# Factors that Influence the Efficiency of Working Capital Requirements in Nepal

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#### Abstract

The purpose of this study is to assess the perception of financial professionals on the factors affecting the efficiency of working capital requirements in Nepal. These are the factors that influence the working capital requirements in Nepal. To know the perception of financial professions, this study considered a sample of 200 companies listed on the Nepal Stock Exchange (NSE). These companies are categorized into 9 groups. These are banks, development banks, finance companies, insurance companies, hotels, hydropower companies, trading companies, manufacturing and processing companies, and others in the others category. A quantitative cross-sectional survey research approach is used in this study. Through literature research and validation by experts and working capital management firm practitioners, eighteen major factors influencing working capital were discovered and shortlisted for inclusion in the questionnaire. The study was carried out using a structured questionnaire to examine the most crucial elements influencing the efficiency of working capital requirements in Nepal, and various statistical methods were used to analyse survey respondents' perspectives. This research contributes to the body of knowledge on the factors that influence working capital requirements and will benefit NSE-listed companies. The study is the first of its kind to look at the crucial aspects that contribute to working capital requirements in Nepal.

**Keywords:** Working Capital Requirements, Firm Growth, Operating efficiency, Operating Cycle, Firm Size,

#### Introduction

The goal of this study is to investigate the elements that impact the efficiency of working capital requirements in Nepal. The working capital need, in the context of this study, is defined as the minimal resources that a firm requires to properly pay the normal expenditures and expenses essential to operate the business. Working capital management deals with current assets and current liabilities. Working capital satisfies the short-term financial requirements of a company firm. Lower working capital requirements result in less need for financing and a lower cost of capital, which enhances cash available for shareholders

(Ganesan, 2007).Inefficient working capital management may result in large losses, poor performance, and even bankruptcy. Having a lot of working capital means the firm has idle cash, which can lead to poor performance (Sri Nivas, 2013). Insufficient operating capital, on the other hand, means the firm cannot acquire inputs for manufacturing. Various research on working capital management reveals a substantial association between a company's profit and its working capital management efficiency. Working capital management influences the firm's profitability and liquidity (Taleb et al., 2010). Working capital management seeks to achieve a balance between the various components of working capital. Working capital management is critical to creating shareholder value (Nazir & Afza, 2008, p. 294). Thus, corporations strive to maintain a level of working capital that optimizes value (Deloof, 2003). Working capital management is a basic idea for financial executives like Chief Financial Officers (CFOs), but it has become one of the most critical concerns in enterprises. Many CFOs struggle to identify basic working capital drivers and optimal working capital levels (Lamberson, 1995). Inability to plan and handle working capital requirements may lead to insolvency and bankruptcy. Smith (1973) contends that finance managers' incapacity to plan and control their organisation's existing assets and obligations contributes to many company failures. According to Nazir and Afza (2008), firms may reduce risk and increase overall performance by understanding working capital. To maximise working capital, it is critical to understand its components. Working capital is ideal when risk and efficiency are balanced. You must keep an eye on accounts receivable, payable, inventory, cash, and marketable securities to keep your working capital at its best. Working capital management increases organisations competitiveness and profitability by protecting them from financial shocks. For example, increasing cash cycle speed through receivables and payables management increases profitability and liquidity. Also, proper inventory management is crucial to managing the firm's liquidity and profitability (Taleb et al., 2010). So, it's critical to balance each component of working capital.

# LiteratureReview

### The concepts of working capital

Working capital is the money utilised by firms to run their day-to-day operations. According to Adeniji (quoted by Atseye, Ugwu, and Tokon (2015), working capital is the capital accessible for day-to-day activities represented by net current assets. Even before the word was invented and employed by finance professionals, businesses have utilised working capital management. Working capital management includes control, optimization, and value measurement. Workers' compensation insurance (WC insurance) is a type of insurance that covers workers' compensation benefits. Current assets are assets that can be converted into cash quickly and then re-invested, thereby continually rotating. A firm pays cash for inventories or raw supplies. Produced items will be sold to earn cash from the inventory. Working capital can be interpreted in two ways: Gross Working capital comprises cash, short-term securities, debtors, bills receivables, and inventory (Tulsian, 2009). The gap between current assets and liabilities is net working capital (Ibrahimov, 2014). Trivedi (2010) calls this "current liabilities." Outsiders' claims should be paid quickly.

