INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN ACCOUNTING, FINANCE AND MANAGEMENT SCIENCES

www.hrmars.com
ISSN: 2225-8329

A Theoretical Assessment on the Relationship between Working Capital Investment and Firm's Performance

Jamiu Adeniyi Akindele, Asri Marsidi, Shaharudin Jakpar, Lateef Yunusa, Adamu Babale

To Link this Article: http://dx.doi.org/10.6007/IJARAFMS/v12-i2/14353 DOI:10.6007/IJARAFMS /v12-i2/14353

Received: *16* April 2022*, **Revised:** 19* May 2022*, **Accepted:** 30* May 2022

Published Online: *20* June 2022

In-Text Citation: (Akindele et al., 2022)

To Cite this Article: Akindele, J. A., Marsidi, A., Jakpar, S., Yunusa, L., & Babale, A. (2022). A Theoretical Assessment on the Relationship between Working Capital Investment and Firm's Performance. International Journal of Academic Research in Accounting Finance and Management Sciences. 12(2), 573 – 589.

Vol. 12, No. 2, 2022, Pg. 573 - 589

http://hrmars.com/index.php/pages/detail/IJARAFMS **JOURNAL HOMEPAGE**

INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN ACCOUNTING, FINANCE AND MANAGEMENT SCIENCES
www.hrmars.com
ISSN: 2225-8329

A Theoretical Assessment on the Relationship between Working Capital Investment and Firm's Performance

Jamiu Adeniyi Akindele, Asri Marsidi, Shaharudin Jakpar
Universiti Malaysia Sarawak Faculty of Economics and Business 94300 Kota Samarahan Sarawak Malaysia
Email: jamiuakins307@gmail.com, maasri@unimas.my, jshaharudin@unimas.my

Lateef Yunusa
Department of Banking and Finance, Olabisi Onabanjo University, Ago-Iwoye, Ogun State Nigeria
Email: yuusalateef@gmail.com

Adamu Babale
College of Business and Management Studies Jigawa State Polytechnic,Dutse Nigeria
Email: babaleadamu@yahoo.com

Abstract
The concept of financial constraint have a great influence on company decision and capital market entrance as shareholders and directors recognised its negative implication on firm performance. This paper is the first to conceptualize the theoretical influence of financial constraints (FC) on working capital investment (WCI) and corporate performance through firm internal resources and managerial competency by employing a qualitative approach from a theoretical disposition which has been meagerly demonstrated in the literature. Specifically, bearing in mind the rising unpredictability and issues in the credit and capital markets that has been noticed for numbers of years and the similar intensification in regulatory capital about acquiring external financing, the attention of the firm’s gradually shifted to its internal liquidity generated from enterprise operation on the basis of working capital (WC). This study argues that business internal resources through managerial skill and internal capital can to enhance WCI in a financially constrained situation thereby reduces the agency cost and asymmetric information and increases performance. Hence, we conclude that internal funds is suitable to finance WCI in a constrained situation for managers to avoid overinvest or underinvest in working capital asset by controlling for financial constraints. Further review are expected to determine WCI-performance relationship using some vital accounting ratios largely generated from annual reports and accounts.
Keywords: Working Capital, Working Capital Investment, Financial Constraints, Performance, Firm’s Value.

Introduction

Working capital is a fundamental accounting scheme targeting at the provision of an appropriate proportion between a business's current assets and liabilities. An efficient approach in managing working capital improves companies to meet up with its pecuniary commitments as well expand their revenues generation capacity as working capital investment (WCI) is a dynamic feature of firm’s financial management; this relation is crucial in corporate backgrounds (Akbar et al., 2021). Banos-Caballero et al (2020) states that working capital safeguards the firm liquidity position. Working capital performs a great part in the time of economic disorder (Enqvist et al., 2014). Irene and Ondigo (2018) submits to the opinion that investment strategy shows how much a company has invested in current assets. Investigation on WCM have established that effective investment and proper management of working capital can improve profitability and enhanced firm value (Le, 2019; Botoc & Anton, 2017). However, efficient management of working capital help to improve and preserve firm’s competitive advantage (Boisjoly et al., 2020; Deloof, 2003). Thus, working capital management is important due to the continuous rise in competitive pressure (Banos-Caballero et al., 2012).

Working capital investment plays a pivotal part in the broad corporate policy as well as generating value for shareholder. Organizations struggle to sustain an optimum level of working capital that optimizes their worth (Tsuruta, 2018; Afza & Nazir, 2007). Evidence unveiled that one of the key clarifications for financial disorders and bankruptcies in a good number of businesses is misapplication of working capital (Setayesh, 2009). Hence, management of investment in working capital therefore comes to play an important role in a company (Anton & Nucu, 2020; Lazaridis & Tryfonidis, 2006). The primary intent of working capital management is to guarantee that a firm can remain in operations by retaining an acceptable cash flow to take care of both short-term obligations and the future running costs. Consequently, development of a dynamic WCM is essential to a firm, since this will protect a company’s financial position and help to develop its business (Rey-Ares et al. 2021; Zariyawati et al., 2016).

The conventional study in finance is mostly anchored on long-term financing, capital structure, and dividends decisions (Garcia-Teruel & Martinez-Solano, 2007). However, short-term assets and liabilities have been substantial parts with regards to the total assets in a balance sheet which required proper analysis. These category of assets require proper administration and need to be cautiously examined, meanwhile, working capital management perform an indispensable function in company’s profitability, risk, and its value (Smith, 1980). The corporate financial managers nowadays have seen the need and the significance reasons for proper management of WC in practice and became a major concern for most of the business executives who find it very tough to ascertain the key determinants of the optimum level of working capital (Lamberson, 1995).

