

Czech University of Life Sciences Prague

Faculty of Economics and Management

Department of Trade and Finance



Master's Thesis
Working Capital Management Optimization on
Company's Level

Mgr. Neel Pandya

DIPLOMA THESIS ASSIGNMENT

Mgr. NEEL PANDYA, MCom

Economics and Management
Economics and Management

Thesis title

Working capital management optimization on company's level

Objectives of thesis

The goal is to:

- 1) understand working capital management function, objectives, instruments etc. from company's perspective,
- 2) based on the descriptive and comparative analysis observe and understand working capital management practices of particular company/ies,
- 3) as a follow up to previous points to draw recommendations / suggestions for potential working capital management improvements leading to shareholder value reinforcement.

Methodology

Working capital management is one of the most significant and critical aspect for financial health of any company. Working capital management refers to a company's strategy related to monitoring and utilizing the two components of working capital, current assets, and current liabilities to ensure the most financially efficient operation of the company. The primary purpose of working capital optimization is to make sure the company always maintains sufficient cash flow to meet its short-term operating costs and short-term debt obligations.

The proposed extent of the thesis

60-80 pages

Keywords

Working capital, current assets, current liabilities, cash flow

Recommended information sources

KEOWN, A J. – MARTIN, J D. – PETTY, J W. *Foundations of finance : the logic and practice of financial management*. Boston: Pearson, 2017. ISBN 978-1-292-15513-5.

1) Gitman, L.J., Chad, J., Z., *Principles of Managerial Finance*, brief. Boston: Pearson Prentice Hall, 2015, ISBN 978-1-292-06010-1. 2) Keown, A., Martin, J.D., Petty, W. *Foundations of Finance*. 7 vyd. New Jersey Pearson/Prentice Hall, 2010, ISBN 978-0136113652.

Expected date of thesis defence

2020/21 SS – FEM

The Diploma Thesis Supervisor

Ing. Zdeněk Toušek, Ph.D.

Supervising department

Department of Trade and Finance

Electronic approval: 11. 3. 2022

prof. Ing. Luboš Smutka, Ph.D.

Head of department

Electronic approval: 14. 3. 2022

doc. Ing. Tomáš Šubrt, Ph.D.

Dean

Prague on 15. 03. 2022

Declaration

I declare that I have worked on my master's thesis titled "Working Capital Management Optimization on Company's Level" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the master's thesis, I declare that the thesis does not break any copyrights.

In Prague on 30.03.2022

(Mgr. Neel Pandya)

Acknowledgement

I would like to thank my research supervisor Ing. Zdeněk Toušek, Ph.D. for his help and guidance during the work on this thesis. Without his assistance and dedicated involvement in every step throughout the process, this master thesis would have never been accomplished.

Working Capital Management Optimization on Company's Level

Abstract

When it comes to the financial performance of various enterprises and corporations, working capital management is a vital component. It depicts the tie between fluidity and the business's profitability in relation to the related company. Any business's working capital is made up of two main components: current assets and current liabilities. Several previous research studies have looked into the relationship between working capital and productivity in advanced financial prudence.

The key goal of this thesis is to analyze various relationship between working capital management and governance in order to improve return on an investment and output for a specified company or companies.

The financial data of one organization was reviewed in order to meet the above-mentioned goals. This company focuses on the project's integrated design, manufacture, and construction of services. Because accounts receivables made up the majority of the example company's working capital, the research focused on the cash conversion cycle.

The company's accounts receivable cycle, account payables cycle, cash conversion cycle, and various ratios have all been examined using descriptive analysis. As a result, how the changes in credit terms, discount policy, terms of payment, credit score can influence the working capital management & company's performance were drawn.

As a result, it is recommended that a corporation consider this conclusion whenever making a decision about effective working capital management.

Keywords: Working capital, cash, conversion cycle, profitability, inventory, payment, receivables, company, credit, sales, optimal, management, Interspan, current asset, current liabilities, cash flow

Řízení pracovního kapitálu Optimalizace na úrovni společnosti

Abstrakt

Pokud jde o finanční výkonnost různých podniků a korporací, je řízení pracovního kapitálu životně důležitou součástí. Zobrazuje vazbu mezi plynulostí a ziskovostí podniku ve vztahu ke spřízněné společnosti. Pracovní kapitál každého podniku se skládá ze dvou hlavních složek: oběžných aktiv a krátkodobých závazků. Několik předchozích výzkumných studií se zabývalo vztahem mezi pracovním kapitálem a produktivitou v pokročilé finanční obezřetnosti.

Hlavním cílem této práce je analyzovat různé vztahy mezi řízením pracovního kapitálu a správou za účelem zlepšení návratnosti investice a výstupu pro konkrétní společnost nebo společnosti.

Pro splnění výše uvedených cílů byly přezkoumány finanční údaje jedné organizace. Tato společnost se zaměřuje na projekt integrovaného návrhu, výroby a výstavby služeb. Vzhledem k tomu, že pohledávky tvořily většinu pracovního kapitálu vzorové společnosti, výzkum se zaměřil na cyklus konverze hotovosti.

Cyklus pohledávek společnosti, cyklus závazků, cyklus konverze hotovosti a různé poměry byly zkoumány pomocí deskriptivní analýzy. Výsledkem bylo zjištění, jak mohou změny v úvěrových podmínkách, slevové politice, platebních podmínkách, kreditním skóre ovlivnit řízení pracovního kapitálu a výkonnost společnosti.

V důsledku toho se doporučuje, aby korporace zvážila tento závěr při každém rozhodování o efektivním řízení pracovního kapitálu.

Klíčová slova: Pracovní kapitál, hotovost, konverzní cyklus, rentabilita, zásoby, platba, pohledávky, firma, úvěr, prodej, optimální, řízení, Interspan, oběžná aktiva, krátkodobé závazky, peněžní toky

Table of Contents

1. Introduction	11
1.1. Categories of various Working Capital.....	15
2. Objectives & Methodology	20
2.1. Objectives.....	20
2.2. Methodology	20
3. Literature Review	23
3.1. Management of Working Capital and Profitability of an Organization.....	25
3.2. Development of Hypothesis from prevailing Literature	48
3.3. Working Capital Administration - Conclusion	49
3.4. Profitability of Company – Conclusion	50
4. Practical Part.....	51
5. Discussion.....	70
6. Conclusion.....	71
7. References	72

List of Tables

Table 1 : Risk Level category& description	68
--	----

List of Figures

Figure 1: Working Capital Management and its elements	12
Figure 2: Impact of Working Capital on Company	14
Figure 3: Categories of Working Capital.....	17
Figure 4: Total Quality Management.....	24
Figure 5: Elements of Working Capital and Profitability.....	28
Figure 6: Variables and Factors of Working Capital	30
Figure 7: Cash conversion cycle	32
Figure 8: Optimal Inventory Level	43
Figure 9: Optimal Receivables	44
Figure 10: Optimal Payables.....	45
Figure 11: Working capital cycle.....	47
Figure 12: Working capital development from January to September in 2019.....	52
Figure 13: ABC analysis segmentation by sales volume.....	54
Figure 14: Invoicing process.....	58
Figure 15 Interspan company's client and their payment arrangements	62
Figure 16 : Interspan company's account payables cycle.....	65

List of Abbreviations

ASD	-	Australian Dollar
B2B	-	Business to Business
C2C	-	Currency-to-cash Cycle
CCC	-	Cash Conversion Cycle
DER	-	Distributed Energy Resource
DIH	-	Days' Inventory on Hand
DPO	-	Days' Payable Outstanding
DSO	-	Days' Sales Outstanding
EOQ	-	Economic Order Quantity
ERP	-	Enterprise Resource Planning (software)
Liq	-	Liquidity
NCFO	-	Net Cash from Operations
NTC	-	Net Trade Cycle
ONGC	-	Oil and Natural Gas Corporation
RFID	-	Radio Frequency-based Identification
RL	-	Risk Level
ROE	-	Return On Equity
WC	-	Working Capital
WCC	-	Working Capital Cycle

1. Introduction

Working capital management is considered an essential entity considering the fiscal performance of various businesses and corporations. It signifies the association amongst liquidity with the profitability of the corporation relating to the associated business. Subsequently, organizations must continuously monitor the associations amid the assets of the company with the short-range liabilities, towards meeting the need of survival as well as for the progression of the business reducing the risk of monetary distress and financial crisis. The working capital of any business entails two foremost entities, known as current assets, along with current liabilities. Current assets are a method or indication of the factual working capital or else working capital, that is the entire summation of current assets. Nevertheless, the current debt is a foundation of working capital that is financed. Both the cases are very significant in confirming the application of events of the corporation, where the situation of current assets displays the accessibility of working capital, whereas the situation of current liabilities displays the accessibility of sources of funding of the working capital. Consequently, the current assets, as well as the current liabilities management, turn out to be a very significant portion for the businesses; where the administration of current assets along with the current liabilities is identified as the management of working capital (Ng et al., 2017).

Management of current liabilities, as well as current assets, will govern the imminence of the corporation, the performance of the company, along with the progression of the company since the management will be associated with the capability of the corporation to run its processes. Intended towards one side, the current assets comprise the cash, the receivable accounts, and inventory determine the company's capability to accomplish events of efficiency. Intended towards the other side, although the current liabilities demonstrate the

responsibility of the company to meet the needs through the obtainability of cash, receivable accounts, and inventory within the corporation. Therefore, management desires to regulate the conformation of current assets along with current liabilities for the business liquidity to advance the belief of the public. Renowned research finding a state that the working capital management is an utmost substantial matter within a corporation, in which some economic executives seek to recognize the perception of governing working capital as well as working capital competence level. The competence of working capital will distress the happenings of the corporation, and more approximately towards the commercial activities. Through the presence of adequate working capital, the management can initiate towards further production according to the needs in the marketplaces (NGUYEN et al., 2020).

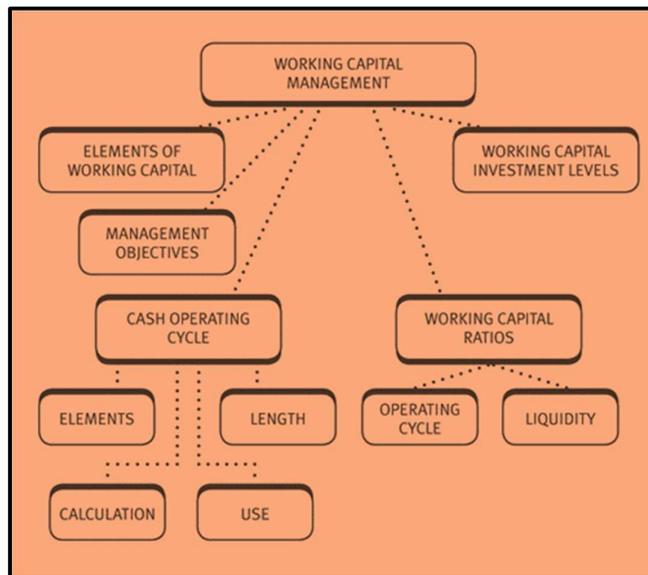


Figure 1: Working Capital Management and its elements

(Source: Ng et al., 2017)

Working capital management is even further significant in evolving and developing financial prudence, where the unbalanced circumstances of the monetary marketplaces as well as the uncertainties related to the financial situation leading to severe commotion and overall price

variability. Aiming towards the present financial condition, the small land medium enterprises confront substantial complications in retrieving the credit marketplace, which is sturdily concentrated on the banking sector, along with finding the bases essential towards financing the needed investments. These problems are even extra apparent in the industrial segment, where businesses incline to have a superior necessity for capital. In emergent financial prudence, the critically appraised findings have emphasized that the effectual administration of working capital through companies is essential to favor productivity and efficiency and, at the identical period, towards indulging engagement and financial stability. Numerous prior research investigations have expansively inspected the association amongst working capital and productivity in advanced financial prudence (Ng et al., 2017).

Working capital management can proficiently generate financial worth for the company, where the impact of the financial worth is to upsurge the performance as well as the brand value of businesses. Working capital management is intended towards consideration of the balance amongst upholding liquidity and productivity. If management is that careless towards preserving liquidity, thus the business's liquidity is more, then the influence will be able to decrease productivity. The other way around, if the management is that firm towards maintaining liquidity, so that the liquidity is low, at that time the effect will progress effectiveness. Consequently, to preserve the steadiness of liquidity, it is very imperative for the effectiveness of the business that formed the maximum (NGUYEN et al., 2020).

Working capital management is too significant since it can have a big impact on the performance of the business. This obligation could impact the marketplace value as the effect of commercial activities, which will be mainly desirability for stakeholders as well as investors. Hence, aiming towards two of the most renowned research articles, it suggested that the access point of effectual working capital management turns out to be a significant

portion of the complete approach of the company to generate shareholder worth. Following the above-concluded outcome, another research study states that the balanced optimization of the working capital management leads towards minimizing working capital necessities and make the most of income, so that the effectiveness of working capital management as well as the firm’s free cash movement upsurge, that means an increase in the probabilities of evolution and revenues for the stakeholders (Jana, 2018).