# Working capital in companies

Managing current assets, such as cash and cash equivalents, inventory, and debtors, requires a mix of rules and strategies. Srinivasan (1999) defines cash management as cash forecasting, cash flow control, optimal cash level, and excess cash investment. Managing capital involves ensuring the availability of critical resources that help produce cash flow. This might lead to cost savings and better financial management. According to Moyer, Maguigan, and Kretlow (2001), small and medium-sized businesses need excellent cash management to develop loan budgets, reduce resource waste, support trade operations, and ensure effective and efficient cash usage.

#### Important of working capital management

Working capital management is critical for all organisations, according to empirical and theoretical data. A company may not have many fixed assets, but it must invest in current assets (Atseye et al., 2015). Smith contends, citing Atseye et al. (2015), that working capital management directly influences a firm's liquidity, profitability, and hence net value. Working capital tries to maintain a balance between liquidity and profitability while running a firm. Many businesses may boost their profitability by using a good working capital management system. Working capital management includes ratio analysis and component management. So, according to Mandiefe (2016), good working capital management is vital for a company's survival and success. Working capital, on the other hand, must be properly managed because it is considered the lifeblood of the company and its inefficient use can lead to its demise.

# Empirical Literature Review- Global Trends in Working Capital Management

Ganesan (2007) examined the working capital management efficiency in the telecommunications equipment business. The connection between working capital management efficiency and profitability was explored using correlation analysis. By using a sample of 443 annual financial statements of 349 telecommunication equipment companies covering the period 2001–2007, this study found evidence that even though "days of working capital" is negatively related to profitability, it is not significantly impacting the profitability of firms in the telecommunication equipment industry. An empirical review of working capital management efficiency by Lemeri (2009) from the school of graduate studies at Strathmore University Nairobi, concluded that effective working capital management is one of the preconditions for the continuing survival of a company. It investigated a sample of 8 out of 31 institutions in Tanzania over the period 2005 to 2009. From its study effort, the regression result demonstrated that an appreciated return on assets has strong favorable connections with working capital management efficiency. The positive association confirms hypothesis one, which asserts that there is a positive link; this finding reveals that return on assets has a statistically significant positive relationship with working capital management efficiency. Aggressive working capital management in law manifests in current assets, impacting income optimism.

#### Factors affecting working capital requirement

A business should prepare its financial plan in such a way that it has neither a surplus nor inadequate working capital (Rani, 2013). In business, there is no set of rules or formula to determine the working capital requirement. However, the amount of working capital required depends on various factors. These factors need to be considered when determining the requirement for working capital. (1) Nature of the business (2) Scale of operations (3) Operating Scale (4) Seasonal factors (5) Production cycle) (6) Credit allowed (7) Credit Availed (8) operating efficiency (9) Inventory management (10) Growth prospects (11) Level of Competition (12) Inflation (13) Account payable (14) Dividend policy, (15) Plant efficiency (16) Liquidity (17) Account Receivable (18) Taxation policy. The above factors, and a lot more, need to be carefully considered while determining the working capital requirement of a firm. These factors all affect working capital in different ways. Some businesses increase their working capital requirements, while others decrease their working capital requirements. Capital management focuses on cutting across both physical and financial needs, ensuring that related costs are minimized and all incomes are maximized. Working capital entails debtors, stock, and creditors.

#### **Research Objectives**

- 1. To determine the Factors that influence the efficiency of Nepal working capital requirements.
- 2. To assess the financial profession's consensus on the factors influencing the efficiency of working capital requirements in Nepal.
- 3. To assess the perception of working capital requirements in Nepal among the demographic factors.
- 4. To draw conclusions based on the study's findings.

