



## THE USE OF PRODUCTIVITY GAIN SHARING MODEL IN INCREASING PRODUCTIVITY OF MSMEs HERBAL PRODUCTS DURING THE COVID-19 PANDEMIC ERA TO ACHIEVE SUSTAINABLE DEVELOPMENT GOALS (SDGs) IN INDONESIA

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### ABSTRACT

*During the COVID-19 pandemic, industrial product exports rose by 41%, driven by herbal products. Micro, small, and medium-sized enterprises (MSMEs) significantly contribute to the growth in export value. The growth is consistent with the primary objective of MSMEs, which is to promote economic, social, and environmental development. Exports rose due to improved production, which aided in the sustainability of MSMEs producing herbal goods. Increased MSME production results in increased community welfare, an objective of the Sustainable Development Goals (SDGs). However, there is a shortage of research on how to improve the productivity of MSMEs substantially. There is no reference for MSMEs to use the productivity profit-sharing model to monitor, forecast, and assess their productivity level. This research will undertake a more detailed examination of productivity benefit-sharing, examining the role and contribution of productivity to the sustainability of MSMEs in Indonesia's pursuit of the SDGs. The approach used in this research is quantitative. Increased productivity is associated with an increase in total factor productivity (TFP). TFP seeks to deliver products effectively and efficiently via the use of the output-to-input ratio. By and large, productivity gains sharing for MSME herbal goods boosted added value (NT) by 500 percent between 2019 and 2020, or fivefold between 2018 and 2019.*

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## INTRODUCTION

The cases of COVID-19 have been quickly increasing since the pandemic breakout in Indonesia on March 2, 2020. According to Worldometer's data, Indonesia has the most significant number of positive COVID-19 cases in Southeast Asia in early August 2021, ranking 14th globally with a total of 3,639,616 cases (Worldometer's COVID-19, 2021). The current condition of the COVID-19 pandemic has increased public awareness of the importance of preserving health. One of the methods is to take health supplements, including herbal medications, to boost endurance and prevent illness, including preventing COVID-19 (Task Force for the Acceleration of Handling COVID-19, 2020).

According to the Bulletin of Foreign Trade Statistics (exports), the export value rose by US\$20,005.7 million in 2021 during the COVID-19 pandemic, compared to the January-May period in 2020. This rise is attributed to the increase of non-oil and gas commodity exports of US\$ 18,783.3 million and oil and gas commodity exports of US\$ 1,222.4 million. Indonesian exports of non-oil and gas commodities are classified as industrial, mining, and agricultural. Industrial Commodities dominate these three commodities by 79,44%. Interestingly, the exports in an industrial commodity are dominated by the increase in the percentage of herbal medicinal commodities, such as medicinal plants, aromatics, and spices, which is 41%. This fact is evidenced by the growth of herbal medicines exports for the January- May 2020 period of US \$ 225,349,704, while January- May 2021 amounted to the US \$ 318,792,698 (Central Bureau of Statistics, 2021).

Micro, Small, and Medium-sized Enterprises (MSMEs) all contribute to the percentage growth in commodities. MSMEs are critical to the national economy, particularly as a driver for attaining Indonesia's sustainable development goals (SDGs). However, Indonesian MSMEs continue to operate in a poor productivity gain sector. According to the Asian Productivity Organization's (APO) Productivity Data Book 2020, Indonesia ranks tenth out of twenty-eight APO member nations with a 3.1% productivity growth rate. Indonesia is rated fourth among

ASEAN's ten members, after Singapore, Malaysia, and Thailand. (Organization for Asian Productivity, 2020)

The purpose of this research is to determine the productivity of Micro, Small and Medium-Sized Enterprises (MSMEs), particularly MSMEs producing herbal commodities, in Indonesia by implementing a productivity gain model during the COVID-19 pandemic. Continuously increasing the productivity of MSMEs, particularly those engaged in the production of herbal products in Indonesia will accelerate the country's progress toward achieving the SDGs targets, including the first goal of poverty eradication, the third goal of good health and welfare, and the eighth goal of decent work and economic growth. (United Nations Foundation, Sustainable Development Goals, 2021).

Over the last two decades, many studies have been conducted to discuss how to measure productivity for large industries/companies and its impact on economic activities, such as measuring the productivity of companies in China (Lu et al., 2021), affiliated companies (Rosen et al., 2021), the performance of company productivity factors (Veysset et al., 2021), and Asian economies (Zhou et al., 2021).

Meanwhile, it was discovered that 900 article references were generated based on abstracts and keywords utilizing the Scopus search engine and PoP Software. After searching for keyword enhancements, the Scopus search engine and PoP Software findings were merged into 60 primary references. Manual checks on all references are performed to verify that each reference is linked with improved productivity utilizing the productivity gain method in attaining the SDGs in Indonesia (Ilhami et al., 2019). Figure 1 shows the Vos Viewer output based on the search. Figure 1 depicts a literature mapping of application development to evaluate productivity using a productivity gain approach based on research problems, models and frameworks, techniques or methodologies, tools, and domains.

This stage employs 25 primary sources and 45 supporting references from research evaluating productivity for large-scale businesses or industries; however, few studies evaluate productivity in small-scale industries or MSMEs.

