Original Article

Variance Analysis Cycle And Delivery Performance Measures In Pharmaceutical Firms

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Abstract

The outbreak of the COVID-19 pandemic has major global impact in a short period of time. Almost all sectors were affected by this outbreak, one of which was the pharmaceutical industry. All sectors have been affected by this pandemic, including the pharmaceutical sector. The pharmaceutical supply chain has also been disrupted, one of which is pharmaceutical distribution facilities. In this research, we collect data on pharmaceutical company PT. Kimia Farma, Tbk analysis of variance cycles and delivery performance metrics, this study uses secondary data collected from official company reports, journals, and publications. The research method is qualitative-descriptive, also known as case study research. Based on the results of our analysis, PT Kimia Farma, Tbk has taken action in accordance with the principle of the variance analysis cycle to evaluate and improve the company's performance, there was an increase in sales by increasing manufacturing (production) as well. The success of this sales performance also has a positive impact on net profit. The company has maximized the production of pharmaceutical granules, capsules and tablets to mostly produce COVID-19 medicines, so the company has made positive variants. Likewise with the distribution strategy in its supply chain management which is quite successful, through an end-to-end (upstream to downstream) distribution strategy and digitization, especially to reduce delivery cycle times, and this is the company's main concern.

Keywords: COVID-19, Pharmaceutical Firms, Variance Analysis Cycle, Delivery Performance Measure.

INTRODUCTION

The outbreak of the Covid-2019 pandemic known as COVID-19 has been going on since the end of 2019. COVID-19 is an infectious disease that attacks the respiratory system and is caused by a coronavirus that was first discovered in Wuhan, China at the end of December 2019 (Huang, 2020). In the economic sector, the pandemic has had an impact on global and national economic performance. In the second quarter of 2020 compared to the same period the previous year, the global economy is expected to experience negative growth (contraction) of -5.4%. The national gross domestic product (GDP) in the second and third quarters of 2020 compared to the same period the previous year experienced contractions of -5.32% and -3.47% (Suryana, 2020).

The outbreak of the COVID-19 pandemic has become a global impact phenomenon that affected almost all sectors, including the pharmaceutical industry. Pharmacy is a substantial sector in society, and this became the biggest challenge for the pharmaceutical world because many are competing to find the COVID-19 antiviral. The COVID-19 pandemic has resulted in changes in all activities. Based on data released by Badan Pusat Statistik (BPS), in the third quarter of 2020, the production of medicines, multivitamins, and supplements to meet demand during Covid-19 pandemic increased by 5.69% compared to the second quarter of 2020 (Julian, 2020). This is indicated by the GDP of the Chemical, Pharmaceutical and Traditional Medicine Industry which grew the highest among the 15 Non-Oil and Gas Processing Industry groups in 2020, which reached 9.39% (yoy), this growth also increased compared to 2019 which amounted to 8.48% (yoy). The contribution of the Chemical, Pharmaceutical and Traditional Medicine Industry also increased in 2020 by 10.75% to the GDP of the Non-Oil and Gas Processing Industry compared to a contribution of 9.56% in 2019. Throughout 2020, demand for pharmaceutical commodities and medical devices experienced a significant increase as a response from the public and the government to anticipate and overcome the COVID-19 Pandemic (Dewi & Kencana, 2022).

One of the operational activities of the business sector affected by this outbreak is supply chain activities. The supply chain is a series of systems consisting of organizations, personnel, activities, information, and all kinds of other resources related to the activity of supplying products to consumers (Kozlenkova, 2015). The pharmaceutical industry has to rack its brains to maintain the smooth flow of the supply chain so that it can be said, to be an industry that has a strong supply chain. The nature of supply chain resilience can be defined as the adaptability of the industry to prepare for, respond to, and bounce back from all kinds of supply chain disruptions. (Fiksel, 2015). This can be achieved by prioritizing the principles of supply chain resilience, which are flexible, collaborative and responsive (Jüttner, 2015).

One of the pharmaceutical companies that was affected in the pandemic era was Kimia Farma. PT. Kimia Farma Tbk. and PT. Indofarma Tbk. is a state-owned pharmaceutical company (BUMN) listed on the IDX. PT Kimia Farma (Persero) said that the Covid-19 pandemic also affected the pharmaceutical industry through limiting activities outside the home which reduced public visits to pharmacies and also affected Kimia Farma's business. Kimia Farma is also not spared from the impact of the pandemic, especially on the company's performance aspect. The pandemic and the large-scale social restriction (PSBB) policy have caused a significant decline in people's purchasing power.

