
Iklimatu Adamu Umar1, Ibrahim Hussain2 and Abubakar Yahaya Halad3
1Department of Accounting, School of Business Studies, Federal Polytechnic, Bauchi, Nigeria
2Department of Accountancy, Yobe State University, Damaturu, Nigeria
3Department of Accounting and Finance, Abubakar Tafawa Balewa University, Bauchi, Nigeria

Corresponding Author: ibbhus@gmail.com

ABSTRACT

Working capital management is very important for the survival of a company no matter the size of that company. Inadequate working capital or illiquidity is a major issue confronting many Nigerian companies. The main objectives of this study is to review the impact of working capital management on profitability. The variables used in the study were cash conversion cycle, accounts receivable, inventory, and accounts payable proxies to working capital management while, return on equity and return on assets as proxies to profitability. The study adopted a conceptual approach where data collected from already existing data on the impact of working capital management on profitability. It is quite clear that a positive correlation exists between working capital management and firms’ profitability. Finally, a company which maintains sufficiently low inventory levels will reduce the holding cost of the inventory which results in higher profitability. The management of companies should improve their cash conversion cycle, focus more on credit transactions with their vendors, and decrease their receivables days’ by offering a discount to those who paid early and those paid in advance, and should maintain optimum level of inventory in order to maximize their profitability.

Keywords: profitability, working capital, working capital management

I. INTRODUCTION

The major important aspect in any organization is to manage business effectively and efficiently to generate maximum returns. Profitability is when a company make or earn a profit, and it is a measuring tool for the efficiency activities of the company and ability to generate profit. Profitability of a firm disclose only when they are capable of making a profit from using available resources (Nguyen et al., 2020). Profitability is very vital for every company, where a company is unable to earn a profit the business will collapse. While if a company is able to use the resources efficiently, it will lead to profitability (Philip, 2015). Working Capital (WC) represents the available resources of a company that changes from one type of resources to another during day-to-day operation of the company (Omo, 2011). The administration of current assets which has an accounting year to convert into cash and current liabilities which is payable within a year and the relationship among the two may be considered as working capital management (Banos-Caballero et al., 2019). Without proper working capital it is not easy to run the activities of a company in a smooth way (Bagh et al., 2016 & Ponsian et al., 2014). Excessive investment in working capital can harm the profitability and value of the company (Aktas et al., 2015). Adequate working capital should be kept for running day to day activities of the company (Ousdina, 2014).

Working Capital Management (WCM) is the procedure of how company is regulating and holding the level and combining the current assets and current liabilities. It also ensures a company has adequate cash flow to meet its current liabilities and operating activities (Tarik, 2020). According to Ebben and Johnson (2011), WCM has increasingly been measured by cash conversion cycle. In the same vein, Ademola (2014) asserts that cash conversion cycle is the most appropriate variable for measuring working capital management, because it considers all components of working capital. Tauringana and Afrifa (2013) assert that efficient working capital management has been identified as a vital component to the success and survival of firms. WCM is involved in the management of company’s short-term capital, (daily funds required by a company for daily operations) which consists of current assets and current liabilities. Current assets including cash, accounts receivables, accrued income, inventories, prepaid expenses and other short-term investments which can be converted into cash within a year (Monica, 2017). The effective and efficient management of working capital necessarily passes through the analysis of its determinants, namely liquidity, credits, stocks and debts (Sanchez & Sensini, 2017, & Mannetta et al., 2013). WCM is an
important companies’ financial decision because the control and management of working capital, needs more attention to affects the profitability of the company directly. Effectiveness management of working capital resulted to companies’ profitability (Omo, 2011). Working Capital management directly affects the liquidity and profitability of a company (Almazari, 2013). The managing working capital is an important aspect, since it influences both liquidity and profitability of the company (Bagh, et al., 2016). Moreover, due to some issues such as in proper working capital, excessive investment in working capital, lower cash flows are the major challenges that can harm the profitability of many companies. Working capital management is very important in any organization hence, the need for a proper management of working capital in order to increase profitability of a company.

II. LITERATURE REVIEW

Financial performance is a general measure of a company’s overall financial health over a given period of time, and can be used to compare similar companies across the same industry or to compare industries or sectors in aggregation (Maymand, 2014). Machiuka (2010) argues that the analysis of financial performance reflects the financial position of the company, the level of the competitiveness in the same sector, and a thorough knowledge about the cost and profit centers within the firm.

