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Working Capital Management and Firm Profitability: An Empirical Review

Iklimatu Adamu Umar[1], Ibrahim Hussaini[2] and Abubakar Yahaya Halad[3]
[1]*Department of Accountancy, School of Business Studies, Federal Polytechnic, Bauchi, Nigeria*
[1]*Department of Accountancy, Yobe State University, Damaturu, Nigeria*
[3]*Department of Accounting and Finance, Abubakar Tafawa Balewa University, Bauchi, Nigeria*

[2]*Corresponding Author: ibbhus@gmail.com*

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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 the 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 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 maintain sufficiently low inventory levels will reduce the holding cost of the inventory which results to higher profitability. The managements 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 (Osundina, 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) assert 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 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 (Aregbeyen, 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 (Iklimatu *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 & Afrifa, 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 (Iklimatu *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 on 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

1. Ademola, O. J. (2014). Working capital management and profitability of selected quoted food and beverages manufacturing firms in Nigeria. *European Journal of Accounting and Finance Research, 2*(3), 10-21.
2. Agbi, E. S., & Yusuf, I. (2017). Short-Term Asset-Mix Accounting (STAMA) and profitability of manufacturing conglomerates in Nigeria. *Journal of Management and Social Sciences. 6*(1), 199-212.
3. Akindele, J. A., & Odusina, A. O. (2015). Working capital management and firm profitability evidence from Nigerian quoted companies. *Research Journal of Finance and Accounting, 6*(7), 148-153.
4. Akinsulire, O. [Ed.8]. (2014). *Financial management*. Eltoda Ventures Ltd. ISBN 978-38434
5. Aktas, N., Croci, E., & Petmezas, D. (2015). Is working capital management value-enhancing? Evidence from firm performance and investments, *Journal of Corporate Finance, 30*, 98-113.
6. Almazari, A. A. (2014). The relationship between working capital management and profitability. Evidence from saudi cement companies. *British Journal of Economics Management and Trade, 4*(1), 146-157.
7. Alsulayhim, N. A. (2019). The relationship between working capital management and profitability. *International Business Research, 12*(8), 142-152.
8. Amarjit, G., Nahum, B., & Mathur, N. (2010). The relationship between working capital management and profitability: Evidence from the United States. *Business and Economics Journal, Bej-10*
9. Aminu, Y. (2012). Determinants of inventory managements as a component of working capital in ensuring corporate profitability-A conceptual approach. *Research Journal of Finance and Accounting*, *3*(11), 58 – 61.
10. Aregbeyen, O. (2013). The effects of working capital management on the profitability of Nigerian manufacturing firms. *Journal of Business Economics and Management, 14*(3), 520-534.
11. Bagh, T. Muhammad, I. N., Asif Khan, M., Atif Khan, M., & Razzaq S. (2016). The impact of working capital management on firms financial performance. Evidence from Pakistan. *International Journal of Economics and Financial Issues*. *6*(3), 1097-1105.
12. Banos-Caballero, P. J. Garc´ıa-Teruel, & P. Mart´ınezSolano, (2019) Net operating working capital and firm value: a cross-country analysis, *BRQ Business Research Quarterly*, 1–17.
13. Banos-Caballero, S., García-Teruel, P.J., & Martínez-Solano, P.M. (2010). Determinants of trade credit. A comparative study of European SMEs. *International Small Business Journal, 28*(3), 215-233.
14. Bui, N. T. (2016). The effect of working capital management on the return on assets of Vietnamese real estate companies. *Can Tho University Journal of Science*, *44*(1), 18-27.
15. Choong Y. L. (2011). *The interaction effects of working capital management on the relationship between key determinants of working capital and firm performance.* Unpublished doctoral dissertation, University Utara Malaysia.
16. Dinku, T. (2013). Impact of working capital management on profitability of micro and small enterprises in Ethiopia. The case of Bahir Dar city administration. *International Journal of Accounting and Taxation, 1*(1), 15-24.
17. Divya, J., Simran, J., & Vartika (2017). Effect of receivables management on profitability. a study of commercial vehicle industry in India, *International Journal of Applied Science and Management, 2*(2), 246-255
18. Dong, H. P., & Su, J. (2010). The relationship between working capital management and profitability. A Vietnam case. *International Research Journal of Finance and Economics*, *49*, 62-70.
19. Ebben, J., & Johnson, A. (2011). Cash conversion cycle management in small firms: Relationships with liquidity. *Journal of Small Business & Entrepreneurship, 24*(3), 381-396.