The bed occupancy ratio (BOR) of domestic hospitals has decreased by 54 percent. Meanwhile, the number of customer visits to retail outlets also decreased by 11 percent. The impact of the pandemic has resulted in doctors practicing at the Kimia Farma unable to practice directly. This also limits the visits of the marketing team to hospitals and pharmacy outlets.

Kimia Farma also has several efforts to prevent the deflation in financial performance as a result of the COVID-19 pandemic by improving services to people who cannot visit the retail by launching a digital application "Kimia Farma Mobile", where this application was developed by Kimia Farma Apotek, a subsidiary of Kimia Farma. The "Kimia Farma Mobile" application was expected to be a solution related to the supply of health services where this application can be used by the community in obtaining assistance and needs regarding health during a pandemic.

In addition, Kimia Farma also optimizes home services for patients who experience limitations in visiting the nearest Kimia Farma pharmacy. In dealing with cases regarding the use of used COVID-19 antigens on airplane passengers carried out by employees or officers from PT. Kimia Farma Diagnostika (KFD), BUMN minister Erick Thohir followed up strictly by issuing a policy by firing all directors of PT. Kimia Farma Apotek, where the shares of the PT are owned by state-owned pharmaceutical companies. Then, Kimia Farma immediately evaluated and strengthen the implementation of the SOP (Standard Operating Procedure) with the aim of ensuring that all of the company's operational activities are in accordance with the supply that has been determined and of course this supply applied. This policy was taken by Kimia Farma as an effort to prevent similar incidents from happening again.

As we all know, the Covid-19 pandemic has impacted the sales performance of many companies. But not with this company, PT. Kimia Farma Tbk. recorded a significant increase in profit. The profit in the 1st quarter before the pandemic was 14,828,432 and in the 2nd quarter when a pandemic occurred it was 51,000,936, there was an increase of 36,172,504 or around 243 percent. The impact of the pandemic has not made all companies lose their profit, especially for pharmaceutical companies, this is because during a pandemic pharmaceutical companies produce medicines and health needs such as masks, vitamins, etc. so that the company can get more profit.

LITERATURE REVIEW

1. Managerial Accounting

Managerial accounting is the process of identifying, measuring, analyzing, interpreting, and communicating information in pursuit of an organization’s goals (Azmi et al., 2018). Managerial accounting is an integral part of the management process, and managerial accountants are important strategic partners in an organization’s management team. But note that the actions listed above are not done just by accountants: all managers use the tools of managerial accounting. An organization’s management team seeks to create value for the organization by managing resources, activities, and people to achieve the organization’s goals effectively and efficiently. Managerial accounting provides tools and perspectives that help managers accomplish this, and for that reason it is important that every business student study it (Hilton and Platt, 2017).

The current focus of management accounting is activity-based management, customer orientation, cross-functional perspective, total quality management (TQM), time as a competitive element, efficiency, and e-business (Hansen and Mowen 2007).

2. Variance Analysis Cycle

Variance analysis cycle is a cycle used to evaluate and improve performance, not to assign blame. Variance analysis cycle begins with the preparation of performance reports in the accounting department. The main goal of variance analysis cycle is to capture the differences between the actual results and what should have occurred according to the budget. These differences may be between the positive margin (favorable) or negative margin (unfavorable). After the differences captured, questions raised as “why did this variance occur?”, “why is this variance larger than it was last period?”. If the significant variances show positive

margin (favorable), the company must emphasize that superior achievement and then the company decides to replicate the policies or strategies or sources or root causes. Otherwise, if the significant variances show negative margin (unfavorable), the company has to emphasize that unsatisfactory performance and then the company decides to eliminate the policies or strategies or sources or root causes. Then, the next period's operations are carried out and the cycle begins again with the preparation of a new performance report for the latest period. Management by exception aims to compare actual results to a budget so that significant deviations can be flagged as exceptions and investigated further. Management by exception is a conjunction with the variance analysis cycle that managers frequently use to compare performance reports, for example, this year versus last year. This approach enables managers to focus on the most important variances while bypassing trivial discrepancies between the budget and actual results. For example, a variance of $5 is probably not big enough to warrant attention, whereas a variance of $5,000 might be worth tracking down. Another clue is the size of the variance relative to the amount of spending. A variance that is only 0.1% of spending on an item is probably caused by random factors. On the other hand, a variance of 10% of spending is much more likely to be a signal that something is wrong. In addition to watching for unusually large variances, the pattern of the variances should be monitored. For example, a run of steadily mounting variances should trigger an investigation even though none of the variances is large enough by itself to warrant investigation (Garrison et al., 2019). Variance analysis cycle steps can be seen in Figure 1.