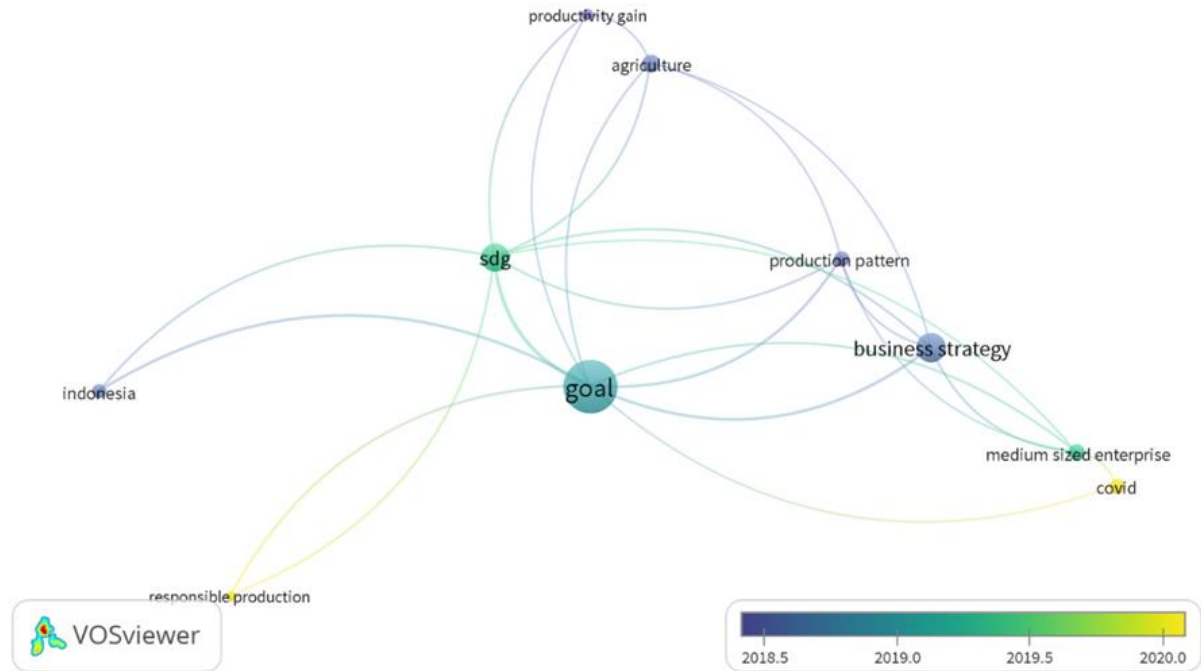


Figure 1 VOSviewer Output

One of the objectives of MSMEs is to promote economic, social, and environmental growth (Sahu et al., 2020). This aim is consistent with the SDGs agenda. However, few studies address the productivity improvements of MSMEs, which may help the SDGs accomplish their objectives (Dumrongrittikul et al., 2019).

Gains in productivity will indirectly lead to an increase in TFP (Furcery et al., 2021). TFP will promote effective and efficient production, i.e. the ratio of total output to total input (Kulsum et al., 2021). A more in-depth study on productivity gain sharing is required to determine the role and contribution of productivity to the sustainability of MSMEs in attaining the SDGs in Indonesia.

## METHODOLOGY

This study employed quantitative research methods. The first step was to identify issues in general, specifically those that influence performance in improving productivity in SMEs (Nguyen et al., 2018) based on the phrasing of the issue presented.

The second step was to develop a productivity gain sharing model (Trenggonowati, 2015), as illustrated in Figure 2. Increasing the added value of production was one strategy for increasing TFP. Figure 3 was an example of the idea of added value in MSMEs. The general model in Figure 2 depicted the productivity ratios utilized to address issues.

Figure 2 depicted the productivity gain sharing concept, with MSMEs for herbal medical goods serving as its pilot project (Mensi et al., 2021). MSMEs for herbal goods used the TFP technique and a productivity gain sharing plan to perform training, consulting, and productivity assessment. The findings were evaluated using productivity ratios and value-added diagrams. While Figure 3 depicted the idea of added value in MSMEs, meaning the added value produced via the manufacturing process of processing products and services with creativity and innovation among employees and entrepreneurs with associated parties (Neves et al., 2018).

