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The Effect of Working Capital on Firm Financial Performance Management in The United Republic of Tanzania

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The efficient management of working capital is very vital for business survival and thus a factor for an overall boost in profitability. The study analysed the effect of working capital management on a firm's financial performance, a case of seven selected manufacturing firms in Tanzania listed with the Dar es Salaam Stock Exchange for the period from 2011 to 2020. The paper adopted secondary data from the annual reports of selected manufacturing firms in Tanzania. Purposive sampling techniques were used to select annual reports for investigation, and data were collected from the financial statements of the selected manufacturing firm. The results of the study indicated that the average Collection Period has an insignificant and negatively association with Financial Performance. Moreover, the study revealed that Inventory turnover in days was insignificant and negatively related to the financial performance (ROA) of the manufacturing firms. The study concludes that Finance Managers can improve the profitability of their firms by reducing the credit period granted to their customers, and this can be achieved through prompt collections of accounts receivables and delaying payment of accounts payables or average payment periods and investing the money in different profitable ventures.

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INTRODUCTION

The efficient running of working capital is an imperative aspect for any business to survive and thus a key performance indicator for a firm's performance (Mtani & Masanja, 2018). This study intends to find out if there is a relationship between working capital components such as average collection period, average payment period, and inventory turnover in days with firms' performance, specifically, manufacturing firms in Tanzania listed with the Dar es Salaam Stock Exchange. Financial performance will be measured by using Return on Asset (ROA).

Working capital management decisions become one of the most important decisions for any business and so it needs to dedicate more attention to dealing with, regardless of its size, nature, or type of ownership (Korent & Orsag, 2018; Dinku, 2013). The effect of working capital management cannot be abandoned during firm financing due to its impact on firm profitability and liquidity (Aktas *et al.*, 2018). In addition to that, current assets take a large part of the assets, and working capital management turns out to be very important and so needs to be taken with caution (Arunkunar & Ramanan, 2013). The firm should have an efficient working capital management policy as a strategy to reach the shareholders' profit maximising goal. Similarly, as stated by Eljelly (2004) and Napompech (2012), firms need to take different control measures that ensure that the working capital requirement is such that neither have too many current assets (that could be invested in viable long-term assets) nor to have inadequate current assets (which may deter the firm from meeting its short-term obligation and also fail to benefit from the best paying opportunities). By having too many current assets will lead to unnecessary holding and

inventory handling costs (Ponsian *et al.*, 2014). However, insufficient investment in inventories, trade receivables, or cash may cause challenges for the firm in meeting its operating costs and that reduces the sales and profit level in the long run (Deloof, 2003 and Erasmus, 2010). Maintaining the trade-off between liquidity and profitability is the move to profit maximisation (Uchenna *et al.*, 2012).

The survival of the firm is influenced by an effective working capital management policy that leaves the firm to continue with the operation and solvency (Evci & Şak, 2018). Given the above circumstance together with the fact that other sources of financing for the firm are scarce, it has become imperative therefore for businesses especially manufacturing firms in Tanzania, to efficiently manage their working capital to become profitable.

From this point of view, the study will attempt to enhance the knowledge of financial managers and contribute to the extant literature by investigating how profitable manufacturing firms in Tanzania listed on the Dar es Salaam Stock Exchange covering the period from 2011-2020 manage their working capital. Proper working capital management ensures that the company increases its profitability and, thus, the existence of that firm in the market (Ganesan, 2007). Working capital management is important as a lever for freeing up cash from inventory, accounts receivable, and accounts payable. By effectively managing these components, companies can sharply reduce their dependence on outside funding and can use the released cash for further investment and acquisition (Van Horne, 1998).

In spite of its importance, estimating working capital management on firm performance is still measured by mere intuitive judgment, which does not guarantee accuracy and results in either wasteful

use of resources or insufficient financial resources to ensure efficient production and increasing sales (Samwel Wilkes, 1983).