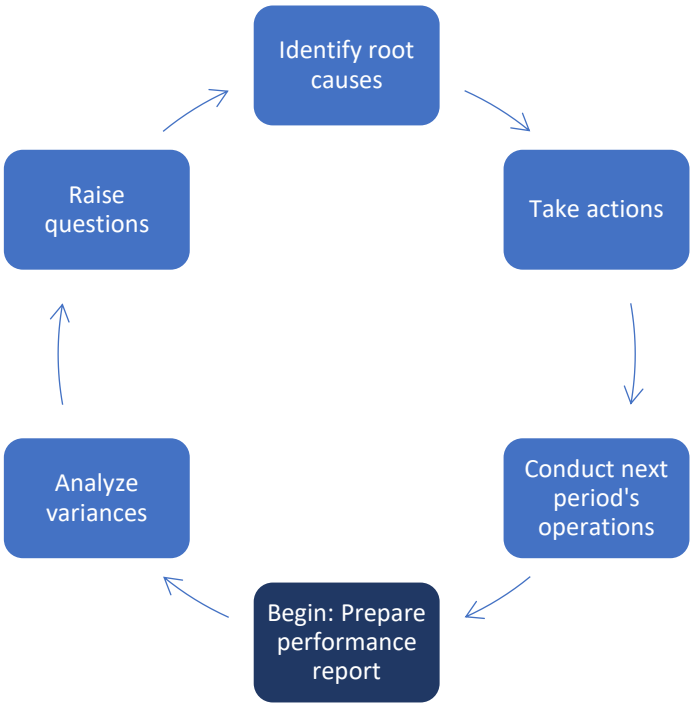

Figure 1: Variance Analysis Cycle (Garrison et al., 2017)

Variance analysis along with standard cost are useful in diagnosing organizational performance. These tools help managers discern "the story behind the story"—the details of operations that underlie reported cost and profit numbers. Standard costs, budgets, and variances are also used to evaluate the performance of individuals and departments. The performance of individuals, relative to standards or budgets, often is used to help determine salary increases, bonuses, and promotions. When standards and variances affect employee reward structures, they can profoundly influence behavior. For example, suppose a hotel's food and beverage department manager earns a bonus when food and beverage costs are below the budgeted amount. This reward structure will provide a concrete incentive for the manager to keep food and beverage costs under control. But such an incentive can have either positive or negative effects. The bonus may induce the manager to seek the most economical food suppliers and to watch more carefully for employee theft and waste. However, the bonus could also persuade the manager to buy cheaper but less tender cuts of meat for the restaurant. This could ultimately result in lost patronage for the restaurant and the hotel. One aspect of skillful management is knowing how to use standards, budgets, and variances to get the most out of an organization's employees. Unfortunately, there are no simple answers or formulas for success in this area. Despite such difficulties, standards, budgets, and variances are used in the executive compensation schemes of many well-known companies (Hilton and Platt, 2017).

3. Delivery Performance Measures

In addition to financial performance measures, organizations use many nonfinancial performance measures. While financial measures reflect the results of what people in the organization do, they do not measure what drives organizational performance. For example, activity and revenue variances summarize the results of efforts aimed at increasing sales, but they do not measure the actions that drive sales such as improving quality, exposing more potential customers to the product, filling customer orders on time, and so on. Consequently, many organizations use a variety of nonfinancial performance measures in addition to financial measures. Three examples of such measures that are critical to success in many organizations — throughput time, delivery cycle time, and manufacturing cycle efficiency (MCE). Note that while these examples focus on manufacturers, very similar measures can be used by any service organization that experiences a delay between receiving a customer request and responding to that request. Delivery performance measures are component of operating performance measures (Garrison et al., 2019). According to Garrison et al. (2019), delivery performance measures consist of:

a. Throughput (manufacturing cycle) time

The elapsed time from when production is started until finished goods are shipped to customers is called throughput time, or manufacturing cycle time. The goal is to continuously reduce this measure and the formula for computing it is as follows:

$$Throughput\ (manufacturing\ cycle)\ time = Process\ time + Inspection\ time + Move\ time + Queue\ time$$

