Sme Performance Before And During The Global Crisis Due To Covid-19 Pandemic

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Abstract: SMEs in Indonesia have a great potential in driving people's economic activities as well as significant contribution to Gross Domestic Product (GDP). In the face of the global crisis due to the Covid-19 pandemic, SMEs are required to be able to increase their competitiveness both financially and non-financially. With regard to SMEs performance appraisal, the approach used in conducting the assessment is to use a balanced scorecard consisting of financial and non-financial performance from the perspective of customers, internal business processes, and growth and learning. In this study, the authors wanted to examine whether the financial and non-financial performance of SMEs was different before and during the global crisis due to the Covid-19 pandemic. This study uses primary data obtained from distributing questionnaires to SME actors. The research was conducted in the East Jakarta area. Based on the Central Statistics Agency (2020), the growth of SMEs in the region is quite high. Data was analyzed through the average difference test. In this study it was found that there were differences in financial performance before and during the global crisis due to the Covid-19 pandemic, and there were also differences in non-financial performance before and during the global crisis due to the Covid-19 pandemic.

Keywords: Global crisis due to Covid-19 Pandemic, Financial, Non-Financial

1. Introduction

Global crisis due to Covid-19 pandemic directly causes economic weakening, markets and small traders are deserted of buyers, companies as well as SMEs (Small Medium Enterprises) suffer from inevitable loss. The importance of SME performance during Global crisis due to Covid-19 pandemic becomes necessary to be reviewed from several prominent aspects. **First,** SMEs have big influences on the Gross Domestic Product (GDP) and unemployment reduction. Whether in Indonesia or globally, SMEs are responsible for and an important part of GDP and unemployment reduction (Robu, 2013). In Indonesia, SMEs are a part of national economy, playing roles in extending employment, providing economic services to people, equalizing and increasing community income, distributing the development results, promoting economic growth as well as realizing national stability in general and especially economic stability. **Second**, in the context of the world economic changes due to Covid-19 pandemic and the difficulties for economic recovery after the global crisis, SMEs are required to take its significant role, namely its ability to adapt to the changing environmental challenges. In the previous economic crisis in Indonesia, SMEs have proven to be tough in the face of that crisis (Akyüz, 2017). **Third,** SMEs represent an initiative and practical entrepreneurship framework—a vital element that defines the meaning of competitive economy (Misoska et al., 2016). Although the intensities are different (from one economy to another, from one geographic area to another, or from one culture to another), it is found that SMEs play the major role in promoting technical advances to the people and innovation in economic activities (Zygmunt, 2017). This is what we will discuss, where to face the global crisis due to Covid-19 pandemic SME players can survive by taking advantage of the existing technological advances.

The extent of the success of SMEs can be seen from their performance, not only financial performance but nonfinancial performance is also important in improving the competitiveness and added value of SMEs now. The nonfinancial performance comprises the ability of SMEs to serve consumers, internal process to produce products/services, and human resources and technology development.

Through the progress of SMEs financial and nonfinancial performances before and after the Pandemic in this study, it is expected that SMEs can introspect to develop their business to be able to compete with the flow of products and services during the pandemic. The result of this study is expected to become input for the government to make strategic policies.

This research aims to answer these questions: Are there differences of SMEs financial performance between before and during the Covid-19 Pandemic? Are there differences of SMEs nonfinancial performance between before and after the Covid-19 Pandemic?

2. Literature Review

This study is not only about performance factors, but it is also relevant to mention the researches focusing on the factors affecting SMEs performance. To survive and succeed in facing the global economic crisis due to Covid-19 pandemic, SMEs must effectively distribute and combine their physical, human, and organizational assets. By this way, they will grow, have competitive advantage, and in turn achieve excellent performance (Lonial, S.C. & Carter, 2015). However, because of limited resources due to pandemic, SMEs need to identify and exploit other ways to improve their competitiveness and performance.

In general, various internal environmental factors having potential to affect the performance of SMEs are mentioned in the literatures, such as the age and size of company (Arend, 2014), human resources and human resource practices (Katou, 2012; Sheehan, 2014), occupational health and safety (Gopang et al., 2017), process, organization, and marketing innovation (Altuntas et al., 2018), sustainable leadership (Suriyankietkaew & Avery, 2016), planning and strategy (Leitner & Güldenberg, 2010), family ownership and involvement (Lien & Li, 2014), intellectual capital (Omerzel & Jurdanab, 2016) and so on.

