are measured against the intended output (Richard et al. 2009). Performance must be achieved through items such as evaluation, testing, efficiency, effectiveness and quality (Bartoli & Blatrix, 2015)	<ol style="list-style-type: none"> 1. Internal Effectiveness 2. External Effectiveness 3. Internal Fairness 	Ordinal
Organizational Trust (OT)	Organizational trust is about the positive expectations of individuals from supervisors, colleagues and the organization himself to be honest about promises, decisions and behavior and not to take pragmatic actions (Fatma Ince, 2018)	<ol style="list-style-type: none"> 1. Cognition-based trust 2. Affect-based trust 	Ordinal

Source: abstracted by Researchers

RESULTS AND DISCUSSION

In general, BAPAREKRAF's organizational performance is relatively good. It is indicated by the average value of the OP variable of 4.23 (Likert scale 1 - 5) (see Table 2). Other variables in this study are also categorized as good, except for the OC (organization culture) variable, which is categorized as neutral.

Table 2. Description of research variables

Variable	Average value
Transformational Leadership (TFL)	4.54381
Transactional Leadership (TSL)	4.14089
Organization Culture (OC)	3.91366
Managerial Competency (MC)	4.09278
Organizational Structure (OS)	4.22680
Trust (Trust)	4.04124
Organizational Performance (OP)	4.13660

Before conducting further analysis, first, an evaluation of the initial model is related to the indicators' validity and reliability in the latent variables (constructs). The validity test used the convergent test and discriminant validity of the indicators. The reliability test uses two criteria, namely composite reliability and Cronbachs alpha.

The construct reliability test was measured by two criteria, namely composite reliability and Cronbachs alpha. Both Alpha Cronbach and Composite Reliability must be above 0.7. For Alpha Cronbach, up to 0.6 is still allowed.

Based on the initial model test (validity and reliability), there are two indicators of TSL (AME and PME), three OC indicators (CL, HIR, and MAR), one MC indicator (PE), and one OS indicator (CMP) which are invalid and unreliable. The seven indicators were excluded from the model. In other words, all indicators in the model are valid and reliable. The modified model is given in Figure 2.