The company efforts to preserve optimum working capital to make the most of the worth of the company. Another research study concluded that the effectual working capital management leads towards a probability to attain substantial outcomes and this type of error can be too risky for most companies. Further investigation suggests that effective working capital management is associated with the development and supervision of current assets, along with the current liabilities’ benefits in the process of elimination of the risk of incapability to cope up with the short-term liabilities through avoidance of unnecessary investment in these assets. Although, another research article concludes that the incompetence of working capital management not only decreases productivity but then again, ultimately might also lead to an economic catastrophe for most of the businesses, irrespective of profit alignment, extent, along with the category of business. In view of that, the inadequacy of working capital management has a huge influence considering the existence of the company (Chen et al., 2020).



Figure 2: Impact of Working Capital on Company

(Created by the Author)

1.1.Categories of various Working Capital

Working Capital is categorized into mainly two types which comprise on the ground of timing and the foundation of the concept. Considering the foundation of the concept, the working capital is divided into two categories that include.

- Gross Working Capital
- Net Working Capital

Whereas considering the basis of timing, they are divided into two parts with their subparts which includes.

- Fixed Working Capital - Regular Working Capital – Reserve Working Capital
- Variable Working Capital – Seasonal Working Capital – Special Working Capital

The details and uses of this diverse category of working capitals are discussed below in an elaborative way.

Gross and Net Working Capital

The gross working capital denotes towards the investment fund in the company to form different assets for the business over time. In the first accounting year, within a short period of time, the current assets which are bought with the gross working capital has been transformed into cash. The net working capital refers to the excessive current assets related to the present liabilities.

Fixed Working Capital

Fixed working capital is also identified as the permanent working capital which denotes towards the initial grounded investment made on all the different existing resources in a constant manner to run all the business activities seamlessly. Over the decades, the current asset worth fluctuated from low to high, nevertheless, there is a continual necessity of having a minimum value of the current asset every time to run the business activities effectually.

Considering the various aspects of fixed working capital, there is always a constructive association amongst the net worth of the fixed capital with the size of the business. The long-term investment funds are being made used as the fixed working capital. Consequently, the worth of the existing resources changes with time whereas the net worth of the fixed working capital stays constant (Alvarez et al., 2021).

Variable Working Capital

Variable working capital is also identified as temporary working capital. There is an ultimate association amongst the variable working capital with the sales figures and production level. The production level and the sales figure do not remain constant throughout the year. The necessity of variable working capital fluctuates according to the increase and decrease in the number of productions and sales figures. Including that, if the level of production has been carried out keeping the forthcoming times in mind, the variable working capital is made to use to support the alterations in the production line and sales figure (Sudiyatno et al., 2017).

Negative Working Capital

Negative working capital is mostly a critical situation, when the worth of the current assets goes down and becomes less than the worth of the current liabilities, leading towards the perilous situation of economic crisis amongst the organization.

Reserve Working Capital

Most of the organizations progress while keeping the possibilities of both manageable and overpowering risk in the business in mind. Considering the situation of action, there are many uncertain changes that the stakeholders need to amend to evade the risks. The reserve working capital is used to meet the needs of the overpowering uncertainties backing up with a short-term monetary arrangement.

Regular Working Capital

There is always a need to maintain a minimum quantity of capital to be kept in-store and the minimal amount of working capital that needs to be preserved in the proper flow of business which refers towards the regular working capital.

Seasonal Working Capital

In every business, there is always a need for capital to cope with the festival demands, for which an amount of capital is preserved to meet the needs and for the sales and productivity. This type of capital refers to the seasonal working capital.

Special Working Capital

Special working capital denotes towards the amount of preserved capital that is used to meet the needs and expenditures of the various specialized programs towards the enhancement of the business. The specialized programs consist of the promotional campaign, advertisement on sales events, new product or service launch, the opening of new branches, or expansion in marketplaces (Herdinata, 2017).

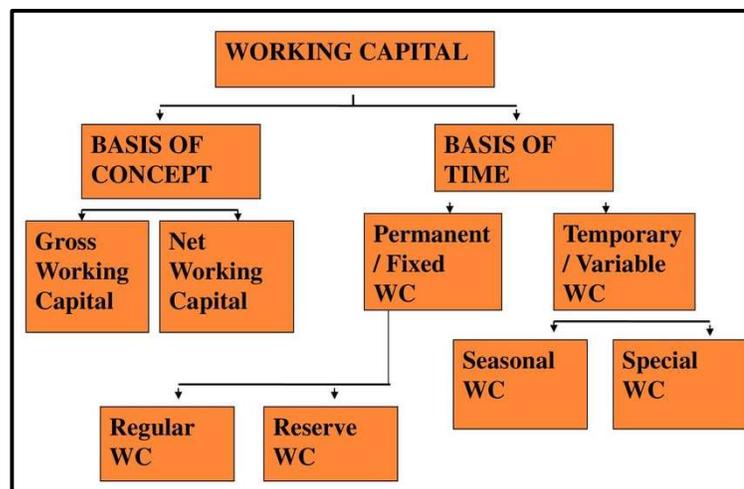


Figure 3: Categories of Working Capital

(Source: Alvarez et al., 2021)

Aiming towards the present standpoint of the competitive marketplace, the short-term liabilities, as well as assets, are significant entities of overall assets and there is a necessity to examine prudently towards the sideways of the long-term liabilities along with assets. The management of these short time assets, as well as liabilities, are subject to be reviewed prudently from the time period, for the reason that working capital management acts on a dynamic part for the company's effectiveness and menace along with its worthy investors in the entire world laying their currency in a business to get high value of return on their investment generating revenue in any type of the corporate (Boisjoly et al., 2020).

Considering the small and medium industries comprising proprietary and partnership business, the proprietors have straight or secondary regulation over the administration of the corporate. For that reason, the owners themselves are accountable for all the revenue and forfeiture. Intending towards the other side, considering the big cosmopolitan corporations, the administration of the business accomplishes the businesses of the concern in the best interests of proprietors, nevertheless, proprietors want the administration to take firm choices that will deliver constructive gesticulation to the marketplace, upsurge the brand worth of the company, progress productivity and make the most of the return in the holding period. The significance of working capital management cannot be canceled in any association (Sudiyatno et al., 2017).

A company must have an acceptable extent of liquidity since undue liquidity consequences in indolent capitals do not generate any worth in the end. Intending towards the other side, a low extent of liquidity may affect the deficiency of possessions to cope up with the monetary commitments, henceforth creating an economic crisis. The pivotal point or the emphasis of working capital strategy is towards the liquidity of current assets to encounter the short-range or else the current liabilities. Liquidity delivers the factual impress of the company's

situation to deal with the growing liabilities. A company must have an adequate extent of liquidity since unnecessary liquidity consequences in indolent funds that do not produce any worth. An additional fact is that a low portion of liquidity may affect the deficiency of properties to meet monetary requirements henceforth creating an economic crisis (Boisjoly et al., 2020).

Most of the companies have demarcated their optimum level of working capital, which will generate value for them. Considering those companies, working capital is a portion of their financial management policy. Intended towards illustration, towards increasing the sales figures, diverse companies use diverse credit strategies. Firm credit strategy will outcome in a reduction in the sales figure, hence, businesses desire to have such a rule that provides facility to the clients and the purposes of the company. Additionally, such credit is a reasonable foundation of finance for the clients rather than taking currency from any fiscal organization, therefore, to upsurge the sales figure. This credit sale system requires much more investment in the receivable account. Some business gives a certain type of discount on early expenses, that benefits to alter the receivable account into cash. Intended towards the other side of the scenario, towards fulfilling the high figure of sales, businesses need to have adequate stock and an optimum portion of the inventory. Meanwhile, the firm has devoted some money to the receivable account where it desires towards buying raw products on the credit terms that contest the credit period of the receivable account. Through ensuing such credit strategies, businesses can generate a claim and have adequate stock to deal with the demand, which will upsurge the effectiveness, and at the same time, the number of current assets, as well as current liabilities, will rise (Alvarez et al., 2021).

Aiming towards this thesis assignment, since we have already discussed and gathered the idea behind the working capital management optimization as well as the diverse category of

working capital on the level of a company, in the further part of the thesis, we will be discussing about the literature review, descriptive critical appraisal, the aim and objective of the thesis, the research analysis, and methodology to detect the situation of the working capital management of any organization, use of different financial tools and statistical analysis, along with the improvement and limitations of the research article.

2. Objectives & Methodology

2.1.Objectives

The foremost objective of this thesis is to seek out the assorted impacts of the working capital, managed and administered towards better return on investment and productivity optimized for selected company/ies.

The objective is broad, so it had been decided to split the objectives into three mains distinct-

- a) To understand the concept of working capital and its functions, objectives, instruments, types etc. at company's perspective,
- b) Based on the descriptive and comparative analysis observe and understand working capital practices of selected company/ies,
- c) Based on the above points, draw a recommendation/suggestion for potential working capital management improvements leading to shareholder value reinforcement.

2.2.Methodology

Aiming towards the working methodology of the thesis, to get appropriate knowledge about the management of working capital in a company, and to fulfill the objective of the thesis, the first methodological step that has been taken is the commencement of an all-inclusive literature review. The literature review through its critical appraisal shows the various features and thoughts of the well-known author about the administration of the working

capital influences on the productivity of a company. Some hypothesis has been shown to show both the positive and negative aspects depending on the type of management on the working capital. This also put a view on the suitable exact way of administering working capital towards the profitability of the company.

Data analysis

Several relationships are being brought together especially with the cash conversion cycle and taking into consideration the profitability. Similarly, it has been noticed that the company is capable of managing its inventory as much quickly and much more efficiently, and therefore the collection of cash has become all along with the down cash payments. It is important to be identified with the United States in consideration but also when talking about the stock market several counted markets are clearly defining the relationships established under the generalized method. With the data being collected it can be said that all along with the explanatory variables and the differences, profitability as well as liquidity share a certain level of relationship. This altogether is dependent on the empirical results that are taking over the coefficients of mentioning the cycle for cash conversion. Identification of a company's performance is largely towards the understanding of the inventory coefficients and conversion as well. Regarding the company's performance, it is always about the explanatory variables and the coefficients that had been settled. On a general note, with the optimal amount of the payables being crafted with the cost of payables, it can be said that the cost in costs stands to be a constant upward rising slope while the opportunity cost becomes a downward hyperbolic slope. Here, with the determinations of the data that is being found here through the qualitative data, there can be an aspect related to the carrying

costs and the opportunity costs altogether which creates an attempt to what the identification of the total cost points to a minimum range.

Synthesis

The research and its data synthesis established several relationships but on the other hand, it remains an important aspect to identify the coefficients and the trade cycle calculated to its net is a major only important for the optimization being made of the cycle for cash conversion. Several mathematical methods establish the fact about the net trader cycle and the differences that are calculated as the first difference. Moreover, a major aspect that has been already determined here is the profitability of the organization. Here in this case, it has been underlined that the influence of the experiential discoveries has associated liquidity with some of the major prominent factors like profitability. It is to underline the fact of the balance sheets and the elements that are being derived from the working capital are making their way altogether to the conversion cycles of cash and the overdraft for the borrowing facilities. There are several aspects regarding the profitability of the organization and take under consideration the cash conversion cycle because receivables are majorly determined from the same aspect. Therefore, not only are the recommendations of the optimal type of cash conversion cycle being made but it is also determined through the trade cycle.

Comparison

The major difference that is being created here in this research not only includes the optimal accounts receivable but also based on the optimal inventory level where the total cost is supposed to be the meeting point of the carrying and the opportunity cost. This is clearly how the minimum total cost is being found out. However, not only does the optimal

inventory level depend there but also there is quite an understanding made about the optimal receivables which have their minimum total cost at the meeting point of the carrying costs and opportunity costs. On the given graph considered in this thesis, these two come about with the parameters of granting receivables cost and the optimal amount of credit.

3. Literature Review

The administration of working capital apprehends the corporation's current assets along with liabilities, in place of the association amongst liquidity with productivity. The operative and effectual administration of working capital enable the endurance of business actions, as it errands the business's capability towards having a cash flow to recompence short-term commitments (Altaf et al., 2018).

Though, the optimum extent of working capital is accustomed through the effective features of the business and through the orientation financial context. Consequently, particularly in situations categorized through high environmental inconsistency, classifying the optimum size is multifaceted and necessitates incessant monitoring, towards making the essential modifications.

Considering the consequences of Total Quality Management, Six Sigma, along with lean program ingenuities, numerous bigger businesses familiarized developments to upsurge the rapidity as well as accurateness of recognition endorsement procedures from 24 to 48 hours to numerous minutes; comprehensive digitalization of credit claim, endorsement, and billing procedures with no tabloid archives; decrease in sales best record possession and consultation developments to upsurge certain sales period with clients to grow cash as well as credit sales efficiency; making contractors accountable for warehouse readiness on store shelves, along with the undertaking of inventory from the storeroom to storage backrooms

and tables using techniques that includes radio frequency-based identification (RFID) microelectronic merchandise codes and palette labels; with asset application agendas that have enhanced working capital administration competence, and amended cash flow as well as effective revenues. Subsequently, companies have had accomplishments with incessant development agendas, they have observed unvarying procedure developments as well as subsequent effectiveness upsurges and not just onetime expansions. Subsequently, aggressive working capital administration utilizations might progress both liquidity and productivity, and not accentuate one at the expenditure of the other one (Uluskan et al., 2017).