Working capital is typically utilized by accountants to quantify the liquidity ratio of the business and as well as the net situation of the real and financial liquid asset of the firm. The three main parts of current assets are accounts receivable, inventory, cash and its equivalents. According to Ramey (1989); Blinder & Maccini (1991) receivable and cash are the most volatile parts of current assets over the finished goods inventory. Inventories are usually sub-divided into three major headings: raw materials (RM), work-in-progress (WIP), and finished goods. Current liabilities comprises mainly of accounts payable and obligation falling due within a year. The prime target of WCM is to ensure efficient planning and control of the current asset. This require that the amount invested in the current asset need to be optimized as it has a definite effect on corporate performance. The basic consideration is about managing the account receivables and its compilation procedure and proper handling of investment in inventory. Hence, WCM is crucial for survival of all form of businesses and it's directly influence firm viability. Brigham and Ehrhardt (2005) suggest that WCM is concerned with the planning of the liquidity parts of organizations short-term current assets and current liabilities e.g. cash, receivables, inventory, payables, commercial bills, and accrued expenses.

Dewing (1941) assert that the composition of working capital and fixed capital are part of the fundamentals of the business and a veritable tool for managing company finance. This is because the inventory element of working capital relates directly with the production process. For example, companies keep adequate raw materials components to minimize the possibility of stock outs that could affect the production process. Also, WIP inventories are used to realize advantage of size by maintaining considerable batches of production. The trade credits and finished goods components can be used to smoothing sales. More so, the cash and equivalents and current liabilities have direct impact on costs through the management of company liquidity. Hence, company can achieve high rates of return if enough cash balances is maintained to take full benefits of discount through quick payment and consequently decreasing the rate of financing WC.

Working capital is "the difference between current assets and current liabilities". The working capital cycle commence with the ordering of raw materials from suppliers that used in the process of production and later into partly finished goods and finally into final products. The completed goods are gathered as inventories and are available for sales to the customers either in form of cash or through credit sales. When credit sales are made to customer, this establishes that cash has been reduced in form of account receivables and can be recovered from customer in compliance with the firm credit policy (Arnold, 2008; Maness, 1994). The significant of working capital to everyday business operations are so numerous. First, for the manufacturing business the current assets constitute over and above 50% of its total assets. Second, in the case of Distribution Company, the current assets constitute more than 60% of its total assets. Furthermore, for public utility enterprise its inventories constitute a substantial investment in account receivable. Thus, there is need for every business organization to thoroughly monitor and supervise the account receivable and movement of inventory for efficiency of its operation. Crum et al., (1983) suggests that company should integrate WCM into short-term financial planning procedure with the purpose of improving its performance. An efficient working capital strategy should be put into consideration in management of liquidity components for a continuous movement of the daily business processes (Arnold, 2008).

Working capital funding is encompassed by the method of fixed assets. For a manufacturing system to be effective, the combination of fixed and variable assets would be combined together with the existing labor. The managing of working capital/current assets is related to that of fixed assets indicating that in both situations, the business evaluates, their impacts on its profitability and risk. The following are the three major differences to be noted:

i) Time discounting and compounding represent a substantial part in managing of fixed assets and play an insignificant role in current assets.
ii) Holding of current assets for a longer period, particularly cash supports firm's liquidness position and decreases the general profitability while fixed assets are long term in nature.

iii) Though, both fixed and current asset rely on anticipated sales, however, only the current assets can be adjusted with sales variability in the short term.

When a task concerning outlay in fixed assets is estimated consequently, an inclusion should be made for the extra investment in the required WC. Once an undertaking is scheduled to be implemented, its working capital would be combines with every other actions and monitoring cannot be easily separated. It is essential for the finance executive thereafter, to collectively implement supervision over working capital to attain the firm’s primary goal. Acknowledging the limitations of different corporations, a careful mixture of long term and short term funds should be financed in current assets. The knowledge of the working capital cycle is most essential as this will assist to establish that WCM should be viewed at from three main perspectives viz; Stock; Debtors/Credit Policy; Cash Budgets.

Conceptual Analysis

There exist two basic opinions of working capital in the study, the net working capital (NWC) and gross-working capital (GWC). The net working capital is what the accountants usually refers to as working capital and is define as the difference between current assets and current liabilities, it can be either positive or negative. The NWC specifies the liquidity status of an organization and recommends the degree to which WC wants may be funded by permanent sources of funding. Current assets should be appropriately greater than current liabilities and incorporate a buffer for growing commitments in the ordinary operating cycle of the business.

The gross working capital is described as the corporation's investment in current assets. Also, based on Fishers separation proposition, it signifies firm expenditure in WC. However, the accountant view of working capital is to protect company liquidity problems from the managerial perspective. The concern of the rate of investment in current assets must elude two extreme opinions of excessive and inadequate portion in current assets. Hence, an enterprise desired an acceptable level of investment status in working capital. Under this arrangement, whenever there is need for working capital finances due to increasing level of corporate activity, the procedure must be made quickly. Likewise, if unexpectedly, some excess reserves arise, they should be invested as soon as possible.

Classification of Working Capital

Working capital can be grouped in line with its constituents or time. Timing classification can be temporary or permanent while components classification can be in form of marketable, cash receivable and inventory.

Permanent Working Capital: This is describe as business share in current asset required to meet up with the long-time minimum needs and is also termed “bare bones” working capital.
Temporary Working Capital: This represent business’s share in current assets that varies with periodic necessities.
Fig. 2.1 depict the company’s fluctuating needs for WC over time while highlighting the characteristics features of the two group.