Process time is the amount of time work is done on the product. Inspection time is the amount of time spent ensuring that the product is not defective. Move time is the time required to move materials or partially completed products from workstation to workstation. Queue time is the amount of time a product spends waiting to be worked on, to be moved, to be inspected, or to be shipped. Only one of these four activities adds value to the product—process time. The other three activities — inspecting, moving, and queuing — add no value and should be eliminated as much as possible.

b. Delivery cycle time

The elapsed time from when a customer order is received until the finished goods are shipped is called delivery cycle time. The goal is to reduce this measure and the formula for computing it is as follows:

$$Delivery\ cycle\ time = Wait\ time + Throughput\ time$$

Wait time is the elapsed time from when a customer order is received until production of the order is started. This is a non–value-added activity that should be reduced or eliminated. When companies succeed in drastically reducing or eliminating wait time plus the non–value-added components of throughput time it often enables them to increase customer satisfaction and profits.

c. Manufacturing cycle efficiency (MCE)

Through concerted efforts to eliminate the non–value-added activities of inspecting, moving, and queuing, some companies have reduced their throughput time to only a fraction of previous levels. In turn, this has helped to reduce the delivery cycle time from months to only weeks or hours. Throughput time, which is a key measure in delivery performance, can be put into better perspective by computing the manufacturing cycle efficiency (MCE). The MCE is computed by relating the value-added time to the throughput time. The goal is to increase this measure and the formula for computing it is as follows:

$$MCE = \frac{Value - added\ time\ (Process\ time)}{Throughput\ (manufacturing\ cycle) time}$$

Any non – value-added time results in an MCE of less than 1. An MCE of 0.5, for example, would mean that half of the total production time consists of inspection, moving, and similar non–value-added activities. In many manufacturing companies, the MCE is less than 0.1 (10%), which means that 90% of the time a unit is in process is spent on activities that do not add value to the product. Monitoring the MCE helps companies to reduce non – value-added activities and thus get products into the hands of customers more quickly and at a lower cost.

A company will achieve little success if it produces a great product but delivers it to the customer a week late. World-class companies are striving toward a goal of filling 100 percent of their orders on time. Common measures of delivery performance include the percentage of on-time deliveries and the percentage of orders filled. Another measure is delivery cycle time, the average time between the receipt of a customer order and delivery of the goods. Delivering goods on time requires that they be produced on time. Various operational performance measures have been developed to assess the timeliness of the production process. For example, in a manufacturing firm, manufacturing cycle time is the total amount of production time (or throughput time) required per unit (Hasan et al., 2019). It can be computed by dividing the total time required to produce a batch (not including the time the order spends waiting before production begins) by the number of units in the batch. Velocity is defined as the number of units produced in each period. MCE represents the percentage of time that products are being worked on after the production process begins. The value of the MCE measure lies in its comparison between value-added time (processing) and non-value-added time (inspection, waiting, and moving) during the production process. Competitive manufacturing firms strive

for as high an MCE measure as possible (Hilton and Platt, 2017).

4. Pharmaceutical Industry

The pharmaceutical industry is defined as the discovery, development, and manufacture of drugs and medications (Mirandha et al., 2022 and Ridwan et al., 2022). It's widespread, including research, chemicals, and the regulation and involvement of government agencies. However, the characteristics of the pharmaceutical industry differ by region (VanDyke, 2019).

METHODS

Qualitative research methods are used to analyze the analysis of variance cycle and delivery performance metrics of pharmaceutical companies. Qualitative research methods are descriptive. This research method is also known as case study research. Qualitative methods have the potential to contribute significantly to the development of meaningful "quantities"; however, they have inherent as well as instrumental value (Sofaer, 1999). To collect data on pharmaceutical company analysis of variance cycles and delivery performance metrics, this study uses secondary data collected from official company reports, journals, and publications.