#### **Research Methodology**

The discussion of the methodological instruments and methods used in the study to fulfil the study's objectives As a result, it addressed concerns such as study design, data gathering techniques, investigation strategy, and data analysis methodologies. The researcher attempted to emphasize and defend the method used to conduct the study. The approach and equipment utilised to collect data were discussed in this study. The population, sample, and sampling methodologies were also discussed. It also specified how the data would be gathered and presented.

#### **Research Design**

The study intends to investigate major financial professions' perceptions of the influencing factors for working capital requirements in the context of Nepal. "The study adopts a quantitative cross-sectional survey design to study a phenomenon at a given point in time. A structured questionnaire was designed and administered to collect data from the respondents. A questionnaire is a popular instrument for collecting data where the respondents can quickly answer the questions (Saunders et al., 2016). It also facilitates collecting information on the participants' perceptions, including their beliefs, attitudes, and opinions (Yamin & Sim, 2016)." In general, Denscombe (2012) says that a quantitative research design can use methods like surveys, which use closed questionnaires, to a large extent.

#### **Research Instrument**

The questionnaire was divided into two sections. The first section of the questionnaire asked about respondents' demographic data, while the second section asked about participant perceptions of variables impacting the efficiency of working capital requirements in the context of Nepal, a developing nation. According to Denscombe (2011), the questionnaire is based on written material provided directly by participants in answer to questions posed by the researcher. The questionnaire's components and causes were determined through a search of literature, mostly studies done in similar circumstances in poor nations. Unstructured interviews with project management practitioners in the industry were also conducted to further expand its content and incorporate the true failure drivers. Likert scales were used to assess the strength of each item. Items were graded on a five-point scale, with 1 being extremely unpleasant and 5 being extremely acceptable.

#### Validity and Reliability

Validity is concerned with whether a research tool, such as a questionnaire, genuinely measures what should be measured or if the results are useful to the respondent

(Saunders et al., 2016). According to Saunders et al. (2012), conducting a literature review is one technique to ensure outstanding coverage of questions while also improving the validity of the research instrument. The researchers utilised the literature review as a guide to assure the validity of the questionnaire and, as a result, the study's outcomes. The research instrument for this study was developed from previous studies with minor adjustments to meet the needs of the current investigation. The questionnaire was also examined by specialists in the subject, who provided useful comments that were adopted.

A research instrument's dependability, on the other hand, relates to its consistency across time. In other words, the instrument's dependability relates to the degree to which it produces consistent findings while the variables being tested remain constant. Cronbach's alpha was utilised to measure the research tool's dependability. The questionnaire was pilot tested prior to its full delivery, and the outcome indicated a Cronbach alpha coefficient of 0.968, indicating good reliability. A Cronbach alpha coefficient of 0.7 or greater, in general, is a fair and reliable indicator of construct dependability. Nunnally (1978).

#### **Target Papulation and Sample**

We constructed the questionnaire in such a manner to ensure that the study included representatives from important financial professions. Financial professionals were the study's target group(such as financial analysts, financial advisors, financial planners, financial managers, and chartered accountants) working for major manufacturing companies, the service industry, banking, and funding agencies. The sample included financial professions, mainly those who had good knowledge management and a minimum level of experience. FP was selected randomly from 200 companies listed on the Nepal Stock Exchange (NSE). These companies are categorized into 9 groups. These are banks, development banks, finance companies, insurance companies, hotels, hydropower companies, trading companies, manufacturing and processing companies, and others in the others category. A total of 650 questionnaires were sent out to the five groups of respondents using the purposive and convenience probability sampling methods. A usable sample of 400 people (83 from financial analysts, 60 from financial advisors, 98 from financial planners, 121 from financial managers, and 38 from chartered accounts) was chosen for the analysis. The questionnaires were sent out online and printed.