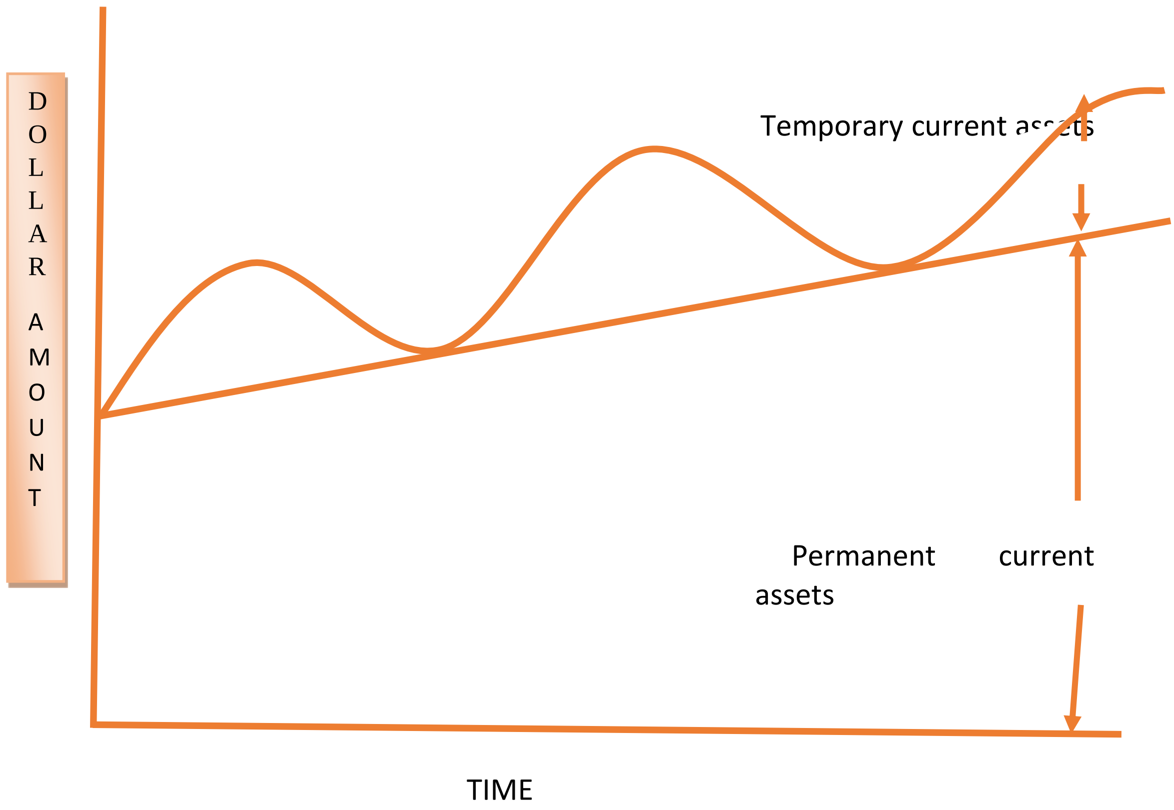

Figure 2.1 Working Capital needs over time

Permanent working capital is like the corporation's fixed assets in two essential viewpoints. Firstly, the Dollar investment in both class of asset is long-term in nature. Thus, suppliers of funds to the company must know that the capital requirements for this categories of asset is long-term regardless of the apparent variation that assets being invest in "current". Next, for a rising organisation, the level of permanent working capital required will increase over time in the same way that a company fixed assets have to be increase over time. But, permanent working capital is different from the fixed assets in one definite significant respect – it is frequently changing. Like permanent working capital, it also consists of current assets in a continuously pattern. Conversely, given that the necessities for this part of organisation's total current asset is periodic therefore we may consider funding this rate of current assets from a source which can be periodic in nature.

Elements of Working Capital (WC)

The main parts of WC are inventories, accounts receivables and accounts payables. This distinctive features gives the clear directions to the managements on issues relating to the company operational process for example, cash collection and supply chain management. Mainly, it represents the company's average liquidity status and evaluates the ability of the current assets to produce potential functional cash flows and helps in measuring the efficiency in working capital investment.

Inventory

This is one of the three core attributes of WC and represents the company's investment in raw materials (RM), work-in-progress (WIP) as well as finished goods (FG). The RM are resources kept in their initial form for transformation and formation, WIP is however a partly finished goods that its production is yet to be completed while FG are categories of products that have completely pass through production process and are ready for sale. Inventory is the most essential element of current assets and the most illiquid asset (Nwankwo & Osho, 2010) and their control considerably determines both liquidness and profitability of businesses (Gitman, 2009). There are corporations with high sensitivity to risk related to low levels of inventory (Michalski, 2016). Therefore, in the case of those organisations, holding a low rate of inventory causes negative adjustments of sale levels and lower revenues (Michalski, 2016).

Account Receivables

Sales can be recorded in form of cash or credit. When sales are completed through cash, it permits company to reduce the capital stowed in receivables and completely abolish the need to fund receivable, however this is good for the company but it is very costly and unrealistic, hence the need to make a credit sale and when this happened it automatically create account receivable by supplying goods and services to customers before payment is made. Account receivable management encompasses choices on the execution of organization's credit policy like determination of whom the firm should sell products and render services to on credit, the limits of credits, the discount on credit sales and the reimbursement for late payment. Credit sales has both rewards and costs. It helps the company to capture market share and attract customers thereby assist the company to sustain steady sales levels over time. When trade credit is extended it efficiently moves future sales closer to the present time. On the other side the cost attached to trade credit given to customers includes increase in company inventory management. Meanwhile, the benefits and costs attached to selling goods or rendering services on credit suggest there are optimal positions at which the rewards of spreading credit are compensated for by the expenses of lengthening credit.

Account Payables

Accounts payable represents a commitment to pay in a short-term period. A higher value indicates that the firm delay for a lengthier time before paying sellers while lesser rate of the accounts payable days signifies the smaller period a business used to settle its obligation to suppliers. Requesting more period to pay implies that an organization need to abandon the cash discount generally granted by customers for timely remittance. This was also sustained by (Ng et al., 1999) observed that sum of cash discount may be notable. Thus, the huge expenses involved in credit period bring about a decrease in productivity. One main causative influence to firm poor performance and downfall is financial constraint (FC); though, credit period acts as an economic benefits to the company. Many financially constrained companies due to their intrinsic features be short of credit and thus relied on suppliers as a means of funding. This has led to believe that accounts payable is a basis of short-term funds for nearly all companies (Berger & Udell, 1998). Garcia-Teruel and Martinez-Solano (2007) averred that accounts payable serves as an alternative to short-term funding employed by companies to fund an important part of businesses' current assets. Meanwhile enterprises may perhaps receive affordable funding by deferring paying off, they might involve in purposely postponing the settlement to sellers as much as they could by employing its business prospect to capitalize the cash in other undertakings to receive greater earnings.