RESULT AND DISCUSSION

1. Result

As the focus of this research is to cover the variance analysis cycle and deliver performance measures in pharmaceutical firms, this research pursues one of the largest pharmaceutical firms in Indonesia, PT Kimia Farma, Tbk. Information is collected from the Financial Reports of PT Kimia Farma, Tbk for 2 years, from 2020 (COVID-19 pandemic era) and 2021 (COVID-19 new normal era). The summary of Consolidated Statements of Profit Loss and Other Comprehensive Income from 2020 to 2021 can be shown in Table 1. The number shown is in millions of Rupiah. The "F" sign indicates favorable while the "U" sign indicates unfavorable. It is put behind the numbers in the Variance column.

Table 1: The Consolidated Statements of Profit Loss and Other Comprehensive Income Summary of PT Kimia Farma, Tbk in 2020 and 2021

Indicators	**Actual 2021**	**Actual 2020**	**Variance**
Net Sales	12.857.627	10.006.173	2.851.454 F
Cost of Goods Sold (COGS)	(8.461.341)	(6.349.042)	(2.112.300) U
Gross Profit	4.396.285	3.657.131	739.154 F
Operating Expenses (Opex)	(3.500.533)	(3.326.012)	(174.521) U
Other Income – net	83.250	330.187	(246.937) U
Foreign Exchange Difference – net	6.637	(8.282)	14.919 F
Operating Income	985.639	653.024	332.615 F
Finance Cost	(606.813)	(596.377)	(10.436) U
Finance Income	14.057	16.712	(2.655) U
Income before Tax	392.883	73.359	319.524 F
Income Tax Benefits (Expenses)	(78.998)	(48.577)	(30.422) U
Current Tax	(23.996)	(4.357)	(19.640) U
Deferred Tax	(102.995)	(52.933)	(50.061) U
Total Income Tax	12.857.627	10.006.173	2.851.454 F
Income for The Year	289.889	20.426	269.463 F
Other Comprehensive Income			
Item that will not be reclassified to Profit or Loss			
Remeasurement on Defined Benefits Plan	(379.208)	(185.144)	(194.064) U
Asset Revaluation and Property Investment Reserve	(1.799)	9.145	(10.944) U
Reserve from Changes of Fair Value of Sales Financial Assets	-	(18.416)	(18.416) U
Related Income Tax	83.394	112.727	(29.333) U
Item that may be reclassified subsequently to Profit and Loss			
Foreign Currency Translation Adjustments	6.516	(4.093)	10.608 F
Total Comprehensive Income (Loss) for The Year	(1.208)	(65.354)	64.146 F
Total Income for the Current year Attributable to:			
Owners of the Parent	302.274	17.639	284.635 F
Non-Controlling Interest	(12.385)	2.787	(15.172) U

Total	289.889	20.426	269.463 F
Total Comprehensive Income for the Current year Attributable to:			
Owners of the Parent	8.365	(65.189)	73.554 F
Non-Controlling Interest	(9.573)	(165)	(9.408) U
Total	(1.208)	(65.354)	64.146 F
Basic Earnings per Share Attributable to Owners of the Parent (full Rupiah)	54,42	3,18	51,24 F

As can be seen in Table 1, the net sales divergence is good as there is sales growth from IDR 10 trillion to IDR 12.8 trillion. All sales lines increased. Sales of third-party products, especially his COVID-19 vaccine, boosted sales in 2021. Medical and generic products such as Redeliver, Favipiravir, and Immunoglobulin also contributed to significant growth. B. Antigen testing services, RT-PCR, and COVID-19 vaccination services.

The company's cost of sales increased by 33.27% from IDR 6.35 trillion in 2020 to IDR 8.46 trillion in 2021. Increased sales of COVID-19 therapeutics increased distribution costs by IDR 2,112 billion, or 33.27% in 2021.

The company's total operating expenses for 2021 reached IDR 3.50 trillion, up 5.25% from last year's IDR 3.33 trillion, equivalent to IDR 174.52 billion. The increase in operating expenses was impacted by a 1.55% increase in selling expenses from IDR 32.04 billion to IDR 2.10 trillion in 2021. The increase also occurred in general and administrative expenses, which increased by 11.34% or IDR 142.48 billion to IDR 1.39 trillion in 2021. The increase was driven by multiple expense increases, including salary and benefits, depreciation, professional service fees, and tax expenses. The ratio of operating expenses to sales in 2021 was 27.23%, down 18.09% from 33.24% in the previous year. Contributing to the decline in the ratio of operating expenses to sales was the increase in sales of 28.50% in 2021, which is higher than the increase in operating expenses of 5.25% in 2021.