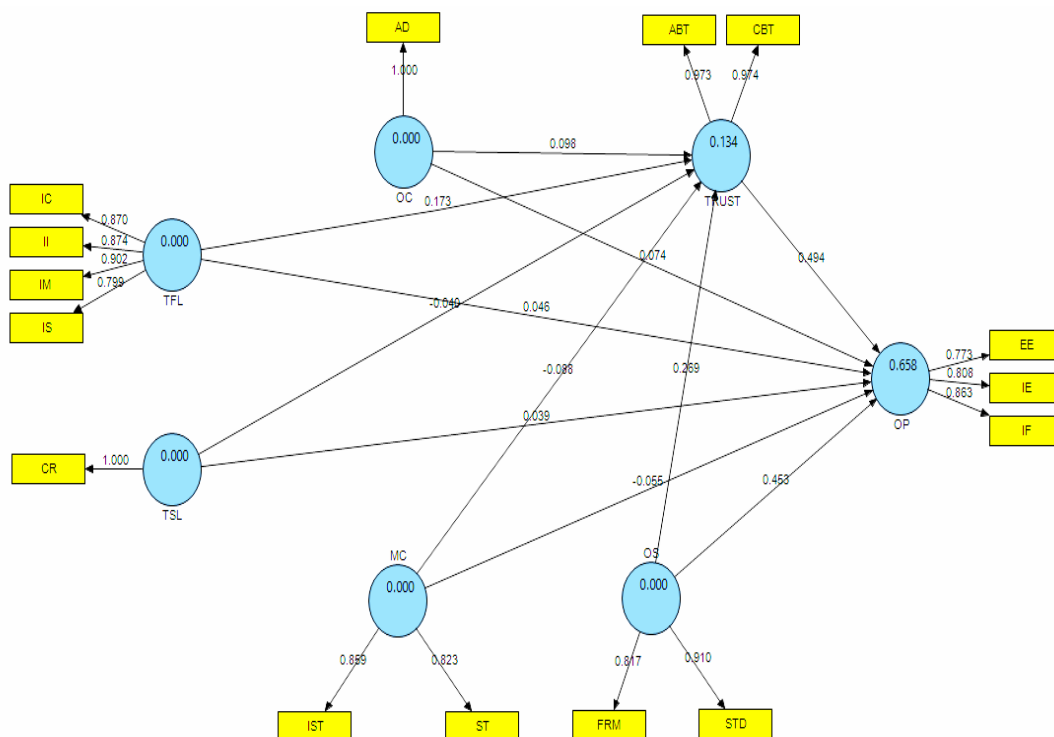


Figure 2. Results (modified) of the second model

Convergent validity from testing the indicator (measurement model) can be seen from the loading factor's value. However, it can also be seen from the results of the calculation of the second model in the form of Average Variance Extracted and Composite Reliability. The following table is Average Variance Extracted and Composite Reliability:

Table 3. AVE and composite reliability

Variable	Average Variance Extracted (AVE)	Composite Reliability	Information
MC	0.707643	0.828731	Valid
OC	1,000000	1,000000	Valid
OP	0.664843	0.855882	Valid
OS	0.747583	0.855208	Valid
TFL	0.742882	0.920220	Valid
TRUST	0.947961	0.973285	Valid
TSL	1,000000	1,000000	Valid

Based on the loading factor value, average variance extracted, and composite reliability, each variable's indicators are reliable and valid, reflecting their respective variables. The testing of the structural model's goodness of fit against the inner model using predictive-relevance (Q2) values (Solimun, 2011). Table 4 shows model R Square.

Table 4. Model R Square

Variable	R Square
MC	0.658287
OC	
OP	
OS	
TFL	
TRUST	0.134312
TSL	

The result of predictive-relevance value calculation is 0.443564 or 44.35%, which shows that the diversity of data explained by the model is 44.35%. These results indicate that the value of Q Square > 0 gives the meaning that this research model has predictive-relevance and can be used for hypothesis testing.

Table 5. Total effects (Mean, STDEV, T-values)

	Original sample estimate (O)	Sample Mean (M)	Standard Deviation (STDEV)	Standard Error (STERR)	T Statistics (O/STERR)
MC -> OP	-0.098682	-0.101475	0.032930	0.032930	2.996666
MC -> TRUST	-0.088227	-0.091025	0.047723	0.047723	1.848739
OC -> OP	0.122499	0.120460	0.031320	0.031320	3.911169
OC -> TRUST	0.097734	0.096208	0.035907	0.035907	2.721837
OS -> OP	0.585852	0.584588	0.032560	0.032560	17.993154
OS -> TRUST	0.268648	0.270063	0.044016	0.044016	6.103428
TFL -> OP	0.131864	0.139148	0.050064	0.050064	2.633934
TFL -> TRUST	0.172972	0.180558	0.069030	0.069030	2.505749
TRUST -> OP	0.494162	0.494320	0.029838	0.029838	16.561705
TSL -> OP	0.019050	0.018723	0.053132	0.053132	0.358531
TSL -> TRUST	-0.040377	-0.040246	0.070653	0.070653	0.571480

Transformational leadership reflected by idealized influence, inspirational motivation, intellectual stimulation, and individual consideration positively and significantly impact organizational performance reflected by internal effectiveness, external effectiveness, and internal justice. The results of this study support research conducted by Al Khajeh (2018), Asencio (2016), and Toufaily (2017).

Transactional leadership reflected by contingency rewards has no effect on organizational performance reflected by internal effectiveness, external effectiveness, and internal justice. This result is in line with the arguments of Antonakis, Avolio, and Sivasubramaniam (in Bass & Riggio, 2006). However, it is different from previous research by Ahmad & Ejaz (2019) and Haq & Chandio (2017).