Profit is a basic plan of organization to carryout designed policies and activities to achieved objectives (Olaoye, et al., 2019). Profit maximization is the main goal of any organization (Puspa, 2019). Financial performance is an important construct in financial management research, because it portrays the management’s efficiency in resources utilization to profits.

Profitability is the most important activity which could assessed the success and efficiency of assets for the survival of the company (Choong, 2011). Profitability is very vital for companies, when a company is unable to earn a profit the business will collapse, while if the resources used efficiently it will lead to profitability (Philip, 2015). Profitability is a company’s determination and depend on how working capital managed (Uguru, et al., 2018). Profitability assesses the effectiveness and efficiency at which equipment, plant, and current assets are transformed into profit (Olaoye et al., 2019). Kwadwo and Godfred (2018) viewed Profitability as the ability of a company to make or to earn a profit, and is the excess of revenue over expenditure. and further explained that it is a measuring tool for the efficiency activities of a company and the ability to generate profit. Profitability is the rate of return on investment (Ponsian et al., 2014; Husain & Alnefaee, 2016; & khalid, 2018).

2.1 Proxies of Profitability

Measures of profitability, previous studies used various profitability proxies in examining the relationship between working capital management and profitability. Financial managers can determine improvement in firm’s profitability by considering changes that occur in the retained earnings, various reserve and surplus. According to Uguru et al., (2018) profitability is determine by the company and depend on how working capital is managed. Kurawa (2011) as cited in Ojeani (2014) explains that, turnover in working capital components result to profit. The faster the turnover, the more the profit will grow. He further asserts that profitability can best be measured in terms of Return on Assets, Returns on Equity as well as Returns on Capital Employed.

2.1.1 Return on Equity (ROE)

Return on Equity (ROE) This measures the rate of return on the owners’ equity employed in the firm (Pandey, 2015). ROE indicates how well the firm has used the resources of owners. ROE is measured as earnings after interest and tax divided by total equity (Azam & Haider, 2011). Alsulayhim (2019) Indicated that ROE is the most commonly proxy in examining working capital management & profitability. ROE has been used by many researchers (Azam & Haider, 2011; Samiloglu & Akgun, 2016; Siraj et al., 2019). Therefore, Return on Equity is a ratio that measures how firms has used the resources of shareholders.

2.1.2 Return on Assets (ROA)

Return on Assets (ROA) This ratio measures the firm’s profits obtained in relations to the assets that are used (Mbithi, 2013). It measures the efficiency of management in generating profits from the firm’s assets and is calculated by: ROA=Net income before taxes / total assets) ROA has been used by many researchers (Shah & Gujar, 2018; Islam & Layth, 2021; Rahman & Saima, 2018; Muhammad et al., 2016; Bui, 2016; Gul et al., 2013; Sharma & Kumar, 2011; Mohamad & Saad, 2010).
2.2 Working capital

Working capital is basically the needed part of asset by a company in current operations (Omo, 2011; Osundina, 2014; Akindele & Odusina, 2015). Hadri and Ahmad (2018) stated that working capital is the complete funding by the company in current assets within accounting year. WC is the excess of current assets over current liabilities (Almazari, 2013; Agbi & Yusuf, 2017). Fareed (2014) also pointed out that working capital could be defined as the excess of current assets over current liabilities.

2.2.1 Working Capital Management

Working Capital Management is a tool used to immunize corporations from financial upheavals and when managed strategically can improve a company’s competitive position and profitability (Gill, 2011). The administration of current assets which has an accounting year to convert into cash and current liabilities which is payable within a year and the relationship among the two may be considered as working capital management (Banos-Caballero et al., 2019). the main goal of the WCM is to guarantee that the firm will cover all their operating expenses and continue to be able to pay the short-term responsibilities (Ukaegbu, 2014). Working capital management covers all decisions that have an impact on current assets and liabilities and consequently on corporate liquidity (Sensini, 2020). WCM focuses on managing current assets and liabilities and try to reach the optimal level of each component through managing cash, inventories, account receivables and payables (Aregebeyen, 2013). The main purpose of the working capital management is to ensure that the company possesses sufficient cash flow in order to continue its operations by minimizing the risk of the inability to pay its short-term debts (Mansoori & Muhammad, 2012).