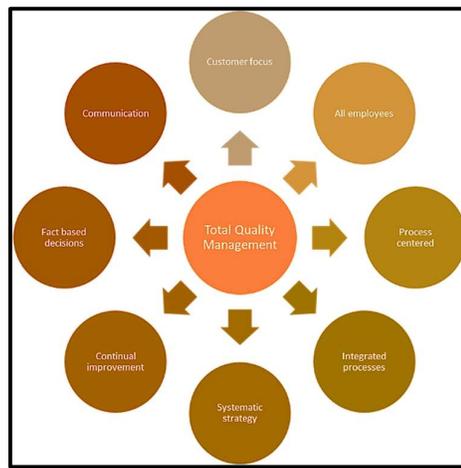


Figure 4: Total Quality Management

(Source: Uluskan et al., 2017)

The procedure enhancements stirred through unremitting development programs have been conveyed through technological as well as software program enhancements that have abridged the stages of capital reinvestment essential towards preserving the going apprehension worth of the company in many industrial or else capital concentrated businesses. It also must be well-known that bigger companies are further probable to follow as well as involve the assistances of unremitting development programs along with having the capitals to capitalize in those ingenuities (Boisjoly et al., 2020).

3.1. Management of Working Capital and Profitability of an Organization

Over the preceding decade, several research analyses have represented the association amongst working capital administration with profitability in evolving financial prudence. In Nigeria, a research investigation found an undesirable connection amongst productivity and usual assortment period, inventory gross revenue, cash conversion cycle as well as average imbursement period. Another well-renowned research finding investigated Indian corporations, discovering an adverse connection amid working capital with effectiveness (Bagchi et al., 2017). In Iran, scholars researched out that the cash conversion cycle along with the number of days of holding shares has no substantial consequence, while receivables of account, as well as account payables, have an important undesirable consequence on the proportion of gross effective revenue towards assets. Another researcher scrutinized the balance sheet statistics of Pakistani corporations, signifying that working capital has an optimistic impression on the execution and accomplishment of the business in view of the identical financial context (Ahmed, 2017).

A group of researchers investigated textile establishments, discovering a constructive association amongst dimensions along with productivity and profitability as well as an undesirable association amongst working capital with performance. Equivalent outcomes were emphasized by another two researchers in their research investigation on Pakistani cement businesses. In Kenya, research scholars scrutinized those trade receivables as well as inventory time being undesirably influence by the productivity of industrial small and medium enterprises (Stephen et al., 2017).

The research finding by two researchers investigated business corporations registered on the Ghana Stock Exchange, giving importance to a constructive association amongst working

capital administration as well as profitability. Numerous research investigations have correspondingly been completed considering the background of the companies based in Latin American. Research findings originated those investments made on working capital are less gainful than a cash outlay and that increases the working capital at the commencement of the year reducing the worth of the Brazilian establishments (Prempeh et al., 2018).

Aiming towards the equivalent monetary context, a research study emphasized that the amount of debt, extent, and evolution rate have a noteworthy influence on the administration of working capital. Another research scholar through the research finding studied Brazilian agri-food businesses, signifying an optimistic and important association among productivity as well as liquidity (Nakamura et al., 2017).

A new investigation has found that in Colombian concerns, the cash conversion cycle was contrarywise proportionate towards the profitability. Another investigative finding shows manufacturing businesses in Peru and Chile, highlighting an undesirable connection amongst the cash conversion cycle with the working capital obligation with productivity.

A group of researchers found that Latin American establishments have a surplus of liquidity that moves towards demolition of worth. Viewing in the same context, another group of researchers highlighted that companies have used insufficient working capital administration strategies, highlighting that corporations have additional liquidity. Another investigation suggests the study on Argentine concerns registered on the Buenos Aires Stock Exchange, perceiving those businesses with advanced working capital have more profitability (Mandujano et al., 2018).

Additionally, experiential discoveries gainsay the critical appraisal that supports an adverse association amongst liquidity with profitability, prominence a negative association amongst

liquidity with debt, along with a constructive association amongst the variations in current capital as well as long-range debt. Since it is apparent, the short-term inspection of the research studies directed in developing and evolving frugality has exposed contradictory outcomes concerning the connection amongst the administration of working capital along with profitability (Terreno et al., 2020).

In accumulation towards balance sheet profits, many businesses can experience more profitability as well as a decrease in their risk as soon as they comprehend the recommended developments. Lots of researchers through their research study have shown the usage of the overall cash cycle, weighted cash conversion cycle, cash conversion cycle, along with overall trade cycle as significant working capital actions and inspected their influence on the profitability of the company. It is likewise very significant to note that this investigation does not imply to demarcate the factors of working capital strategy by business, nor does it show which variable quantity have better descriptive influence for certain productions (Kieschnick et al, 2018). Nevertheless, there does appear to be some proposition that firm actions apprehend the influence of strategy determining factors in definite businesses.

Bestowing towards the existing literature, to effectively discourse this matter, it is essential to at the same time examine the association amongst all the elements of working capital with profitability, as there are mutual impacts among each of its rudiments. Consequently, any conclusion that influences one of its standards unavoidably distresses others. Grounded on the hypothetical orientation background recommended through the foremost literature, this study scrutinizes the distinct components that make up the inventory, receivables account, account payables, cash conversion cycle of the working capital, by means of the current ratio, the extent of the business as well as monetary influence. The variable quantity is just stated on behalf of the self-regulating variables that impact productivity, whereas the latter

characterizes the dependent variable. The productivity of businesses highlights the corporation's capability to make use of its possessions and is restrained through two entities that comprise Return on Assets along with the Return of Equity (Chen et al., 2017).

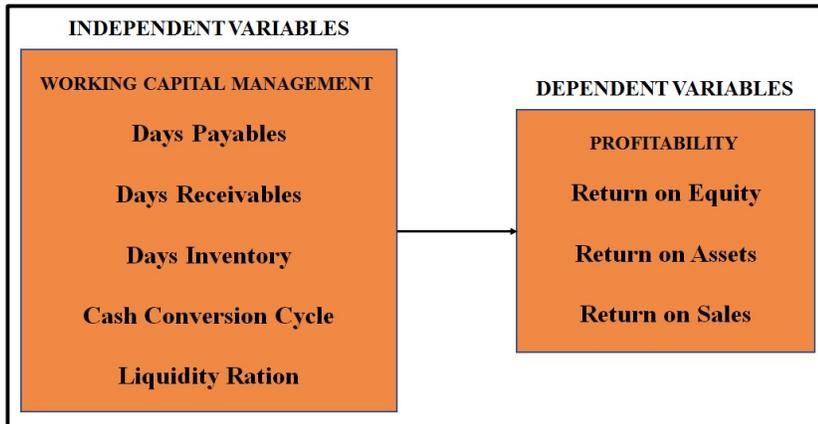


Figure 5: Elements of Working Capital and Profitability

(Created by the Author)

Conferring to some of the research, a big investment considering working capital can have a constructive consequence on the productivity and worth of the business. From this standpoint, the investment made on working capital makes it probable to upsurge sales, decrease obtaining costs as well as to acquire concessions on acquisitions made (Aktas et al., 2017), upsurge sales along with progress client relationships (Erasmus, 2017). Moreover, aiming towards that type of investment decrease the corporation's dependency on price variations associated with the efforts of the making procedure.

Apart from those discussed research, further investigative studies show that disproportionate investment in working capital can damage the productivity as well as the worth of the company (Aktas et al., 2017). Through this deliberation, it has been suggested that the huge investment in working capital upsurges the monetary desires of the business, as it regulates the necessity of the alternative to additional funding. Considering these circumstances, disproportionate investments in working capital intensify the rigidity (Sanchez et al, 2017)

along with the audaciousness of the company, risk acclimatizing the prospect of resonating out novel investment developments in the short-range (Ek et al, 2017). Additionally, these investments upsurge the possibility of even liquidation (Campos et al., 2017; Sensini, 2017).

In conclusion, many other scholars have highlighted that optimum capital administration necessitates a trade-off amongst danger along with proficiency, whereas other researchers have recommended a non-linear association amongst working capital administration as well as execution. (Chauhan et al., 2018).

Intending towards this context that is momentarily delineated, quite a few research have highlighted that the overview of quality administration technique can progress the effectiveness of monetary administration (Boisjoly et al., 2020), permitting to enhance the administration of the discrete fundamentals that make up working capital (Yang et al. 2020; Nollet et al. 2017).

Nevertheless, several investigations have shown that the outline of quality administration classifications and observes is more problematic for small and medium corporations in evolving financial prudence, also owing to the limitations connected with the situation of conservational context (Ratnawati et. al., 2019).

Aiming towards the research findings of (Nguyen, 2019), the internal variables along with the external variables are the two utmost significant categories that resolute the profitability of the corporation. Internal determining factors encompassed variables associated towards administration decisions, fiscal features as well as company features that comprise the working capital administration, extent of the business, age of the business, a capital edifice, along sales growth. External determinants encompassed variables associated with the marketplace, business, and financial environment. The profitability accentuates on the

determining factor encompassing the working capital administration, sales growth extent of the corporate, age of the corporate, leverage as well as current ratio.

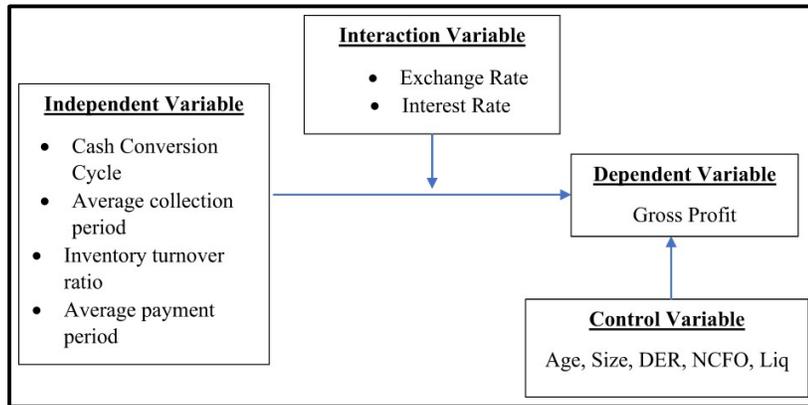


Figure 6: Variables and Factors of Working Capital

(Source: Nguyen, 2019)

Liquidity

A company's liquidity is defined as the quantity of money it has on hand to make investments or pay bills. This investment in working capital must be financed, and corporations have a variety of choices for doing so. Overdrafts or borrowing facilities may be used by certain companies, while others employ asset financing to satisfy their day-to-day demands. Liquidity ratios are used by firms to gauge their financial health. Most organizations utilize the current, quick, and cash ratios as their primary metrics.

The current asset-to-liability ratio is the ratio of the firm's current assets to its current liabilities. It evaluates whether a business can use the money it receives from the sale of assets to pay down all its current short-term debt. Same as the current ratio only cash, account receivables and marketable securities are used instead.

The company can only pay off its debt with cash.

Investing in cash has a negative aspect since it returns relatively little. Shareholders are unlikely to get a return on their money deposited with the bank. When it comes to business strategy, holding too much money in the bank is a bad idea. Short-term and long-term capital, including cash, should be used to support the company's operations.

To guarantee that their key liquidity demands can be always satisfied, companies maintain a constant eye on their present and expected cash situations. When the cash register is full, they don't wait. Companies use both the asset and liability sides of their balance sheets to get finance ahead of time in the event of a liquidity crisis. Purchasing liquid assets like treasury notes, which can be sold off quickly if needed, is one way they may do this. Depending on their liabilities, businesses may take out credit lines or issue securities that allow them to better manage their cash.

Liquidity is required by businesses as a kind of protection against credit restrictions. Credit rationing is a result of the gap between the company's pledge-able income and its overall revenue. Once pledge-able revenue falls below total income, projects may only continue if their financing has been pre-planned and secured in advance. This demonstrates the need for liquidity planning for businesses.

Strategic and operational factors are used to mitigate liquidity risk. A corporation has contingency measures in place in the event of a cash flow catastrophe. Short-term borrowing or asset mix may have to be restricted to safeguard the company's financial interests. Defining short- and medium-term cash requirements, as well as the potential effect of various liquidity situations and the measures necessary to address these challenges, require tight collaboration between the asset management and cash management teams. Liquidity risk management begins with a review of the company's liquidity ratios, net working capital, cash flow analysis, and the cash conversion cycle.

Cash conversion cycle

Currency-to-Cash Cycle (C2C) is a term that refers to the process of converting cash from one form to another. It is also known as the "cash cycle" or "cash-to-cash cycle." Short-term resources are used to finance all the acts in the cycle in a regular setting.