Organizational culture reflected by the Adhocracy culture has a positive and significant influence on organizational performance reflected by internal effectiveness, external effectiveness, and internal justice. This study's results support research done previously by Kim & Chang (2018), Sengottuvel & Aktharsha (2016), Meng & Berger. (2019), Joseph & Kibera (2019)

Managerial competence, reflected by strategic and intra-strategic, has a negative and significant impact on organizational performance reflected by internal effectiveness, external effectiveness, and internal justice. These results contradict previous studies by Velu & Manxhari (2017), Suárez, Martelo & Franco (2018), and Ncube & Chimucheka (2019).

The organizational structure reflected by formality and standardization has a positive and significant impact on organizational performance reflected by internal effectiveness, external effectiveness, and internal justice. The results of this study support Estalaki (2017) and contrary to the results by Nene & Pillay (2019)

Organizational trust reflected by cognitive-based trust and influence-based trust positively influences organizational performance reflected by internal effectiveness, external effectiveness, and internal justice. The results of this study support research that has been done previously by Fatma Ince (2018), Guinot & Chiva (2018), Singh & Desa (2018), and Botwe, Kenneth & Masih (2016).

Transformational leadership reflected by idealized influence, inspirational motivation, intellectual stimulation, and individual consideration positively and significantly impact employee trust reflected by cognitive-based trust and influence-based belief. The results of this study support research that has been done previously by Yue et al. (2019), Yasir et al. (2016), and Uslu & Oklay (2015).

Transactional leadership reflected by contingent rewards has no effect on employee trust reflected by cognitive-based trust and influence-based trust. This study's results contradict research that has been done previously by Yasir et al. (2016) and Mehmood (2016).

Organizational culture reflected by the Adhocracy culture has a positive and significant influence on employee trust reflected by cognitive-based trust and influence-based belief. This study's results support research done previously by Fard, Babelan & Sattari (2013) and Jabeen & Isakovic (2018).

Managerial competence reflected by strategic and intra-strategic does not affect employee trust reflected by cognitive-based trust and influence-based trust. This study's results contradict research done previously by Gabriel & Kpakol (2014) and Ghimire (2019).

The organizational structure reflected by formality and standardization positively influences organizational trust reflected by cognitive-based trust and influence-based

trust.

This study's results support research that has been done previously by Latifi & Shooshtarian (2014) and Kolaric & Radojeic (2011) stated that organizational structure is positively and significantly related to employee organizational trust.

Table 6. Recapitulation of organizational trust mediation tests

Variable	t-count	t-table	p-value	Information
Transformational leadership (TFL)	5,440	1.97	0.00	Accepted
Transactional leadership (TSL)	2,841	1.97	0.00	Accepted
Organizational culture (OC)	2,087	1.97	0.03	Accepted
Managerial competence (MC)	-2,238	1.97	0.02	Rejected
Organizational structure (OS)	7,436	1.97	0.00	Accepted

It can be concluded that transformational leadership, transactional leadership, organizational culture, organizational structure have a positive and significant influence on organizational performance mediated by organizational trust. On the other hand, managerial competence does not affect organizational performance mediated by an employee trust.

Organizational trust can mediate the effect of transformational leadership on organizational performance. Leadership at BAPAREKRAF that provides ideal influence, inspirational motivation, intellectual stimulation, and individual considerations creates trust in employees to increase competence, ability, integrity, and a sense of dependence on the organization to increase organizational performance.

This study's results further strengthen and support previous empirical research that has suggested that employees' trust in leaders mediates the relationship between transformational and transactional leadership and organizational performance. (Asencio, 2016; Ugwu, Enwereuzor, & Orji, 2015).

Organizational trust can mediate the effect of transactional leadership on organizational performance. The leadership's reward policy in the form of material can provide trust in competence, ability, and integrity to create a dependency from employees to make organizational performance better.

This study's results further strengthen and support previous empirical research that has suggested that employees' trust in leaders mediates the relationship between transformational and transactional leadership and organizational performance. (Asencio, 2016; Ugwu, Enwereuzor, & Orji, 2015).

Organizational trust can mediate organizational culture on organizational performance. The existence of an innovative and creative culture at BAPAREKRAF can increase employees' competence, ability, and integrity at work, make employees feel dependent and comfortable with their organization, and ultimately improve organizational performance.