Working Capital Cycle

Working capital cycle is defined as the duration between the payment of cash to creditors (i,e cash outflow) and the receipt of cash from debtors (i.e cash inflow). A firm needs WC because the production, sales and cash flows are not expeditious. Cash is requirement for acquisition of raw materials and to settle expenditures. Cash may as well be maintained to meet potential necessities. The stock of raw materials are retained to guarantee steady production. Stock of finished goods also have to be reserved to achieve regular customer's patronage. Goods are sold on credit for competitive basis. These are some of the reasons why fund have to be invested in current assets. The following are the determining factors of working capital*:* Nature and size of firm; Operating cycle; Business fluctuation**;** Production policy; Firm's credit policy**;** Availability of credit; Growth and expansion requirement; Profit margin and dividend policy**;** Price level change/inflation**;** Operating Efficiency.

Cash Cycle and Operating Cycle

Cash Cycle: This is the aggregate sum of days that will take a firm to gather its cash from sale. It should be noted that the difference amongst the operating cycle and account payable period represent the business cash cycle. The main differences between the two concepts is that, operating cycle expresses a comprehensive narrative of time it takes to translate inventory acquired to sales through gathering of sales, while cash cycle describes the time interval between when inventory procured is paid for and is transformed to cash through sales. Besides, operating cycle states the financial inferences of several plans of a company in its WCM. Whereas, cash cycle tries to interpret the length of period needed by a firm to meet its financial responsibility.

Operating Cycle is the span of period it takes a business to buy inventory, sell and gather it resources. Thus operating cycle starts lifespan as inventory, it is transformed to account receivables when it is sold and ultimately converted to cash when money is collected from through sales. According to Gitman (2009) the cycle represents the period from the commencement of the manufacturing procedure to the gathering of cash from the sale of the completed goods in a normal business cycle. The cycle has two basic elements, Firstly, the period used to obtain and sell stock otherwise known as inventory period and the secondly, the interval it takes to gather the sale which is called account receivable period. However, it should be noted that at each step of the cycle, the asset is advancing toward cash.
Operating cycle is calculated as (OC) = Inventory period + Account receivable period

Working Capital Policies

The efficient WCM strategy of a company is indispensable to protect its optimum levels of development, profitability, and long-term sustainability. Meanwhile, there are two opposing investment level in working capital i.e. the higher and lower level of investment. The higher investment in WC which is the conservative strategy is a policy that permits the businesses to increase their inventory, account receivable, sales and better discount for quick payment which may leads to increase in firms' value (Deloof, 2003). Higher investment level in WC entails financing and companies need to incur extra financing costs that could results in insolvency and this might increase the possibility of the firm become less profitable and consequently lead to bankruptcy. Those scholars that support the conservative policy argue that company can enhance their profitability by creating a long-term dealing with customers and granting discounts to customers for early payments (Deloof & Jegers, 1996). The second strategy is lower investment in working capital and is called aggressive working capital approach. The strategy can result to an improvement in profitability and as well as an increase in business risk. This level of investment increase profitability through a quick collection of payments from customers, a low level of inventory and delaying payments to suppliers (García-Teruel & Martínez-Solano, 2007).

Hence, the scholars conclude that, given the increasing agency costs with both the managers and owners, the optimal working capital can be achieved when the manager adopt non-conflicting WCI strategy in a company by considering the policy that combine the interest of both the shareholders (principal) and the managers (agent) to minimize the agency costs and thereby maximize the company's performance. Thus, finance directors be required to increase rate of WC to the optimal level in order to increase performance. The positive relationship indicates that firms follow the theoretical assumption of conservative WC strategy while a negative association denotes an aggressive WC capital approach. This statement can be very considerable for directors not to misapply their financial resources since they find both the minimum and maximum level and avoid losing capital because of underinvest or overinvest in the working capital accounts which require application of an appropriate working capital approach at a precise point in time.

Theoretical Review

Agency Theory

Agency theory acknowledged the fact that debt is the main factor that gives rise to conflict of interest between equity holders (principal) and managers (agent) in an organization. In these agreements, or internal "rules of the game", equity holders classify "[…] the rights of each agent in the organization, the performance criteria on which agents are evaluated, and the payoff functions they face […]" (Fama and Jensen, 1983, p. 2). The main causes of agency problems or agency costs is due to irrational and expectant behavior of the manager (agent) where their interests and decision are usually in conflict with that of the shareholders (principal). This problem is associated with principal-agent relationship. The availability of free cash flow can prompt managers to over-invest in projects with negative NPV that could eventually reduce the firm's value. Therefore, the capability of the manager to promote their interests is restricted by the availability of free cash flows. Jensen and Meckling (1976) posits that "there will always be conflict of interest between owners and managers which may results to an increase in agency costs and because of this there is need to separate ownership from control to achieve optimal working capital". Jensen and Meckling (1976) further stated that the probability distribution of cash flows offered by the company is not unrelated of its ownership composition and this proposition may be applied to explain optimum working capital.

The managers ought to be in the best position to adopt the working capital approach that will improve the company value. Thus, the researchers conclude that, given the increasing agency costs with both the executives and owners, the optimal working capital can be achieved when the manager adopt non-conflicting working capital investment strategy in a company by considering the strategy that combine the interest of both the shareholders (principal) and the managers (agent) to minimize the agency costs and thereby maximize the company's performance.

Pecking Order Theory

The theory addressed the connection amongst firm working capital financing strategy (internal and external sources) and firm performance. The theory postulates that asymmetric information increases the cost of finance. Because of information irregularities among the company and prospective investors, the company will pick retained earnings to debt, short-term debt over long-term debt and debt over equity. According to Nakamura and others (2007, p.76), this order assumes that "resources generated internally do not have transaction costs, and issuing new bonds tends to signal positive information about the company, while issuing new shares, on the contrary, tends to signal negative information". However, knowledge of asymmetric information is greatly affecting the choice of fund that firm will prefer, as transaction cost influence the capital structure of the firm. The transaction cost accompanying with internal fund is lower than the transaction cost accompanying with external fund. Thus, using internal fund to finance the business is free of transaction cost.

The pecking order theory prefers to maintain cash reserves instead of financial slack to have enough capitals and keep away from external source of finance (Chiou & Chen, 2006). Additionally, cash is like "negative debt"; while external capitals are required only when there is a scarcity of cash; while debts can be paid when there is a surplus of cash. Hence, the need for firm to selects a cash management policy that is inactive, to relax payment of its current debts when there is need to pay additional costs (Koshio, 2005).