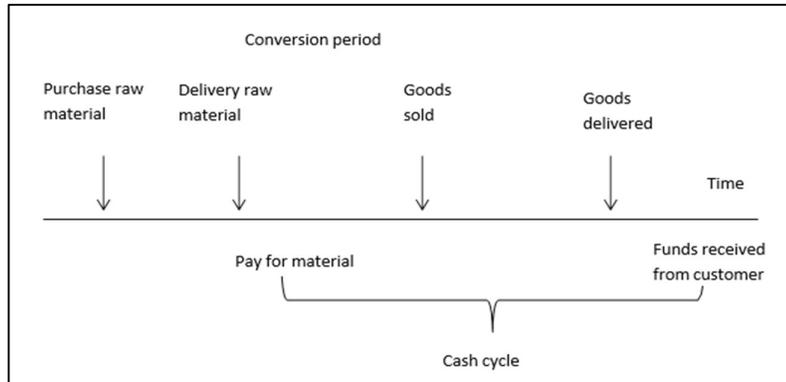


Figure 7: Cash conversion cycle

(Source: Valipour et al., 2017)

This cycle is important since it shows how many days the company's cash flow is constrained. The red line in the company's cash flow may be seen by comparing the cycle over time. There will be inventory sales and receivables collection before the payment of obligations if this cycle shows a negative period. This means that the firm is in perfect health. When a company sells a large amount of inventory but does not get any cash, these circumstances are present. Cash should be collected as fast as feasible and cash outflows should be postponed until they are no longer necessary. The classic principles of the cash operating cycle and the cash conversion cycle form the basis of this cash management philosophy (CCC). Accrual accounting information is used to calculate the CCC, which has a direct impact on the company's worth. In other words, a short CCC in comparison to a long CCC implies that the company is getting cash rapidly and paying suppliers close to the due date. The net cash flow and the value of a firm will rise consequently or the other way around.

Furthermore, if a company's CCC is shorter, it indicates that its internal processes are more efficient and that its net cash flow is closer to becoming available, or vice versa. Inventories and receivables are included as part of the cash conversion cycle, while suppliers are counted as part of the payment deferral. No attention is given to a product's operating cycle when calculating its CCC, which focuses only on the length of time funds are held in the cycle.

Increase/decrease inventory and accounts receivables periods while increasing/reducing accounts payable periods with an aggressive approach to liquidity management results in a lower or better credit rating. There are sacrifices to be made between liquidity and profitability while managing a company's CCC. If the days-in-inventory are cut too much, the company would lose revenues from credit consumers. Discounts for early payments and debt flexibility are both lost if the business raises the day-in-payables too much.

Many studies have employed CCC-based criteria to assess working capital management. Due to increased investment in inventory and trade credit extended, longer CCC may lead to increased sales and profitability for the firm. If a company reduces its supplier financing, it may be able to secure significant discounts for early payments. To maintain a high CCC, corporations may have to forego other more profitable expenditures.

Since enterprises have limitless access to sources of funding and external funds are a perfect replacement for internal resources, investment strategy simply relies on the availability of investment opportunities with positive net present value in the ideal capital markets. As a result, there is no opportunity cost to a longer CCC in this case, as enterprises may easily and cheaply access external funding. However internal and external financing are not interchangeable. Because of market flaws, external financing, like debt or fresh share offerings, may be more costly than internal financing. Because of the interdependence of

investment choices, a company's CCC may be optimized to maximize its value in certain situations.

To create cash from continuing activities, the shorter the cash conversion cycle, the more often the organization will be able to do so. This holds for both public and private companies if a corporation succeeds in reducing its CCC to a more manageable length. It's possible that managers of publicly traded firms are risk-averse, or that cash lets them consume perquisites or pay for extra investments that they don't need.

As previously stated, a big CCC may have a positive impact on a company's sales and profitability for a variety of reasons. Due to the scarcity of items, supply costs and price volatility may be reduced by having a bigger stock of products on hand. Second, the firm may enhance sales by providing more trade credit to consumers, allowing them to verify that the goods they get are agreed upon in terms of quantity and quality, as well as that the services promised to have been performed. Developing long-term connections with clients is a key benefit of this strategy. In the empirical section of this thesis, this is examined in further depth.

Time-based measure

The empirical component of this thesis uses an example from the case firm to examine time-based working capital measurements. Non-purpose delays are expensive, thus it's critical to understand how much a day is worth. To decrease the amount of working capital that is locked up, organizations are focusing on minimizing non-value-added time and activities. If anyone is trying to figure out how long it takes for the cash to go from procurement to sales, they may use a metric called the cash-to-cash cycle. The day's sales outstanding (DSO) is an important metric in this research and is computed using the following formula.

$$\text{DSO} = (\text{Accounts receivable}/\text{Invoiced sales in period}) \times (\text{Days in period})$$

For invoicing, the DSO is a typical metric that is employed. The formula calculates the average amount of time it takes for a firm to earn money after a transaction has been made. Delays in reconciling invoices are a major source of extra working capital since they delay payment and lengthen the debtor-in-waiting (DSO) period. Faster cash collection advantages, the additional costs of implementing and maintaining new debtor management methods, and changes in customer behavior are typical demand-side tradeoffs.

When firms buy supplies, they should also keep in mind the payment cycle. A company's average days payable outstanding (DPO) is used to calculate how long it takes them to pay off their accounts receivable on an annual basis.

$$\text{Calculating DPO is simple: } (\text{accounts payable}/\text{cost of sales divided by } 365)$$

Using this method, we may determine how many days it takes for a vendor to get money for an input. Supply-side issues include dealing with supplier relationships, cash disbursement, and the DPO. Vendors are typically considered as a cheap source of income, but on the other hand, purchasing organizations desire to build long-term relationships with suppliers. Suppliers often respond by increasing unit prices or lowering quality or service levels when faced with unexpectedly unpredictable demand and protracted payment periods. An additional metric is the number of days inventory has been on hand (DIH). DIH measures the rate at which a company's stock value of raw materials, work in progress, and completed items are transformed into product sales. The following formula is used to compute it:

$$\text{DIH} = (\text{Inventory}/\text{Sales Cost}) \times 365$$

It's generally a good idea to have a lower or shorter DIH, but it's crucial to keep in mind that the average DIH differs from one business to another. As a management tool, this time-

based working capital indicator is critical. Using this indicator may assist determine a company's capacity to meet its financial commitments, as well as its liquidity and organizational efficiency. In addition, corporations may use the measure to monitor and regulate the components of their circulating capital. Operations management uses the cash-to-cash cycle as a measurement to correlate the company's inflow and outflow of cash using accounting standards. Additionally, this perspective aims to understand how the company's financial operations affect its suppliers and consumers. Formulas based on time in the empirical section of this thesis, instances of the case firm are used to study DSO and DPO.

Inventory

Having enough cash on hand to cover payroll and other obligations is essential, but so is having enough inventory on hand to prevent production from being stopped or customers from becoming disgruntled due to "stock-outs." Neither situation is desirable. If operating capital is infinite, it can meet both needs, but many goods will sit unused for lengthy periods. Profits would be lost because of the additional expenses of owning big equities and the interest charges of the cash invested.

Customers with good credit may usually put off paying for their goods until they have more money saved up. Regardless of the amount paid, the client saves money on both manufacturing and transaction expenses. Storage-related production costs are reduced by deferring payment, which shifts the customer's financial opportunity cost to the provider.

When managing working capital, it is critical to keep an eye on inventory management as well. To lower their working capital, companies must focus on reducing their stock. Companies must have a supply of raw materials, work in progress, and completed goods to function. When a product is nearing completion, more working capital is required to keep the product in stock. Storage costs and capital commitments might be high for certain

inventory items. Trade-offs must be made between the benefits of big inventories and their associated expenses. Although it isn't legally required, it is more cost-effective to maintain an inventory of raw materials, completed items, and so on, than purchasing them daily. Keeping money in inventory does not yield interest, and there is also the cost of storage and insurance to consider. Companies must find a reasonable balance between the advantages of stockpiling goods and the expenses of stockpiling them. Keeping money in inventory does not yield interest, and there is also the cost of storage and insurance to consider. Companies must find a reasonable balance between the advantages of stockpiling goods and the expenses of stockpiling them.

Tools that may be used to improve a company's working capital

The following is a list of several tools that may be used to improve a company's working capital.

Projection of future growth in the industry.

The ability of companies to maximize their working capital is directly related to the accuracy of their sales forecasts. As a rule, it involves determining how much demand there will be for a product, and then determining how much profit a company can expect to make. It's critical to keep up with customer demand fluctuations. The companies will have a better sense of their customer's interests and preferences, and they'll learn more about the industry.

Consider the following when estimating sales of a company's product or service:

- Inconsistencies in customer tastes and preferences
- Competition
- Future and previous trends
- Business Seasonality
- Promotional and value-added services were used
- Target

Inventory Management

Keeping track of all the purchases a company has made, the total amount of items a company has put on the market and managing stock are all part of inventory management. a company's customers will be more satisfied and company expenses will be lower if a company manages a company's inventory properly. The 80/20 rule may be used here. In other words, 20% of a company's items will account for 80% of a company's sales, whereas the other 80% of a company's products will only account for 20% of a company's sales. a company can increase sales by producing more of the goods that account for 80% of a company's revenue once a company knows what they are.

Receivable Management

Receivable management is ensuring that a company's customers pay their invoices on time. Managing receivables is critical to ensuring that a company's working capital does not run out. As a result, the liquidity is maintained, and the risks are minimized. Providing clients with this payment option is a way to make a company's items more accessible and establish stronger customer connections, which leads to better deals and increases a company's operating capital.

Customers who purchase products from a company's firm are contractually obligated to pay a company the agreed-upon sum, which is often every month. a company is entitled to demand payment, and if there is a delay in payment, a company must determine the cause and give assistance and solutions to a company's customers as well.

Cash Conversion Cycle

Calculating a company's "cash conversion cycle" is an important indicator for evaluating how long it takes for a company's investments in items to pay off. For determining the estimated cash conversion time, use the following formula:

$$\text{Cash Conversion Cycle} = \text{Receivable Days} + \text{Inventory Days} - \text{Payable Days}$$

This is how a company figures out how long it takes to convert money from one currency to another. When it comes to optimizing working capital for a firm, here are some things to keep in mind.

An Optimal Cash Conversion Cycle

The typical corporate finance manager devotes 80 per cent of her/his time to managing short-term financial resources daily, based on historical data and present trends. However, corporate finance has traditionally focused on long-term financial choices, such as capital structure, dividends, investments, and firm valuation. Corporate finance has recently shifted its attention to working capital management. Research reveals that corporations generally overinvest in working capital, according to some of the available research.

Faster collection and slower pay out are the foundations of working capital management. In this working capital management principle, cash conversion, weighted cash conversion and net trade cycles are used as a framework. A company's operating cycle is the period it takes for raw materials to be purchased and completed items to be sold. Financial flows from receivables and inventories are included in the operational cycle, although they are not considered.

The cash conversion cycle is the amount of time it takes to pay for raw supplies and recover receivables from customers. A product's cash commitment is not taken into account

throughout the cash conversion cycle, which simply looks at how long financial flows have been involved in the cycle. Since the timing of financial flows and the quantity of money committed to each step of the cycle are important. It is possible to define the weighted cash conversion cycle as the number of days funds are committed to receivables and inventory, minus the number of days financial flows are postponed to suppliers. As a result of the weighted cash conversion cycle's complexity, many researchers recommend using the net trade cycle as an alternate metric for working capital management since raw materials, work in progress, and completed commodities are not always accessible to outside investigators. Because the denominators for the inventory conversion, receivable collection, and payable deferral periods all vary, they claim that the cash conversion cycle is an additive notion, which is not very helpful. Denominators for inventory conversion, receivables and deferral periods should be equalized.

When the three components of the cash conversion cycle (receivables, inventories, and payables) are expressed as a percentage of sales in the net trade cycle, they are almost identical. While the cash conversion cycle and weighted cash conversion cycle are more difficult to compute, this method is simpler to understand and less time-consuming. They also argue that the net trade cycle is better than cash conversion cycles and weighted cash cycles because it indicates how many "day sales" a company has to finance its working capital and working capital managers can easily estimate working capital financing needs to be expressed in terms of expected sales growth.

A firm's liquidity cannot be accurately assessed if the optimal levels of receivables, inventories, or payables are not taken into account when using the operating cycle, a cash conversion cycle, a weighted cash conversion cycle, or a net trade cycle, all of which are powerful measures of working capital management. Firm profitability, liquidity, and market

value are traditionally linked to these cycles (the operational, cash-conversion and weighted cash-conversion cycles) by reducing the length of these cycles. Cash conversion cycles may be measured in terms of the amount of time it takes for a firm to manage and process its inventory, collect cash from its receivables, and pay out the money it receives from suppliers. An improvement in internal operations efficiency and a rise in the net present value of cash flows and the market value of a company are both achieved consequently.

Working capital may be reduced to shorten the cash conversion cycle and the net trade cycle. Shortening the inventory conversion time, for example, might be achieved by processing and selling items to consumers more rapidly, or speeding up the collection of receivables, or prolonging the receivable collection period.