# **Analysis and Results**

#### **Descriptive Analysis**

Table 1 shows the personal profiles of the respondents. It is observed that the vast majority of participants fall into the age groups of 20–29 years and 30–39 years, almost the same. More than 63.5 percent of respondents are men, while only 36.5 percent are women. Table 1 further indicates that most respondents have a tertiary education (173 degrees, 182 Master's Degrees, 8 Doctorates, and 37 others). It is also seen that 37.3 percent of the surveyed sample are those working with 0.5 years of experience, and about 40.5 percent have 6–10 years of experience. Finally, Table 1 reveals that the majority of financial professions (30.3 percent) of the respondents are financial managers. 24.5 percent are financial planners, 20.8 percent are financial analysts and financial advisors, and 9.5% are

chartered accountants. Candidates for the job are wellqualified and experienced enough to give accurate information about the subject matter of the study.

#### **Anova Analysis**

ANOVA provides researchers to determine the statistical significance of differences between groups of data. It works by assessing the degree of variation within the groups using representative samples from each. In this paper it is used to check the level of Financial Professionals consensus on the factors influencing the working capital requirement in Nepal.

To test the Financial Professionals consensus ANOVA test were used and the results are showed in the table 2. Table 2 provide evidence that all the eighteen identified factors that influence the efficiency of working capital requirement in Nepal are (p<0.05). Table 2 indicate that Account Payable, Tax Policy and Level of competition are factors which are noted highly positive influence factors on working capital requirement in Nepal based on the financial profession response and other factors means value are also consider satisfactory.

Profile	Categories	Frequency	Percentage
Age group (in years)	20-29	160	40.0
	30-39	163	40.8
	40-49	36	9.0
	50-59	25	6.3
	60+ years	16	4.0
	Total	400	100
Gender	Male	254	63.5
	Female	146	36.5
	Total	400	100
Academic Qualifications	Degree	173	43.3
	Master's Degree	182	45.5
	Doctorate	8	2.0
	Others	37	9.3
	Total	400	100

**Table 1 Personal Profile of Respondents** 

Profile	Categories	Frequency	Percentage
Total Experience (in years)	0-5	149	37.3
	6-10	162	40.5
	11 - 15	70	17.5
	Above 15 years	19	4.8
	Total	400	100
Financial Professions	Financial Analyst	83	20.8
	Financial Advisor	60	15.0
	Financial planner	98	24.5
	Financial Manager	121	30.3
	Chartered Accountant	38	9.5
	Total	400	100

Source: Survey data

# Table 2 Financial Professionals consensus on the factors influencing the working capital requirement in Nepal

	ANOVA						
		Sum of	d.f	Mean	F	Sig.	
Net an CD aire an	Det con Con an	Squares	4	Square	2.021	010	
Nature of Business	Between Groups	9.992	4	2.498	3.021	.018	
	Within Groups	326.652	395	.827			
	lotal	336.644	399	4.126	4.0.40	0.01	
Scale of operations	Between Groups	16.543	4	4.136	4.849	.001	
	Within Groups	336.881	395	.853			
	Total	353.424	399				
Operating Scale	Between Groups	16.351	4	4.088	4.584	.001	
	Within Groups	352.244	395	.892			
	Total	368.594	399				
Seasonal factor	Between Groups	23.257	4	5.814	4.021	.003	
	Within Groups	571.133	395	1.446			
	Total	594.390	399				
Production Cycle	Between Groups	20.158	4	5.040	3.815	.005	
	Within Groups	521.819	395	1.321			
	Total	541.978	399				
Credit Allowed	Between Groups	12.415	4	3.104	2.448	.046	
	Within Groups	500.762	395	1.268			
	Total	513.178	399				
Credit Availed	Between Groups	15.014	4	3.754	3.157	.014	
	Within Groups	469.696	395	1.189			
	Total	484.710	399				
Operating efficiency	Between Groups	19.348	4	4.837	4.943	.001	
	Within Groups	386.511	395	.979			
	Total	405.859	399	1			
Inventory Managment	Between Groups	23.771	4	5.943	7.389	.000	
	Within Groups	317.699	395	.804			
	Total	341.469	399				