20. Falope, O.I., & Ajilore, O.T, (2009). Working capital management and corporate profitability: Evidence from panel data analysis of selected quoted companies in Nigeria. *Research Journal of Business Management,* 3, 73-84.
21. Fareed S. (2014). An overview of working capital with Financial Management, *113*, 1
22. Gill, A. (2011). Factors that influence working capital requirement in Canada. *Economics and Finance Review, 11*(3), 30-40.
23. Gul, S., Khan, M. B., Rehman, S. U., Khan, M. T., Khan, M., & Khan, W. (2013). Working capital management and performance of SME sector. *European Journal of Business and Management, 5*(1), 60-68.
24. Hadri, K., & Ahmad D. B. (2018). Working capital management and corporate performance: Evidence from Indonesia. *Journal of Management and Business Administration Central Europe, 26*(2), 76–88.
25. Hien T., Abbott M, & Jin-Yap C. (2017). How does working capital management affect the profitability of vietnamese small and medium-sized enterprises? Introduction. *Journal of Small Business and Enterprise Development, 24*, 2-11.
26. Hussain, S., & Alnefaee, S. (2016). The effects of working capital management on profitability of firms. evidence from agriculture and food industry of Kingdom of Saudi Arabia. *Journal of Emerging Issues in Economics, Finance and Banking, 1*(1), 684-1698.
27. Iklimatu A. U, Naziru S., & Maiwada Y. B. (2020). Working capital management and profitability of the Nigerian listed oil & gas companies. *ATBU Journal of Accounting and Finance, 1*(2), 485-494.
28. Iklimatu, A. U., Ibrahim, A., & Yusuf, M. S. (2020). The impact of collection period on profitability of Nigerian listed oil and gas companies. *International Journal of Intellectual Discourse (IJID), 3*(2), 99-105.
29. Iklimatu, A. U., Naziru, S., & Muktar H. (2019). Determinants of inventory managements as a component of working capital in ensuring companies' profitability- a conceptual approach. 2*A 20th Multi-disciplinary Academic Conference*, 350-358.
30. Iqbal N., Ahmad N., Hamad N., Kanwal, M., & Anwar, S. (2014). Impact of working capital management on firm's profitability. evidences from textile sector of Pakistan. *Nigeria chapter of Arabian Journal of Business and Management Review, 62*(1883), 1-13.
31. Isaksson, O. H. D., & Seifert, R.W. (2014). Inventory leanness and the financial performance of firms production planning & control. *The Management of Operations, 25*(12), 999-1014.
32. Islam A., & Layth D. (2021). Working capital management and firm performance: the case of industrial corporations in Palestine. The challenges of the Palestinian economy in the face of political pressure and the repercussions of the corona crisis. *3rd Conference of the Faculty of Economics and Social Sciences, An-Najah National University*.
33. Kioko, C. W., & Sitienei, E. K. (2015). The effect of working capital management on profitability of cement manufacturing companies in Kenya. *Journal of Economics and Finance, 6*(6). 53-61.
34. Kurawa, J. M. (2011). Evaluation of the impact of liquidity on the profitaility of banks in Nigeria. *Research Journal of Business Management, 2*(2), 54-57.
35. Kwadwo, B. P., & Godfred, P. O. (2018). Does working capital management affect profitability of Ghanaian manufacturing firms?. Available at: https://mpra.ub.uni-muenchen.de/90183/.
36. Machiuka, N. (2010). A survey of business growth strategies used by commercial banks in Kenya. *International Journal Business and Management, 2*(1), 25-32.
37. Mannetta E.W., Peel M.J., Williams A.N. (2013). Credit management in the small firm sector: Empirical evidence. *International Conference on Accounting, Finance and Risk Management Perspective.*
38. Mansoori, E., & Muhammad D. J. (2012). Determinants of working capital management. Case of Singapore firms. *Research Journal of Finance and Accounting, 4*(5), 472-486.
39. Mathuva, M. D. (2010). The influence of working capital management components on corporate profitability. A survey on Kenyan listed firms, *Research Journal of Business Management, 4*(1), 1-11.
40. Mbawuni, J., Mbawuni, M. H., & Nimako, S. G. (2016). The impact of working capital management on profitability of petroleum retail firms. Empirical evidence from Ghana. *International Journal of Economics and Finance, 8*(6), 49-66.
41. Mias, F., & Retno, K. (2016). The determinant of working capital management of manufacturing companies. *MIMBAR, 32*(2), 276-281.
42. Misbah S., Anjum M. J., Aqdas M. I., Marwat N. K., & Muhammad A. K. (2015). The relationship between working capital management and profitability. evidence from listed companies in Kuala Lumpur Stock Exchange (KSE) Malaysia. *International Journal of Information Processing and Management (IJIPM), 6*(1), 104-113.
43. Mittal, S., Mittal, R. K., Gagandeep, S., & Gupta, S. (2014). Inventory management in fertilizer industry of India. An empirical analysis, *Asia-Pacific Journal of Management Research and Innovation, 10*(4), 291–303.
44. Mohamad, N. E. A. B., & Saad, N. B. M., (2010). Working capital management: the effect of market valuation and profitability in Malaysia. *Internal Journal of Business and Management, 5*(11), 140-147.