2.2.2 Components of Working Capital Management (WCM)

2.2.2.1 Account Payable

Account payable is the highest single type of short-term debt, indicating about 40 percent of the current liabilities of the average non-financial firms (Naeem et al., 2014). Falope and Ajilore (2009) opined that firms could increase their profitability by having a longer payable period since it helps firms to strengthen long-term relationships with their customers. Therefore, if the account payable period increases, it may cause the company to lose its suppliers. Thus, companies should retain good relationship with their supplies at the time keep optimal working capital management. (Ponsian, et al., 2014, & Pandey, 2015). Management of account payable entails firm’s capability to ensure maximum cash flow into its operation by prolonging it obligations as reasonably possible and maintain positive credit worthiness.

2.2.2.2 Account Receivables

Account Receivables management is a significant component of any organization’s working capital management (Divya et al., 2017). The management of accounts receivable is largely influenced by the credit policy and collection procedure of a firm (Okpe & Duru, 2015). Accounts receivable represents the rate at which the firms collects payments from its customers (Sharma & Kumar 2011). Therefore, the purpose of account receivable management is to minimize the time-lapse between completion of sales and receipts of payment from the debtors.

2.2.2.3 Cash Conversion Cycle

Cash Conversion Cycle is the measuring time for operating working capital cycle which a company engaged, it is the difference in time of cash outflow for procurement of raw materials and cash inflow through the sale of goods produced (Monica, 2017). Companies with shorter CCC period will be able to collect the needed cash for daily operations without external funding’s and the companies’ profit will increase (Mias, & Retno, 2016) CCC shows the period between payment and receiving of cash. It is assessing by measuring the inventory conversion period and the receivable conversion period, less the payables conversion period (Mathuva, 2010; & Amarjit et al., 2010; Ponsian et al., 2014). CCC is a cash cycle that shows the period needed by companies to convert their cash outflows to cash inflows. (Hien Tran et al. 2017) CCC was measured as the number of days of account receivable (AR) plus number of days in inventory (INV) minus number of days of accounts payable (AP) (Kwadwo & Gogfred, 2018). Usually firms sometimes acquire inventory on credit, which results in accounts payable, and sell on credit, which results in accounts receivable. Cash therefore is not involved until the company collects its debts and pays its credits.

Inventory Inventories are often in the form of raw materials, works in progress or finished goods. To improve working capital efficiency, management needs to balance the inventory for sales and having less inventory as well. inventory management is to lessen the cost of inventory without initiating distraction in the production. (Ponsian, et al., 2014, & Akinsulire, 2014). Because of the significant proportion of inventory to current assets, manufacturing companies committed huge financial resources to it (Mittal et al., 2014). Aminu (2012) asserted that efficient management of working capital through proper and timely inventory management ensures a balance between profitability and liquidity trade-off. Management of inventory is very essential to the success and growth of a business concern. Isaksson and Seifert (2013) opined that a well-managed inventory gives organization a competitive advantage and result in superior financial performance. Banos et al.,
(2010) suggested that lower level of inventory may increase profitability because the funds not tied up in inventory can be deposited in the bank to earn interest or invested elsewhere. Therefore, the objective of inventory management is to ensure optimum level of inventories is maintained for continuous production that will satisfies the amount of firm’s sales at a minimum carrying cost and financing.

2.2.3 Working Capital Management and Profitability

2.2.3.1 Cash Conversion Cycle and Profitability

When the cash conversion cycle increases it will lead to an increase in profitability, and also When the cash conversion cycle increases the profitability of a company will also increase (Ponsian et al., 2014). CCC is measured according to Mansoori and Muhammad (2012) as Accounts Receivables Period (ARP) plus Inventory Conversion Period (ICP) minus Accounts Payables Period (APP). Azam and Haider (2011), Almazari (2013), Iqbal et al., (2014), Khalid et al., (2015), Husain and Alnefaee (2016), Mbawuni et al., (2016), Oyedele et al., (2017), used cash conversion cycle on profitability and their studies prove a significant negative relationship with profitability, while Sharma (2011), Ponsian et al., (2014) and Nastiti et al., (2019), establishes significant positive relationship on profitability.