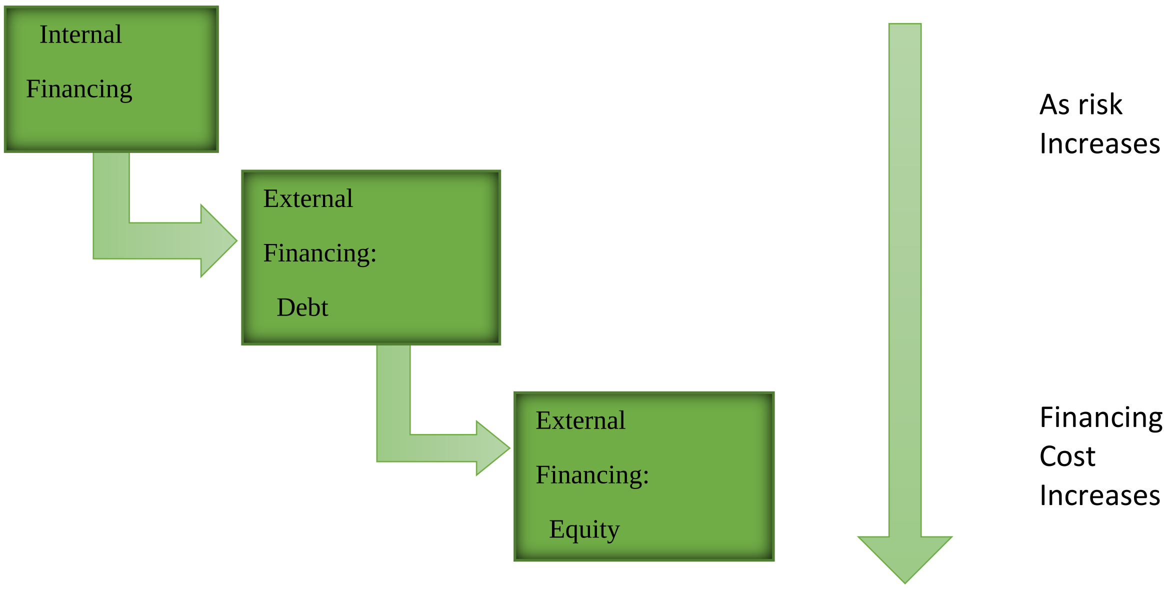

Figure 2 Pecking Order Theory Hierarchy

Resource-Based Theory (RBT)

The theory came to the limelight in early nineteenth-century during the time scholars thought doubtful with the structure-conduct-performance model established by the earlier researchers (Porter, 1985) and started to assess internal sources of competitive advantage rather than external sources. Conner report that: "A resource-based approach to strategic management focuses on costly-to-copy attributes of the firm as sources of economic rents and, therefore, as the fundamental drivers of performance and competitive advantage" (1991, p. 121). Basically, resource-based theory presents a new attribute toward the study of strategic management: the attention on firm-internal resources for achieving sustainable competitive advantages and generating rents, which emphasizes the exceptionality of organizations. Thus, these overall assertions produce the basis of what is recognized as resource-based theory. The aim of this notion is to validate that the foundation of competitive advantage and greater productivity depend on firm's resources that are spread diversely across them. The resources must be valuable, being as qualified to guide the company to intricate a strategy with the purpose of contributing to its effectiveness and usefulness, thereby minimizing expenses or maximizing returns.

Without query, the agency theory has provided an efficacious argument on the conflict of interest between managers and the shareholders and division of ownership and control in company (Berle & Means, 1933; Jensen & Meckling, 1976). However, this theory (like it's more limited to an ideal business environment where the firm is operating normally without interruption in its daily activities) still contains one important omission: It methodically disregards a financially constraints firms (e.g., Banos-Caballero et al., 2014; Mun & Jang, 2015; Afrifa & Padachi, 2016). Generally, agency theory assumes that the availability of free cash flow can prompt managers to over or under invest in WC which may have a negative impact on firm value and consequently affect its performance (Jensen & Meckling, 1976). Given the increasing rate of financially constrained firm in developing economy as a result of market imperfection and level of economic growth, however, this oversight has rendered the theory insufficient as a basis of WCI-performance relationship.

Hence, employing a resource-based theory to strengthening the relationship between WCI-performance (financial resources) by considering the manager as a (human resources) in a constrained circumstance will reduce the agency cost and improve performance. This is because managers have been considered as a resource person. But if manager acted as an agent and as a consequence of conflict of interest (principal-agent relationship) and also due to availability of free cash flow, manager can over-invest in WC and thereby negatively influence the firm's value and become less profitable (Kieschnick et al., 2011; Deloof & Jegers, 1996). Conclusively, investing efficiently in the components of WC (through resource-based approach via the company human resources) will enhance the value and performance of the firm and also serve as the best investment strategy for the firm in a constrained situation. This indirectly assists the company to identify the internal and external resources that have a significant impact on the WCI and improve firm performance (Carmeli & Tishler, 2004; Bergh, 2001; Bates & Flynn, 1995).

The Theoretical Framework

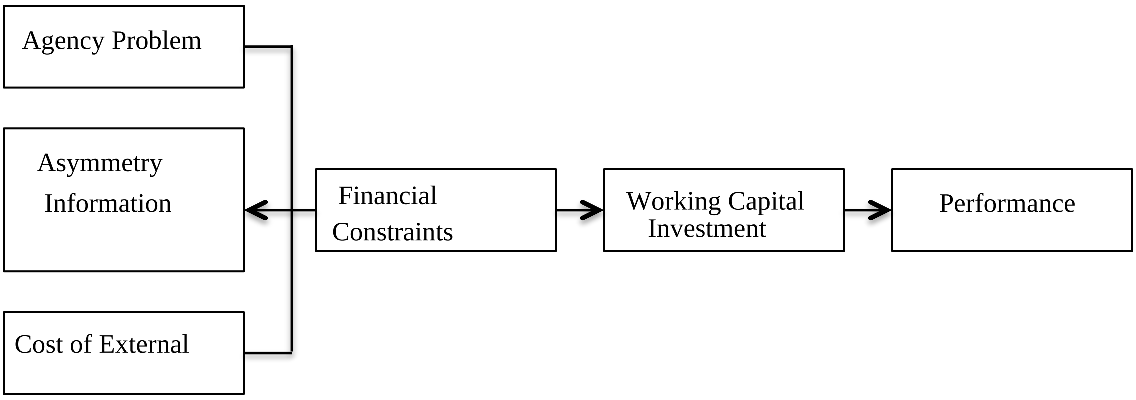

Figure 3 Proposed framework on influence of financial constraints on WCI and performance