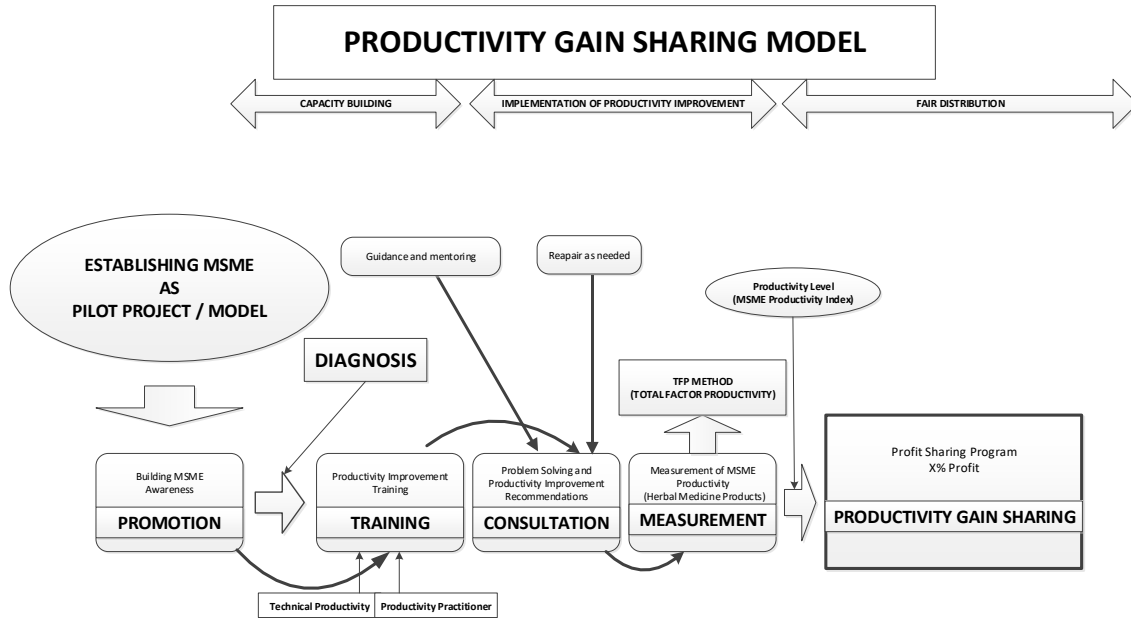


Figure 2 Productivity Gain Sharing Model

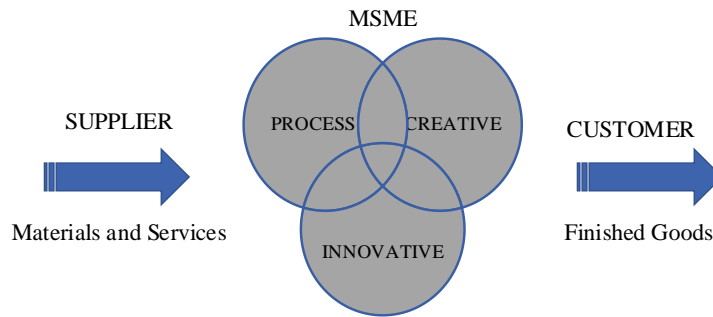


Figure 3 The Concept of Added Value in MSMEs

The increase in productivity ratios in MSMEs was seen through the productivity gain sharing model and the concept of added value for MSMEs. The notations used is (Produktivitas Kementerian Ketenagakerjaan RI, 2021):

- P = Sales
- PBJ = Purchase of materials and services
- UPB = Wage paid
- NT = Value-added
- BTK = Labor cost
- SK = Capital contribution
- STK = Labor contribution
- BGA = Interest
- PJK = Tax
- TFP = Total factor productivity

The value-added calculation model is formulated as follows (Produktivitas Kementerian Ketenagakerjaan RI, 2021):

$$\text{Profit} = P - \text{PBJ} \quad (1)$$

$$= NT - (\text{BTK} + \text{Depreciation}) \quad (2)$$

$$= NT - (\text{BGA} + \text{PJK}) \quad (3)$$

$$P = \text{Sales incentive program} \quad (4)$$

$$= [(\text{BTK}/P \times P) - \text{UPB}] \times (1 - \text{RR})$$

$$\text{PBJ} = \text{Production incentive program} \quad (5)$$

$$= [(\text{PBJ}_t - \text{PBJ}_{t-1}) \times \text{Q}\%] \times (1 - \text{RR})$$

$$\text{NT} = \text{Gain sharing productivity} - 1 \quad (6)$$

$$= [(\text{NT} = \text{NT}/\text{BTK}) - \text{UOB}] \times (1 - \text{RR})$$

$$\text{NT} = \text{Gain sharing productivity} - 2 \quad (7)$$

$$= \text{TFP} + \text{SK} + \text{STK}$$

$$\text{STK} = \text{NT} - (\text{TFP} + \text{SK})$$

$$\text{Profit} = \text{Profit gain sharing productivity program} \quad (8)$$

$$= \text{X\% Profit (Profit percentage)}$$

$$\text{Profit} = \text{Deviden} = \text{Retained Earning} = \text{Bonus} \quad (9)$$

NT calculation method with subtraction method

$$\text{NT} = \text{P} - \text{PBJ} \quad (10)$$

NT calculation method with addition method

$$\text{NT} = \text{TK cost} + \text{profit} + \text{depreciation} + \text{PJK} + \text{BGA} \quad (11)$$

### Labor Productivity Ratios

$$1 \quad \frac{\text{NT}}{\text{number of TK}} = \frac{\text{Rp}}{\text{person}} \quad (12)$$

The formula for calculating the average contribution of labor to added value creation.

$$2 \quad \frac{\text{NT}}{\text{working hours}} = \frac{\text{Rp}}{\text{Hour}} \quad (13)$$

The formula for determining the average contribution of the workforce's working time to added value creation.

$$3 \quad \frac{\text{NT}}{\text{TK cost}} = \text{percent} \quad (\%) \quad (14)$$

The formula for calculating the outcomes of the capacity to double labor expenses per 1 rupiah paid to employees to generate added value.

$$4 \quad \frac{\text{TK cost}}{\text{total working hours}} = \frac{\text{Rp}}{\text{hour}} \quad (15)$$

The formula for determining the rupiah value paid to labor every hour.

### Capital Productivity Ratios

$$1 \quad \frac{\text{sales}}{\text{total capital}} = \text{Percent} \quad (\%) \quad (16)$$

The company's ability to create sales through the utilization of all capital.

$$2 \quad \frac{\text{NT}}{\text{Total Modal}} = \text{Persen} \quad (\%) \quad (17)$$

The company's ability to create added value through the utilization of all capital.

$$3 \quad \frac{\text{Total Modal}}{\text{Jumlah TK}} = \text{Rp./orang} \quad (18)$$

The value of assets utilized by the average person in the company's workforce.

### Profitability Ratios

$$1 \quad \frac{\text{Profit}}{\text{Sales}} = \text{Percent} \quad (\%) \quad (19)$$

The level of efficiency in the use of materials and services in creating profit.

$$2 \quad \frac{\text{profit}}{\text{cost of purchasing materials/services}} = \text{percent} \quad (\%) \quad (20)$$

Comparison between the net value obtained by the company with several costs incurred for materials and services.

$$3 \quad \frac{\text{profit}}{\text{total capital}} = \text{percent} \quad (\%) \quad (21)$$

The ability to utilize capital in creating profits in the company and a measure of the company's ability to return capital.