2.2.3.2 Inventory and Profitability

Inventory management is among the major current asset’s components and one of the most important factors in managing working capital (Kioko, & Sitienei 2015). Inventory as a component of Working Capital Management is very important to the profitability of the companies (Iklimate et al., 2019) companies that maintain optimum level of inventory will leads to higher profitability. An increase investment in inventory will help companies to avoid the prospect of a stock-out situation (Tauringana & Afire, 2013). To improve working capital and efficiency, management needs balance to keep inventory for sales and having less inventory as well, Inventory management is to lessen the cost of inventory without initiating distraction in the production. (Akinsulire, 2014). Under perfect conditions, firms will not have to keep inventory (Mathuva, 2010), Companies are forced to keep inventory in order to safeguard any eventualities (Gill et al., 2010). Inventory Conversion Period (ICP) is measured as, inventory divided by cost of sales multiplied by 365 days (Mansoori & Muhammad, 2012). Azam and Haider (2011), Almazari (2013), Iqbal et al., (2014), Ponsian et al., (2014), Misbah et al., (2015), Husain and Alnefaee (2016), Mbawuni et al., (2016), Oyedele et al., (2017), found a negative relationship between inventory with profitability, but unlike the result of Mathuva (2010) Khalid et al., (2015), and Nastiti et al., (2019), which shows a significant positive relationship with profitability.

2.2.3.3 Account Receivables and Profitability

By minimizing the number of days of accounts receivables, profits could be produced by the managers of a company to its shareholders, Also, positive association was detected among number of days’ accounts receivable and corporate profitability (Sharma, 2011). The shortest time taken by the firms to collect cash from its customer the most profitable the firm is. Among profitability and the time company takes to collect the cash from its customers possess a highly significant negative association (Mathuva, 2010). Account Receivable Period (ARP) is measured as, accounts receivable divided by sales multiplied by 365 days (Mansoori & Muhammad, 2012). Mathuva, (2010), Dong and Su (2010), Azam and Haider (2011), Iqbal et al., (2014) Ponsian et al., (2014), Misbah et al., (2015), Husain and Alnefaee (2016), Mbawuni et al., (2016), Oyedele et al., (2017), They used account receivables and found a negative relationship with profitability. Unlike the result of Sharma (2011), Khalid et al., (2015), and Nastiti et al., (2019). Which shows significant positive relationship on profitability.

2.2.3.4 Account Payables and Profitability

Falope and Ajilore (2009) viewed accounts payable (AP) as supplies whose invoices for goods or services have been processed but have not yet been paid. Profitability weakened with the accumulative debt financing, the connection among profitability and average payment period is extremely significant positive (Almazari, 2013). The longer the period, the better for the firm and the shorter the period, the less a company will have cash to take on other profitable activities. However, there is a trade-off that companies should take in to account in terms of damaging long-term relationships with suppliers in case of continuing payment delay (Iklimate et al., 2020). Account Payable Period (APP) is measured as, accounts payable divided by cost of sales multiplied by 365 days (Mansoori & Muhammad, 2012). There is a negative connection with a profitability of a company and number of days’ accounts payable (Sharma, 2011). Mathuva (2010) Says that the lengthier the time companies take to pay their bills the additional profitable it will be. Mathuva (2010), Sharma (2011), Almazari (2013), Iqbal et al., (2014), Misbah et al., (2015) Husain and Alnefaee (2016), Oyedele, et al., (2017) revealed a negative relationship with profitability. Contrary to the result of Dong and Su (2010), Almazari (2013) Ponsian et al., (2014), and Khalid et al., (2015), Nastiti et al., (2019). Which shows significant positive relationship with profitability.
2.3 Empirical review

Tarik, (2020) analyzed the effect of working capital management on profitability, using manufacturing companies in Bangladesh Fifty-two manufacturing companies listed with Dhaka Stock Exchange (DSE) have been selected randomly from 2012 to 2017. Return on Assets (ROA) and Return on Equity (ROE) was used using Ordinary Least Squares regression models and Pearson's Correlation. The results established a significant negative relation between ROA and CCC, ACP; a significant negative relationship exists between ROE and CCC, APP, ICP positively related to ROA and ROE.

Furthermore, Nguyen et al. (2020) investigated the impact of working capital management on the firm’s profitability, using sample, of 119 non-financial listed companies in Vietnam stock market for 9 years from 2010 to 2018. Ordinary least squares (OLS) and fixed effects model (FEM) was used the results revealed a negative and significant impacts of CCC, ARD, INVD, and APD on ROA and Tobins Q.