Empirical studies show that most people see the performance of SMEs at the level of micro-economy (organization), which explains the relationship of SME performance with internal environmental, or with external environmental, factors. Although this study is beneficial for entrepreneurs in finding the most appropriate way to improve the organizational performance in the context of global economic crisis due to Covid-19 pandemic, it does not help them significantly understand the specific mechanism and determinants of SME performance in particular.

SME performance is a measuring instrument to assess and evaluate whether the goals of SMEs are achieved or not. In general, SME performance is the management and existing divisions' level of efficiency, effectiveness and innovation in achieving a goal. Performance is said to be good and successful if the goal can be well achieved.

Some problems that will be faced by SME players are: first, how to respond the competition with other business players; second, how SMEs can survive in the midst of global economic crisis due to Covid-19 pandemic; third, how SMEs players with limited capital and latitude can create products in good quantity and quality (Stephen P. Robins, 2012)

Performance measurement here uses Balance Scorecard (BSC) comprising financial and nonfinancial performances which is born out of a study motivated by the non-existence of an approach to performance measurement that is really able to create a future economic value for companies today (Kaplan, 2009).

Balance scorecard is simply defined as the stock card used to measure the performance regarding the balance between financial and nonfinancial dimensions, between short term and long term goals and involves internal and external factors (Rangkuti, 2013)

In BSC there are four perspectives of performance measurement system, namely:
1.   Financial perspective; BSC still uses financial perspective because financial measurement is very important in providing the summary of the consequences of existing economic actions. Financial performance measurement gives an indication whether the company's profit increases or not. The financial goal is rapid sales growth or cash flow creation.
2.   Customer perspective; this perspective identifies customers and market segments where the business unit competes as well as various performance measurements of the business unit in the target segment. The main measurement itself consists of customer satisfaction and market share in the target segment. This supporting factor of customer success is an important factor that can affect customer decision to move or stay loyal to the provider.
3.   Internal Business Process perspective; In the internal business process, various important internal processes that must be well mastered by the company are identified. This process allows the business unit to:
a.   Give value proportion which will attract customer attention and retain the customers in the target market segment.
b.   Fulfill the expected high financial gain. The measurement of internal business process focuses on various internal processes which have big impacts on customer satisfaction and the achievement of SME's financial goal. The goal of this internal business process will highlight various important processes that supports the SME's successful strategy.

3. Research Methodology

The data gathered on this study consists of only primary data. The primary data gathering is carried out online by distributing questionnaire to SMEs and their customers. The research was done in East Jakarta area.

The mechanism of variable measurement used in this study:

1.   Financial Performance; The variable of financial perspective is seen from SME's revenue and profit before and after Covid-19 pandemic. The measurement is carried out using Likert scale 1-5, starting from "very good" hingga "very poor".

2.   Nonfinancial Performance; The variable of nonfinancial perspective is seen from the questions related to customer perception, internal business process and growth and SMEs learning before and after Covid-19 pandemic. The measurement is carried out using Likert scale 1-5, starting from "very good" hingga "very poor".

The gathered data is subsequently tabulated and only the data that fulfills the requirements will be processed further. The data is processed and analyzed through Two-Means Difference Test using SPSS. Before that, Validity Test and Realibility Test are also carried out as to see the respondents' answers to the given questions.

4. Results and Discussion

Data Instrument Test Analysis
Validity Analysis indicates how far the measuring instrument is used to measure what is measured. The way is to correlate the score obtained by each question item with the individual total score. Validity test was carried out in the assistance of computer using SPSS program for Windows Version 21.00. In this research, validity test was carried out toward 109 respondents. Decision making was based on the value of $r_{statistic}$ (Corrected Item-Total Correlation) > r_{table} as many as 0.188, for df = 109–2 = 107; α = 0.05. Thus, the item/question is valid.

Validity Test on Financial Questionnaire
Based on the calculation, the results of validity test on financial variable are as follows:

Table 1 Results of Validity Test on Financial Variable

Indicator	Corrected Item-Total Correlation	R Table	Criteria
Finance_1_1	.367	.188	Valid
Finance_1_2	.458	.188	Valid
Finance_2_1	.433	.188	Valid
Finance_2_2	.444	.188	Valid
Finance_3_1	.521	.188	Valid
Finance_3_2	.494	.188	Valid
Finance_4_1	.468	.188	Valid
Finance_4_2	.521	.188	Valid

Based on Table 1, it can be seen that all the questions for financial variable have status of valid, since the value of $r_{statistic}$ (Corrected Item-Total Correlation) > r_{table} as many as 0.188.