This study's results further strengthen and support the previous empirical research that states that organizational culture is considered unique for each organization and can improve performance. (Kamaamia, 2017). It also strengthens the result researched by Fard, Babelan & Sattari (2013), which revealed that organizational culture and organizational trust are favorable for the company organization. There is a relationship between organizational culture and the components of organizational trust.

Organizational trust can mediate an organizational structure on organizational performance. It shows that a formal and standardized organizational structure provides confidence for employees to improve competence, ability, integrity, and a sense of belonging to the organization, thus leading to increased external and internal performance

of the organization.

These results further strengthen and support previous empirical research that stated that employees' trust in leaders mediates the relationship between organizational structure (OS) and organizational performance. The significant relationship between organizational structure and dimensions of trust will help organizations meet goals, adapt to dynamic environments, and survive in the future (Nwonu, Agbaeze & Obi-Anike, 2017; Setiawan et al., 2019)

Otherwise, organizational trust is not able to mediate managerial competence in organizational performance. Strategic and intra-strategic implementation obstructed employee freedom in increasing competence, ability, integrity, and a sense of dependence on the organization. As a result, it does not improve organizational performance. This study's results do not support previous empirical research states that employees' trust in leaders mediates the relationship between managerial competence and organizational performance (Veliu and Manxhari, 2017).

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

Transformational leadership, organizational culture, managerial competence, organizational structure, organizational trust affect organizational performance, but transactional leadership does not affect organizational performance. It shows that leaders at the managerial level in providing contingent rewards to employees in material form do not affect BAPAREKRAF.

Besides that, transformational leadership, organizational culture, organizational structure affect organizational trust, but transactional leadership and managerial competence do not affect organizational trust. It shows that the reward in the form of material cannot increase the competence, ability, and integrity of employees at work and dependence on BAPAREKRAF.

Furthermore, transformational leadership, transactional leadership, organizational culture, and organizational structure can be mediated by organizational performance beliefs. However, organizational beliefs cannot mediate managerial abilities in the form of Strategic and Intra-Strategic in cognitive-based and affective based on BAPAREKRAF's performance in realizing Internal Effectiveness, Effectiveness External, and Internal Justice.

Recommendation

The managers at BAPAREKRAF should not give rewards in the form of materials to improve the performance of BAPAREKRAF. Besides, managers should also appreciate motivation, praise, and opportunities and increase their strategic and intra-strategic abilities to increase organizational trust.

Recommendations for further research are to be able to examine the managerial competency qualifications required by BAPAREKRAF.

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Factors affecting the import of soybean in Indonesia

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Abstract

As an agricultural country, Indonesia still imports soybeans to meet domestic soybean needs. The gap between national soybean production and consumption causes the government to import. Based on this, this study aims to analyze the factors that influence soybean imports in Indonesia. The data used are time series data for the period 2003-2018. Data is sourced from the Food and Agriculture Organization (FAO), United Nations International Trade Statistics Database (UN COMTRADE), the Central Bureau of Statistics of the Republic of Indonesia, World Bank, Bank Indonesia, and the Ministry of Trade of the Republic of Indonesia. The analysis method uses SEM-Partial Least Square (PLS). The results showed that the macroeconomic conditions directly affect soybean production and consumption. On the other hand, consumption has a direct effect, but production has no direct effect on soybean imports. Macroeconomic conditions do not have a direct effect on soybean imports. Nevertheless, the total effect (combined direct and indirect effects) is significant from macroeconomic conditions on soybean imports.

Keywords: Consumption, Import, Macroeconomics, Production, Soybean

JEL Classification: E21, E23, F16, Q17, Q18

INTRODUCTION

Global trade is an essential aspect of the economy in every country. Global trade aims to improve people's welfare in a country (Destasari et al., 2015). Community welfare is reflected in their food condition: the more food a country can supply, the more prosperous the people in that country (Junaidi et al. 2020a; Junaidi et al. 2020b).

Soybean is one of the main food commodities after rice and corn. Soybeans are the main source of vegetable protein for the community. Food ingredients from other plants have not been found, such as soybeans, which are very rich in protein (Andayanie, 2016). In Indonesia, almost 90% of soybeans are used for food (Atman, 2014). According to Silitonga & Djanuardi in Ginting et al. (2009), tempeh and tofu dominate soybeans' use for food, namely 50% and 40%, respectively. The rest is used for processing soy milk, soy sauce, flour, and other preparations.