Different studies have been conducted in developed and emerging economies and have dealt with the investigation of the effect of working capital management on profitability of different natures of business concerns, but they have not explicitly focused on manufacturing firms. For example, the study by Waithaka (2012) researched the effect of WCM (Working Capital Management) on the performance of agricultural companies listed in the NSE (Nairobi Stock Exchange). Using correlation analysis, she established that there was a positive relationship between WCM and the profitability of an agricultural firm; however, the research was on agricultural firms listed in the NSE. Similarly, the study by Chatterjee (2010) who shown the relationship between working capital management practices and the profitability of listed firms on the London Stock Exchange. Using a sample of 30 UK firms and employing the Pearson correlation data analysis technique, the study confirms a significantly negative association between profitability and working capital management variables.

It is important to investigate the impact of working capital management on a firm's financial performance, specifically manufacturing firms in Tanzania, since are no studies that have attempted to establish the impact of working capital on firm performance especially manufacturing firms in Tanzania. The study attempts to fulfil the knowledge gap by identifying the ways that manufacturing companies properly manage their working capital in order to increase profitability.

Return on Assets

Return on assets (ROA): this is the ratio of net income (annual) divided by the total assets (Average) of a business during its financial year. It explains the performance and progress of the business in utilising its resources to generate income. It is a profitability ratio. The formula to calculate return on assets is total annual net income divided by the average total assets during a financial year. It is expected that the increase in return on assets fosters the performance of firms (Gitman,

2005). The researcher expects that if the ratio is maintained at a higher level, it will reflect a positive relationship with working capital components.

Average Collection Period

Average Collection Period (ACP) indicates the average collection period the company takes to collect their money from their customers. It is calculated by dividing Account receivable by Sales and multiplying the result by 365 days. The previous studies indicate that the average collection period has a negative relationship with the profitability of a firm. (Nzioki et al., 2013). These findings imply that firms early in collecting their receivables earn higher profits as compared to firms recovering receivables late. That if manufacturing companies are able to collect receivables within a short period, then the receivables will be efficiently managed and hence may increase profitability. The researchers in this study therefore expect that the average collection period to have a significant negative relationship with firms' financial performance.

Inventory Turnover in Days

Inventory Turnover in days (ITID) measures the number of days it will take a company to sell its entire inventory. In other words, it shows how many days a company's current stock of inventory will last. It is calculated by dividing inventory by the cost of goods sold and multiplying by 365 days. The study conducted by Raheman and Nasr (2007) reported a negative relationship between inventory turnover in days and profitability. This implies that inventory turnover in days should be shorter to enable the company to recognise a higher profit. It is expected that the company will be recognised to be profitable and managed well if it is able to turn its inventory into revenue in a short period and vice versa (Abdulrasheed *et al.*, 2011)

Keynesian Liquidity Preference Theory

The theory that supports the study of working capital management approaches is the Keynesian liquidity preference theory by economist John Keynes in 1936. This theory discusses that when all other things are kept constant, investors prefer liquid investments to illiquid ones and will always demand a premium for investments that have longer

maturity periods. According to this theory, people hold cash or inventory for transaction, speculative, precaution, and compensation motives. The need for working capital to run day-to-day business activities cannot be overlooked. Firms have to invest enough of available funds in current assets for the success of their operations (Pandey, 2010; Abbasali & Milda, 2012).

Aggressive Theory

This theory is convenient where the firm plans to take high risk and where short-term funds are used to a very high degree to finance current and fixed assets. This approach is described by low-interest rates. However, it is important to note that the risk associated with short-term debt is higher than with long-term debt. This applies mostly to most companies or firms which operate in a stable economy and is quite certain about future cash flows. A company with an aggressive working capital policy offers short credit periods to customers, holds minimal inventory, and has a small amount of cash in hand. This policy increases the risk of defaulting due to the fact that a company might face a lack of resources to meet short-term liabilities but also give a high return as it is associated with high risk (Pandey, 2010).

DATA AND METHODOLOGY

The paper adopted secondary data from seven annual reports of manufacturing firms in Tanzania which are listed by the Dar es Salaam Stock Exchange (DSE). Purposive sampling techniques were used to select annual reports for investigation and data were collected from the financial statements of the selected manufacturing firms.

Table 1: Descriptive Statistics of variables

Variable	Mean	Std. Dev.	Min	Max
ACP	45.8714	27.4949	5	118
ITID	132.357	77.3393	22	346
ROA	14.9061	6.76136	0.53	39

Average Collection Period and Financial Performance

Figure 1 indicates trends of the average collection period for four companies which are Tanga Cement,

RESULTS AND DISCUSSIONS

With regard to insufficient resources such as time and other important resources, this paper constrained itself to examine only two factors, namely: Average collection Period Inventory turnover in days.

