

A Theoretical Review on Factors of Working Capital Management

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Abstract

Working capital management is detected internally by organization specific factors such as size, age, profitability, growth in revenue, market share, operating risk and operating cash flow. Similarly, it is externally detected by macroeconomic factors such as Gross Domestic Product, Rate of interest rate and rate of taxes. Impressive and well-regulated working capital management has a notable out-turns on the success or the failure of any business organization in the short-run or long-run as it strikes the liquidity and profitability parity of a business organization. The success of any organization undoubtedly is conditional on how effectively financial managers manage working capital elements such as cash, receivables, inventories and payables. It is a must for a business organization to perpetuate symmetry between liquidity and profitability in conducting its daily operations. In this regard, this very article tries an utter on the factors of working capital management.

Keywords

Factors, Working Capital Management, Liquidity, Profitability

1. Introduction

Working capital, in financial literature, represents the excess of current assets over current liabilities. Working capital management, therefore, is related with the problems that come in trying to manage the current assets, the current liabilities and the inter-relationship between them. In other words it refers to all aspects of management of both current assets and current liabilities.

Patrick & Titus (2018) ^[1] stated that efficient working capital management determines the success or the failure of a company in temporary or maybe in long-run since it establishes the liquidity as well as profitability equilibrium of a company. *Nimalathasan (2010)* ^[2] claimed that the objective of working capital management is to ensure that a firm is capable to continue its operations and that it has adequate cash flow to discharge both short-term debts and nearing operational expenses. Suitable assessment of the working capital and identification of its basic components can assist financial managers decide over the company's operations more efficiently and effectively and able him/her to manage working capital effectively in a way that balance liquidity and profitability (*Mansoori & Muhammad, 2012*) ^[3].

Working capital management is a very relevant component of financial management as it has direct influence on liquidity and profitability of organization. Working capital policies of firms have an influence on the liquidity, structural health in addition to profitability. It is really a simple fact that investment in capital projects designed for long term receives a lot more interest in comparison to do the task related on a regular basis with the management of working capital. Nevertheless, companies which do not tackle such a financial component of working capital in the correct manner not attract important capital to fund their very obvious projects; chatting clearly, one should go through the short sprint to attain the marathon finish line (*Brealey, 2005*) ^[4]. *Lamberson (1995)* ^[5] argued that working capital management has become one of the most important issues in organizations, where many financial managers find it difficult to identify the important vehicles of working capital and the ideal level of working capital. As a consequence, companies can minimize risk and improve their overall performance if they can understand the roles and factors of working capital.

Working capital management being related to current assets and current liabilities is a very complicated process that affects every ongoing decision that is made in each firm regardless of its areas of operations. Working capital is, along with fixed capital, one of the key elements of the firm (*Dewing, 1941*) ^[6]. The success of any company is determined by how financial managers in this instance efficiently manage working capital components including primarily cash, receivables, inventories as well as payables. It is essential for a company to keep a sense of equilibrium between liquidity as well as earnings while carrying out the day of its daily operations.

Fixing upon the notable factors influencing working capital management would influence level

of investment in current assets as well as the relevant sources to finance them. One of the distinct features of the fund employed as working capital is that it constantly changes its forms to run the business wheel. It is also known as circulating capital which represents current assets of a company can be changed in the ordinary course of business from one form to another.

2. Conceptual Terminologies

Working Capital

Working capital may be regarded as moving capital and represented by the excess of current assets over current liabilities and identifies the relatively liquid portion of any business unit (*Horngren et al., 2002*)^[7]. The portion of current assets which have not been supplied by current and short term payables in an organization is termed as working capital (*Brigham & Houston, 2002*)^[8]. There are many more definitions prevailing on working capital, however, in simple words it may be considered as the funds required for carrying out routine operations of the organization smoothly.

Working capital is a scale of both an organization's effectiveness along with the short-term economic health. Working capital finances the day to day (short-term) operations of the business from a cash pool or reservoir of liquidity (*Cooper et al., 1998*)^[9]. Working capital is described as the fund of short-term liabilities in addition to short term assets. The procedure is actually used continuously to use as well as give rise to cash flow to satisfy the need for short term responsibilities and everyday operational expenses. *Brigham & Weston (1996)*^[10] indicated that working capital describes a firm's investments in temporary assets such as cash, short term securities, account receivable as well as inventories. *Genestenberg (1962)*^[11] stated that circulating capital signifies current assets of a business which are actually transformed in the typical course of business from one type to another.