Validity Test on Nonfinancial Questionnaire

1. Validity Test on Customer Variable Questionnaire
Based on the calculation, the results of validity test on customer variable are as follows:

Table 2 Results of Validity Test on Customer Variables

Indicator	Corrected Item-Total Correlation	R Table	Criteria
Customer_1_1	.379	.188	Valid
Customer_1_2	.468	.188	Valid
Customer_2_1	.402	.188	Valid
Customer_2_2	.339	.188	Valid
Customer_3_1	.301	.188	Valid
Customer_3_2	.421	.188	Valid
Customer_4_1	.419	.188	Valid
Customer_4_2	.445	.188	Valid
Customer_5_1	.324	.188	Valid
Customer_5_2	.413	.188	Valid
Customer_6_1	.368	.188	Valid
Customer_6_2	.551	.188	Valid

Based on Table 2, it can be seen that all the questions for customer variable have status of valid, since the value of $r_{statistic}$ (Corrected Item-Total Correlation) > r_{table} as many as 0.188.

2. Validity Test on Internal Business Process Variable Questionnaire
Based on the calculation, the results of validity test on Internal Business Process variable are as follows:

Table 3 Results of Validity Test on Internal Business Process

Indicator	Corrected Item-Total Correlation	R Table	Criteria
Internal Business_1_1	.465	.188	Valid
Internal Business_1_2	.420	.188	Valid
Internal Business_2_1	.413	.188	Valid
Internal Business_2_2	.331	.188	Valid
Internal Business_3_1	.451	.188	Valid
Internal Business_3_2	.348	.188	Valid
Internal Business_4_1	.634	.188	Valid
Internal Business_4_2	.399	.188	Valid
Internal Business_5_1	.470	.188	Valid
Internal Business_5_2	.361	.188	Valid
Internal Business_6_1	.455	.188	Valid
Internal Business_6_2	.433	.188	Valid

Based on Table 3, it can be seen that all the questions for internal business process variable have status of valid, since the value of $r_{statistic}$ (Corrected Item-Total Correlation) > r_{table} as many as 0.188.

3. Validity Test on Growth and Learning Variable Questionnaire
Based on the calculation, the results of validity test on Growth and Learning variable are as follows:

Table 4 Results of Validity Test on Growth and Learning

Indicator	Corrected Item-Total Correlation	R Table	Criteria
GL_1_1	.554	.188	Valid
GL_1_2	.602	.188	Valid
GL_2_1	.501	.188	Valid
GL_2_2	.488	.188	Valid
GL_3_1	.551	.188	Valid
GL_3_2	.465	.188	Valid
GL_4_1	.579	.188	Valid
GL_4_2	.531	.188	Valid
GL_5_1	.680	.188	Valid
GL_5_2	.675	.188	Valid
GL_6_1	.604	.188	Valid
GL_6_2	.607	.188	Valid

*) PP → GL

Based on Table 4, it can be seen that all the questions for Growth and Learning variable have status of valid, since the value of $r_{statistic}$ (Corrected Item-Total Correlation) > r_{table} as many as 0.188.

Reliability Test

Berdasarkan Tabel 5. Reliability test is carried out toward the question items considered as valid. A variable is said to be reliable if the answers to the questions are always consistent. Therefore, the resulted reliability coefficient of financial variable is r alfa = 0.762, customer material instrument r alfa = 0.757, Internal Business Process r alfa = 0.783, Growth and Learning r alfa = 0.874, and all the results have the value of Cronbach Alpha bigger than 0.600, meaning that the four instruments are said to be reliable or fulfilling the requirements.

Table 5 Results of Reliabilitu Test

Indicator	Cronbach's Alpha R alfa	Cronbach's Alpha R critical	Criteria
Finance	.762	.600	Reliable
Customer	.757	.600	Reliable
Internal Business Process	.783	.600	Reliable
Growth and Learning	.874	.600	Reliable

Hypothetical Analysis
1. Financial Performance
Before entering the analysis on the output for Wilcoxon test, let's see the output ranks first. Here is the table of output ranks variable of finance performance:

Table 6. Results of Ranking Test on Financial Performance Variable

Rank				
		N	Rank	Ranks
Fin_Per_Pandemic - Fin_Per_Normal	Negative Rank	103[d]	52.76	5434.50
	Positive Rank	2[e]	65.25	130.50
	Ties	4[f]		
	Total	109		

The negative ranks or negative difference between the financial performance during global crisis due to Covid-19 pandemic and in the normal condition is 103, indicating that there are 103 SMEs experiencing decrease in financial performance during the pandemic. The positive ranks indicates there are 2 SMEs experiencing increase in financial performance after the pandemic, whereas the value of ties 4 indicates 4 SMEs experienced neither decrease nor increase in financial performance despite the pandemic.