Description of the Data

Table 1 indicates that the minimum value for ROA was 0.53% while the maximum value was 39%, meaning that the firm with a high ROA indicates good performance. Moreover, on average, firms collect their receivables in 46 days with and standard deviation of 27 days which shows a huge variability in collecting their receivables. The data in the table also indicate that the minimum time taken for a firm to collect their receivables is five days while the maximum time is 118 days which is beyond the standard of 30 days as per audited financial statements of these firms. The longer period implies that the firm will not be able to meet short-term obligations as more funds have been taken out and hence may face liquidity problems. Meaning that the longer the ACP the higher the possibility of a firm facing liquidity problems and hence may influence the poor financial performance of the firms.

Similarly, inventory turnover for a firm to sell their inventory indicates 132 days with a standard deviation of 77 days; this implies that inventory was kept in store for a longer period without being sold and thus suggests a poor financial performance as the firms may face both short term and long-term liabilities.

TBL, TATEPA, and TCC. The trend for Tanga Cement Ltd, for instance, indicates that between 2016 to 2018, the ACP was very high compared to other periods; this indicates a long period was taken by the company to collect receivables from their

customers; hence its performance in term of profit was marginally very low. From the year 2018 to the year 2020, the ACP started falling, meaning that few days were taken by the company to collect their receivables hence improving its financial performance as the firm was better in terms of liquidity to meet its liabilities.

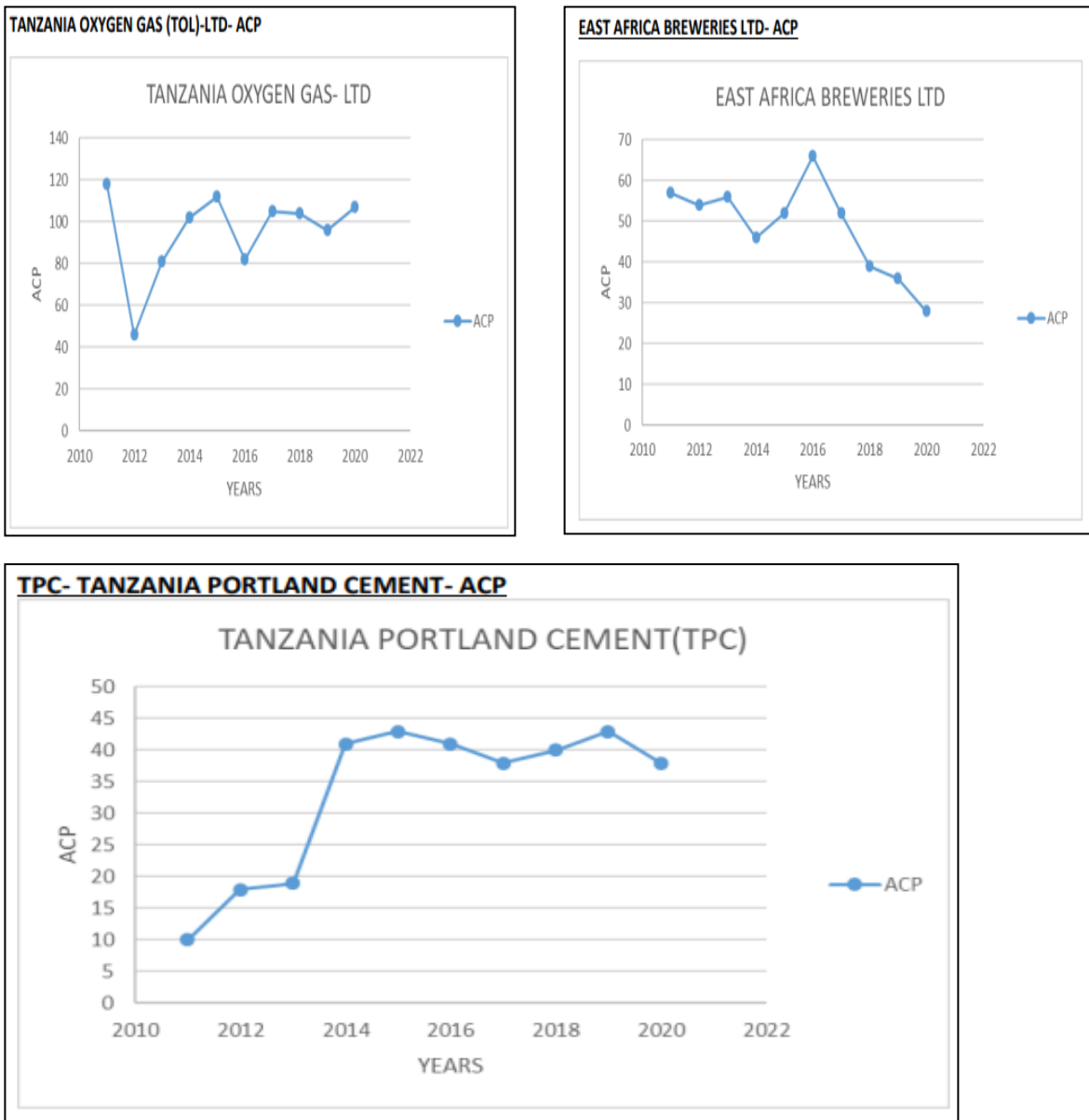
For the case of Tanzania Breweries Ltd, as indicated in *Figure 1*, the trend for ACP showed a steady increase for the period between the year 2011 to 2016 and a falling trend for the period between the years 2016 to 2020. This implies that Tanzania Breweries Ltd was marginally performing poorly in terms of profit in the period between years 2011 to 2016 since the collection period of their receivables was increasing. From the year 2017 to 2020, the ACP started falling, meaning that few days were taken by the company to collect their receivables hence improving their performance.