The framework is aimed to assist the managers of listed firms to increase their performance when faces agency cost, asymmetric information and restricted to external financing. The managerial competency framework will improve the ability of financially constrained firms and its consequences on WCI-performance relationship. This research has a theoretic implications to answer the theoretical influence of financial constraint on working capital investment and performance by considering the firm internal resources and managerial competency that can minimise the negative consequences of FC and optimise the WCI with the purpose to reduce the external funding which comes with cost premium and reduce the agency cost and asymmetric information.

Generally, the framework places attention on the nature of association between WCI and firm profitability. Thus, it emphasise how the business managers/executives and shareholders can achieve their relevant in efficient management of working capital investment in a financially constrained situations. Also, it stress that the talent of managers in businesses should be taken into consideration when planning working capital policy as an investment resource. The enquiry show how essential to have managers with a high skills that can formulate the optimal working capital to improve firms' performance. Therefore, using a resource-based theory to support the connection among WCI-performance relationship by regarding the manager as a (human resources) in a financially constrained circumstance will minimises the agency cost and increase performance.

Financial Constraints Influence

Modigliani and Miller (1958) posit that in an outright perfect capital market situation, investment decision is not influenced by the way firms are financed, signifying that to optimize their value companies shall execute investment plans until their marginal revenue equals to marginal cost. On the other hand, substantial empirical evidences have acknowledged a significantly positive connection among cash flow and investment expenditure. (Cumming et al., 2006; Cleary, 1999; Fazzari et al., 1988; Hubbard, 1998). The causes for the presence of this positive relation persist, nonetheless, debated. First, there is large submission signifying the existence of a positive connection between investment and cash flow arising from asymmetric information between firm insider and outside creditors (Carpenter & Guariglia, 2008; Myers & Majluf, 1984). This can be view from fact that at the moment the external funds such as loans, debt and equity were utilized, the inadequacies in capital markets result in cost premium. The cost and/or availability to acquire external capitals compel companies to use internal funding, such as retained earnings, instead of external funds. Due to high transaction cost attached to external finance, financially constrained firms might have to do without sound investment plans to prevent the expensive premium cost which are connected with external finance. Generally, financial constraints and agency cost could hinder organizations from choosing best investment choices. Conversely, each and every factor may upsurge the sensitivity of investment expenses to free cash flow and bring about financing inadequacy. Essentially, resource-based theory presents a new attribute toward the study of strategic management: the attention on firm-internal resources for achieving sustainable competitive advantages and generating rents, which emphasizes the exceptionality of organizations.

Thus, these overall assertions produce the basis of what is recognized as resource-based theory. The resources must be valuable, being as qualified to guide the company to intricate a strategy with the purpose of contributing to its effectiveness and usefulness, thereby minimizing expenses or maximizing returns. There are two main assumptions guiding this theory. They are heterogeneous distribution of resources and the non-transferability of resources. The first one concerned with the creation of assets that emanates, primarily, from the firm's experience, but the alternative one is related with the market imperfection.

Resources are what is owns by an organization while capabilities imply what the organization can do. More precisely, capabilities refer to the business's strength to package, conduct, or utilize assets in a way that can improve the value added of the firm and optimistically take advantage over competitors. Resources and capabilities are the fundamental determinants used by the organizations to make an appropriate strategy (Porter, 1985). The two factors are strongly connected as capabilities tend to emanate from employing resources over time. Only few resources can be productive independently therefore an efficient and productive actions are needed for the management and collaboration of group of resources, whereas a capability is refers to the skill of a bunch of resources used to execute specific assignment. Hence, indirectly resources are the sources of a given company's capability (Grant, 1991; Mahoney, 1995).

Resource-based theory is utilized within this framework to incorporate the intellectual skill of precise directors of companies with respect to guarantee efficient organisation of investment in the short-term asset of the firm called working capital (Alvarez & Busenitz, 2001). This implies that managers enjoy distinctive-specialized capability that enables and safeguards the realization of optimal investment opportunities, effective gathering and application of resources including a requisite experience of making payments, maintenance of receivables as and when due in order to guarantee efficient management of WCI and consequently improve the company's performance in a financially constrained situation. More explicitly, in a constrained situation, the manager might still not be cautious of investment decision as much as he is functioning as an agent of the company rather than a resource person and can invest in a negative NPV investment, hence the firm will be in a worst financial position i.e. maintaining existing principal-agent relationship cannot achieve WCI efficiency (financial resources management) in a firm. Therefore, employing a resource-based theory to strengthening the relationship between WCI-performance by considering the manager as a (human resources) in a financially constrained circumstance will reduce the agency cost and improve firm productivity.

In light of this, managers have been considered as a resource person. But if manager acted as an agent and as a consequence of conflict of interest and also due to availability of free cash flow, manager can over-invest in WC and thereby negatively influence the firm's value and become less profitable (Afrifa & Padachi, 2016; Kieschnick et al., 2011). Alternatively, under-investment in WC could also upsurge business risk and have negative effect on firm value and decrease its profitability (García-Teruel & Martínez-Solano, 2007). Therefore, investing efficiently in the components of WC (through resource-based approach via the company human resources) will enhance the value and performance of the firms and also serve as the best investment strategy for the companies in a financially constrained situation. This indirectly assists the company to identify the internal and external resources that have a considerable influence on the WCI and improve firm performance (Carmeli & Tishler, 2004; Bergh, 2001).