Gross Working Capital

Gross working capital is an organization's investment in current assets. Current assets are those assets which can be converted into cash within operating cycle and includes cash, marketable securities, inventories and account receivables. It concentrates just the optimum in current assets as well as financing of current assets (*Khan & Jain, 1999*)^[12]. Current assets are probably the most effective part of any organization. They are able to have an influence on the profitability and will produce the issue in everyday operations. Additionally, it allows a firm to prepare and balance resources to optimize the return on investment.

Net Working Capital

Net working capital is identified when there is a significant difference between current assets and current liabilities. It concentrates on the liquidity role of the firm in short run. Net working capital could be negative or positive. Good net working capital arises when current exceed current liabilities and bad net working capital arises when current liabilities exceed current assets. Good working capital will help to boost the benefit but in reverse bad working capital

could be unfavorable for the organization. So, net working capital could be much more helpful for the evaluation of the tradeoff among chance as well as earnings.

The idea of net working capital is additionally just as vital in each and every business. It allows a firm to figure out how much quantity is left for operational requirement. Net working capital is not really helpful for comparing the overall performance of various firms as a degree of liquidity, though it's rather helpful for internal command. It is likewise referred to as quantitative idea.

Working Capital Management

Working capital, in financial management, represents the excess of current assets over current liabilities. Working capital management, therefore, is related with the problems that come in trying to manage the current assets, the current liabilities and the inter-relationship between them. In other words it refers to all aspects of management of both current assets and current liabilities. Decisions relating to working capital and short-term financing are referred to as working capital management (*Nimalathason, 2010*)^[13].

Cash Conversion Cycle

Cash conversion cycle refers to the number of days of operation for which financing is required. In other words, it is the average length of time between outflow of cash on raw materials and inflow of cash from sale of manufactured goods.

Operating Cycle

The term operating cycle represents the length of time period required for the completion of each of the stages of operation involved in respect of working capital items. This helps portray different stages of manufacturing activity in its various manifestations, such as peaks and troughs, along with the required supporting level of investment at each stage in working capital. The sum of these stage-wise investments is the total amount of working capital required to support the manufacturing activity at different stages of the cycle. In other words, operating cycle refers to the number of days it takes a company to convert its inventory to cash.

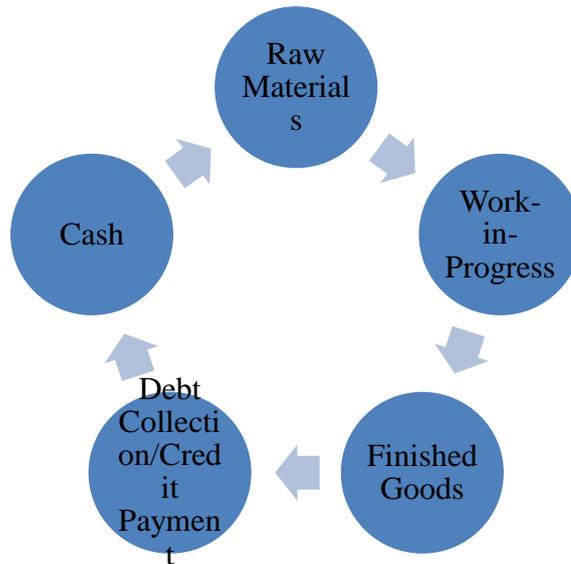


Figure 1: Working Capital Cycle in Manufacturing Organizations

Figure 1 distinctly explains the operational cycle of how an organization can move cash from purchasing to collection following sales. The applications of cash begin from the purchasing point of raw material for manufacturing of the items. The purchased raw materials bring into production process and before long it gets work in process from bought raw materials till the finished products or perhaps for all set to sales. When the goods are sold, the account receivables are produced until the cash received. Once again the cycle starts by using cash point as well as conclusion to cash collection.



Figure 2: Working Capital Cycle in Service Organizations

Figure 2 distinctly explains the working capital cycle of a service oriented organization. The

working capital cycle in a service oriented organization is the gap between the payment to suppliers/staff/overheads for the delivery of the service and the collection from customers services provided. It is a must to optimize the delivery of services. Delivery in the most effective and efficient way possible actively reduces the time it takes the customers to pay for the services provided.

Liquidity

Liquidity is to get organization money whenever the organization needs it. In other words it refers the degree of promptness how quickly an organization can get its hands on its cash.