### Supporting Ratios

$$1 \quad \frac{\text{NT}}{\text{sales}} = \text{Percent} \quad (\%) \quad (22)$$

The level of efficiency of the product manufacturing process on the sale of goods and services.

$$2 \quad \frac{\text{NT}}{\text{Biaya Pembelian Bahan/Jasa}} = \text{Persen} \quad (\%) \quad (23)$$

The formula is used to describe a company's creativity and innovation ability towards materials and services.

$$3 \quad \frac{\text{Laba}}{\text{Biaya TK}} = \text{Persen} \quad (\%) \quad (24)$$

Formula to determine the ability to multiply labor costs paid to workers in creating company profits.

## RESULT AND DISCUSSION

One solution to solve the problems faced by MSMEs for herbal products in Indonesia is modelling the problem using a productivity gain model approach. The next step is to increase the productivity ratios of the production process system in MSMEs (Ballestar et al., 2020). Table 1

is the financial data of MSMEs for herbal medicinal products X from 2018 to 2020. The financial data collected consists of sales data, labour costs, materials used, production overhead, loan interest, administrative costs, depreciation, taxes, company assets, number of workers, and working hours (Ridwan et al., 2020).

Table 1 Financial Data of MSME Herbal Medicine Products X

Data type	Year					
	2018		2019		2021	
<b>SALE</b>	Rp	114.000.000	Rp	134.580.000	Rp	207.060.000
<b>LABOR COSTS</b>						
Wages and salaries (including owner)	Rp	37.500.000	Rp	37.500.000	Rp	50.000.000
Pension fund	Rp	-			Rp	-
Labor benefits	Rp	1.000.000	Rp	1.300.000	Rp	2.500.000
<b>MATERIALS USED</b>						
Purchased goods and services	Rp	-	Rp	-	Rp	-
Items used	Rp	-	Rp	-	Rp	-
Raw material	Rp	27.740.000	Rp	32.747.800	Rp	50.729.500
Packaging material	Rp	5.605.000	Rp	6.616.850	Rp	10.180.450
<b>PRODUCTION OVERHEAD</b>						
Subcontract work	Rp	750.000	Rp	1.000.000	Rp	1.250.000
Rent	Rp	3.000.000	Rp	3.500.000	Rp	4.000.000
Water and electric	Rp	12.000.000	Rp	15.000.000	Rp	16.500.000
Company insurance	Rp	-	Rp	-	Rp	-
Transport fee	Rp	75.000	Rp	100.000	Rp	250.000
Machine maintenance	Rp	-	Rp	-	Rp	-
Supplies and warehouse costs	Rp	-	Rp	-	Rp	-
Other costs	Rp	-	Rp	-	Rp	-
<b>LOAN INTEREST</b>						
Short term loan interest	Rp	-	Rp	-	Rp	-
Long term loan interest	Rp	-	Rp	-	Rp	-
<b>ADMINISTRATIVE COST</b>						
Rent	Rp	-	Rp	-	Rp	-
Water and electric	Rp	150.000	Rp	250.000	Rp	250.000
Telephone	Rp	1.190.000	Rp	1.400.000	Rp	2.153.250
Post dan telegram	Rp	-	Rp	-	Rp	-
Printing, stationery & office Supplies	Rp	2.517.500	Rp	2.993.750	Rp	4.551.250
Vehicle cost	Rp	643.500	Rp	858.000	Rp	1.320.000
Advertising	Rp	600.000	Rp	750.000	Rp	1.175.000
Entertainment	Rp	-	Rp	-	Rp	-
Magazines and newspapers	Rp	-	Rp	-	Rp	-
Banquet	Rp	225.000	Rp	300.000	Rp	375.000
General repair	Rp	100.000	Rp	225.000	Rp	275.000
Bank fee	Rp	-	Rp	-	Rp	-
Accountant and audit fee	Rp	-	Rp	-	Rp	-
Legal aid and other professional service fee	Rp	-	Rp	-	Rp	-
Commision	Rp	-	Rp	-	Rp	-

General fee	Rp	-	Rp	-	Rp	-
<b>SHRINKAGE</b>						
Building depreciation	Rp	2.500.000	Rp	2.500.000	Rp	2.500.000
Equipment and machinery depreciation	Rp	2.750.000	Rp	2.750.000	Rp	3.350.000
<b>TAC</b>						
Income tax	Rp	-	Rp	-	Rp	-
Property tax	Rp	-	Rp	-	Rp	-
Wage tax	Rp	-	Rp	-	Rp	-
<b>COMPANY ASSETS</b>						
Cash and bank	Rp	5.911.558	Rp	7.882.077	Rp	12.126.273
Supply	Rp	-	Rp	-	Rp	-
Account receivable	Rp	3.534.375	Rp	4.712.500	Rp	7.250.000
Other receivables	Rp	-	Rp	-	Rp	7.732.750
Soil	Rp	386.100.000	Rp	514.800.000	Rp	792.000.000
Building	Rp	185.250.000	Rp	247.000.000	Rp	380.000.000
Machinery and equipment	Rp	17.500.000	Rp	16.000.000	Rp	17.250.000
Other fixed assets	Rp	-	Rp	-	Rp	-
<b>PROFIT</b>						
Profit	Rp	15.654.000	Rp	24.788.600	Rp	55.700.550
<b>MODAL OPERASI</b>	Rp	54.596.000	Rp	65.741.400	Rp	93.009.450
<b>TOTAL LABOR</b>		4		4		5
<b>WORKING HOURS</b>		2.240		2.240		2.880

