Journal of Business and Management Studies
ISSN: 2709-0876
DOI: 10.32996/jbms
Journal Homepage: www.al-kindipublisher.com/index.php/jbms

JBMS
AL-KINDI CENTER FOR RESEARCH AND DEVELOPMENT

| RESEARCH ARTICLE

Financial Performance of Construction Companies during COVID-19 Pandemic

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| ABSTRACT

The global construction industries were significantly affected by the COVID-19 pandemic, resulting in substantial consequences for businesses in this sector. The operational activities of construction companies in the Philippines were significantly impacted by the imposed restrictions. The objective of this study is to conduct a comparative analysis of the profitability of three construction companies in the Philippines. Through the application of horizontal comparative analysis and ANOVA, the researchers have determined that there exists a statistically significant positive correlation between the profitability ratios of the three construction companies. Their Gross Profit Margin and Return on Assets (ROA) showed positive acceptable ratios during the pandemic.

| KEYWORDS

ANOVA, business, comparative analysis, construction, descriptive analysis, gross profit margin, Philippines, profitability, return on assets, ROA

| ARTICLE INFORMATION

ACCEPTED: 02 September 2023 **PUBLISHED:** 29 September 2023 **DOI:** 10.32996/jbms.2023.5.5.15

1. Introduction

On May 22, 2020, the IATF released an Omnibus Guidelines on the implementation of community quarantine in the Philippines that allowed priority public or private construction projects to push with its operations under ECQ (Official Gazette, 2020). This allowed construction firms to operate as long as they implement strict adherence to the guidelines set by IATF in which SPWI is qualified to operate due to the nature of construction services it provides to factory and industrial companies under PEZA.

The pandemic has caused numerous micro, small and medium enterprises to close business operations. Some have adapted social media to sell, survive, and even thrive during the mandatory lockdown. Business closures generated a catastrophic effect, not only on the country's Gross Domestic Product (GDP) but also on a global scale. The pandemic impacted the country's economy, which led to a severe recession in 2020, with a 9.6% year on year decline in GDP. Based on the information gathered, this was the greatest annual fall ever observed since the national accounts data collection for the Philippines started in 1946 (S&P Global, 2021).

During the time of extreme restrictions, the GFCF and GVA of the construction industry dwindled from the first quarter to the third quarter of 2020 but began to recover by the fourth quarter of 2020 until the last quarter of 2022 (National Accounts, Philippines Statistics Authority, 2023). A survey of employers and employees of private companies with internet access shows that business viability is the "greatest challenge of the immediate crisis period", which is the COVID-19 pandemic, stressing that economic consequences such as loss of jobs are significant among the responses of those surveyed (Hill, Baird, & Seetahul, July 2020).

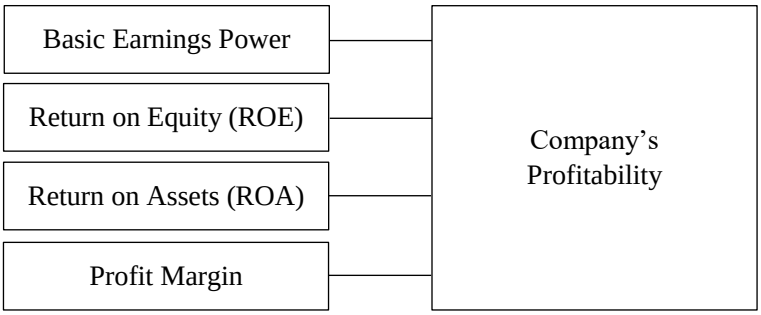
In this study, the researchers intend to look at the 2020 to 2021 profitability ratios, particularly the Gross Profit Margin, Operating Profit Margin, and Return on Assets (ROA) of the three construction companies, namely, Stande Phils Worker's Inc. (SPWI), Conex Plus Inc. (CPI), and Mobilia Products Inc. (MPI). These companies are registered with the Securities and Exchange Commission (SEC) and are classified as medium-sized companies under Republic Act Number 9501, Magna Carta for Micro, Small, and Medium Enterprises (MSMEs).

2. Literature Review

2.1 Theoretical Framework

Figure 1 presents the financial ratios that contribute to the profitability of a company. Darmawan, Jasuni, Putra, and Lestari (2021) stressed the importance of profitability as an indicator to measure the performance of the firm in terms of their finances. It also indicates how the company manages its effectiveness and efficiency in generating profit from its assets and sales. The higher the profitability ratio is, the better the firm's profitability (Darmawan, Jasuni, Putra, and Lestari, 2021).