Bankruptcy

Bankruptcy is condition of an organization where liabilities exceed assets that lead the organization to a legal phenomenon of formally winding up the organization or declaring the organization legally unable to pay its debt.

Trade credit policy

The credit policy associated with purchases as well as sales is the additional impact on working capital. The credit terms granted to clients have a bearing on the magnitude of working capital by figuring out the amount of guide debts. The credit sales lead to higher amount of receivables. Higher the amount of receivables higher will be amount working capital. On other hand, when liberal credit terms can be found from the suppliers of goods, the demand for working capital is actually much less.

The working capital needs of business are, therefore impacted by the terms of sale and purchase. Credit terms repaired by an enterprise are actually impacted by the prevailing trade practices and changing economic problems. Liberal credit facilities will be extended on the foundation of credit rating. This stays away from the issue of having unnecessary working capital. Likewise, the collection process could be extremely farmed which funds, which would usually be readily available for a major element in figuring out the working capital requirements of an enterprises.

3. Importance of Working Capital Management

Empirical and theoretical evidence concludes that working capital management is an important factor for the survival of any business organization. Aside from investments in fixed assets, any company must make provisions for adequate finances to fulfill everyday expenditures. An organization's internal sources of financing are often inadequate to meet all of its financing requirements. Furthermore, it is not always possible for owners, promoters, or entrepreneurs to raise funds from their own personal assets. As a result, resources must be financed by borrowing, keeping in mind the short, medium, and/or long-term funding needs of trade and industry.

Padachi (2006)^[14] argued that the working capital management is important to ensure financial health for all sizes of businesses firms. This importance is concluded on two reasons: (a) amount invested in working capital is usually greater in fraction to total assets and it must be used in efficient way, (b) working capital management directly influence firm's profitability and liquidity and consequently affects its value of equity. *Ross et al. (2005)*^[15] stated that the efficient working capital management stimulates growth possibilities and enables to avoid the costly interruptions of firms' day to day operations. The way of management of current assets to a huge extent establishes die achievements of a problem. Continuous management is necessary to keep proper levels in the different working capital components. Sales expansion strategy, dividend declaration of dividend, expansion of plant, new product lines, increased remunerations, and other factors put a stress on working capital management.

There are lots of areas of working capital management that make it a crucial feature of the financial manager. It has been discovered that probably the largest part of fiscal manager's time is actually employed in the management of working capital. It is really essential for small companies to control the current assets of theirs as well as current liabilities really carefully. Working Capital management aims at maintaining equilibrium between liquidity and profitability while carrying out the daily operations of a business concern (*Smith, 1980*)^[16].

Generally, there ought to be a good preparation of liquidity. When there is no correct planning of liquidity a period can come when a company could be inclined to drift towards liquidation. The amount of working capital funds reflects the company's status of liquidity; however there is no single measuring rod for determining the efficiency with which a corporation is run. The adequacy or perhaps inadequacy of working capital in a company is usually to be gauged out of the nature of business, operating cycle, working capital turnover and the dimensions of other elements and business. These factors influence the working capital requirements of the company. The ratios may or may not be a guiding element during those times in a company's life when they are available. Management's attitude towards liquidity versus profitability is actually a crucial contributing factor in assessing working capital demands.

Filbeck & Krueget (2005)^[17] stated that the basic goal of working capital management is to maintain an ideal balance between each of the working capital components. The ability of financial executives to efficiently handle receivables, inventory, and payables is critical to a company's performance. In management of working capital, it is previously made the decision that the funds are out there for making transaction for forthcoming obligation. When an enterprise makes transaction of each obligation on time, its goodwill improves. The effectiveness improves by the great management of working capital. In the event that firm manages a great working capital flow, it is able to make use of better the fixed assets. *Lakadawala (1991)*^[18] observed that the function of finance is a specialized one. Most companies make an effort to ensure that the position of finance manager is filled by someone who is qualified or experienced. Estimating working capital, according to *Garg (1997)*^[19], is

the expectation of requirements for subsequent months, as well as regular updating as substantial changes in working capital requirements are expected based on previous experience and/or new developments. With better administration, internal money generation would improve.

While financing working capital from internal generation, depreciation should only be used for expansion and modernization of plant to meet the objectives of growth. Investments in current assets and the level of current liabilities have to be geared quickly to changes in sales. To be sure, fixed assets investments and long term financing are also responsive to variations in sales. However, this relationship is not as close and direct as it is in the case of working capital component (*Prasanna, 1984*)^[20]. It has also been found that the largest portion of a financial manager's time is utilized in the management of working capital. All of the following points throw adequate light on the benefits of working capital management.