Slowing down payments to suppliers to extend the payable deferral period as an alternative, the company's profitability might be negatively impacted by shortening the cash conversion cycle, cutting inventory conversion time, reducing receivable collection time, and prolonging payment time. A shorter cash conversion cycle has a high opportunity cost, whereas a longer cash conversion cycle has a high carrying cost. Maximizing sales and profitability and market value of businesses by minimizing inventory, receivables and payables' carrying costs and opportunity costs will be achieved by achieving optimum levels of inventory, receivables, and payments. The optimum cash conversion cycle, optimal net trade cycle, and optimal operating cycle are more precise metrics of working capital management.

Optimal Operating Cycle

The ideal operating cycle is a function that can be multiplied by itself. Inventory conversion and receivables collection periods are measured using equations 1 and 2.

Optimal Operating Cycle = Optimal Inventory Conversion Period + Optimal Receivables Collection Period..... (1)

Optimal Operating Cycle = (Optimal Inventory/Cost of Goods Sold) *365 + (Optimal Receivables/ Sales) *365..... (2)

Optimal Cash Conversion Cycle

Additive functions are used to determine the best cash conversion cycle. Equivalent to a formula that evaluates the optimum duration of inventory conversion, receivables collection, and payables deferral periods. Three factors determine how quickly cash may be converted into cash: inventory conversion period, receivable collection period, and payment delay period.

Optimal Cash Conversion Cycle = Optimal Inventory Conversion Period + Optimal Receivables Collection Period – Optimal Payable Deferral Period..... (3)

Optimal Cash Conversion Cycle = (Optimal Inventory/Cost of Goods Sold) *365 + (Optimal Receivables/ Sales) *365 – (Optimal Payables/Cost of Goods sold) *365..... (4)

Optimal Net Trade Cycle

It is also a function of the net trade cycle's optimum length. A day's sales are used to measure the ideal duration of the inventory conversion period, the optimal length of the receivables collection period, and the optimal length of the payable’s deferral period, which are all stated in a day's sales. Optimal Net Trade Cycle = Optimal Inventory Conversion Period + Optimal Receivables Collection Period – Optimal Payables Deferral Period..... (5)

Optimal Net Trade Cycle = (Optimal Inventory/Sales) *365 + (Optimal Receivables/ Sales) *365 – (Optimal Payables/Sales) *365..... (6)

Optimal Inventory Level

The Economic Order Quantity model (EOQ) is one of the best-known methods for determining the appropriate inventory level. The figure 8 illustrates the core concept of this approach, which is to represent the overall cost of keeping inventory for varying inventory levels. We can see this in the figure 8, where inventory carrying costs rise and inventory shortfall costs fall as inventory levels rise and we try to find the lowest overall cost point Q^* .

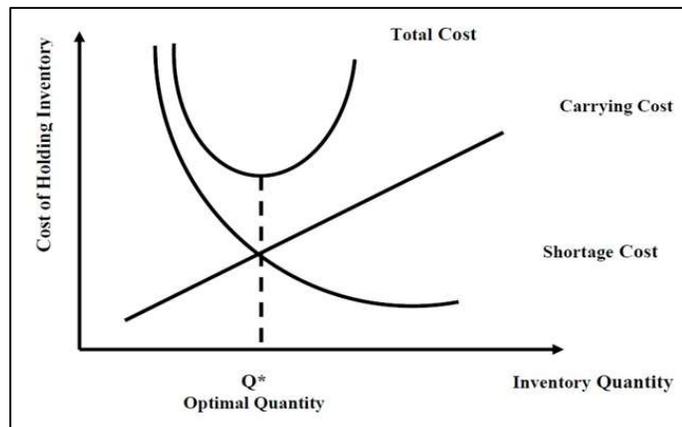


Figure 8: Optimal Inventory Level

(Source: Wu et al. 2018)

Optimal Accounts Receivable

It's possible to identify an ideal credit level by determining how much more cash flow generated by giving credit to consumers offsets the higher expenses of keeping additional assets in account receivables.

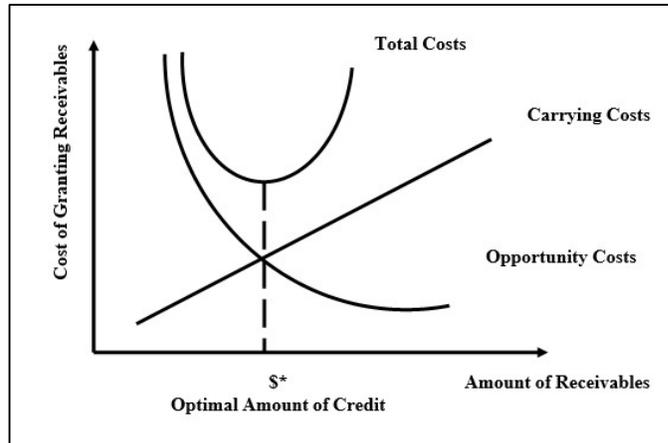


Figure 9: Optimal Receivables

(Source: Suwantari et al. 2020)

Because of this, carrying costs rise and opportunity costs fall as the amount of credit granted grows, as indicated in the figure above. We're trying to find the cheapest possible total cost point S^* . Cash discounts granted by the company to clients who pay early, or losses of bad debts, or the expenses connected with managing credit or operating the credit department, are the primary sources of the costs associated with issuing a credit. When a company refuses to give credit, it forfeits the extra profit that would have been generated had the company extended credit.

Optimal Accounts Payable

Short-term borrowing has an option in the form of trade credit. In contrast to trade credit, short-term borrowing costs money. Increased accounts receivables may reduce the cost of short-term borrowing for businesses. A rise in accounts payable is connected with a reduction in short-term borrowing costs, or "opportunity costs of short-term borrowing." Another kind of cost rises together with an increase in accounts payable. With increasing account payables, the carrying cost of maintaining and operating the payable department grows. Other expenses may rise as well if accounts payable rise. When a corporation extends

its trade credit, for example, the likelihood of a delay in payment to suppliers rises. This might harm the company's credit rating, which could result in the loss of some of its suppliers' cash discounts. In Figure 10, carrying costs rise while short-term borrowing opportunity costs fall as the number of accounts due grows. S^* is our goal in finding the lowest possible overall cost.

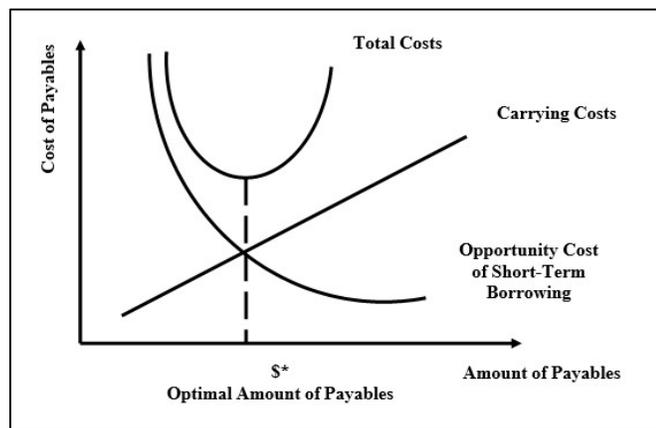


Figure 10: Optimal Payables

(Source: Irawan & Darmansyah, 2021)

The Working Capital Cycle

Net current assets and current liabilities must be converted into cash within the Working Capital Cycle (WCC). There is a higher risk of losing money over a long period because of the extended cycle time. a company's firm will be able to free up cash and be more adaptable if a company has short cycles. Cash flow is more difficult to achieve if a company's working capital cycle is lengthy. Payment periods of up to 54 days¹ offered by the American Express Business Card may assist bridge the gap between paying suppliers and receiving payment from customers.

If every transaction in a company's business could suddenly happen on the same day, it would be a breeze to keep track of a company's financial health at any given time. But the time it takes to pay for and sell assets, deliver things, and get paid for a company's job may have a negative influence on cash flow. The short-term liquidity and efficiency of a company may be improved by managing the working capital cycle.

How to calculate the Working Capital Cycle?

The four stages of the working capital cycle can only be calculated if a company has a complete understanding of a company's present assets.

Working capital cycle breakdown:

Managing a company's business's cash inflows and outflows to ensure a stable cash balance.

Money owing for products and services that haven't been paid yet

Selling a company's inventory – the amount of time it takes

How long it takes a company to pay a company's vendors

The formula for the Working Capital Cycle.

The formula for the Working Capital Cycle may be different for various businesses. For instance, a manufacturing company will have more stages than a retail firm.

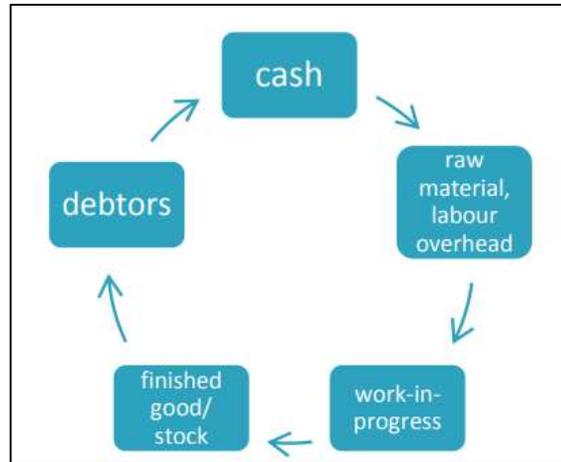


Figure 11: Working capital cycle

(Source: Boisjoly et al. 2020)

A positive Working Capital Cycle

A positive Working Capital Cycle occurs when a corporation is awaiting payment to generate accessible cash. This is a common occurrence since most companies are forced to strike a compromise between paying their suppliers and delivering their goods and services and being paid.

A negative Working Capital Cycle

There is a risk of falling into a negative feedback loop if a company can gather money quicker than it takes to pay a company's debts.

The benefits of a shorter Working Capital Cycle

A shorter Working Capital Cycle is beneficial since it frees up capital that would otherwise be trapped in the cycle. As a result, if a company's operational cycle is too lengthy, the capital is trapped in the operational cycle and does not return any money to investors. If a company doesn't have enough capital to support its operations while cash is stuck in a cycle, it might

get into debt and experience cash flow issues. By reducing a company's Working Capital Cycle, a company may alleviate the strain on them.

3.2. Development of Hypothesis from prevailing Literature

Hypothesis 1: The turnover of the receivable accounts has a negative aspect on the profitability of the business.

The hypothesis delivers that the shorter the turnover of the receivable accounts in days, the fewer is the working capital of the company used by the clients. It benefits companies to be practical in subsidizing all expenditures and to broaden the investment prospects in other schemes and developments to make a turnover. Practically all prevailing experimental research findings verified and resolved that the turnover of the receivable accounts in days had an undesirable outcome on the productivity (Bui, 2018); and (Muhammad et al., 2018).

Hypothesis 2: The turnover of the inventory in days has an adverse aspect on the productivity of the business.

The manufacturing corporations have a comparatively big quantity of inventories. Consequently, loading up a big number of inventories will affect the motionless working capital, huge storing expenses, distressing the effectiveness of productions. The existing investigative research studies verified as well as resolved that the turnover of the inventory in days had an undesirable influence on productivity (Bui, 2018); and (Muhammad et al., 2018).

Hypothesis 3: The accounts payable in days has an undesirable aspect on the profitability of the business.

The lesser the accounts payable in days, the more improved the creditworthiness of the corporation is, the fewer it uses the working capital of other industries as well as upsurges

the status of the business. Consequently, it displays the productivity of productions in the upcoming period. Some preceding pragmatic research findings verified and resolved those accounts payable in days had an undesirable effect on the productivity (Bui, 2018); and (Muhammad et al., 2018). Nevertheless, some further research investigation on the topic resolved those accounts payable in days had a constructive outcome on the productivity (Gul et al., 2017) along with that several types of research exhibited that there was no association amongst the accounts payable in days with the productivity (Vural et al., 2017).

Hypothesis 4: The cash conversion cycle has an undesirable aspect on the profitability of the business.

The whole cycle of cash conversion is premeditated through the turnover of the receivable accounts, the turnover of the inventory in days, as well as the accounts payable in days. Hence, the alteration of any aspects will distress the overall cycle of the cash conversion. Virtually every preceding experimental investigation inspected and determined that the cash conversion cycle had an undesirable influence on productivity (Bui, 2018); and (Muhammad et al., 2018).

3.3. Working Capital Administration - Conclusion

The administration of working capital is premeditated over the alteration amongst current assets with the current liabilities. Practically most of the research investigative findings stated the adverse influence of administration of working capital considering the productivity of companies. There are numerous entities on the way to derive the management of working capital which comprises the Net Trade Cycle (NTC). Intended towards the other side, a renowned research study made acquaint with the Cycle of Cash Conversion (CCC) as the entities to measure the administration of working capital efficiently. The cash conversion cycle is the time from the outflow of the company's cash for the acquisitions of

new resources towards the production of the finished goods and the assortment of cash since the sale of the end product. The cash conversion cycle is intended through the subsequent three entities that include the turnover of the receivable accounts, the turnover of the inventory in days, as well as the accounts payable in days. Nearly every prevailing research review used the cash conversion cycle as the main entity to use the working capital management (Muhammad et al., 2018; Bui, 2018; Tu et al., 2018; Gul et al., 2017).