45. Monica, S. P. (2017). Working capital management and firms' profitability: Evidence from emerging Asian countries. *South Asian Journal of Business Studies, 6*(1), 80-97.
46. Muhammad, H., Rehman, A. U., & Waqas, M. (2016). The relationship between working capital management and profitability: a case study of tobacco industry of Pakistan. *Journal of Asian Finance, Economics and Business*, *3*(2), 13-20.
47. Naeem, U., Malik, M. I, Muhammad, A., & Mahboob, H. (2014). Effects of working capital management on firm performance. An empirical study of non-financial listed firms in Pakistan. *International Journal of Academic Research in Business and Social Science, 4(6),* 114-132.
48. Nastiti, P. K. Y., Atahau, A. D. R., & Supramono, S. (2019). Working capital management and its influence on profitability and sustainable growth. *Business Theory and Practice*, *20*, 61-68.
49. Nguyen, A., P, H. & Nguyen, H. (2020). Impact of working capital management on firm's profitability: Empirical evidence from Vietnam *Journal of Asian Finance, Economics and Business,* 7(3), 115-125
50. Nguyen, P. A., Nguyen, A. H., & Nguyen, P. V. (2019). The relationship between productivity and firm"s performance: evidence from listed firms in Vietnam stock exchange. *Journal of Asian Finance, Economics and Business*, *6*(3), 131-140.
51. Nzitunga, J. B. (2019). The impact of working capital management practices on profitability in State-Owned Enterprises (SOEs) administration and operations. International Criminal Court (ICC), Bangui field office, Bangui, Central African Republic (CAR). *Management*, *9*(2), 37-47.
52. Ojeani, N. R. (2014). *Working capital management and profitability of listed pharmaceutical firms in Nigeria.* MSc. Thesis, Ahmadu Bello University, Zaria, Nigeria.
53. Okoye, L. U., Olayinka E., Modebe, N. J., & Achugamonu, U. D. (2015) Working capital management and the performance of consumer and industrial goods sectors in Nigeria. *28th IBIMA Conference: Theme -Vision 2020: Innovation Management, Development Sustainability, and Competitive Economic Growth.*
54. Okpe, I. I., & Duru, A. N. (2015). The effect of accounts payable ratio on the financial performance of food and beverages manufacturing companies in Nigeria. *Journal of Research in Business and Management, 3*(9), 15-21.
55. Olaoye F. O., Adekambi J. A., & Oluwadare, O. E. (2019). Working capital management and firms' profitability: Evidence from quoted firms on the nigerian stock exchange. *Intelligent Information Management, 11*(3), 43-60
56. Omo A. (2013). The effects of working capital management on the profitability of Nigerian manufacturing firms. *Journal of Business Economics and Management, 14*(3), 520-534.
57. Osundina, J. A. (2014). Working capital management and profitability. evidence from quoted food and beverages manufacturing firms in Nigeria. *Research Journal of Finance and Accounting 5*, 101-107.