- Risk Minimization
- Increase in good-will
- Increase in efficiency
- Increase in profitability
- More productivity of fixed assets

4. Theoretical Framework to the Factors of Working Capital Management

The scope of working capital management is the determination of optimal level of liquidity which represents a trade-off between current assets and current liabilities. *Awan et al. (2014)*^[21] stated that surplus cash leads to undesirable expenses on purchases and over possessing of inventories will make the firm to expend carrying cost of theft, wastage and losses. According to *Nimalathasa (2010)*^[22], most businesses invest a considerable part of their cash in working capital and a notable quantity of short-term payables as a source of financing. Therefore business firms carry an optimal level of working capital which leads to maximization of their market value.

Large amounts of inventory and a generous trade credit policy, on the other hand, may result in larger sales. A larger level of inventory keeps down the probability of a stock-out. Working Capital Management involves the management of inventories, receivables, payables and cash. Proper management of working capital is very crucial for the success of an enterprise. It aims at protecting the purchasing power of assets and maximizing the return on investment (*Zenoff & Zwick, 1969*)^[23]. The table below shows the empirical relationship between effective working capital management and its factors.

Table 1: Proxy Variables Definitions and Predicted Relationships

Proxy Variables	Definitions	Predicted Sign
Inventory Conversion Period	Average Inventory divided by Cost of Goods Sold and multiplied by 360 days	+/-
Receivable Conversion Period	Average Account Receivables divided by sales and multiplied by 360 days	+/-
Payable Deferral Period	Average Accounts Payables divided by cost of goods sold and multiplied by 360 days	+/-
Cash Conversion Cycle	Inventory Conversion Period plus Receivable Conversion Period less Payable Deferral Period	+/-
Firm Size	Natural Logarithm of firm sales, lagged one year period	+/-
Financial Debt Ratio	Short-term Debts divided by Total Assets	+/-
Fixed Financial Assets Ratio	Fixed Financial Assets divided by total Assets	+/-

5. Factors of Working Capital Management

Since, there are not standard rules to figure out the working capital, an organization itself should manage working capital in the ways that is proper by considering the demand of business. It is a common assumption that the size of working capital is a function of sales. The management of working capital requirement is affected by a number of factors. These elements occasionally may influence distinct enterprises differently and they too differ from time to time. Of them, the influence of operating cycle is considered paramount. In general, the factors that influence the working capital necessity of the firm include nature of business, availability of raw materials , business cycle, scale of operation, production cycle, taxation, seasonality of the product, production policy, credit policy, growth and expansion, price level, operating efficiency, depreciation policy, dividend policy and retention policy. Cost of capital, access to external finance and capacity to generate internal sources are some critical endogenous and exogenous factors.

Sareeya (2019)^[24] combined quantitative and qualitative exploration of SMEs food enterprises which performed in Thailand. Qualitative analysis was used to investigate working capital system of firms. The results showed that food enterprises typically set aim considering profits, risk, and liquidity. Additionally, companies have created the appropriate policy as well as working capital management approach and can attain the working capital management objective in operational analysis. Using path analysis focusing on the effect of working capital management on profitability by employing financial ratios as well as time period of cash as

indicators to evaluate working capital management performance of firms, the end results showed that the proposed item had an influence on earnings and conformed to the collected empirical details. The business can boost the profitability by aiming at increased liquidity in working capital management. Additionally, shortening receivable collection period as well as inventory transformation period coupled with extending payable deferral period also helps to acquire higher profit.

Khalid et al. (2018) ^[25] discovered the effect of working capital management on earnings. Return on assets was considered as a proxy of earnings. Additional variables which were used in this study were Current ratio, Debt to Equity Ratio, Operating Profit to Debt Ratio, and Inventory Turnover Ratios of the companies. Secondary data of electric equipment firms listed on Karachi stock exchange was considered for a period of 6 years i.e. 2007-2012. Regression analysis was put on to the data. Normality as well as linearity test was applied. Results showed considerable outcomes. It was concluded that working capital management has significant effect on profitability of the companies. *Paul & Mitra (2018)* ^[26] examined the impact of working capital management on profitability by using regression models for the study period 2000-2016. The study has considered profitability as dependent variables whereas quick ratio, current ratio, inventory turnover and debt ratio as explanatory variables. The finding of the study concludes that working capital management has significant impact on profitability of the firms.