So also, Nzitunga (2019) examined the Impact of Working Capital Management Practices on Profitability in Namibian State-Owned Enterprises (SOEs) using 23 State-owned institutions with 125 employees. The study used a quantitative approach using Partial Least Squares (PLS) regression analysis, the findings shows that profitability is positively influenced by cash management, debtor management, creditor management, and stock management.

In addition, Mbawuni et al. (2016) examined the impact of working capital management (WCM) on profitability of petroleum retail firms (PRFs) in Ghana for the period of six-years from 2008 2013 using descriptive, correlation and regression analysis. The results show a favorable net working capital for the firms and a favorable networking capital to total assets ratio. The most important WCM component that drives the firm’s profitability, measured in return on assets (ROA), is average days payable (ADP). The rest of WCM components, cash conversion cycle (CCC), average days inventory (ADI) and average days receivables (ADR) did not have significant relationship with profitability.

In another study, Bui (2016) examined the effect of working capital management on the return on assets of Vietnamese real estate companies. to test the effects of the working capital policy on the ROA using a sample of 35 real estate firms listed on the Vietnam stock market from 2010-2014, the results showed that, components ARD, and the INVD had the negative effect on the ROA. Moreover, ROA was impacted by firm size, leverage, and economic growth.

In similar study, Salman et al. (2014) investigated the relationship between working capital management on organizational profitability in Nigeria between 2005-2013, using twenty manufacturing companies listed on the Nigerian Stock Exchange, using the panel data methodology. The result established that working capital has negative and significant relationship with the Return on Assets (ROA) and Return on Equity (ROE).

Moreover, Ponsian et al. (2014) conducted a study and examine the statistical significance between company’s working capital management and profitability using a sample of three manufacturing companies listed on the Dar es Salam Stock Exchange (DSE) for ten years from 2002 to 2011, regression analysis specifically Ordinary Least Squares (OLS) was used. They found a positive relationship between cash conversion cycle and profitability, a negative relationship between liquidity and profitability, a highly significant negative relationship between average collection period and profitability and a highly significant positive relationship between average payment period and profitability, there exists a highly significant negative relationship between inventory turnover in days and profitability.

In another study, Almazari (2013) conducted a study on the Relationship between Working Capital Management and Profitability on eight Saudi Arabia cement companies for the period of 2008 2012 using linear regression and Pearson correlation, and establishes a significant negative relationship between Gross as dependent variable, PAY, CCC, INV, Dept, and DSO. Also, there is a significant positive relationship between GROSS and LnSales, FIXEDFA. It was also found that current ratio is the most important liquidity measure which affects profitability in Saudi cement industry.

Moresore, Dinku (2013) examines the impact of working capital management on performance of Ethiopian Micro and Small Enterprises of Bahir Dar city administration using a sample of 67 micro and small enterprises. for the year 2003. Pearson’s correlation and OLS regression with a cross sectional analysis were used. The result shows that there is a strong positive relationship between number of days’ accounts payable and enterprises profitability measured by ROA, number of days’ accounts receivable, number of days’ inventory and cash conversion cycle have a significant negative impact on ROA. Additionally, Mohamad and Saad (2010) investigated the working capital management: the effect of market valuation and profitability in Malaysia using 172 listed firms randomly selected from Bursa Malaysia’s main board for 5 years from 2003 to 2007. correlations and multiple regression analysis were used and It revealed that the WCM had significant negative impacts on the firm’s profitability, using Tobins Q, ROA, ROIC.

Results from the previous studies showed that the WCM had the strong negative impact on profitability. It means that the firms can improve profitability by minimizing the WCM at a reasonable level.
III. METHODOLOGY

The study adopted conceptual approach which data collected through secondary source, that discussed conceptual and definitional issues in working capital management and profitability. Data for this paper reviewed from already existing literature. Where almost all the studies revealed that, regression analysis used on working capital management and profitability. Hence, regression analysis would use for working capital management and profitability.

IV. CONCLUSIONS

The paper conceptualizes the components of working capital management and profitability. Reviewed of previous studies on working capital management and profitability revealed how different dimensions such as cash conversion cycle, account receivables, account payables and inventory as dimensions of working capital management. While, return on assets and return on equity as dimensions of profitability. From the empirical literature studied and the various conclusions drawn, it is quite clear that a positive and a negative correlation exists between working capital management and firms’ profitability.

REFERENCES