Concluding Remarks

This theoretical paper demonstrate the financial constraints influence on WCI and performance of listed firm. Managers are in the best position to adopt the working capital strategy that can improves the company value. Meanwhile, an efficient WCM plan must be employed to achieve the optimum WCI level which is vital for the growth of the firm and therefore increase the corporate profitability. Optimal investment in working capital is the most appropriate investment strategy because it enhances firm profitability as well as balances the cost and benefits the company and optimizes corporate value. However, this can be achieved if manager adopt the best WC strategy. The major intention of WCM is to safeguard effective planning and appropriate supervision of current asset. This entail that the sum expended in the current asset must be enhanced as it has a direct consequence on company performance. The ultimate attention is about monitoring the account receivables and its collection process and proper handling of investment in inventory. Therefore, WCM is crucial for survival of all form of industries and it's directly influence firm profitability. Hence, investing efficiently in its components through resource-based approach with the help of company human capitals will enhance the value and performance the firm and also serve as the best investment strategy in a financially constrained situation. Organisation should ensure that directors enjoy distinctive-specialized capability that enables and safeguards the realization of optimal investment opportunities, effective gathering and application of resources including a requisite experience of making payments, maintenance of receivables as and when due in order to guarantee efficient management of WCI and consequently improve the company's performance in a constrained situation.

We conclude that director's skill can reduce the negative impact of financial constraints and maximizes working capital investment so as to decrease the external financing which comes with cost premium and also reduce the agency cost and asymmetric information. This paper is the first to theorize financial constraints influence on WCI-performance relationship. Thus, we offer new perception on organisation internal resources vis-à-vis managerial skills and internal funding to improve WCI. Our framework extends the concept of managerial competent which focuses on firms internal resources that have value to organisations.

More so, we make new contributions to the concept of financial constraints on the exploitation of this framework of firm internal resources by indicating that FC can influence working capital investment and performance. This imply the application of this framework will be significant to managers who aim to increase performance, particularly managers of listed firms in Nigeria whose firms are financially constraints might consider this framework to improve investment in WC. The conceptual framework will serve as a guide to CEO of listed firms and financial expert to develop the procedures and programs that enhances the director's financial management control as well as WCI strategy for business decision making as new model. The background provides awareness to directors on proper application of WCI approach and how financial constraints affect working capital investment and performance negatively. Generally, our framework is a novelty and may contribute to increase performance of listed firms that internal funds is appropriate in a constrained situation for managers to avoid overinvest or underinvest in working capital by controlling for financial constraints.

References

Afrifa, G. A., & Padachi, K. (2016). Working capital level influence on SME profitability. *Journal of Small Business and Enterprise Development*, *23*(1), 44-63.

Afza, T., & Nazir, M. S. (2008). Working capital management policies of firms: empirical evidence from Pakistan. *Pakistan Journal of Commerce and Social Sciences,* 1(1), 25-35.

Akbar, A., Minhas, A., Marina, N., Petra, P., & Samrat, R. (2021). Does working capital management influence operating and market risk of firms? *Risks* 9(1),201. https://doi.org/10.3390/risks9110201

Alvarez, S. A., & Busenitzs, L. W. (2001). Resource-Based theory. *Journal of Management,* 2(6), 755-775.

Anton, S., & Nucu, A. (2020). The impact of working capital management on firm profitability: Empirical evidence from the polish listed firms. *Journal of Risk and Financial Management,* 14(1), 9. https://doi.org/10.3390/jrfm14010009.

Arnold, G. (2008). *Corporate Financial Management* (4th Ed.). Essex: Prentice Hall.

Banos-Caballero, S., Garcıa-Teruel, P. J., & Martınez-Solano, P. (2012). How does working capital management affect the profitability of Spanish SMEs? *Small Business Economics*, 39(2), 517–529. https://doi.org/10.1007/s11187-011-9317-8.

Banos-Caballero, S., Garcia-Teruel, P. J., and Martinez-Solano, P. (2020). Net operating working capital and firm value: A cross-country analysis. *BRQ Business Research Quarterly,* 23(1), 234–251.

Banos-Caballero, S., Garcia-Truel, P. J., & Martinez-Solano, P. (2014). Working capital management, corporate performance, and financial constraints. *Journal of Business Research*, 67(3), 332-338.

Bates, K. A., & Flynn, E. J. (1995). Innovation history and competitive advantage: A resource-based view analysis of manufacturing technology innovations. *Academy of Management Proceedings,* 1, 235-239.

Berger, A. N., & Udell, G. F. (1998). The economics of small business finance: the roles of private equity and debt markets in the financial growth cycle. *Journal of Banking and Finance*, 22(6), 613-673.

Bergh, D. D. (2001). Executive retention and acquisition outcomes: A test of opposing views on the influence of organizational tenure. *Journal of Management*, 27(5), 603-622.

Berle, A. A., & Means, G. C. (1933). *The Modern Corporation and Private Property*. New York, Macmillan Co.

Blinder, A. S., & Maccini, L. J. (1991). The resurgence of inventory research: what have we learnt? *Journal of Economic Survey*, 5(2), 291- 328.

Boisjoly, R. P., Conine, T. E., & McDonald, M. B. (2020). Working capital management: Financial and valuation impacts. *Journal of Business Research*, 108, 1–8. https://doi.org/10. 1016/j.jbusres.2019.09.025.

Botoc, C., & Anton, S. G. (2017). Is profitability driven by working capital management? Evidence for high-growth firms from emerging Europe. *Journal of Business Economics and Management,* 18(1), 1135–55.

Brigham, E. F., & Ehrhardt, M. C. (2005). *Financial Management Theory and Practice*, Eleventh Edition, South Western Cengage Learning, Ohio.

Carmeli, A., & Tishler, A. (2004). Resources, capabilities, and the performance of industrial firms: A multivariate analysis. *Managerial and decision economics*, 25(6 & 7), 299-315.

Carpenter, R. E., & Guariglia, A. (2008). Cash flow, investment, and investment opportunities: New tests using UK panel data. *Journal of Banking & Finance*. 32(9),1894-1906.

Chiou, J., & Chen, L (2006). The determinants of working capital management. *Journal of American Academy of Business.* 10(1), 149-155.