Gross profit in 2021 increased by IDR 739.15 billion or 20.21% from IDR 3.66 trillion in 2020 to IDR 4.40 trillion in 2021. Or an increase in manufacturing costs of IDR 2.1 trillion in 2021. The net profit of the annual difference from 2020 to 2021 is IDR 269.5 billion, which is a favorable difference. This was due to increased sales and the company's efficiency policies holding down operating costs. Operating profit increased due to a decrease in the percentage of operating expenses, reflecting a 4.34% decrease in the percentage of selling expenses and a 1.68% decrease in the percentage of general and administrative expenses.

This research continues to analyze the variance of realization (actual) condition in 2021 versus target in 2021 that can be seen in Table 2. The “F” sign indicates favorable while the “U” sign indicates unfavorable. It is put behind the numbers in the Variance column.

Table 2: Comparison of Realization and Target in 2021

Indicators	**Actual 2021**	**Target / Plan 2021**	**Variance**
Sales (IDR-million)	12.857.627	11.270.659	1.586.968 F
Net Profit (IDR-million)	289.889	413.132	(124.243) U
Asset (IDR-million)	17.760.195	17.207.413	552.782 F
Capital Structure			
Interest-bearing Debt (IDR-million)	7.987.261	6.822.155	1.165.106 F
Distributable equity to owners of the parent entity (IDR-million)	7.139.643	7.463.575	(323.932) U
Number of Employees (person)	11.906	12.640	(734) U

Realized revenue for 2021 was IDR 12.86 trillion, exceeding the target of IDR 11.27 trillion for 2021. The company's net income fell short of the target, but total assets were 103.21 above its 2021 target. Regarding the capital structure interest-bearing debt exceeded the plan due to borrowing in 2021.

The analysis continues to the manufacturing activities in 2021, shown by Table 3.

Table 3: Manufacturing Activities in 2021

Dosage Types	**Unit**	**Actual 2021**	**Target / Plan**	**Variance**
Production Activities				
Ampule Injection	Amp	1.360.040	1.234.800	125.240
Powder	Pieces	11.965.639	17.520.930	(5.555.291)
Drug Liquid in Herbs	Bottle	848.408	1.538.600	(609.192)
Drug Liquid in Herbs	Sachet	0	0	0
External Drug Fluid	Bottle	1.203.619	2.246.173	(1.042,554)

Herbal Drug Fluid	Bottle	1.178.555	1.411.200	(232645)
Herbal Granule	Sachet	0	1.911.000	(1.911.000)
Pharma Granule	Sachet	11.035.260	2.282.440	8.752.820
ARV Capsule	Item	729	735	(6)
Herbal Capsule	Item	0	0	0
Soft Capsule	Item	65.802.450	33.121.000	32.681.450
Non Betalaktam Capsule	Item	137.605.540	157.533.981	(19.928.441)
Kit Diagnostic In-Vitro	Strip	47.520	343	47.177
Kit Diagnostic In-Vitro (love Test)	Cass	0	0	0
Ointment / Cream	Tube	32.778.142	53.284.120	(20.505.978)
Sterile Ointment / Cream	Tube	0	1.170.000	(1.170.000)
Dry Syrup	Bottle	11.761	11.760	1
Suspension / Syrup	Bottle	712.978	2.382.906	(1.669.928)
Suppositoria	Item	2.137.770	2.203.900	(66.130)
ARV Tablet	Item	85.851.600	30.965.403	54.886.197
Herbal Tablet	Item	34.899.850	16.008.610	18.891.240
Non Betalaktam Tablet	Item	1.244.903.862	2.238.346.361	(993.442.599)
Salute Tablet	Item	426.066.069	521.597.317	(95.531.248)
ARV Salute Tablet	Item	54.196.830	24.744.979	29.451.851
Soft Capsule	Vial	3.998.295	604.205	3.394.090
Raw Material / Chemical Activities				
Iodine & Iodine Salt	Kilogram	36.380	53.623	(17.243)
Food Oil	Kilogram	1.098.282	3.958.427	(2.860.145)
Castor Oil	Kilogram	496.108	577.637	(81.529)

The challenges faced by the manufacturing segment are: because consumers are switching to COVID-19 products, several products that are not related to COVID-19 have not been absorbed by the market, market absorption is more focused on the institutional market as consumer behavior shifts from individuals to institutions, fulfillment of various types of certifications required by BPOM, MUI, and other agencies, a change in pricing strategy patterns to add value to the product will allow the value proposition to focus on expanding distribution channels.