Figure 1:*Profitability Ratios Analysis by Darmawan, Jasuni, Putra, and Lestari (2021)*



2.2 Conceptual Framework

Figure 2:*Operational Framework*

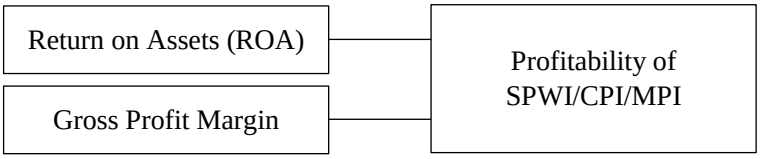


Figure 2 presents a conceptual framework following Darmawan, Jasuni, Putra, and Lestari's (2021) Theoretical Framework. In this operational framework, we focus on the two profitability ratios: the Return on Assets and Gross Profit Margin, to determine the profitability of SPWI, CPI, and MPI. This is due to the lack of data available for Basic Earnings Power and Return on Equity. Nonetheless, these ratios are independent of each other and can describe the firm's profitability.

2.3 Financial Ratio and Company Value

The effect of four independent variables, such as the management of earnings properly, making profits, having a good financial structure, and easily turning assets into cash, affect the worth of construction companies making building materials in the Indonesia Stock Exchange from 2018 to 2021. Company or Firm Value is the amount of money that people are willing to pay to buy a company (Muliani, Ilham, Akhyar, & Maimunah, 2023).

However, according to research done by Jihadi et al. (2021) and his team, four financial ratios such as liquidity ratio, activity ratio, solvency ratio, and profitability ratio - have a big impact on the value of a company. These four ratios were used in the study because one ratio alone is not enough to assess the company's financial performance and market value (Jihadi et al., 2021). The company value is said to be higher or better if the liquidity ratio, activity ratio, and solvency ratio are also high due to its positive influence on the firm value

2.4 Financial Performance of Construction Companies in the Philippines

Before the COVID-19 outbreak, many contractors made agreements where they expected costs to increase by a few percent per year. Clearly, the inflation caused by the COVID-19 pandemic was unlike anything we have ever seen before. Fortunately, construction businesses were protected from increasing costs because they had agreed on fixed prices before the pandemic. This helped them avoid showing losses on their financial statements in 2021. Moreover, most construction companies received money

from government COVID-19 programs like the Paycheck Protection Program and Employee Retention Credit in 2021. This money was included as income in their financial statements for that year (Hoffman, 2023).

2.5 Comparative Analysis of Profitability of Companies in Indonesia during the Pandemic

Darmawan, Jasuni, Putra, and Lestari (2021) observed the profitability of nine agricultural companies in Indonesia based on the Basic Earnings Power (BEP), Return on Equity (ROE), Return on Assets (ROA), and Profit Margin from 2018 to 2020. The researchers put an emphasis on the importance of Profitability as an indicator of how the firm is able to manage its assets and resources to generate profits.

The researchers analyzed the quarterly Financial Statements of the nine agricultural companies and identified the increase and decrease of each profitability ratio in every year from 2018 to 2020. They also noted companies that have negative Basic Earnings Power (BEP), Return on Equity (ROE), Return on Assets (ROA), and Profit Margin.

The results show that the majority of the companies studied have generally higher sales than the preceding years. However, only a few companies have increased profit margins in the first quarter of 2020, which is the onset of the COVID-19 pandemic. In terms of Return on Assets, only a few had an increased acceptable profit after tax compared with the other years. Darmawan, Jasuni, Putra, and Lestari (2021) concluded that the pandemic did not severely impact the profitability of companies in the agricultural industry.

2.6 Synthesis

The COVID-19 pandemic affected several industries, including the construction industry. Global supply chain disruptions, logistical challenges, and heightened costs have underscored the pandemic's unpredictability. The low GVA of the construction industry during the pandemic in 2020 shows the lower contribution of construction companies to the country's economy. GDP has also plunged significantly during the pandemic. Amidst this situation, SPWI managed to operate in 2020 without the need to reduce overhead fixed costs.

Financial ratios notably influence company value; Jihadi et al. (2021) emphasize liquidity, activity, solvency, and profitability ratios. The construction sector's pandemic-induced woes, including project delays and workforce issues, changed its landscape.

Using a comparative analysis of different construction firms of the same company size, firms will be able to gauge the standing of the company and whether they experience the same financial performance as others.

3. Methodology

3.1 Research Design

The research used a descriptive case study research design with a comparative quantitative analysis to determine the financial performance of SPWI, CPI, and MPI during the pandemic. The descriptive case study helps the researchers determine trends in a given period of time by describing the subject of the study. Case studies also look into collected secondary data to determine the attributes of the detailed subjects. For this research, it is the financial performance of a medium-sized construction company in the Philippines. This allows the researchers to compare the profitability performance of the three construction companies during the pandemic from 2020 to 2021.