Domestic demand for soybeans increases every year due to increased consumption (BPS, 2019). However, the increase in soybean consumption was not matched by production. Based on data from 2018, the soybean harvested area in Indonesia reached 582 thousand ha with a production of 811 thousand tons (Food and Agriculture Organization, 2019). Domestic soybean production is only able to meet 47.7% of domestic needs. According to Andayanie (2016), the narrower planting area and less optimal land use have led to a decrease in Indonesia's soybean production.

The government has implemented various types of policies to increase soybean production. However, the amount of domestic soybean production is still not able to meet domestic soybean consumption needs. The imbalance between soybean production and consumption each year causes Indonesia to import soybeans. Imported soybeans will hurt the welfare of local farmers. The public will choose imported soybeans over local soybeans because imported soybeans' price is lower than local soybeans.

Apart from production and consumption factors, the volume of soybean imports is also influenced by macroeconomic conditions. Based on previous studies, macroeconomic factors that affect imports are inflation, GDP, interest rates, and the rupiah exchange rate, which are included in macroeconomic variables (Bank Indonesia in Kurniasarin et al., 2019; Anggasari, 2008; Limaiei et al. 2011; Febyola, 2019 Fatukasi & Awomuse, 2011). Inflation causes imported goods to be relatively cheap so that the country will import more. An increase in the GDP of a country means an increase in people's ability to import products from other countries. High-interest rates will increase costs incurred by producers, resulting in a decrease in domestic production. Furthermore, if the value of a country's currency against another country's currencies increases (appreciates), the price of that country's product for foreign parties will be higher. In contrast, the price of imports for domestic residents is lower.

An increase in imported soybeans' volume needs to be analyzed because it can lead to dependence on imported soybeans. The phenomenon of soybean consumption, which tends to increase with low production and the volume of soybean imports that tends to increase following the increasing trend in consumption, illustrates instability in soybeans in Indonesia, and the government is still dependent on imports compared to natural potential in Indonesia. Therefore, it is important to know what factors influence soybean imports in Indonesia.

METHODS

The data used are time series data for the period 2003-2018. Data is sourced from the Food and Agriculture Organization (FAO), United Nations International Trade Statistics Database (UN COMTRADE), the Central Bureau of Statistics of the Republic of Indonesia, World Bank, Bank Indonesia, and the Ministry of Trade of the Republic of Indonesia.

To analyze the factors that influence soybean imports using the SEM-PLS model with the following model framework:

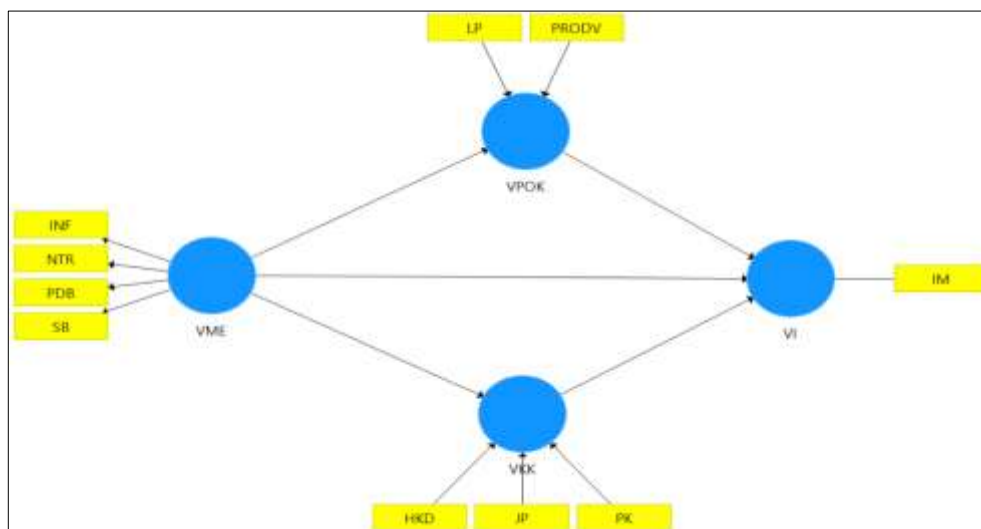


Figure 1. Model of factors affecting soybean imports in Indonesia.