PT Kimia Farma, Tbk implements an integrated business development strategy from upstream to downstream and develops business activities related to pharmaceutical distribution. The distribution line begins at the Kimia Farma Plant and is distributed to pharmaceutical wholesalers. Pharmaceutical wholesalers then distribute the medicines to pharmaceutical wholesaler branches, pharmacies, hospital pharmacies, and medical centers. Service Level (accuracy of delivery against the Supply Chain Order plan) on the condition of a complete supply of materials from SC, based on the delivery schedule; Increased productivity through reduced Production Lead Time (Man Hour), Reduce reprocessing, Production priority on Pareto products, Control of production factors, monitoring of completion of SPK, Digitalization, Receive toll in from other Pharmaceutical Manufacturers, Reduce production lead time, Shorten inspection lead time by reducing the number of analyzes (reducing analysis).

2. Discussion

In the second semester of 2021, the dynamics of the COVID-19 case, which are once again increasing, are anticipated to exert pressure on the rate of economic recovery. As a result, the national pharmaceutical market is expected to rise by 18% in 2021. The Indonesian government's assignment for PT Kimia Farma, Tbk to help with the COVID-19 pandemic's effects was one of the factors that improved the company's financial performance in 2021. For the Company to maintain its profitability, PT Kimia Farma, Tbk must optimize its distribution infrastructure, digitize business models by increasing the proportion of online sales, and take advantage of the possible absorption of the Government Expenditure Budget in handling COVID-19. With the danger of uncertainty still being high owing to the COVID-19 pandemic, PT Kimia Farma, Tbk's strategy for 2022 will not be overly broad and will be in line with economic realities. In order to maximize opportunities for the needs of pharmaceutical products and services that the Company can fulfill in managing the COVID-19 pandemic, PT Kimia Farma, Tbk will continue to implement the strategy of conservative revenue growth and cost efficiency with the Holding synergy of pharmaceutical SOEs. Manufacturing focus should be for materials to produce COVID-19 medications.

In addition to the fall in hospital visits, the pharmaceutical industry's performance also suffered significantly from the decline in consumer spending brought on by the slowdown in economic growth. Additionally, the pharmaceutical business had only minor difficulties during the COVID-19 epidemic. China and India are the two countries from which most the country's pharmaceutical

raw materials are imported. As a result, the supply of national pharmaceutical raw materials was hampered when the pandemic struck the world and forced the two countries that supplied raw materials to close their borders (go into lockdown). The pharmaceutical industry's business operations are undoubtedly disrupted by this circumstance. The national pharmaceutical sector has started to think about broadening the raw material supply chain considering these challenges. This indicates that it imports from other nations in addition to China and India. Furthermore, not all national pharmaceutical firms offer a broad range of products. PT Kimia Farma, Tbk implements the following strategies:

a. Coordinate with his chain of supply on production schedules to avoid product build-up.
b. Optimize the search for *maklooner* candidates. Especially when implementing *makloon* products on orders that exceed facility capacity.
c. Streamlining production processes by optimizing primary and secondary packaging.
d. Finding potential brokers to speed up the certification process, manufacturing products on an inventory basis.
e. Fulfill product orders and optimize the certification process by setting measurable certification goals in accordance with regulatory requirements and creating a dedicated team to implement certification.

CONCLUSION

The variance analysis shows that PT Kimia Farma, Tbk can increase sales in 2021 with an increase in manufacturing (production) as well. This successful sales performance has had a positive impact on gaining net profit as well. Some negative variances in manufacturing indicate that the company was not focusing the production, for example, the company planned not to produce herbal granules and sterile ointment / cream. Otherwise, the company has maximized the production of pharma granules, capsules, and tablets to mostly produce COVID-19 medications, so that the company has made positive variances. These actions are in accordance with the principle of variance analysis cycle to evaluate and improve performance.

Delivery performance is also the company's concern. Strategies to make the distribution in supply chain management of the company have success enough, for example, end-to-end (upstream to downstream) distribution strategy and digitalization, especially to reduce delivery cycle time.