The trend for ACP for TATEPA and TCC as indicated in *Figure 1*, show that the period between the year 2014 to 2020 for both companies reflected a growing trend which implies that ACP for both firms was very high and hence poor performance in term of profit.

Likewise, *Figure 2* indicates trends of the average collection period for three companies which are TOL, EABL, and TPC. The trend for TOL and TPC indicates that ACP was very high between the period 2014 to 2020, hence implying that both firms used a long period to collect their receivables and, therefore, their financial performance was poor in terms of profit. ACP trend for EABL indicates that between periods from 2015 to 2016, the ACP was very high, meaning that their performance was very low.

Figure 1: Average Collection Period for Tanga Cement, TBL, TATEPA & TCC



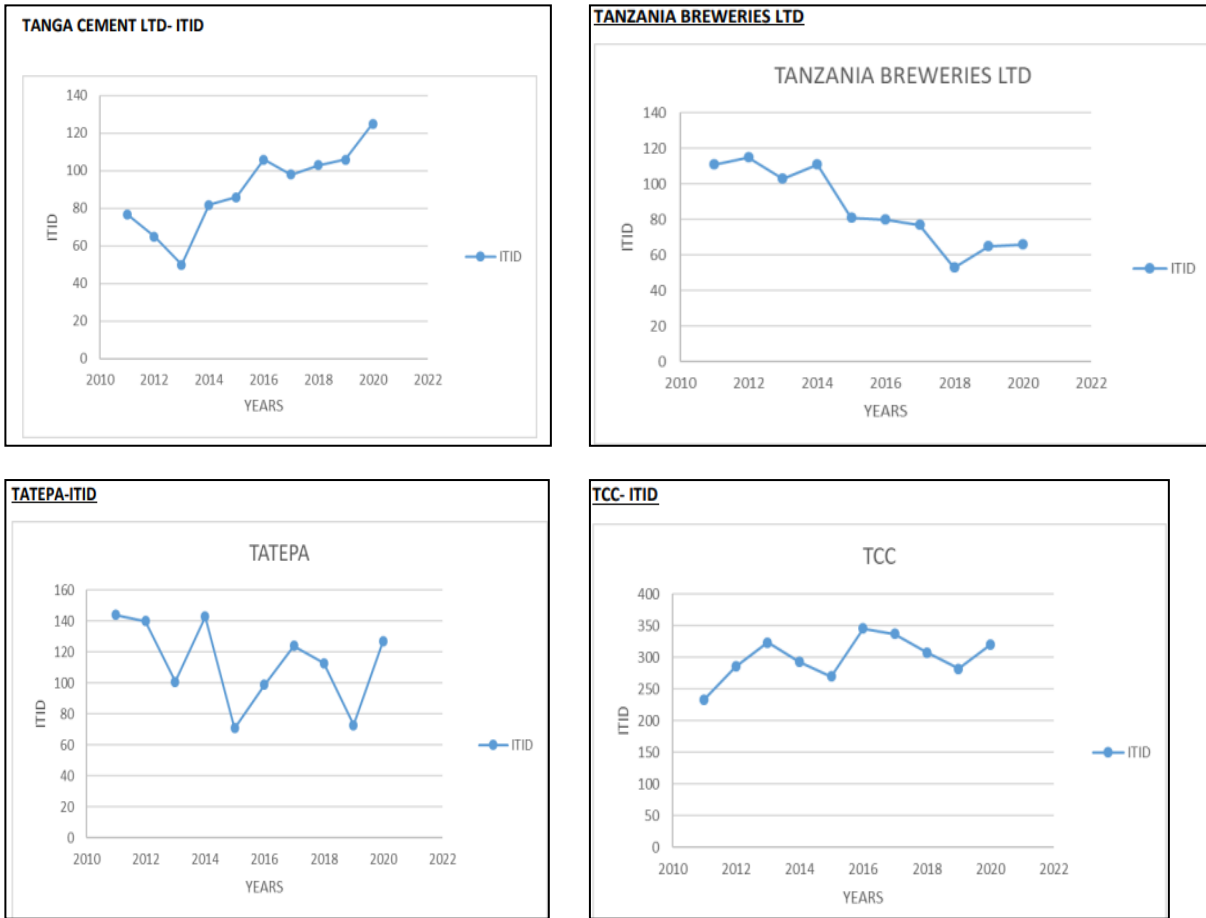
Figure 2: Average Collection Period for TOL, EABL and TPC

Source: Research Data, 2022

Inventory Turnover Days and Financial Performance

Figure 3 indicates the trend of Inventory turnover in days for four companies which are Tanga cement, TBL, TATEPA, and TCC. The trend shows an increase in ITID for Tanga Cement Ltd, TATEPA, and TCC for the period between the years 2011 and