ANOVA						
		Sum of	d.f	Mean	F	Sig.
		Squares		Square		
Growth Prospects	Between Groups	23.436	4	5.859	4.121	.003
	Within Groups	561.524	395	1.422		
	Total	584.960	399			
Level of competition	Between Groups	26.034	4	6.509	4.545	.001
	Within Groups	565.663	395	1.432		
	Total	591.698	399			
Inflation	Between Groups	11.143	4	2.786	2.181	.070
	Within Groups	504.535	395	1.277		
	Total	515.678	399			
Liquidity	Between Groups	15.853	4	3.963	4.266	.002
	Within Groups	366.973	395	.929		
	Total	382.826	399			
Account receivable	Between Groups	11.720	4	2.930	3.150	.014
	Within Groups	367.363	395	.930		
	Total	379.083	399			
Account Payable	Between Groups	25.685	4	6.421	6.319	.000
	Within Groups	401.393	395	1.016		
	Total	427.077	399			
Dividend Policy	Between Groups	10.711	4	2.678	2.124	.077
	Within Groups	497.999	395	1.261		
	Total	508.710	399			
Plant efficiency	Between Groups	20.269	4	5.067	3.894	.004
	Within Groups	514.028	395	1.301		
	Total	534.298	399			
Tax Policy	Between Groups	20.517	4	5.129	4.280	.002
-	Within Groups	473.323	395	1.198		
	Total	493.840	399			

Source: Survey data

Hence Statistical analysis of Mean is very significant if (M= from 1 to 1.8 means strongly disagree), (M= 1.81 to 2.60 means disagree), (M= from 2.61 to 3.40 means Neutral), (M= from 3.41 to 4.20 means agree) and (M= from 4.21 to 5 means strongly agree).

#### Inferential Analysis

The independent sample t-test -The dependent variable should be approximately normally distributed. The dependent variable should also be measured on a continuous scale. Compares the means of two independent groups to ascertain whether statistical evidence exists that the associated population means are statistically significantly different. The independent sample t-test was considered appropriate to do so. The hypothesis is set out as follows: H1: There is significant difference in the perception of working capital requirement in Nepal among the demographic factors.

Sub1: There is significant difference in the perception among Gender

Sub2: There is significant difference in the perception between age group

Sub3: There is significant difference in the perception among academic qualification group

Sub4: There is significant difference in the perception among different experience group

Sub5: There is significant difference in the perception among financial profession group

# There is significant difference in the perception among Gender

In order to get a response from the respondent, the gender group consists of male and females.

To test the significant difference in the perception of working capital requirement between male and female, independent sample t test was used and the results are showed in the table No 3.

### Table 3 Independent Sample T test result Perception among Gender

Gender	Mean	T value	d.f	Sig.	Remark
Male	3.95	3.322	398	.001	Null Hypothesis rejected

Source: Survey data

Table 3 explains that there exists a significant difference in the perception of working capital efficiency between male and female respondents (p<0.05), which indicates that male (M=3.95) respondents have more positive perception about factors influencing working capital efficiency than female (M=3.67).

# There is significant difference in the perception between age group.

One-Way ANOVA- To Measures of population aging are important because they shape our perception of demographic trends. This study consists minimum age 0-5 and maximum 60 above.

To test the significant difference in the perception of working capital efficiency among age groups, one way ANOVA test were used and the results are showed in the table 4,

	Ũ		1 881		
	Sum of Squares	d.f	Mean Square	F	Sig.
Between Groups	31.321	4	7.830	12.855	.000
Within Groups	240.601	395	.609		
Total	271.922	399			

#### Table 4 One-Way ANOVA result Perception between age group

Source: Survey data

Table 4 explains that there exists a significant difference in the perception of working capital efficiency among age groups of the respondents (p<0.05). Table 4 indicates that age group between 30-39 (Mean=4.13) respondents have more positive perception about factors influencing working capital efficiency than others age groups.

There is significant difference in the perception among academic Qualification groups

Academic Qualification lower from Degree to maximum till Doctorate was taken to know the perception of respondent.