3.4. Profitability of Company – Conclusion

A research study inspects profitability, functioning cash flow, company extent, sale development, present ratio, quick ratio as well as debt ratio of 83 corporations registered in Tehran Stock Exchange for the period of 2001 to 2010 where the investigation discloses that profitability, functioning cash flow, company extent, sale development, present ratio, quick ratio as well as debt ratio distress the business's working capital administration (Valipour et al., 2017). Another research finding aspect into the association amongst working capital administration components with the performance of the businesses (Vural et al., 2017). The outcomes display that companies can upsurge effectiveness measured through gross turnover by restricting borrower's assortment periods as well as cash conversion cycle. Along with that, it is noticed that power as a regulator variable has a noteworthy undesirable association with the worth of the business.

Further research made the reflection that the inventory displays the constructive association with the administration of working capital having an optimistic outcome on the organization's possibility. Research findings examine the association amongst working capital administration components as well as the performance of the companies through the exploitation of active panel analysis of data (Kalaivani et al., 2017). The investigator exposes borrower turnover ratio, turnover ratio of the inventory that causes a substantial impact on productivity. Another research investigation inspects the association amongst liquidity, productivity along return on investments (ROE) of ONGC

(Kandpal et al., 2017). Scholars accomplish that working capital administration is indispensable as it may have an unswerving effect on effectiveness and liquidity. Further review on the trends in administrating the working capital along with its influence on the monetary performance of registered industrial companies of the Johannesburg Securities Exchange (Kasozi, 2017). The investigator stated that the borrower's assortment time and the creditors' imbursement time are undesirable as well as statistically noteworthy for effectiveness, suggesting that businesses that professionally administer their borrowers and those that recompense their creditors on appropriate time accomplish well than those that do not. (Napompech, 2012) inspect the possessions of working capital administration on profitability.

4. Practical Part

Current situation

Interspan Company's management identified working capital as one of the most critical development goals and chose to launch a project to manage working capital improvement. The project's goal is to increase cash flow and balance sheet strength. The project is broken down into three stages: The first step is to identify possibilities within working capital and improve efficiency, particularly in accounts receivables, inventory, and account payables. The second step entails implementing previously stated initiatives to improve working capital. The third phase is to raise awareness of the necessity of working capital within the organization. Working capital development from January to June in 2019 is seen in the graph below.

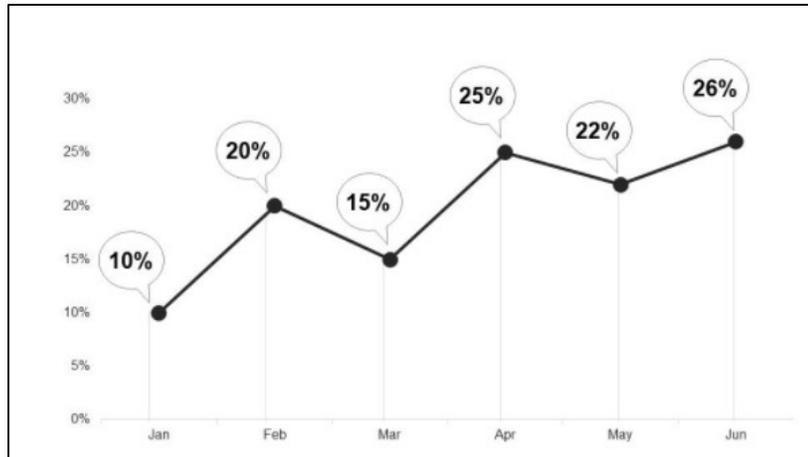


Figure 12: Working capital development from January to June in 2019

(Source: Created by the author)

The working capital project has been broken down into multiple sub-projects, and the Company has hired a consulting firm to oversee it. The company is undergoing a harmonization procedure in order to save money and run more efficiently. Unifying procurement in the group is an example of a sub-project connected to the working capital project.

Interviews and a meeting on a working capital project

The consulting firm is in charge of carrying out Company Group's working capital project. They set up several interviews to assess the existing situation and devise action strategies. The interviewee discussed existing procedures such as procurement, sales/invoicing, and inventory. The consulting firm created the conclusions of these interviews; therefore, the researcher used their information for this thesis afterwards the researcher spoke with the chief of sales, invoicing, and collection for credit management the researcher has prepared a few questions about collecting, but this was primarily an open conversation about the topic the researcher had chosen for this interview.

Once the beginning situation was defined, a working capital workshop is set up at Interspan Company's main office. The objective of this workshop was to generate ideas for improving all processes to reduce working investment costs. Project team members, including all the project manager, support staff, and technicians, were present at this session. They brainstormed in groups and came up with a few ideas to improve our working capital management. Later in this thesis, every one of these processes, as well as their respective optimization approaches, are investigated in greater depth. During the interviews, notes were taken. The interview and processing of responses from head credit control took several days, while the interview and processing of responses from finance managers took more than a month. In retrospect, recording the interviews would have been more practical and convenient because it would have allowed me to focus on the topics while also allowing for future research.

The interviews were referred to as "theme interviews" because there were no questionnaires. The debates were available and focussed on the subject. During the finance management discussion, it was clear that the consulting firm had adequate knowledge of the subject to steer the debate in the correct direction. In the interview with the head of credit control, the researcher had a rudimentary understanding of credit control because the researcher had previously worked in the same area, but the researcher wanted to expand my knowledge for this thesis, so the analyst asked a few broad questions about payment schedules, credit limits, credit losses, and management reporting of receivables.

Base of customers

Interspan Company accounts for 35% of the total client base of the company, however not all of them are currently active. Customers from other companies are not included in the analysis. The ABC analysis is used to categorize defined objects to examine the client base. Customers are divided into three groups in this study based on sales per customer in each

group: A, B, and C. Other big construction firms are class A customers; fuel stations, smaller estates, and municipal services are class B customers; and individual consumers are class C customers.

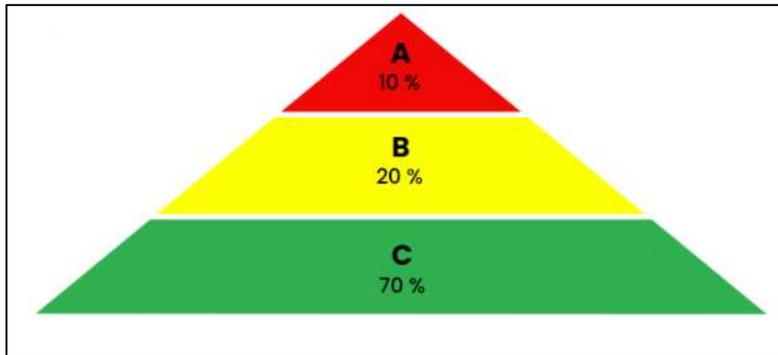


Figure 13: ABC analysis segmentation by sales volume

(Source: Created by the author)

The application of ABC analysis segmentation by sales volume reveals that the largest customers have longer payment terms and a greater one-day value.

Receivables

The terms of sale prevalent in a firm's field of business, as well as the company's capacity to match and service comparable terms of sale, will be key determinants impacting the number of receivables. There is also a link between the number of receivables and the pricing policy of the firm, it may opt to maintain selling prices relatively high while giving attractive terms for early payment. The efficacy of account receivables follow-up operations will have an impact on the total quantity of receivables and the possibility of bad debts occurring. Rather than expecting prompt payment from their customers, most sectors sell items or services on credit. These sums are recorded in accounts receivables on the balance sheet. The value of a

company's account receivables investment is determined by how much it sells on credit and how long it takes to recover receivables.

Receivables management is concerned with the creation of credit policy, which can be either liberal or restricted in terms of credit criteria and credit period. The discount granted for early payment, as well as the collection strategy and techniques used, should all be taken into account. In this scenario, the credit term is many days long. If a payment is late, maximum receivables locks up resources for many days or more. A company's credit policy is a series of decisions that include the company's credit period, credit criteria, which may be necessary to analyse the financial status of suitable consumers, as well as collection methods and discounts granted for early payment. Various components of sales should be examined as well. These factors include, for example, the magnitude of a new client, the prospect of future benefits stemming from the new customer's business, and the company's market share goals. When comparing the payment terms of the Interspan Company's largest clients by sale, they had lengthier periods than the lesser ones.

By agreeing on payment conditions, the Interspan manufacturer hopes to create long-term connections with its major clients. The goal of this working capital strategy, however, is to reduce payment terms. As previously stated, receivables bind money, and a method for determining the day that sales are outstanding (DSO) was given. It calculates how long it takes a corporation to recover receivables once a transaction has been completed. The average DSO for Interspan Company clients was 37 days in January 2019, indicating a good trend since the initiative began. The information is based on data from the invoicing and collection departments that has been evaluated.

Discounts

Discounts are a crucial factor to consider when it comes to receivables. Discounts are frequently used to encourage clients to pay their invoices sooner than they would otherwise. Offering discounts can be utilized as a form of short-term finance, although it is typically a highly costly option. The Interspan firm has a few municipal clients for whom they have offered a discount if they pay within 15 days, but they are required to pay the invoice without discount if they do not pay within 15 days. Long-term clients are usually given discounts in exchange for a long-term business connection and, of course, speedier access to resources. Discounts have both a positive and bad aspect. Early payment driven by cash discounts reduces profit, however it may be somewhat offset by not having to borrow as much money. The cost of bank overdrafts or loans, which would be required to fund the extended credit period accepted if discounts were not granted, may therefore be compared to the effective yearly rate of cash discounts.

Another thing to think about is the administration and the loss of goodwill that might occur when there are disagreements. Customers can claim cash discounts even if the money is received after the discount period has ended. Having to solve a situation like this might offset some of the benefits of paying early. Some businesses provide a tapering discount/penalty system, in which cash discounts are reduced in stages as the standard credit period shortens, while a graduated penalty is applied to the invoice value based on payment lateness. In this situation, the maximum discount is x percent, and its grant is carefully examined.

If a payment is late and a discount is granted to the invoice, the accounting software processes the payment as a partial payment, leaving the x percent open. Consumers are advised that if money is paid after the discount period, the remaining balance of the invoice is required. Accounts receivables are a part of almost every industry's operation. Consumer credit is intended to boost sales, but there are other reasons for offering trade credit, such as

finance, price, and operational concerns, such as balancing seasonal sales. Because it is vital for the Interspan Company to create long-term relations with clients, practically all consumers are given trade credit.

The invoicing procedure

Invoicing services are provided by the company group's own service centre, and all of the group's invoices will be drafted there in the future. Interspan Company is delayed in transferring invoicing to the service centre, with just a small percentage of invoices being processed there today. The goal of the service centre is to standardize all operations and provide up-to-date information on changes, such as in legal phrases. One of the goals of centralizing all services into a single hub is to free up resources for more productive activity. As previously stated, cost-cutting efforts include enhanced efficiency and faster billing. For example, in most sites, the secretary handles invoicing in addition to a variety of other responsibilities, so invoicing is faster in the service centre. Every day, Interspan prepares invoices, and they transmit information for the invoice as soon as the task is completed or there is a cause to invoice the client. As a result, in an ideal environment, all work should be billed as soon as it is performed. Fast billing necessitates a commitment from the beginning to the end of the process, from the site to the billing department. Invoicing is an important aspect of a business's financial flow. All stages must be clear, billing orders must be suitable, and there must be no gaps in information in order for invoicing to move smoothly.

In the Interspan, invoicing takes place mostly in the districts. One aspect of the harmonization process is the creation of a service centre that handles all common services in the organization, such as invoicing, handling account receivables and account payables, and integrating the collection and accounting departments. The service centre migration is proceeding smoothly, with the exception that the company's invoicing is shifting to the

service centre at a slower rate than anticipated. As a result, harmonizing the Interspan Company's billing procedure remains an issue.

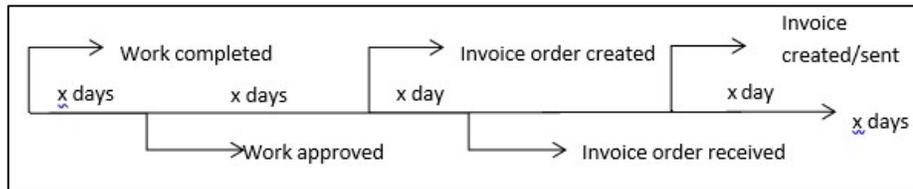


Figure 14: Invoicing process

(Source: Created by author)

When a project is completed, a completion document is prepared and sent to the client for review; if approved, the site person creates an invoice order on the service now platform for the service centre. The invoicing department receives a service order and enters it into the ERP system to produce an invoice. From the time the job is completed to the time it is invoiced, this procedure takes fewer than 10 days. Here's an example of how to figure out the worth of a single day:

The project has a value of 75000 ASD and will last 365 days. So, one day is worth 205.48 ASD. If the delay is seven days, the project's cash/balance is reduced by 1438.35 ASD. It is feasible to shorten the invoicing procedure by a few days, i.e., the approval and invoice order stages. The date on which the invoice was prepared before the invoicing date, and the payment period began on that day. The new procedure is to date the invoice according to the approval date, but just a few days backwards. This also bridges the gap between completed work and payment from the consumer. If the customer delays invoicing, the invoice is still dated to the day the job was completed.