Table 2 Calculation Of Added Value Using The 2018 Subtraction Method

<b>Calculation of value-added subtraction method</b>		
<b>SALE (2018)</b>		
Materials used	Rp 33,345,000	
Production overhead cost	Rp 15,825,000	
Administration and general fee	Rp 5,426,000	+
		Rp 54,596,000
Value-added		Rp 54,596,000

Table 3 Calculation Of Added Value Using The 2018 Addition Method

<b>Calculation of value-added subtraction method</b>	
Labor costs	Rp 38,500,000
Profit	Rp 15,654,000
Shrinkage	Rp 5,250,000
Loan interest	Rp -
Tx	Rp -
Value-added	Rp 54,596,000

Table 2 shows the added value calculation (NT) using the subtraction method using formula (10). NT is obtained from sales minus purchases of materials and services (materials used, production overhead costs, and general and

administrative costs). Sales of Rp. 114,000,000, - minus the total purchases of materials and services of Rp. 54,596,000, - then the value-added (NT) in 2018 is Rp. 59,404,000,-.

Table 3 shows the calculation of NT using the addition method using formula (11).

NT is obtained from the sum of labor costs, profits, depreciation, interest, and taxes. The sum of labor costs is IDR 38,500,000, -, profit of IDR 15,654,000, -, and depreciation of IDR 5,250,000, -, so that the NT in 2018 was IDR 59,404,000, -.

Table 4 shows the calculation of profit using formula (1). Profit is earned on sales minus labor costs, profits, depreciation, taxes, and interest. Sales of IDR 114,000,000,- minus labor costs, profit, depreciation, taxes, and interest of IDR 98,346,000,-, so that the profit in 2018 was IDR 15,654,000,-.

Figure 3 shows the NT distribution chart in 2018 for labor costs of 65%, profit of 26%, and depreciation of 9%. Table 5 shows the calculation of NT using the subtraction method using the formula (10). Meanwhile, amount earned from sales is reduced by purchasing materials and services (materials used, production overhead costs, and general and administrative costs). Sales of IDR 134,580,000,- minus the total purchases of materials and services of IDR 65,741,400,-, so that the NT in 2019 was IDR 68,838,600,-.

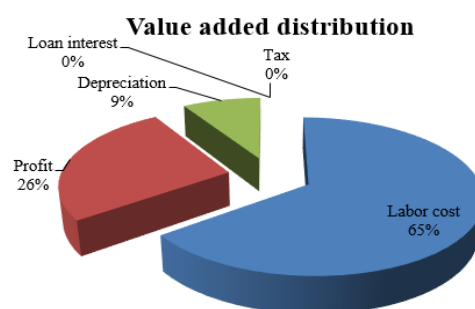


Figure 3 Pie Chart Of Value-Added Distribution In 2018

Table 6 shows the calculation of NT using the addition method using formula (11). NT is obtained from the sum of labor costs, profits, depreciation, interest, and taxes. The sum of labor costs is IDR 38.800.000,-, profit of IDR 24,788,600,-, and depreciation of IDR 5,250,000,-, so that the NT in 2019 was IDR 68,838,600,-.

Table 7 shows the calculation of profit using formula (1). Profit is earned on sales minus labor costs, profits, depreciation, taxes, and interest. Sales of IDR 134,580,000,- minus labor costs, profit, depreciation, taxes, and interest of IDR 109,791,400,-, so that the profit in 2019 was IDR 24,788,600,-.

Table 4 Calculation Of Profit In 2018

Profit calculation	
<b>SALE (2018)</b>	Rp 114,000,000
Labor cost	Rp 38,500,000
Cost of materials used	Rp 33,345,000
Production overhead cost	Rp 15,825,000
Administation and general fee	Rp 5,426,000
Loan interest	Rp -
Shrinkage	Rp 5,250,000
Tax	Rp -
	Rp 98,346,000 -
<b>Value-added</b>	<b>Rp 15,654,000</b>

Table 5 Calculation Of Added Value Using The 2019 Subtraction Method

Calculation of value-added subtraction method	
<b>SALE (2019)</b>	Rp 134,580,000
Materials used	Rp 39,364,650
Producton overhead cost	Rp 19,600,000
Administration and general fee	Rp 6,776,750
	Rp 65,741,000 -
<b>Value-added</b>	<b>Rp 68,838,600</b>



Table 6 Calculation Of Added Value Using The 2019 Addition Method

Calculation of value-added subtraction method	
Labor cost	Rp 38,800,000
Profit	Rp 24,788,600
Shrinkage	Rp 5,250,000
Loan interest	Rp -
Tax	Rp - +
Value-added	Rp 68,838,600

Table 7 Profit Calculation for 2019

Profit calculation	
<b>SALE (2019)</b>	Rp 134,580,000
Labor cost	Rp 38,800,000
Cost of materials used	Rp 39,364,650
Production overhead cost	Rp 19,600,000
Administation and general fee	Rp 6,776,750
Loan interest	Rp -
Shrinkage	Rp 5,250,000
Tax	Rp - +
	Rp 109,791,400 -
Value-added	Rp 24,788,600

Table 8 Calculation Of Added Value Using The 2020 Subtraction Method

Profit calculation	
<b>SALE (2020)</b>	Rp 207,060,000
Materials used	Rp 60,909,950
Production overhead cost	Rp 22,000,000
Administration and general fee	Rp 10,099,500 +
	Rp 93,009,450 -
Value-added	Rp 114,050,550

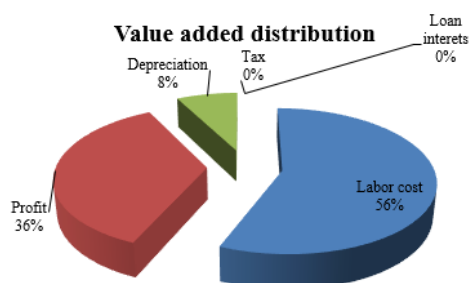


Figure 4 Pie Chart Of Value-Added Distribution In 2019

Figure 4 shows the NT distribution chart in 2019 for labor costs of 56%, profit of 36%, and depreciation of 8%.