Notes:

INF	= Inflation (%)	PK	= Soybean Supply (thousand tons)
PDB	= Gross Domestic Product (trillion Rp)	HKD	= Domestic Soybean Price (Rp / ton)
SB	= Interest Rate (%)	IM	= Volume of imports (thousand tons)
NTR	= Rupiah Exchange Rate (Rp / US \$)	VME	= Macroeconomic Variable
LP	= Harvested Area (thousand ha)	VPO	= Soybean Production Variable
PRODV	= Productivity (ton/ha)	VKK	= Soybean Consumption Variable
JP	= total population (thousand people)	VI	= Soybean Import Variable

The SEM-PLS model framework is analyzed through the following stages:

Outer model evaluation

Before conducting further analysis, first, an evaluation of the initial model is related to the indicators' validity and reliability in the latent variables (constructs). As shown in Figure 1, the model tested has two types of constructs, namely constructs with reflective indicators and constructs with formative indicators.

Evaluation of the outer model for reflective indicators using a convergent approach and discriminant validity and composite reliability. Convergent validity is assessed based on the correlation between the item score/component score with the construct score. The individual reflexive size is high if the correlation (loading value) is more than 0.70 and sufficient if it is between 0.50 to 0.60. Discriminant validity indicators are assessed based on the average variance extracted (AVE) value. If the AVE value is greater than 0.50, then the construct is declared valid. Composite reliability was evaluated using Cronbach's Alpha. The indicator block is declared reliable if the Cronbach's Alpha value is above 0.60 (Gozali and Hengky, 2015).

Furthermore, evaluating the outer model for formative indicators is based on its substantive content, namely by comparing the relative weight values and testing the significance of weight measurements.

Inner model evaluation

The inner model is evaluated by looking at the percentage of variance described by looking at the R² value for the latent dependent construct. The goodness-fit of the model is measured using the R² value. According to Chin (1998) in Ghozali & Hengky, 2015, the R² criteria consist of three classifications: R² values 0.67, 0.33, and 0.19 as substantial, moderate, and weak.

Another test in structural measurement is Q² predictive relevance, which serves to validate the model. Calculation of Q² is done with the formula $Q^2 = 1 - (1 - R_1^2)(1 - R_2^2) \dots (1 - R_p^2)$, where R¹, R² ... R^p are R² endogenous variables in the equation model. The value of Q² ranges from 0 < 2 < 1, the closer to 1 means that the model is getting better (Jaya & Sumertajaya, 2008).

Furthermore, the hypothesis test for latent variables in the structural model is tested through the t statistic test.

RESULTS AND DISCUSSION

Description of research variables

During 2013 - 2018, the average import of soybeans in Indonesia was 1,775 thousand tons per year. During this period, soybean imports grew by an average of 7.78 percent per year, from 1,193 thousand tons in 2003 to 2,586 thousand tons in 2018.

The conditions and development of soybean imports and the variables in the study are given in Table 1.

Table 1. Description of research variables

Variable	Year		Average	Growth per year (%)
	2003	2018		
Soybean import (thousand tons)	1193.00	2586.00	1775.19	7.78
Inflation (%)	6.79	3.03	6.45	-3.69
GDP (Trillion Rupiah)	2144.00	14837.00	7645.56	39.47
Interest rate (%)	9.94	5.60	7.26	-2.91
Rupiah exchanger rate per 1 US\$	8577.00	14238.00	10593.69	4.40
Soybean harvested area (thousand ha)	527.00	680.00	582.25	1.94
Productivity of soybean (ton/ha)	1.28	1.44	1.39	0.83
Population (thousand inhabitants)	220309	267663	243765	1.43
Soybean stock (thousand ton)	201	436	273	7.79
Domestic soybean price (Rp/ton)	3766000	10530000	8333875	11.97

Based on the macroeconomic aspect, the average inflation rate during the 2003 - 2018 period was 6.45 percent. In the GDP at current prices, there was a growth of 39.47 percent per year from Rp. 2,144 trillion in 2003 to Rp. 14837 trillion in 2018. Furthermore, the average Bank Indonesia interest rate in that period was 7.26 percent, and the average exchange rate rupiah, amounting to IDR 10,539.69 per 1 US \$.