If the customer takes too long to sign or return the completed work papers, it does not affect their payment time. According to data from the invoicing department, invoice orders are

received more frequently near the end of the month, and the difference is significant. Even if work may be done before the final half of the month, the project manager does not generate orders on the fly, but rather recalls doing so towards the end of the month. The project supervisor's main concern is that sales appear in the monthly report, but it's also critical that invoicing remains consistent throughout the month. The working capital project is all about putting what should be done to free up cash into effect, and balancing invoicing is a relatively straightforward activity to perform. Fast billing necessitates a firm-wide commitment. Unfortunately, the process is also reliant on individuals' levels of commitment, which might be active or passive. When the steps are finished, further thorough monitoring is conducted to ensure that the invoicing order is completed and forwarded as quickly as possible. The most time-consuming stage is obtaining the client's approval of task completion. The project supervisor now manually approves the work stages, presents the document to the client, and the customer signs the approval. An electronic approval system, a software, or a similar solution might make this happen more quickly. If necessary, group loans are used to fund projects. However, if the delays were shorter, invoicing was handled in a more regular and consistent way, and predicting earnings and costs was more thorough, financing would not be required, thus it is critical to pay attention to cash flow forecasting.

After the project began at Interspan Company, all instalments were billed as individual invoices; previously, several instalments were combined into one invoice, and if a client objected to one portion of the invoice, the entire invoice was frequently left unpaid. It's also critical to handle reclaims efficiently, so if there's a mistake on the invoice, it should be remedied very away. By creating a new invoice with the same due date as the original inaccurate invoice, the company may guarantee that payment is received as planned.

Other partners and employees must be convinced of the need for timely billing by managing and administrative partners. Management must stress the necessity of timely billing, which

means that invoicing must be integrated into everyday operations. When employees fail to recognise the necessity of timely invoicing, cash flow is disrupted, and the probability of certain bills not being paid in whole or at all increases. Management is accountable for the activities taken on the job sites and ensuring that the billing process runs well.

Inventories

Managing inventory, which ties up a lot of capital, is an important aspect of working capital management. In the instance firm, increasing inventory cycle efficiency is also seen as a topic for improvement. In the event that company stocks are kept to a minimum and, if feasible, all supplies are held in the entirety of the seller's inventory, and items are delivered to the job site in phases. The site manager should carefully plan the material requirements and notify the procurement department. The purchase of the whole company is consolidated, as discussed in greater detail in the purchasing chapter. Because Interspan Business does not manufacture anything, it mostly provides services, and the kind of inventory in the Interspan Company is work-in-progress, the inventory cycle should be short to avoid tying up cash. When a company manages inventories, it focuses on negotiating just-in-time contracts with suppliers so that the provider delivers exactly the appropriate quantity at the right time, reducing stock size. Interspan Company has storage space, but it is mainly used for keeping equipment, therefore the space isn't particularly large, which is reflected in the insurance and rent payments.

Term of payment

The time between issuing credit and receiving payment from the client by the due date is alluded to as the payment period. Giving customer credit is an excellent way to increase sales. If a business cannot pay on time or does not pay the invoice, giving customers credit

is always a concern. Discounts were often tied to payment terms; for example, a client may be eligible for an early price reduction if he or she pays a billing before the set deadline. Clients can choose from a wide range of financial options. The typical sales payment term in the Interspan Company is lesser than 28 days, although the average payment period is longer than 28 days. Furthermore, payment terms vary by area; the goal of this working capital approach is to bring disparate rules together. In order to just provide comparative information in the future, payment conditions should likewise be consistent. The disparity between the payment term and the payment time is now zero.

This means the company needs to secure funding for the following three days, but in most cases, the company's short-term resources will suffice. As previously stated, working capital refers to short-term resources. The payment terms are determined by the length of the business relationship and the size of the sale. This is a crucial aspect of cash flow management, as is reducing consumer credit. For a larger organization, a payment period of 30 days is a suitable average; however, for one-time or single, individual, and housing association clients, the term could be as short as a few days. The largest clients have a payment term of around 40 days, with a payment period of more than 40 days. This is an area where the company can improve. A diagram depicting Interspan Company clients and their payment arrangements is shown below. As requested by the Interspan firm management, the names are not included. The data was acquired from the ERP system by a consulting firm.



Figure 15 Interspan company's client and their payment arrangements

(Source: 2019 Profitwell Pricing study on Social Proof)

The figure 15, depicts payment delays, which have an impact on anticipating cash flows, which is critical for planning the entire Company group's finance. When it comes to negotiating payment arrangements, checking a customer's credit history is also a factor. Interest rates are also a factor to consider: the current rate is 16.5 percent for most consumers, while it is still 8% for others. By raising the rate to 16% for all corporate clients, the organization may be able to obtain receivables more quickly.

Payables & Receivables

In 2019, Interspan processed hundreds of thousands of invoices, with e-invoices accounting for 69% and paper invoices accounting for 31%. E-invoice processing is quicker, and circulation takes less time. Before being sent to the approval round, paper invoices are scanned. While a company's goal in account receivables is to shorten payment periods, the converse is true in account receivables. The company tries to get as lengthy a payment period as possible from itself. As a result, the corporation is attempting to stretch its debtors in order to increase its cash flow liquidity. Interspan Company also works with small businesses

whose resources are entirely dedicated to the project. There's another aspect to extending payment terms. Subcontractors may not have enough financial reserves to pay bills and salaries on time if the client needs an extended payment period. Small businesses, on the other hand, still require projects, thus the major public firms manage this sector by providing small businesses a terrible negotiation position. Payments to suppliers for goods, supplies, and services are included in account payables. Account payable is the current liability with the greatest working capital impact. Developing payable rules is critical for handling a business's finance in a more effective and centralized manner, as the example corporation aspires to. Management must determine whether to accept a discount and whether the firm should pay the supplier on or after the agreed-upon conditions. Demanding longer terms or reductions must also be carefully evaluated. The firm is requesting longer payment terms, and if the supplier refuses, the company is willing to pay an additional 11% of the price to obtain the longer payment term. When the payment term is longer, more capital is freed up, which has an impact on the interest has paid from capital. In a subsequent chapter, we'll go through how to make a payment.

Purchasing

As previously stated, the company has undergone significant organizational changes in the last several years in order to save money and become a more cohesive entity. In addition, purchasing has shifted from unit-level to centralized purchasing. Unit-level purchasing was disorganized and financially unproductive, with practically every project having its own purchasing methods and the supplier register being split across many programmes, resulting in duplicate work and overlapping. One project, for example, uses another software to establish a supplier database, while another project uses yet another application. Working

would be more efficient and time-consuming if Interspan Company maintained a single database for all suppliers.

Standardizing procurement processes is a significant step toward more efficient functioning and, of course, lower costs and higher quality. Organizations try to exploit economies of scale in purchasing prices and process expenses by substituting individual purchases made throughout the firm with corporate-wide framework agreements by centralizing purchasing activities. These advantages are attained through the formalization of purchasing procedures and channels, such as e-procurement, which Interspan Company also employs, and the decrease in the central purchasing unit's supplier base. These adjustments, on the other hand, may provide a barrier for other employees who are used to making purchases informally on a local level, as well as limit the participation of smaller suppliers. Before the changes in Interspan Company, the customer registration had tens of thousands of suppliers; nevertheless, there is some duplicate data, which is one of the reasons for creating a new purchasing model.

Negotiating payment terms is critical when it comes to reducing working capital. The purpose of centralized buying organizations is annual contracts with the same payment period, which implies that all projects and works in Melbourne utilize the same supplier with the same payment conditions. In the current scenario, payment periods are much longer than in account receivables, implying that receivables and payables are not in balance.

There is a strong link between working capital and profitability: more profitable enterprises take longer to pay their invoices. This means they are deferring payment to suppliers in order to free up cash for their working capital requirements. In addition, the longer a company avoids paying its debtors, the more working capital it reserves and utilizes to boost profits. This conclusion is consistent with the working capital management guideline that companies

should defer payments to creditors as much as possible to avoid jeopardizing their business relationships.

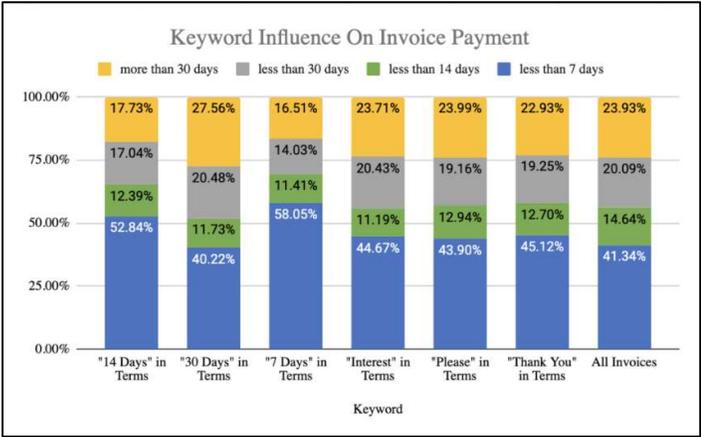


Figure 16 : Interspan company’s account payables cycle

(Source: Created by the author based on financial data from Interspan)

The graph above depicts the account payables cycle, or day’s payables outstanding, in terms of how long it takes to pay an invoice vs the payment period. In comparison to its competitors, Interspan Company offers very short payment periods. For example, if Interspan Company pays its invoices on day x, the primary rival does so many days later, resulting in a significant discrepancy. And the benefits that the competition receives from a lengthier payment procedure are astounding. Later, when addressing the payment procedure, delays and one-day value are mentioned. If the project is reimbursable, meaning all costs are billed by the customer, and the DPO takes a long time to approve the bills, the billing from the customer is delayed. In the outflow of money, time is equally crucial.

The payment procedure

After the invoice has been accepted, the payment deadline must be considered. Some companies pay on time continuously, whereas others postpone payment for a variety of

reasons, including financial shortages and the interest that monies in hand might accrue. The company's payment procedure is a part of account payables. Payment delays can harm the payer's image, credit rating, and supply certainty. The hypothetical corporation with sufficient finances should thus carefully assess the impact and ramifications of intentionally delaying payment. If a corporation can minimize its capital assets, its operational flexibility increases. Capital released from fixed assets can help to strengthen the balance sheet's structure and ratios, lowering risk for investors. Covenants are terms in a loan agreement that safeguard the lender by specifying what the borrower may and may not do. Positive covenants are loan terms that specify what the debtor is required to perform. For example, the borrower company may be required to deliver management accounts within a specified timeframe after the month ends, to deliver audited annual accounts within a specified timeframe, or to maintain agreed-upon levels of accounting figures and ratios such as equity or working capital ratios. Covenants are most commonly used because a breach of the covenant provisions allows the lender to seek repayment of the loan even if the term has not yet expired. Lenders like the authority to demand such payback because it allows them to recover funds before issues worsen.

Credit Management

The goal of the company's credit management procedure is to keep track of receivables and collect past-due accounts. The invoicing process accommodates the need to assess new clients' credit ratings, and credit rating monitoring is another aspect of credit management. The credit rating plays a role in determining whether or not to extend credit to a consumer. Interspan The Company has its own credit policy, which dictates how credit sales are conducted. In credit commerce, there is always a credit risk, which must be assessed and mitigated prior to signing sales agreements. When a consumer does not pay or the guarantee

does not cover the amount owed, the risk is realized. Credit loss refers to unresolved payments, which inevitably lowers the performance of units or companies.

The firm that extends credit must finance the agreed-upon trade credit and pay the resulting interest. Interspan finances the company, and the group has established that the internal interest for subsidiaries is in the best interests of the company. The major goal of the credit policy, as previously said, is to limit credit risks and losses. DSO (day's sales outstanding) is a metric that quantifies how long it takes a firm to collect its receivables after a sale has been completed. Collection of receivables reduces the amount of working capital held in operations and, as a result, enhances the company's profitability. Other hazards in business include finance and supplier concerns, however they are seldom explored in depth.

Credit control is responsible for determining a customer's creditworthiness and monitoring changes in credit validity. They also notify firms about past-due receivables and work with company operations and collection partners to recover debts.

Credit score

When the project manager requests to add a new client to the ERP system, the credit rating is normally reviewed. Business operations submit a request to open a new customer by providing the new client's basic information, such as the company's name, business ID, address, phone number, and contact person's name. Interspan Company uses *Interspan* for credit ratings. Only the salesperson is accountable for the repercussions if the consumer does not pay and if the rating has not been checked. Demanding cash or advance payment may lead to losing the client, and vice versa granting credit for poor rated customer firms may anyhow lose the total amount of the agreed sales if the customer does not have adequate liquidity. Rating Alfa is checked from all new consumers and also for old customers. Rating Alfa delivers more thorough information about customers: financial statement analysis,

rating history, and information from payments. For example, it delivers information on typical payment delays in days. One can also acquire the identities of the personnel in control, stockholders, and business mortgages.