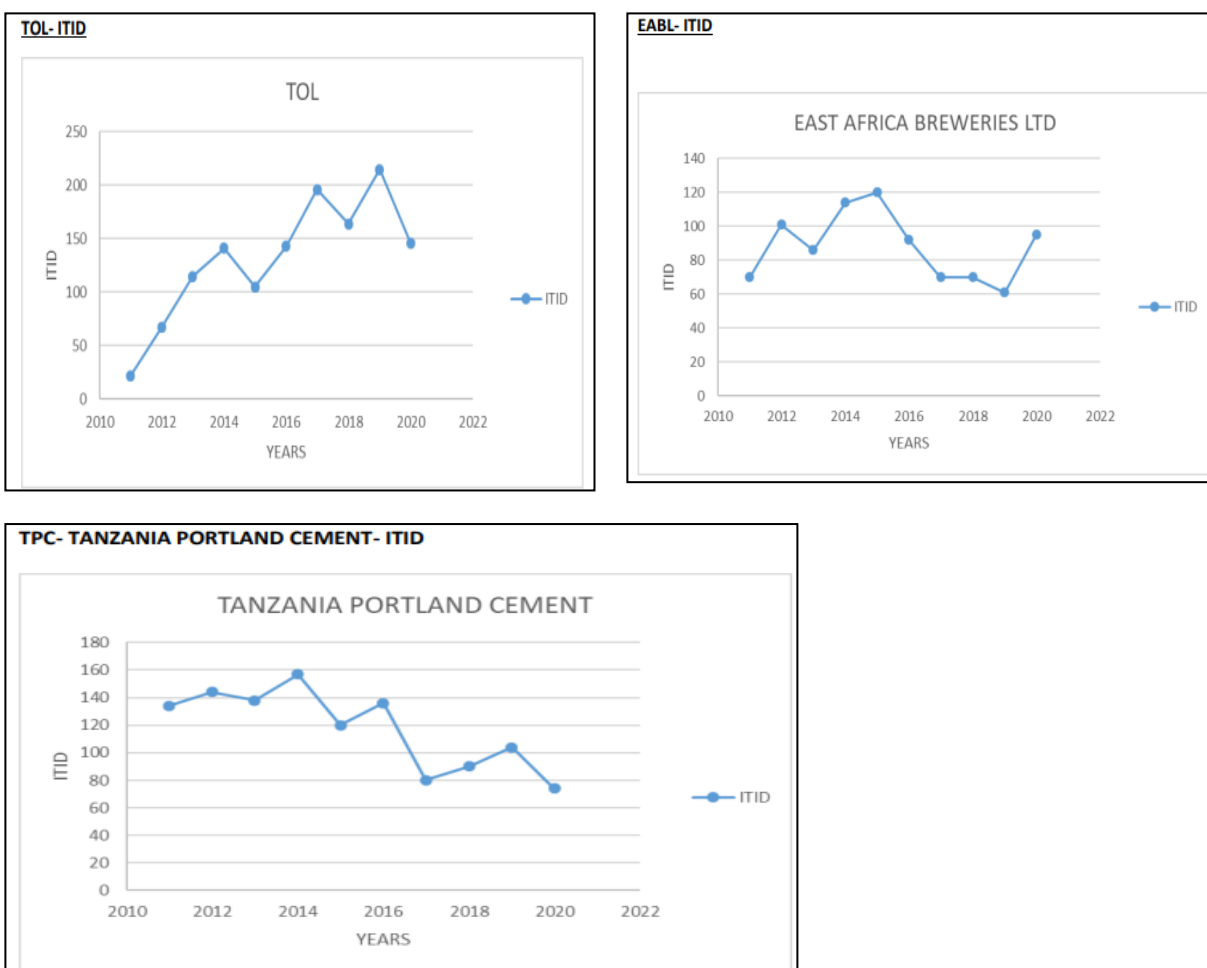
2020, meaning that these firms used a long time to store their inventory before being sold to their customers. This implies that more cost might be used to store their inventory and hence bad performance. For Tanzania Breweries Ltd, their trend shows a decrease in ITID for the period, which indicated that it managed its inventory well and hence performed better than other companies.

Figure 3: Inventory Turnover In days for Tanga Cement, TBL, TATEPA and TCC

Source: Research Data, 2022

Figure 4 indicates the trend of ITID for three companies which are TOL, EABL, and Tanzania Portland Cement. The trend of ITID for TOL and EABL for the period between the year 2011 and 2020 indicate an increase in ITID, meaning that these companies took a long time with their inventory before being sold to their customers. This

implies that they used more financial resources in handling their inventory and hence were poorly performed. Tanzania Portland cement was the only company which showed a decreasing trend for the period from 2014 onwards, meaning that it handled better inventory hence performed well in terms of profit

Figure 4: Inventory Turnover in days for TOL, EABL and Tanzania Portland cement

Source: Research Data, 2022

CONCLUSION AND IMPLICATIONS

This paper recognised vital management practices that are projected to assist managers in identifying areas where they might recover the financial performance of their operations. The results have provided owners and Managers with information concerning the basic financial management practices used by their peers and their peer's attitudes towards these practices. The results point out that slow collection of accounts receivable is associated with low profitability. Financial Managers can achieve better profitability by dropping the credit period granted to their customers. Additionally, managers can improve profitability by increasing the cash conversion cycle days. This can be achieved through prompt collections of accounts receivables and delaying

payment of accounts payables or average payment period and investing the money in different profitable ventures or areas. In addition, the current ratio should always be higher, which implies that current assets are able to recover the current obligations.

The delaying of accounts payable should not be to the extent of tarnishing the goodwill of the organisation but should be reasonable to accommodate all the needs of those firms. Too many delays may imply that the firm is in a financial crisis, and therefore suppliers may refrain from extending credit. The study also concludes that effective working capital management has a great impact on the financial performance of the firm.

DISCLAIMER

The products used for this research are commonly and predominantly used products in our area of research and country. There is absolutely no conflict of interest between the authors and producers of the products because we do not intend to use these products as an avenue for any litigation but for the advancement of knowledge. Also, the research was not funded by the producing company rather it was funded by personal efforts of the authors.

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