To test the significant difference in the perception of working capital efficiency among age groups, one way ANOVA test were used and the results are showed in the table 5;

#### Table 5 One-Way ANOVA result Perception among academic Qualification groups

ANOVA						
	Sum of Squares	d.f	Mean Square	F	Sig.	
Between Groups	1.981	3	.660	.969	.407	
Within Groups	269.941	396	.682			
Total	271.922	399				

Source: Survey data

Table 5 indicates Anova test results on difference in the perception among academic qualification. Since p-value greater than 0.05, therefore researcher fails to reject null hypothesis that is means there is no significant difference in the perception among academic Qualification groups.

# There is significant difference in the perception among different experience group

Demographic information provides data regarding research

participants and is necessary for the determination of whether the individuals in a particular study are a representative sample of the target population for generalization purposes.

To test the significant difference in the perception of working capital efficiency among different experience group, one way ANOVA test were used and the results are showed in the table 6;

ANOVA						
	Sum of Squares	d.f	Mean Square	F	Sig.	
Between Groups	17.131	3	5.710	8.875	.000	
Within Groups	254.790	396	.643			
Total	271.922	399				

# Table 6 One-Way ANOVA result Perception among different experience group

Source: Survey data

Table 6 explains that there exists a significant difference in the perception of working capital requirement among experience group of the respondents (p<0.05). Table 6 indicates that experience group between 11-15 (Mean=3.82) respondents have more positive perception about factors influencing working capital requirement than others experience group.

There is significant difference in the perception among financial profession group

Respondents in financial profession research have the freedom to choose whether or not to engage in a study and for how long. Finally, the replies participants contribute present the research project with the data it requires. To test the significant difference in the perception of working capital requirement among different financial profession group, one way ANOVA test were used and the results are showed in the table 7.

ANOVA						
	Sum of Squares	d.f	Mean Square	F	Sig.	
Between Groups	15.688	4	3.922	6.046	.000	
Within Groups	256.234	395	.649			
Total	271.922	399				

 Table 7 One-Way ANOVA result Perception among financial professions group

Source: Survey data

Table 7 explains that there exists a significant difference in the perception of working capital requirement among financial professions group of the respondents (p<0.05). Table 7 indicates that between five financial professions, financial planner (Mean=4.04) respondents have more positive perception about factors influencing working capital requirement than others financial professions.

#### **Conclusion and Implications**

The following conclusions were reached as a result of the findings of the research: It was concluded that the nature of the business, the scale of operations, business cycles, seasonal factors, production cycles, credit allowed, credit availed, operating efficiency, industry competition, and inflation, among other factors, have the greatest impact on working capital requirements in Nepal. It has been found that components of working capital management, such as liquidity management, inventory management, accounts receivable management, and accounts payable management, are not correctly handled, resulting in an increase in the total system's working capital demand requirement. According to the findings of this study, the operating cycle, the size of operation, operational efficiency, inventory management, and plant efficiency are the internal elements that have the greatest impact on working capital needs. Working capital needs and management procedures vary from industry to industry and from nation to nation, as well as within an industry. This might be one of the reasons why some of the conclusions are in direct conflict with those of well-known earlier writers (e.g., Nazir and Afza, 2008, 2009; Taleb et al., 2010). When investors buy debt or equity instruments, they should do a lot of research on the companies before they buy them. This is because working capital needs and working capital management can change from industry to industry and country to country.

#### Limitations

The limitation of this study is confined to a sample of firms that are publicly traded on the Nepal Stock Exchange (NSE). The firms on this list are divided into nine groups. Banks, development banks, finance firms, insurance companies, hotels, hydropower companies, trade companies, manufacturing and processing companies, and others are included in the "others" category, as are other types of businesses. The conclusions of this study could only be applied to manufacturing and service companies that were identical to those that were included in this study, and not to any other types of businesses. Furthermore, the sample size is relatively small.

#### Scope for future research

Future research should investigate the generalization of the findings beyond the companies listed on the Nepal Stock Exchange (NSE). These companies are categorized into 9 groups. Future studies may include economic factors such as real GDP growth and external factors that influence more than the variables that were used in this study. Further research on the same topic with a change in methodology and a wider scope to cover a large population is needed.

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