Table 8 shows the calculation of NT using the subtraction method using Equation (10).

NT is obtained from sales minus purchases of materials and services (materials used, production overhead costs, and general and administrative costs). Sales of IDR 207.060,000, - minus the total purchases of materials and services of IDR 93,009,450, -, so that the NT in 2020 is IDR 114,050,550, -

Table 9 shows the calculation of NT using the addition method using formula (11). NT is obtained from the sum of labor costs, profits, depreciation, interest, and taxes. The sum of labor costs is IDR 52,500,000,-, profit of IDR 55,700,550,-, and depreciation of IDR 5,850,000,-, so that the NT in 2020 is IDR 114.050.550,-.

Table 10 shows the calculation of profit using formula (1), Profit is obtained from sales

minus labor costs, profits, depreciation, taxes, and interest. Sales of IDR 207.060.000,- minus the cost of labor, profit, depreciation, taxes, and interest of IDR 151.359.450,- then the profit in 2020 is IDR 55,700,550,-. Figure 5 shows the NT distribution chart in 2019 for labor costs of 46%, profits of 49%, and depreciation of 5%.

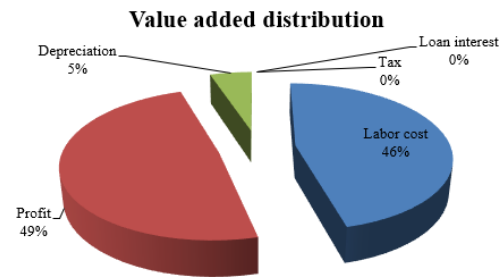


Figure 5 Pie Chart of Value Added Distribution in 2020

Table 9 Calculation of Value Added Using the Addition Method in 2020

Calculation of value-added subtraction method	
Labor cost	Rp 52,500,000
Profit	Rp 55,700,550
Shrinkage	Rp 5,850,000
Loan interest	Rp -
Tax	Rp - +
Value-added	Rp 114,050,550

Table 10 Profit Calculation In 2020

Profit calculation	
<b>SALE (2020)</b>	Rp 207,060,000
Labor cost	Rp 52,500,000
Cost of materials used	Rp 60,909,950
Production overhead cost	Rp 22,000,000
Administation and general fee	Rp 10,099,500
Loan interest	Rp -
Shrinkage	Rp 5,850,000
Tax	Rp - +
	Rp 151,359,450 -
Value-added	Rp 55,700,550

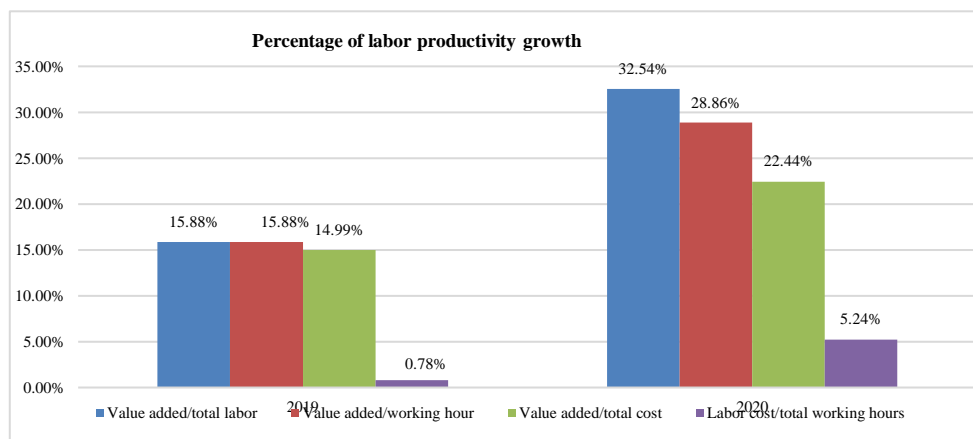


Figure 6 Percentage Of Labor Productivity Growth

Table 11 Ratios Of Productivity Gain

No	Ratio	Satuan	2018	2019	2020	Interpretasi /Analisis
<b>I. Labor productivity</b>						
1.	<u>Value-added</u> Total labor	(Rp/Org)	14,851,000.00	17,209,650.00	22,810,110.00	Increased
	The average contribution of labor in creating added value					The average contribution of the workforce in creating added value from 2018 to 2020 is
	Growth			15.88%	32.54%	32.54%
2.	<u>Value-added</u> Working hour	(Rp/Jam)	26,519.64	30,731.52	39,600.89	Increased
	The average contribution per hour of labor in work in creating added value					The average contribution of every hour of the workforce working in creating added value from 2018 to 2020 is
	Growth			15.88%	28.86%	28.86%
3.	<u>Value added</u> Labor cost	Rp	1.54	1.77	2.17	Increased
	The result of the ability to utilize labor from every one rupiah paid to workers in doubling the creation of added value					The results of the ability to utilize labor from every one rupiah paid to workers in doubling the creation of added value t from 2018 to 2020 amounted to
	Growth			14.99%	22.44%	22.44%
4.	<u>Labor cost</u> Total working hours	(Rp/Jam)	17,187.50	17,321.43	18,229.17	Increased
	Rupiah value paid to labor every hour					The rupiah value paid to workers every hour from 2018 to 2020 is
	Growth			0.78%	5.24%	5.24%
<b>II. Capital productivity</b>						
1.	<u>Sale</u>	Rp	0.19	0.17	0.17	Decreased