Based on the calculation in Wilcoxon test, the financial performance variable is as follows:
To prove whether the resulted difference is significant, two-means difference test is carried out using Wilcoxon Test with SPSS program. The results of the test can be seen in the table below.

Table 7 Results of Financial Performance Difference Test

	Fin_Per_Pandemic - Fin_Per_Normal
Z	-8.566[b]
Asymp. Sig. (2-tailed)	.000

Financial performance variable has P-value 0.000 which is smaller than 0.05. So, it can be concluded that H0 is rejected, and H1 is accepted. It means, according to the respondents who are SME players, there is a difference in the financial performance of their business between before and after the pandemic. SME players see that thanks to the pandemic they have bigger opportunities to market their products/services through e-commerce. However, according to their confessions, every month they experienced a decrease in the quantity of products they sell. In addition, SMEs experienced a decrease in fixed assets such as display windows, computers, internet network, and so on which actually can support the operational activities as well as decrease in monthly profit.

2. Nonfinancial Performance
The analysis on the output ranks of nonfinancial performance variable is as follows:

Table 8. Results of Ranking Test on the Nonfinancial Performance Variable

Rank				
		N	Mean Rank	Sum of Ranks
NonFin_Per_Pandemic - NonFin_Per_Normal	Negative Rank	107[d]	54.98	5833.00
	Positive Rank	1[e]	3.00	3.00
	Ties	1[f]		
	Total	109		

Negative ranks or negative difference between Nonfinancial Performance during pandemic and in the normal condition is 107, indicating there are 107 SMEs experiencing a decrease in the nonfinancial performance during the pandemic. Positive ranks indicates there is 1 SME experiencing increase in the nonfinancial performance during the pandemic, whereas the value of ties 1 indicates that 1 SME experienced neither decrease nor increase in the nonfinancial performance during the pandemic.

Table 9. Results of Nonfinancial Performance Difference Test

	NonFin_Per_Pandemic - NonFin_Per_Normal
Z	-9.020[b]

Asymp. Sig. (2-tailed)	.000

Nonfinancial performance variable has P-value 0.000 which is smaller than 0.05. Therefore, it can be concluded that H0 is rejected, and H1 is accepted. It means, according to the respondents who are SME players, there is a difference in the nonfinancial performance of their business between before and after the pandemic. The nonfinancial increase is seen from customer perspective because SMEs routinely make promotions through exhibitions and social media. Social media is very useful for business players, especially SME players, to introduce their products/services. Better and guided work program involving internal and external parties in the process of SME business development can improve the nonfinancial performance from the business process. To improve the internal party's innovation, some SMEs sent a proposal to banks/cooperatives to find business capital—something they have never done before. The ways the SMEs implemented to improve nonfinancial performance from the growth and learning dimension were establishing standards in the employee recruitment and following training programs suitable with SMEs' need during the pandemic. SMEs must also maximize the utilization of information technology such as web, blog, social media in marketing their business.

5. Conclusion

Based on the above results and discussion, there are differences between financial and nonfinancial performances before and during the global crisis due to Covid-19 Pandemic. This is in line with the existing theory that with the existence of Covid-19 there will be differences between financial and nonfinancial performances. During the global crisis due to Covid-19 pandemic there are decreases in SME's financial performance namely decrease in the quantity of products sold, decrease in SME's assets which actually support operational activities, and decrease in monthly profit.

Furthermore, from the perspective of nonfinancial performance to increase the number of customers, the global crisis due to Covid-19 pandemic motivates SMEs to be more active in the promotion activities, whether through exhibitions or social media, and carry out online marketing. SMEs also experiences differences in the performance of internal business process during the global crisis due to Covid-19 pandemic, where they make innovation process, customer value management, and speed of business operational process. And in the performance of growth and learning, the difference is experienced by SMEs in improving their ability and utilizing information technology for business activities.

B. Limitation in Research

The research subject is still limited on a narrow area, only in one city. The research duration is only one year. This, of course, can become an obstacle to generalize the results of the research. In addition, the size of sample is relatively small and does not accurately represent the general population. It is known that the investigation related to SME performance should be sustainable, prestige bias can become a problem. In front of the interviewer or other consumers, respondents tend to assess the performance of SMEs higher than the fact. This conclusion may be applied in different industries by widening the category study in the future.

C. Future Research

Future research may consider to use another approach (for example: projective technique) to control the problem. Many interesting issues in this field have not been explored. Related to the results of this study, recommendations can be given for further study: research location should be widened, the years before and after Covid-19 pandemic should be distinguished in 2 or 3 years. Thus, the results of research are expected to be more valid and represent the real condition.

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