Cleary, S. (1999). The relationship between firm investment and financial status. *The Journal of Finance,* 54(2), 673–692. doi:10.1111/0022-1082.00121.

Conner, K. R., & Prahalad, C. K. (1996). A resource-based theory of the firm: Knowledge versus opportunism. *Organization Science, 7* (5), 477–501.

Crum, R. L., Klingman, D. D., & Tavis, L. A. (1983). An operational approach to integrated working capital planning. *Journal of Economics and Business, 35(3-4), 343–378.*

Cumming, G. S., Cumming, D. H. M., & Redman, C. L. (2006). Scale mismatches in social-ecological systems: causes, consequences, and solutions. *Ecology and Society,* 11(1), 14. Assessed May 10th, 2022 from http://www.ecologyandsociety.org/vol11/iss1/art14/.

Deloof, M., & Jegers, M. (1996). Trade credit, product quoting and intragroup trade: some European evidence. *Financial Management,* 25(3), 945-968.

Deloof, M. (2003). Does working capital management affect profitability of belgian firms?. *Journal of Business Finance and Accounting,* 30(3), 573-587.

Dewing, A.S. (1941). *The Financial Policy of Corporations*. (4th Ed.) New York: The Ronald Press Company.

Enqvist, J., Graham, M., & Nikkinen, J. (2014). The impact of working capital management on firm profitability in different business cycles: Evidence from Finland. *Research in International Business and Finance*, 32, 36–49. https://doi.org/10.1016/j.ribaf.2014.03.005.

Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *Journal of Law & Economics.* 26(2), 301-25.

Fazzari, S. M., Hubbard, R. G., Petersen, B. C., Blinder, A. S., & Poterba, J. M. (1988). Financing constraints and corporate investment. *Brookings Papers on Economic Activity, (1), 141–206.* doi: 10.2307/2534426.

Garcia-Teruel, P. J., & Martinez-Solano, P. (2007). Effects of working capital management on SME profitability. *International Journal of Managerial Finance*, 3(2), 164-177.

Gitman, L. A. (2009). *Principles of Managerial Finance* (12th Ed.), New York, NY: Addison Wesley Inc.

Grant, R. M. (1991). The resource-based theory of competitive advantage: Implications for strategy formulation. *California Management Review, 33(3) 114-135.*

Hubbard, R. (1998). Capital-market imperfections and investment. *Journal of Economic Literature*, 36(1), 193–225.

Irene, A. R., & Herick, O. (2018). The effect of working capital management policies on financial performance of commercial and services sector firms listed at the Nairobi Securities Exchange. *International Journal of Economics, Commerce and Management,* 5(1), 113–42.

Jensen, M., & Meckling, W. (1976). Theory of the firm: managerial behavior, agency costs and ownership structure. *Journal of Financial Economics,* 3(1), 305–360.

Kieschnick, R. L., Laplante, M., & Moussawi, R. (2011). Working capital management and shareholder wealth. *SSRN Electronic Journal, Assessed 15th June, 2022 from:* http://ssrn.com/abstract=1431165. doi:10.2139/ssrn.1431165.

Lamberson, M. (1995). Changes in working capital of small firms in relation to changes in economic activity. *American Journal of Business, 10(2), 45-50. https://doi.org/10.1108/19355181199500015.*

Lazaridis, L., & Tryfonidis, D. (2006). The relationship between working capital management and profitability of list companies in the Athens stock exchange, *Journal of Financial Management and Analysis,* 1(19), 26-35.

Le, B. (2019). Working capital management and Firm's valuation, profitability and risk: Evidence from a developing market. *International Journal of Managerial Finance*, 15(2), 191–204. https://doi.org/10.1108/IJMF-01-2018-0012.

Mahoney, J. T. (1995). The management of resources and the resource of management, *Journal of Business Research*, 33(2), 91-101.

Maness, T. S. (1994). The cash-flow timeline and the credit manager. *Business Credit,* 96(7)**,** 10-12.

Michalski, G. (2016). Risk pressure and inventories levels. Influence of risk sensitivity on working capital levels. *Economic Computation and Economic Cybernetics Studies and Research,* 1(50) 189–196.

Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *American Economic Review*, 48(7), 261–297.

Mun, S, G., & Jang, S, S. (2015). Working capital cash holding and profitability of restaurant firms. *International Journal of Hospitality Management*, 48, 1-11.

Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, 13(2), 187-221.

Nakamura, W. T., & Palombini, N. V. N. (2009). The determinant factors of working capital management in the Brazilian market. *Universidade Presbiteriana Mackenzie*, São Paulo, Brazil.

Ng, C. K., Smith, J. K., & Smith, R. L. (1999). Evidence on the determinants of credit terms used in interfirm trade, *Journal of Finance,* 54(1), 1109-1129.

Nwankwo, O., & Osho, G. S. (2010). An empirical analysis of corporate survival and growth: Evidence from efficient working capital management. *International Journal of Scholarly Academic Intellectual Diversity,* 12(1)**,** 1-13.

Porter, M. E. (1985). *The competitive advantage: creating and sustaining superior performance*. Free Press, New York.

Ramey, V.A. (1989). Inventories as Factors of Production and Economic Fluctuations. *American Economic Review*, 79(1), 338-354.

Rey-Ares, L., Fernandez-Lopez, S., & Rodeiro-Pazos, D. (2021). Impact of working capital management on profitability for Spanish fish canning companies. *Marine Policy*, 130(8), 104583.

Setayesh, M. H. (2009). Determining the optimum capital structure at industrial lever by using data envelopment analysis (DEA) case study: listed companies in Tehran stock. *Journal of Financial Accounting Research*, 1(1), 52 66.

Smith, K. (1980). *Profitability versus Liquidity Tradeoffs in Working Capital Management. In: Readings on the Management of Working Capital*, Smith, K.V. (Ed.). St. Paul, MN, West Publishing Firm, USA.

Tsuruta, D. (2019). Working capital management during the global financial crisis: Evidence from Japan. *Japan and the World Economy*, 49(C), 206–219.

Zariyawati, M. A., Annur, M. N., & Pui-San, N. (2016). Working capital management determinants of small and large firms in Malaysia*. International Journal of and Economics and Management*, 10(2). 365-377.