	Total assets						
	The company's ability to create sales through capital utilization						The company's ability to create sales through capital utilization from 2018 to 2020 is
	Growth			-10.64%	-0.02%	-0.02%	
2.	<u>Value added</u> Total assets	Rp	0.10	0.09	0.09	0.09	Increased
	The company's ability to create added value in capital utilization						The company's ability to create added value in capital utilization from 2018 to 2020 is
	Growth			-12.28%	7.66%	7.66%	
3.	<u>Total assets</u> Total labor	Rp/Org	149,573,983.25	197,598,644.25	243,271,804.60		Increased
	The value of assets utilized by the average person in the company's workforce						The value of assets utilized by the average person in the company's workforce from 2018 to 2020 is
	Growth			32.11%	23.11%	23.11%	

Table 12 Ratios of productivity gain (Continued)

No	Ratio	Unit	2018	2019	2020	Interpretasi /Analisis
<b>III. Profitability</b>						
1.	<u>Profit</u> Sale	Rp	0.14	0.18	0.27	Increased
	The level of efficiency in the use of materials and services in creating company income					The level of efficiency in the use of materials and services in creating company revenues from 2018 to 2020 is
	Growth			34.14%	46.05%	46.05%
2.	<u>Profit</u> Cost of purchasing materials and services	Rp	0.47	0.63	0.91	Increased
	Comparison between the net value obtained by the company with the number of costs incurred to pay for materials and services					The comparison between the net value obtained by the company and the costs incurred to pay for materials and services from 2018 to 2020 is
	Growth			34.14%	45.22%	45.22%
3.	<u>Profit</u> Total capital	Rp	0.03	0.03	0.05	Increased
	The ability to utilize capital in creating company profits as well as a measure of the company's ability to return the capital it operates					The ability to utilize capital in creating company profits as well as a measure of the company's ability to return capital from 2018 to 2020 is
	Growth			19.87%	46.01%	46.01%
<b>IV. Support Ratio</b>						
1.	<u>Value-added</u> Sale	Rp	0.52	0.51	0.55	Increased
	The level of efficiency of the product manufacturing process for materials and services in the context of making the final product					The efficiency level of the product manufacturing process for materials and services in the context of making the final product from 2018 to 2020 is
	Growth			-1.84%	7.68%	7.68%
2.	<u>Value-added</u> Material purchase	Rp	1.78	1.75	1.87	Increased
	The company's creativity and innovation ability towards materials and services					The level of creativity and ability to innovate to create finished goods within the company from 2018 to 2020 is
	Growth			-1.84%	7.07%	7.07%
3.	<u>Profit</u> Labor cost	Rp	0.41	0.64	1.06	Increased
	The measure of the ability to multiply labor costs paid in generating company profits					The measure of the company's ability to multiply profits against one rupiah paid from 2018 to 2020 is
	Growth			57.13%	66.07%	66.07%