Risk Category	Risk Category Description
RL 1	Very Low Risk
RL 2	Low Risk
RL 3	Moderate Risk
RL 4	High Risk
RL 5	Very High Risk

Table 1 : Risk Level category& description

Collecting

The administration of accounts receivable is an essential aspect of financial management. The average collecting duration and the aging schedule are two often used indicators of account receivables collection performance. The collection of debts within set credit periods is a typical aim of accounts receivables management. Another typical objective is to identify overdue accounts in order to lower the overall amount of trade credit that is written off as a bad debt. The aging schedule and average collection duration are two regularly utilized accounts receivable collection efficiency metrics. In an interview, the head of credit management and sales invoicing explained how late receivables are reported. Weekly receivables with delays of 30, 60, 90, and more than 90 days are loaded to the aging report. All payments that are more than three days late are collected within 60 days. The most important and largest clients are given special consideration when deciding who to send the collection letter.

The first reminder is sent three days later, and the second is sent a week later. Credit control typically sends a letter, but it is also possible to collect over the phone; for example, important customers may be called and verified that they have received the invoice, as well as reminded that the due date has passed. All bills that have been overdue for over 14 days are sent to a collection agency.

During the interview, one concern was addressed about payment schedules and who makes the decision to accept a payment plan. According to Interviewee, the firm establishes a payment schedule with the client for recovering late receivables, and the extension of the payment period and instalments are determined with the customer to guarantee that the payment is completed. All extensions are interest-bearing, with an 8.5 percent interest rate. Only credit control has the authority to set payment schedules. The need of proper reclamation handling was stressed by the interviewee: Reclamations are frequently provided to salespeople, thus it's critical for them to be accurate.

Reclamations should be reported to the collection department as soon as possible. If they are not notified, they may send customer reminder letters, which is not acceptable customer service. It is crucial to Interspan Company to provide excellent customer service, and if a claim is valid, payments are not expected until the claim is resolved. As indicated in the invoicing chapter, it is vital to invoice only one instalment at a time in order to enhance working capital, so if a client complains about one component, they generally leave the entire invoice unpaid. The claimed invoice must be credited on the same day as the real invoice, and the redrafted invoice must be dated on the same day as the original invoice, so the customer does not benefit from a longer payment period. In a perfect world, Interspan Company would get payment on the original due date.

5. Discussion

In this analysis, the researcher focused on the cash conversion cycle since accounts receivables made up the bulk of the example company's working capital. Keeping an eye on this cash conversion period may have an enormous influence on working capital, and the steps to minimize the conversion time can be implemented quickly and easily. For this initiative, educating sales staff about their role in boosting working capital is a critical first step. Working capital management may be improved by negotiating shorter payment periods, invoicing often, and checking a company's credit rating. Increasing the frequency with which invoices are sent and agreeing to shorter payment periods are critical steps in this area. It was found that payment conditions had a significant impact on the cash conversion cycle, which was thoroughly examined in this research. If the firm shortens its payment terms in sales, it will have a significant influence on the whole sales cycle and free up money. Long payment terms, in theory, increase the company's expenses, hence it is essential to attempt to influence them. Initially, proposed adjustments to payment terms in Interspan were geared toward one-time and repeat clients, as well as individuals and housing organizations. Customers in this category make up roughly 20 percent of the case company's client base, and their payment terms were typically about 20 days before the working capital project. Now, the starting point for contracting is fewer than 20 days. Negotiating payment arrangements for group A, which accounts for 80% of the overall client base, is essential. In most cases, the typical payment period for a large contract is more than 20 days.

Customers' interest rates have been increased from 8% to 16%, however individual customers' rates remain unchanged at 8%. The date on which the due date is counted has now been agreed upon during contract negotiations. Now that the task is done, the invoice date is no longer relevant. Alternative methodologies and working habits have been proposed for several procedures. The firms that do the work in a project play an important

part in the invoicing process. Interspan should not wait until the conclusion of the project to seek an invoice. It's better to generate invoices for each step of work as soon as they're completed, rather than waiting for a month to do so. A firm that obtains receivables quicker minimizes the need for financing, according to my conclusion on payment terms. If the company's order book is strong, it will be more appealing to investors if it frees up funds to invest in new ventures or start new initiatives.

6. Conclusion

The company's working capital management process will run more smoothly if it is actively regulated. Starting with accounts receivables data and account payables, Interspan was able to examine how quickly their cash was cycling and the ratios between cash input and outflow based on their working capital project. Because Interspan pays its bills more quickly than its customers do, the company's operations are usually funded. To avoid this, they could use their own money from receivables to fund the project. In order to ensure a positive cash flow at the conclusion of a working capital project, the cash flow has to be meticulously managed. The importance of working capital management cannot be overstated. It's becoming more difficult for enterprises to get finance because of the unpredictable global economy and the rising cost of borrowing. Increasing the company's ability to invest in new projects or to operate independently of outside funds is one of the many benefits of releasing cash. There have been occasional sales of receivables in the infrastructure building industry, but exclusively for state and municipal clients. Companies owned by the government, or a municipality may be trusted to pay their bills on time and with little chance of default. Selling invoices from other customers is also an option, although the cost for selling receivables would be greater due to the larger risk of credit loss.

7. References

1. Ahmed, I. (2017). Impact of working capital management on performance of listed non financial companies of Pakistan: application of OLS and LOGIT Models. In *Proceedings of 2nd International Conference on Business Management, University of Sargodha, Lhore, Punjab*.
2. Aktas, N., Croci, E., & Petmezas, D. (2017). Is working capital management value-enhancing? Evidence from firm performance and investments. *Journal of Corporate Finance, 30*.
3. Altaf, N., & Shah, F. A. (2018). Investment and financial constraints in Indian firms: Does working capital smoothen fixed investment?. *Decision, 45(1)*.
4. Alvarez, T., Sensini, L., & Vazquez, M. (2021). Working Capital Management and Profitability: Evidence from an Emergent Economy. *International Journal of Advances in Management and Economics, 11(1)*.
5. Bagchi, B., & Khamrui, B. (2012). Relationship between working capital management and profitability: A study of selected FMCG companies in India. *Business and Economics Journal*.
6. Boisjoly, R. P., Conine Jr, T. E., & McDonald IV, M. B. (2020). Working capital management: Financial and valuation impacts. *Journal of Business Research, 108*.
7. Campos, A., Chen, J., Ferri, G., Parisi, M., Sanchez, J. A., & Sensini, L. (2014). Business risk prediction models: an empirical analysis. In *International Conference on Accounting and Management Research*.
8. Chauhan, G. S., & Banerjee, P. (2018). Financial constraints and optimal working capital—evidence from an emerging market. *International Journal of Managerial Finance*.

9. Chen, J., Sanchez, J. A., & Sensini, L. (2017). Growth opportunities and ownership structure as determinants of Italian firms leverage. *West Union, Ohio: Adams County Regional Medical Center*.
10. Chen, Y., Diaz, E., Sensini, L., & Vazquez, M. (2020). Working Capital Management and Quality Management Systems: evidence from an emerging economy. *International Journal of Business Management and Economic Research*, 11(4).
11. Ek, R., & Guerin, S. (2017). Is there a right level of working capital?. *Journal of Corporate Treasury Management*, 4(2).
12. Erasmus, P. D. (2017). Working capital management and profitability: the relationship between the net trade cycle and return on assets. *Management Dynamics: Journal of the Southern African Institute for Management Scientists*, 19(1).
13. Gul, S., Khan, M. B., Raheman, S. U., Khan, M. T., Khan, M., & Khan, W. (2017). Working capital management and performance of SME sector. *European Journal of Business and management*, 5(1).
14. Herdinata, C. (2017). Policy Identification of the Working Capital Management of Medium-Sized Business. *Mediterranean Journal of Social Sciences*, 8(6).
15. Irawan, M. A. S., & Darmansyah, A. (2021). DETERMINING THE OPTIMAL WORKING CAPITAL MANAGEMENT (CASE STUDY: PT ULTRAJAYA MILK INDUSTRY & TRADING COMPANY TBK). *International Journal of Accounting*, 6(32).
16. Jana, D. (2018). Impact of working capital management on profitability of the selected listed FMCG companies in India. *International Research Journal of Business Studies*, 11(1).

17. Kalaivani, P., & Jothi, K. (2017). Impact of working capital management on profitability of the select car manufacturing companies in India. *International Journal of Pure and Applied Mathematics*, 116(24).
18. Kandpal, V., & Kavidayal, P. C. (2017). Implication of working capital management on the profitability: A case of ONGC Ltd, India. *Indian Journal of Commerce & Management Studies ISSN*, 2240-0310.
19. Kasozi, J. (2017). The effect of working capital management on profitability: A case of listed manufacturing firms in South Africa. *Investment management and financial innovations*, 14(2).
20. Kieschnick, R., & Moussawi, R. (2018). Firm age, corporate governance, and capital structure choices. *Journal of Corporate Finance*, 48.
21. Mandujano Herrera, R., & Navarro Orihuela, J. (2017). Determining factors of working capital in Peruvian and Chilean manufacturing companies listed in the Latin American integrated market.
22. Muhammad, H., Rehman, A. U., & Waqas, M. (2018). The relationship between working capital management and profitability: A case study of tobacco industry of Pakistan. *The Journal of Asian Finance, Economics, and Business*, 3(2).
23. Mulyono, S., Djumahir, D., & Ratnawati, K. (2018). The effect of capital working management on the profitability. *Jurnal Keuangan dan Perbankan*, 22(1).
24. Napompech, K. (2017). Effects of working capital management on the profitability of Thai listed firms. *International Journal of Trade, Economics and Finance*, 3(3).
25. Ng, H., Chen, Y., San Ong, T., & Teh, B. H. (2017). The impact of working capital management on firm's profitability: Evidence from Malaysian listed manufacturing firms. *International Journal of Economics and Financial Issues*, 7(3).

26. NGUYEN, A. H., PHAM, H. T., & NGUYEN, H. T. (2020). Impact of working capital management on firm's profitability: Empirical evidence from Vietnam. *The Journal of Asian Finance, Economics, and Business*, 7(3).
27. NGUYEN, P. A., NGUYEN, A. H., NGO, T. P., & NGUYEN, P. V. (2019). The relationship between productivity and firm's performance: Evidence from listed firms in Vietnam stock exchange. *The Journal of Asian Finance, Economics, and Business*, 6(3).
28. Nollet, J., Filis, G., & Mitrokostas, E. (2017). Corporate social responsibility and financial performance: A non-linear and disaggregated approach. *Economic Modelling*.
29. Palombini, N. V. N., & Nakamura, W. T. (2017). Key factors in working capital management in the Brazilian market. *Revista de Administração de Empresas*.
30. Prempeh, K. B., & Peprah-Amankona, G. (2020). Does Working Capital Management Affect Profitability of Ghanaian Manufacturing Firms?. *Zagreb International Review of Economics & Business*, 23(1).
31. Sensini, L. (2017). Capital Structure Determinants in Italian Sme's: An Empirical Study. *ICAFR*.
32. Song, H., Yang, X., & Yu, K. (2020). How do supply chain network and SMEs' operational capabilities enhance working capital financing? An integrative signaling view. *International Journal of Production Economics*, 220, 107447.
33. Stephen, M., & Elvis, K. (2017). Influence of working capital management on firms' profitability: a case of SMEs in Kenya. *International Business Management*, 5(5).
34. Sudyatno, B., Puspitasari, E., & Sudarsi, S. (2017). Working capital, firm performance, and firm value: An empirical study in manufacturing industry on Indonesia stock exchange. *Economics World*, 5(5).
35. Suwantari, N. P., Ariana, I. M., & Suprpto, P. A. (2020). Accounting Analysis in Accounts Receivable Management to Minimize the Risk of Uncollectible Receivables at

- ALS Hotel and Resort. *Journal of Applied Sciences in Accounting, Finance, and Tax*, 3(2).
36. Terreno, DD, Pérez, JO, & Sattler, SA (2020). The relationship between liquidity, profitability and solvency: An empirical investigation by the structural equation model. *Accounting University of Antioquia* , (77).
37. Tu, T. K. T., & Nguyen, T. U. U. (2017). The relationship between the working capital management and the profitability: experimental evidence in Vietnam. *Journal of Development and Integration*, 14(24).
38. Uluskan, M. (2017). A comprehensive insight into the Six Sigma DMAIC toolbox. *International Journal of Lean Six Sigma*.
39. Valipour, H., Moradi, J., & Farsi, F. D. (2017). The impact of company characteristics on working capital management. *Journal of Applied Finance and Banking*, 2(1).
40. Vural, G., Sökmen, A. G., & Çetenak, E. H. (2017). Affects of working capital management on firm's performance: evidence from Turkey.
41. Wu, J., Teng, J. T., & Skouri, K. (2018). Optimal inventory policies for deteriorating items with trapezoidal-type demand patterns and maximum lifetimes under upstream and downstream trade credits. *Annals of Operations Research*, 264(1).