Working Capital Turnover Ratio: A Managerial Perspective

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ABSTRACT

This study aims to introduce another perspective to better understand working capital turnover ratio – a financial ratio that has been widely used in assessing working capital efficiency of a company. Using a true experimental and a simulation design method like simple business transactions, we find that this formula gives different figures. Management, therefore, may need to aware that the working capital turnover might be beneficial for analysts, but it may be not for financial managers. It provides different meaning as well as its relevancy for money management.

Keywords*:* Working Capital Turnover, true experimental, simulation design, efficiency performance**.**

INTRODUCTION

Working capital turnover ratio simply defined as the ratio of net sales to average working capital. In various financial management literature, the higher this ratio the more efficient a company is (Hayes, 2021). In more detail, companies that have a greater working capital turnover ratio are more efficient in their operations and revenue generation. Working capital efficiency is a measure that indicates how a firm balances the amount of capital blocked in receivables and inventories with its payables on purchase of inventories (Prasad *et al.*, 2019). In addition, effective working capital management is of great importance for the firms in order to carry out their daily operations flawlessly, to ensure adequate profit, to avoid the difficulty in paying debts and to have a high competitive power against competitors in the sector (Ceylan, 2020). A high turnover ratio shows that management has used its short-term assets and liabilities efficiently to increase sales. Short-term assets mainly are cash, receivables and supplies.

Interestingly, in some points, in assessing working capital turnover ratio, cash, accounts receivable and inventory turnover ratio are always calculated separately. The problem arises in this case is that these three elements of working capital are interrelated. For example, when the value of goods decreases as a consequence of sales increase, the inventory turnover ratio may result in higher ratio, however, it does not necessarily mean that the receivables and cash turnover ratios produce higher value as well, because part of the denominator, that is the cash or receivables balance, will increase. This is the importance of this concept to be evaluated, because it is possible that one element of working capital has a higher turnover ratio, but at the same time the composition of the other two elements of working capital is not optimal. As a result, the company management might be considered has poor performance in managing its working capital.

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METHOD

We applied a true experimental design and a simple simulation to evaluate working capital turnover ratio; and to seek for the true information provided. To do this, we did a series of experimental activity through purchasing and selling 2 to 3 items of products. Working capital turnover ratio that we obtained in each experiment; we kept it and then we went to another one. Following this, we simplify this experiment through a simulation. We did not only use the balance sheet figures as it is widely used so far (Park, 1952). Figures of ratios we obtained, then we confirm them with the transactions we made.

We calculate working capital turnover ratio by dividing total sales during a certain period of time with the average current assets for each item separately. The time period used in a three-times experiments were varying, whereas the data simplification for this publication is 10 days. This first experiment was conducted to test the concept of working capital ratio as a whole; and at the same time, we tried to seek its relationship with cash turnover, receivables turnover and inventory turnover individually using sensitivity analysis or what-if analysis. This analysis aims to see the changes that occur in working capital turnover as a whole and the turnover of each working capital component (cash, receivables and inventory) over a certain period of time.

To make it clear and understandable, we simplify our experiment into a simulation or scenario. The scenario will be shown and explained in the findings section.

FINDINGS

This study is conducted under a series of experiment by implementing trial and error. To make it clear for readers, we then come up with a scenario. Scenario in this study represent assumption and simple transactions that form elements of working capital. Therefore, working capital that was previously only in the form of cash, had been converted into inventory account through purchasing of goods, and receivable account through sales credit. In addition, to test the truth of working capital turnover ratio, we refer to the generally accepted formulas of working capital turnover.

We use following assumptions and transactions for the scenario.

1. The form of business used is a trading business.
2. Cash are fully rotated
3. All purchased goods are sold out during the specified time period of 10 days.

Transactions for the Scenario

Suppose we have a company with its 10 days operations in June 2023.

1/6/2023 Opening Balance of Cash IDR 5,000,000,000.00

3/6/2023 Purchase of 1,000 units of item A worth IDR 5,000,000,0000.00 is made in cash.

7/6/2023 Sales of 1,000 units of item A worth IDR 6,000,000,0000.00 is made in credit.

Based on the above assumptions and the simple transactions, then we calculated and summarized ratios for each element of working capital using spreadsheet application as it is shown below. Figure are presented in thousands.

B	C	D	E	F	G
Working Capital Elements	**Opening Balance**	**Increase**	**Decrease**	**Ending Balance**	**Average Balance**
Cash	5.000.000,00	0,00	5.000.000,00	0,00	2.500.000,00
Receivable	0,00	6.000.000,00	0,00	6.000.000,00	3.000.000,00
Inventory	0,00	5.000.000,00	5.000.000,00	0,00	0,00
Total	**5.000.000,00**	**11.000.000,00**	**10.000.000,00**	**6.000.000,00**	5.500.000,00
Total Sales	6.000.000,00			Cash Turnover Ratio (times)	2,00
Cost of Sales	5.000.000,00			Receivable Turnover Ratio (times)	2,00
Gross Profit	1.000.000,00			Inventory Turnover (times)	Undefined
				Working Capital Turnover Ratio (times)	**1,09**

Interpretation

In practice, external parties or analysts usually only use these figures as a tool to measure the company's financial performance in terms of how efficient its working capital is. From the figures, it is clear that cash and receivables have rotated 2 times each, while working capital in total is only 1.09 times. This formula and interpretation may be true for analysts, but not for management, especially financial managers.

If we look back at the transactions, it is clear that cash and receivables were rotated only once each, not 2 times as indicated by this formula. We then analyse further, a ratio of 1.09 average working capital. In reality, all these elements rotated only once. The value of 0.09 indicates the surplus value or profit gained from the use of working capital, rather than indicating the number of times working capital has rotated.

Learning from this simple experiment, the working capital turnover might be beneficial for analysts, but it may be not for management. This is not only for its inaccuracy, but also its relevancy for management. This finding supports previous research and experience of John Sagan from Ford Motor Company (Sagan, 1955). In more detail, Sagan explained that "While the basic working capital ratios are important to the financial analyst or to the creditor, they are of less importance to the money manager. The money manager's responsibility is to provide funds as needed and to invest funds as available require that his operations be based on cash flows and the total current asset position rather than on any of the usual working capital tests. From an operational viewpoint, the money manager may be able temporarily to postpone borrowing even when his net working capital position is low if the liabilities, such as tax liabilities or other payables, are not immediately due." Dealing with funds for liquidity and profitability in this term, could be a financial strategy for financial manager of a company (Owolabi, 2014).

Therefore, working capital turnover might be important in some extents, but from managemet perspectives, how company's working capital is managed to meet liquidity purpose and at the same time to generate future profits, is the most critical one.

CONCLUSION

It is critical for management to aware that the figure presented in working capital turnover ratio is not the only

factor that influenced efficiency of working capital. How company's working capital is managed for liquidity and future profitability purposes is the key for management. In a certain condition, perhaps, the cash turnover of the company might be lower as the financial manager need to spend more cash in order to obtaining a particular product or service which contributes much profits in the near future.

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