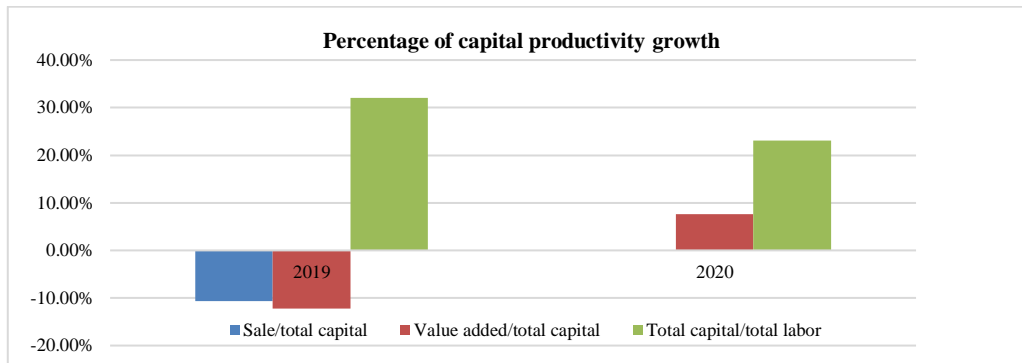


Figure 7 Percentage Of Capital Productivity Growth

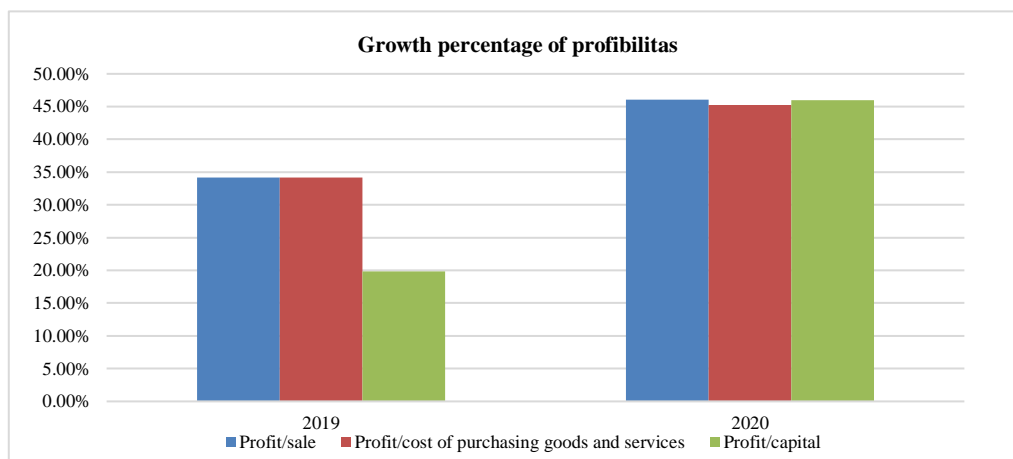


Figure 8 Growth Percentage Of Profitability

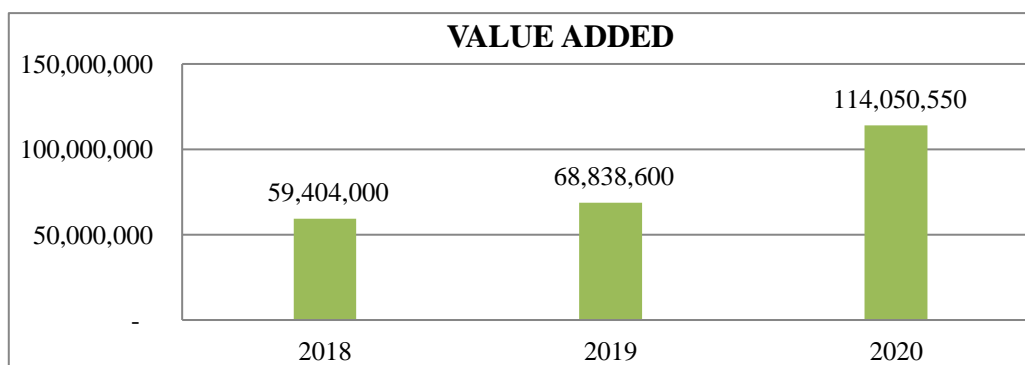


Figure 9 Graph Of Added Value Per Year

Tables 11 and 12 indicate productivity growth ratios from 2018 to 2020, which are split into four categories: Labor productivity ratio (I), capital productivity ratio (II), profitability ratio (III), and support ratio (IV).

The labor productivity ratio in class (I) depicts labor productivity rise in 2019–2020. Specifically, the value-added/workforce ratio grew by 15.88 percent in 2019 and 32.54 percent in 2020. The added value ratio to hours worked rose by 15.88 percent in 2019 and by 28.86 percent in 2020. The added value ratio to labor expenses

increased by 14.99 percent in 2019 and 22.44 percent in 2020. The ratio of labor expenses to total hours worked rose by 0.78 percent in 2019 and by 5.24 percent in 2020. Table 11. and Figure 6. provide a recapitulation of the percentage rate of increase in labor productivity.

The capital productivity ratio in Class (II) indicates capital productivity in 2019-2020, meaning the ratio of sales/total assets fell by 10.64 percent in 2019, and another 0.02 percent in 2020. In 2019, the added value/total assets ratio fell by 12.28 percent, but rose by 7.66 percent in 2020.

Total assets/number of employees grew by 32.11 percent in 2019 and by 23.11 percent in 2020. Table 11 and Figure 7. provide a recapitulation of the percentage growth rate of capital productivity. Profitability ratios in class (III) show profitability growth in 2019–2020, with the profit/sales ratio increasing by 34.14 percent in 2019 and 46.05 percent in 2020, the profit/cost ratio of purchases and services increasing by 34.14 percent in 2019 and 45.22 percent in 2020, and the profit/total capital ratio increasing by 19.87 percent in 2019 and 46.01 percent in 2020. Table 12. and Figure 8. provide a recapitulation of the percentage growth rate of profitability.

In Class (IV), the supporting ratio indicates a 7.68 percent rise in the value-added/sales ratio, a 7.07 percent increase in the value-added/purchased material ratio, and a 66.07 percent increase in the profit/cost/labor ratio. Table 12. provide a recapitulation of the percentage growth rate of the support ratio. Figure 9 depicts the development of NT in MSME herbal goods X, which grew by IDR 59,404,000, - in 2018, IDR 68,838,600, - in 2019, and IDR 114,050,550, - in 2020. The growth in added value from 2019 to 2020 is 500 percent, or five times the increase from 2018 to 2019.

### CONCLUSION

Using a productivity gain-sharing approach, this study will help MSME players monitor, forecast, and evaluate their production levels. TFP assessment of MSMEs for herbal goods X has increased from 2018 to 2020. Productivity has risen from 13 ratios to four classes. Only the sales-to-total-assets ratio fell by -0.02 percent. The reduction in the ratio is made possible by the emergency PSBB (Large-Scale Social Restrictions) and even PPKM (Enforcement of Community Activity Restrictions) circumstances that occurred in Indonesia during the Covid 19 epidemic, which significantly slowed the pace of product distribution. Even though the percentage of decrease is deficient, MSMEs must be capable of innovating to generate sales via capital utilization, since logistics distribution operations are highly emphasized during the Covid 19 Pandemic.

In general, the assessment of productivity gain sharing from MSMEs for herbal commodities

X saw a 500% rise in added value from 2019 to 2020, or five times increase from 2018 to 2019. This rise follows a 41 percent increase in the proportion of herbal medical commodities, namely medicinal plants, aromatics, and spices, viz. This percentage was calculated using the export growth of herbal medicine commodities from January to May 2020, which was 225,349,704 US dollars, The export growth from January to May 2021 was 318,792,698 US dollars (Badan Pusat Statistik, 2021).

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