Quantitative research is used for this case study as it is ideal to investigate a phenomenon by gathering quantifiable data and performing statistical or mathematical techniques to identify trends and averages and test relationships. The case study collects financial data from existing companies registered with the Securities and Exchange Commission (SEC) with 2020 to 2021 financial statements.

3.2 Data Collection and Ethical Considerations

The researchers requested to investigate the financial statements of the three construction companies under study from 2020 to 2021. These FS are also available upon request from SEC for a fee; however, the company owners agree to use their FS for the purpose of this research only. Additionally, monthly payables, receivables and expenses graphs are disclosed to be included in this research to thoroughly study the financial health of the company. The researchers adhered that no actual cost will be published in this paper but the FS for 2020 and 2021 only.

Following the principles of ethical considerations created by Bryman and Bell (2007), the profitability ratios of the three construction companies were obtained by the researchers with the full consent of the business owners and stakeholders. Moreover, the security of the confidentiality of data shared with the researchers is ensured.

3.3 Research Instrument

The researchers considered the two Profitability Ratios, namely, (1) the Gross Profit Margin and (2) the Return on Asset (ROA). In the study of Darmawan, Jasuni, Putra, & Lestari (2021), the researchers used the horizontal comparative analysis and profitability ratio analysis that includes Basic Earning Power (BEP), Return on Equity (ROE), Return on Assets (ROA), and the Gross Profit Margin. Given the limitations of the available and accessible data, this research study will only focus on the Gross Profit Margin and the Return on Assets (ROA).

The profitability ratio measures the firm's ability to turn gain profit through its sales, assets, or equity. Profitability ratios may be in the form of Net Profit Margin, Gross Profit Margin, Return on Equity (ROE), and Return on Assets (ROA).
The Return on Assets, as Darmawan, Jasuni, Putra, & Lestari (2021) cited Husnan and Pudjiastuti (2015), measures the amount of after-tax profit produced by the company's total assets.

$$\text{Return on Assets} = \frac{\text{After tax profit}}{\text{Total Assets}} \times 100\%$$

Meanwhile, the Gross Profit Margin can be computed to measure the amount of operating profit produced by the sales revenue according to Husnan and Pudjiastuti (2015), as mentioned by Darmawan, Jasuni, Putra, & Lestari (2021).

$$\text{Gross Profit Margin} = \frac{\text{Operating Profit}}{\text{Sales Revenue}} \times 100\%$$

Researchers may use ANOVA analysis to find whether the pandemic period and these profitability ratios have significant relationships. The independent variables can include the Gross Profit Margin and the Return on Assets of the three construction companies, whereas the dependent variables can be the year which happened during the pandemic in 2020 to 2021.

3.4 Research Time Period

As discussed in Chapter 1 and presented in Tables 1 to 3, the time period for this case study is from 2020 until 2021, which covers the period of pandemic. Darmawan, Jasuni, Putra, & Lestari (2021) observed quarterly Financial Statements from 2018 to 2020. Since the available data from the three construction companies are the Annual Financial Statements from 2020 to 2021, the researchers are delimited to observe their annual Gross Profit Margin and Return on Assets (ROA) from 2020 to 2021.

Secondary data is collected from the three companies' actual data from 2020 to 2021 Annual Financial Statements validated by Certified Public Accountants, which will be used in this study.

4. Results and Discussion

This chapter contains the presentation, analysis, and interpretation of the data derived from the financial statements of SWPI, CPI, and MPI from 2020 to 2021. These data were computed based on the formula of Gross Profit Margin and Return on Assets (ROA). The researchers used a descriptive and quantitative approach to analyze and interpret the tabulated results.

Table 1

Gross Profit Margin of SPWI, CPI, and MPI from 2020 to 2021

Company Name	Dec. 2020	Dec. 2021	Acceptable ratio is:	Interpretation
SPWI	19%	22%	more than 2.0	Both Acceptable
CPI	-743%	44%	more than 2.0	Not Acceptable, Acceptable
MPI	91%	5%	more than 2.0	Both Acceptable

Table 1 shows the Gross Profit Margin of SPWI, CPI, and MPI at the end of 2020 and 2021. SPWI achieved an acceptable Gross Profit Margin of 19% in 2020 and increased to 22.00% in 2021. Meanwhile, CPI has got a Gross Profit Margin of -743% in 2020 and

it increased in 2021 with 44%. Lastly, MPI got an acceptable Gross Profit Margin of 91% in 2020 and decreased to 5% in 2021. Among the three construction companies, SPWI and MPI have both acceptable Gross Profit Margins in 2020 and 2021. However, SPWI and CPI have increased their Gross Profit Margin during the pandemic from 2020 to 2021. Nonetheless, only SPWI got both positive and increased Gross Profit Margin for two years. Darmawan, Jasuni, Putra, & Lestari (2021) noted that there are only a few companies that were affected by the pandemic, as evidenced by CPI's Gross Profit Margin in 2020.