REFERENCES

Azmi, Z.; Nasution, A. and Muda, I. (2018). Information System Integration, Knowledge Management, and Management Accounting Adaptibility. Proceedings of the International Conference of Science, Technology, Engineering, Environmental and Ramification Researches - Volume 1: ISBN. 9789897584497 ICOSTEERR, pages 1887-1894. DOI: 10.5220/0010070118871894. https://www.scitepress.org/PublicationsDetail.aspx?ID=tj4rW5PNUgc=&t=1

Dewi, I., & Kencana, P. (2022). Dampak Pandemi Covid-19 Terhadap Kinerja Perusahaan Farmasi yang terdaftar di BEI. Jurnal Madani: Ilmu Pengetahuan, Teknologi, Dan Humaniora, 5(1), 54-67. https://doi.org/10.33753/madani.v5i1.197

Fiksel, J., M. Polyviou, K.L. Croxton, and T.J. Pettit. From risk to resilience: learning to deal with disruption. MIT Sloan Management Review, 2015; 56(2): 79-86.

Garrison, Ray et al. (2019). Introduction to Managerial Accounting, Eighth Edition. New York: McGraw-Hill Education.

Hansen, Don and Maryanne M. Mowen (2007). Managerial Accounting, Eighth Edition. Ohio: Thomson South-Western.

Hasan, A., & Gusnardi, I.M. (2019). The Prospect of Accounting Standard Implementation: Micro, Small and Medium Entities Based On Quality of Effective Applicable Financial Statements on January 01, 2018 (Study on Small Medium Enterprises in Rokan Hulu District). International Journal of Scientific and Technology Research, 2019, 8(9), 2108–2112.

Hilton, Ronald and David E. Platt (2017). Managerial Accounting Creating Value in a Dynamic Business Environment, Eleventh Edition. New York: McGraw-Hill Education.

Huang, C., Y. Wang, X. Li, L. Ren, J. Zhao, Y. Hu et al. (2020). Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. The Lancet, 2020; 395(10223), 497-506.

Julian, Muhammad (2020, November 06). Prospek Industri Farmasi dan Obat Herbal pada Kuartal IV 2020. Retrieved from Kontan.co.id: https://industri.kontan.co.id/news/prospek-industri-farmasi-dan-obat-herbal-pada-kuartal-iv-2020?page=2.

Jüttner, U. and Maklan. S. Supply chain resilience in the global financial crisis: an empirical study. Supply Chain Management: An International Journal. 2011; 16(4): 246-59.

Kozlenkova, I., G.T.M. Hult, D.J. Lund, J.A. Mena, and P. Kekec (2015). The Role of Marketing Channels in Supply Chain Management. Journal of Retailing, 2015; 91(4): 586-609.

Mirandha, E., Kaban, A. S (2022). Public-Sector Regulation of Accounting Standards Case in Pharmaceutical Industry. Journal of Pharmaceutical Negative Results, 1645-1649. https://www.pnrjournal.com/index.php/home/article/view/2768

Pratiwi, Fuji. "Kimia Farma Ungkap Dampak Pandemi Bagi Perusahaan." Republika Online, Republika Online, 16 Oct. 2020, https://www.republika.co.id/berita/qia9lp457/kimia-farma-ungkap-dampak-pandemi-bagi-perusahaan.

PT Kimia Farma, Tbk (2020). Laporan Keuangan Tahunan 2020. Accessed in https://www.kimiafarma.co.id/id/laporan-tahunan on October 22, 2022.

PT Kimia Farma, Tbk (2021). Laporan Keuangan Tahunan 2021. Accessed in https://www.kimiafarma.co.id/id/laporan-tahunan on October 22, 2022.

Ridwan, D.A, Heli, Muda, I. (2022). Implementation of Psap No. 05 Related to Accounting Treatment of Drug Inventories in the Pharmaceutical Industry in Manufacturing Companies in the Consumer Goods Industry Sector in the Pharmaceutical Sub Sector. Journal of Pharmaceutical Negative Results, 1615-1622.

Sofaer, Shoshanna (1999). Qualitative Methods: What are They and Why Use Them?. Health Service Research, 34(5), 1101-1118.

Suryana, Achmad (2020). Dampak Pandemi Covid-19: Perspektif Adaptasi dan Resiliensi Sosial Ekonomi Pertanian. IAARD Press.

Van Dyke, Elise (2019). The Pharmaceutical Industry. Accessed in https://globaledge.msu.edu/blog/post/56795/the-pharmaceutical-industry on October 22, 2022.