Mansoori & Muhammad (2012) ^[27] analyzed the determinants of working capital management among Singapore firms using random and fixed effects identified firm size, operating cash flow, capital expenditure and gross domestic products are negatively correlated with working capital management. However, they found that firms with more profitability have longer cash conversion cycle. Additionally, they found a non-significant relationship between cash conversion cycle and debt ratio. *Chiou and Cheng (2006)* ^[28] attempted to determine the critical factors affecting working capital management in Taiwan's firms. The study captured micro-economic variables and firm-specific variables. They found that debt ratio, operation cash flows to total assets are negatively correlated with working capital management, while firms' age and return on assets and working capital management positively correlated. Additionally, their finding indicated that during the economic slump, organizations have more working capital management requirements.

6. Working Capital Management and Profitability of Firms

Theoretical foundation of working capital management rules that trade-off between liquidity and profitability of firms is a must. Strong correlation between working capital management and profitability is noted in many empirical studies.

Vartak & Hotchandani (2019) ^[29] analyzed working capital management and performance of Indian firms by applying correlation and regression models for the study period of 2009-2018

and revealed that working capital management has inverse but significant relation with financial performance of the firms. Result of the study indicates significant impact of inventory turnover and Cash Conversion Cycle on financial performance whereas insignificant impact of accounts payables. The finding of study concludes that efficient working capital management increases the financial performance of Indian firms. *Olaoye et al. (2019)*^[30] analyzed Working Capital Management and Firms' Profitability of Quoted Firms on the Nigerian Stock Exchange. Data were accumulated on a single performance variable- Return on Assets and components of working capital such as inventory conversion period, receivable conversion period, payable deferral period and current ratio. The study comparatively used fixed effect model and random effect model of panel. The result of the analysis showed that both receivable conversion period and payable deferral period had a negative impact on Return on Assets.

Afeef (2014)^[31] Working capital management adds to corporate profitability and shareholders' value. The indicators of working capital management had a very remarkable impact on the profitability of firms. *Daniel & Ambrose (2013)*^[32] analyzed the effect of working capital management on firm's profitability in Kenya for the period 2003 to 2012. They used, balanced panel data of five manufacturing and construction firms each of which were listed on the Nairobi Securities Exchange. Pearson's correlation and Ordinary Least Squares regression models were used to establish the relationship between working capital management and firm's profitability. They found a negative relationship between profitability and number of day's accounts receivable and cash conversion cycle, while a positive association between profitability and number of days of inventory and number of day's payable. Moreover, the financial leverage, sales growth, current ratio and firm size also have significant effect on the firm's profitability.

Lazavridis & Tryfonidis (2006)^[33] conducted a statistical analysis of 131 firms in Athens for the period 2001-2004 and concluded that manager may create benefits for the companies if they manage an adequate level of Cash Conversion Cycle and maintain each one of its components at an optimal level. They detected a negative relationship between the company's working and its profitability. *Arcos & Benavides (2006)*^[34] attempted an estimate of entrepreneurial efficiency of a set of companies in the non- financial sector Columbia for the period 2001-2004. *Deloof (2003)*^[35] revealed a significant negative relationship between gross profits and the average period of receivables. *Shin & Soenen (1998)*^[36] investigated the relationship between cash conversion cycle as a proxy for working capital management and the profitability of the firm for a sample of companies listed in the United States Stock Exchange during the period spanning from 1975-1994. They found a significant negative relationship between the value of the company and the Cash conversion cycle of the same companies.

7. Conclusion

This very article via out-and-out review portrays multiple developments in the domain of working capital management efficiency and its logical dependence with variables such as firm

size, liquidity, receivables, payables, profitability and so on. Working capital management is influenced by different endogenous and exogenous factors. At a certain quantum of working capital, value of a firm is maximized. Efficient management of working capital attempts to overcome the problem of reconciling the conflicting demands of liquidity and profitability. Financial practitioners, to be successful, must attempt to ensure equilibrium between investments in current assets and discharge of current liabilities. Organizations should concern about reducing cash conversion cycle by shortening inventory conversion period and receivable conversion period. Similarly cash conversion cycle can be reduced by lengthening payable deferral period. This will result enhanced profitability. Both over and under estimation of working capital is unfavorable for an organization from the perspective of profitability and liquidity.

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