In production indicators, the average soybean harvested area during 2003 - 2018 was 582 thousand hectares with a growth of 1.94 percent per year. Meanwhile, the average land productivity was 1.39 tonnes per ha, with a growth of 0.83 percent per year.

Furthermore, in consumption indicators, the average population growth rate in the 2003 - 2018 period was 1.43 percent per year. The average supply of soybeans is 273 thousand tons, with an average growth of 7.79 percent per year. The average domestic soybean price is IDR 8,333,875 per ton, with an average growth of 11.97 percent per year.

Factors affecting the import of soybean in Indonesia

Outer model evaluation

The initial model evaluation used convergent testing, discriminant validity, and composite reliability for the VME indicator block and the significant weight for the VPOK and VKK indicator blocks. Based on the initial model testing, it was found that there is one indicator in the VPOK variable, namely LP, which is not feasible and must be removed from the model. Permadi's (2015) research shows that the harvested area has not explained the soybean production variables. The modification model (after issuing invalid and reliable indicators) is given in Figure 2.

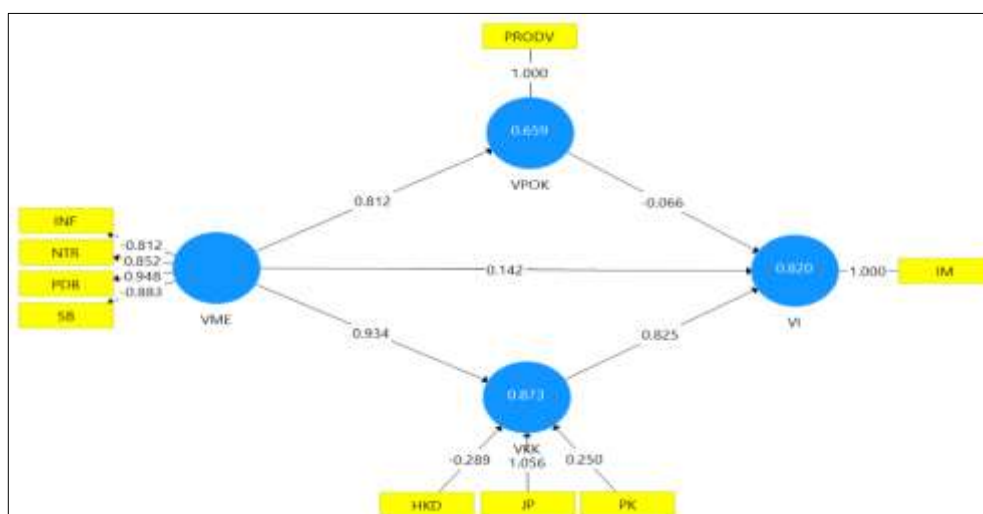


Figure 1. Modified model of factors affecting soybean imports in Indonesia

Based on Figure 2, the correlation (loading factor) of all the VME construct indicators (as a latent variable with a reflective indicator) is already above 0.5. Furthermore, based on testing, the VME indicator block's AVE value is 0.766, and Cronbach's Alpha is 0.658. In other words, the model has good reliability.

Evaluate the VKK block's outer model as a formative indicator block (note: no testing is done for the VPOK block because there is only one indicator), using a significance weight. Based on Table 2, all VKK block indicators are statistically significant, so they are valid for the model.