Table 2

Return on Assets of SPWI, CPI, and MPI from 2020 to 2021

Company Name	Dec. 2020	Dec. 2021	Acceptable ratio is:	Interpretation
SPWI	3%	30%	more than 2.0	Both Acceptable
CPI	-69%	32%	more than 2.0	Not Acceptable, Acceptable
MPI	54%	-8%	more than 2.0	Acceptable, Not Acceptable

Table 2 shows the computed Return on Assets of the three construction companies. For ROA, a construction enterprise is considered asset intensive. SPWI had an acceptable ROA of 3% in 2020 and peaked at 30% in 2021. CPI got a ROA of -69% in 2020, which is not an acceptable ratio for ROA, but it increased to 32% in 2021. Lastly, MPI had an acceptable ROA of 54% initially in 2020 but went down to -8% in 2021, which is not acceptable. Among the three construction companies, SPWI has the highest ratio of ROA. This implies that SPWI was able to manage its assets and resources efficiently to produce profits during the pandemic from 2020 to 2021. This is Darmawan, Jasuni, Putra, & Lestari (2021)

Table 3

Significant Differences between the Gross Profit Margin and ROA of SPWI, CPI, and MPI

Variables	P-Value	Decision on H0	Interpretation
Gross Profit Margin	0.037	Reject	Significant
ROA	0.003	Reject	Significant

Note: $p>0.05$ Accept H0 (Not Significant); $p<0.05$ Reject H0 (Significant)

Table 3 describes the significant differences between the Gross Profit Margin and the Return on Assets of the three construction companies using ANOVA. Both Profitability Ratios have a p-value that is less than 0.05. This implies that the Gross Profit Margin and Return on Assets of SPWI, CPI, and MPI have significant differences.

5. Conclusion

5.1 Findings and Conclusion

The data shows that there are statistically significant differences between the Gross Profit Margin and Return on Assets (ROA) of the SPWI, CPI, and MPI from 2020 to 2021. While this is true, some companies showed negative Gross Profit Margins and Returns on Assets during the pandemic. SPWI remains to have a consistent acceptable Gross Profit Margin and Return on Assets from 2020 to 2021.

Following Darmawan, Jasuni, Putra, & Lestari (2021), this indicates that there is a high profitability during the pandemic. However, in this study, CPI faced a negative Gross Profit Margin and Return on Assets in 2020. This implies that the company experienced the ill effects of the COVID-19 pandemic on their profitability.

Lastly, comparing the differences in the profitability of the three construction companies, SPWI and CPI both have an increase in the Gross Profit Margins and Return on Assets from 2020 to 2021. Meanwhile, MPI showed a decline in both its Gross Profit Margin and Return on Assets from 2020 to 2021.

5.2 Recommendations

Given the limitations on the data availability, there is an opportunity to look at the years from 2022 onwards to determine whether succeeding years will be as profitable as the construction companies are during the pandemic.

Future researchers may also consider getting Quarterly Financial Statements that may also give the Basic Earnings Power (BEP), Return on Equity (ROE), Return on Assets (ROA), and Gross Profit Margin to closely replicate the methodology of Darmawan, Jasuni, Putra, and Lestari (2021).

Since the results show a general increase in profitability ratios during the pandemic from 2020 to 2021, future researchers may also look at the factors that have a significant influence on how construction companies thrive during the pandemic amidst the decline in GDP and GVA at that time.

5.3 Study Limitations and Future Suggestions

The research study only identified three medium-sized construction companies in the Philippines for comparative analysis due to the limited timetable and available data. It is recommended that future studies may involve a higher number of construction companies as subjects to provide more detailed observation and a more accurate analysis.

In terms of the data, the research study uses Annual Financial Statements from 2020 to 2021 to derive the profitability ratios. The researchers recommended that future researchers request and gather quarterly data from the companies that will be the subject of the study.

Lastly, the timeline considered in this research study is during the pandemic, which is from 2020 to 2021. It is recommended that future researchers consider comparative analysis before, during, and after the pandemic, considering that business operations are now getting back to their regular operations.

Funding: This research received no external funding.
Conflicts of Interest: The authors declare no conflict of interest.
Publisher's Note: All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers.

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