58. Oyedele, O. Adeniran, O. J., & Oluwatosin, E.O. (2017). Working capital management and financial performance: Evidence from Nigerian breweries PLC. *International Journal of Innovative Finance and Economics Research, 5*(3), 29-36.
59. Pandey, I. M. (2015). *Financial management*. New Delhi, India: Vikas Publishing House PVT Ltd.
60. Philip, K. C. (2015). *Effects of working capital management on profitability of sugar manufacturing firms in Kenya*. Unpublished doctoral dissertation, School of Business, University of Nairobi, Kenya.
61. Ponsian, N., Chrispina, K., Tago, G., & Mkiibi.H. (2014). The effect of working capital management on profitability. *International Journal of Economics, Finance and Management Sciences, 2*(6), 347-355.
62. Puspa, R. O. (2019). Working capital management and its impact on the profitability of pukar. international co. ltd. *NCC Journal, 4*(1), 142-147.
63. Rahman, M. M., & Saima, F. N. (2018). Efficiency of board composition on firm performance: empirical evidence from listed manufacturing firms of Bangladesh. *Journal of Asian Finance, Economics and Business*, *5*(2), 53-61.
64. Salman, A. Y., Folajin, O. O., & Oriowo, A. O. (2014). Working capital management and profitability: A study of selected listed manufacturing companies in Nigerian Stock Exchange *International Journal of Academic Research in Business and Social Sciences, 4*(8), 287-295.
65. Samiloglu, F., & Akgun, A. (2016). Relationship between working capital management and profitability. Evidence from Turkey. *Business and Economics Research Journal, 3*(5), 62-71.
66. Sanchez J.A., & Sensini L. (2017). Small firms and demand for credit. Evidence from Europe, *ICAFR*, 124-144.
67. Sensini L. (2020), Working capital management and performance: evidence from Italian SME's, *International Journal of Business Management and Economic Research (IJBMER), 11*(2), 1749-1755.
68. Shah, B., Gujar, M. A., & Sohu, N. U. (2018). The impact of working capital management on profitability: case study of pharmaceutical and chemical firms listed on Karachi stock exchange. *International Journal of Economics, Commerce and Management, 6*(3), 200-220.
69. Sharma, A., & Kumar, S. (2011). Effect of working capital management on firm profitability: Empirical evidence from India. *Global Business Review*, *12*(1), 159-173.

70. Siraj, M., Mubeen, M., & Sarwat S. (2019). Working capital management and firm performance. Evidence from non-financial firms in Pakistan. *Journal of Empirical Research, 9*(2), 27-37.
71. Tarik, H. (2020). The effect of working capital management on profitability: A study on manufacturing companies in Bangladesh. *International Journal of Research in Business and Social Science, 9*(6),114-122.
72. Tauringana, V., & Afrifa, G. A. (2013). The relative importance of working capital management and its components to smes' profitability. *Journal of Small Business and Enterprise Development, 20*(3), 453-469.
73. Ukaegbu, B. (2014). The significance of working capital management in determining firm profitability: Evidence from developing economies in Africa. *Research in International Business, 31*, 1-16.