Table 2. Testing the significance of weight measurements (VKK block's outer model)

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
HKD -> VKK	0.848	0.835	0.081	10.431	0.000
JP -> VKK	0.978	0.958	0.042	23.190	0.000
PK -> VKK	0.851	0.838	0.135	6.287	0.000

Goodness-of-fit model

Table 3 provides the R² value for each of the latent dependent constructs in the model. Construct VI has an R² value of 0.8196, VKK has an R² value of 0.8727, and VPOK has an R² value of 0.6586. In other words, models with constructs VI and VKK are categorized as strong, and models with constructs VPOK are categorized as moderate.

Table 3. The R² value of the latent dependent construct

	R-Squared	Adjusted R-Squared
VI	0.8196	0.7745
VKK	0.8727	0.8636
VPOK	0.6586	0.6342
Q ²	0.9849	

Furthermore, based on the value of Q², the magnitude of the research data's diversity that can be explained by the structural model is 98.49%. It means that the structural model has a very high predictive relevance.

Hypothesis testing and interpretation of the relationship between variables

The influence between variables can be seen from the coefficient value and significance of the t statistic. The effect is significant if the probability of t statistic is smaller than $\alpha = 1\%$, 5% , or 10% .

Table 4 shows that Macroeconomic conditions (VME) directly positively and significantly affect Soybean Production (VPOK). It can be interpreted that directly every change in macroeconomic conditions with indicators of inflation, GDP, interest rates, and the rupiah exchange rate will increase soybean production. Macroeconomic Variable (VME) also positively and significantly affects Soybean Consumption (VKK). It can be interpreted that immediately every change in indicators of macroeconomic conditions will increase soybean consumption. However, macroeconomic conditions do not have a significant direct effect on soybean imports.

Soybean Production (VPOK) does not have a significant direct effect on imports. This study's results are in line with Ripaldi's (2017) research and Destasari (2015), which show that production does not significantly affect soybean imports in Indonesia. Even though soybean production has increased, but soybean reserves are not sufficient for the needs, the government continues to import soybeans.

Table 4. Testing the model hypothesis

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Direct effect					
VME -> VPOK	0.812	0.714	0.413	1.966	0.050
VME -> VKK	0.934	0.817	0.453	2.062	0.040
VME -> VI	0.142	-0.007	0.408	0.349	0.727
VPOK -> VI	-0.066	-0.088	0.228	0.291	0.771
VKK -> VI	0.825	0.998	0.393	2.100	0.036
Indirect effect					
VME -> VPOK -> VI	-0.054	-0.054	0.204	0.264	0.792
VME -> VKK -> VI	0.771	0.810	0.575	1.340	0.181
Total effect					
VME -> VI	0.859	0.749	0.422	2.037	0.042

Consumption of Soybean (VKK) directly has a positive and significant effect on imports. It can be interpreted that any increase in soybean consumption will increase imports. It is in line with the research of Nainggolan et al. (2016), which shows that soybean consumption has a significant effect on soybean imports in Indonesia and Sari's research (2015) has a significant and positive effect between soybean imports and soybean consumption due to the very high demand for soybeans in Indonesia.

These results are consistent with Putri's (2015) research, which states that soybean imports are significantly influenced by soy consumption. Higher soybean consumption has the potential to increase soybean imports. Initially, soybeans were only used for making tempeh, tofu, and soy sauce. However, along with technological developments, the medical and cosmetic world also uses soy as the main ingredient. It has led to an increase in soy consumption.

Statistically, macroeconomic conditions do not have an indirect effect on soybean imports either through production or consumption. However, in total (the sum of direct and indirect effects), macroeconomic conditions significantly affect soybean imports. It is in line with the research of Anggasari (2008) and Limaiei et al. (2011), which shows the influence of macroeconomic conditions on imports.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Macroeconomic conditions directly affect soybean production and consumption. On the other hand, consumption has a direct effect, but production has no direct effect on soybean imports.

Macroeconomic conditions do not have a direct effect on soybean imports. Nevertheless, the total effect (combined direct and indirect effects) is significant from macroeconomic conditions on soybean imports.

Recommendations

The government must strive to set the price of soybeans according to the community's ability. The government must control the domestic soybean price to remain stable and does not experience a sharp increase. It is intended that the domestic soybean price is not higher than the price of imported soybeans to reduce losses on the part of farmers and improve welfare.

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