

Strike of Working Capital Management on Profitability: Evidence from Nepalese Institutional Schools

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Abstract: This very article presents the findings of a research of the relative relevance of working capital management, measured by the Return on Investment (ROI), and its components namely Receivable Conversion Period, Payable Deferral Period and Current Ratio) on the profitability in Nepalese Institutional Schools located in Khairahani Municipality of Chitwan District, Nepal. To analyze the strike of working capital management on schools' profitability, data of 5 years has been used from 2013-2014 to 2017-2018. Karl Pearson's Correlation and Descriptive Analysis were used to diagnose the relationship between Working Capital Management and schools' profitability and components of working capital. The investigation found an inverse relationship between profitability and Receivable Conversion Period and Payable Deferral Period, but a direct relationship between profitability and Current Ratio. Moreover, Current ratio and size of the school also have significant strikes on the schools' profitability. On the foundation of key findings from this investigation it had been concluded that the management of a school could create value for their stockholders by reducing the number of Receivable Conversion Period. Schools could also take long period to pay their Account Payables.

Keywords: Working Capital Management, Profitability, Receivable Conversion Period, Payable Deferral Period, Current Ratio, Return on Investment

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I. Introduction

Working Capital basically refers to that fraction of firm's capital which is required for financing current assets such as cash and cash equivalents, account receivable and inventories. It is the money used to make goods and services and attract revenues. The less working capital used to attract revenues, the higher is likely to be the return on investment. In other words working capital is the amount of funds necessary to cover the cost of operating the firm. Working capital simply means the current assets of the company that can be changed from one type to another during day to day operations of the firm (Gitman, 2009)^[1].

Working capital management is a very relevant component of financial management as it has direct strike on liquidity and profitability of the organization. Working capital management, therefore, is engaged with the problems that arise in trying to manage the current assets, the current liabilities and the inter-relationship that exist between them (Horne & Wachowitz, 2000)^[2]. In other words, it represents all aspects of administration of both current assets and current liabilities. Working capital policies of various firms have an impression on the liquidity, structural health in addition to profitability of the institution. It is a really simple fact that investment in capital projects designed for long term receives a lot more interest in comparison to do the task related on a regular basis with the management of working capital. Nevertheless, companies which do not tackle such a monetary component of working capital in the correct manner not attract important capital to fund their very obvious projects; chatting clearly, one should go through the short sprint to attain the marathon finish line (Brealey, 2005)^[3].

The history of modern schooling in Nepal commenced with the establishment of Durbar High School by the then Rana Prime Minister Janga Bahadur Rana. He comprehended the necessity of education after his visit to England and set up Nepal's first school, Durbar High School, which was an English medium school stand for only for the members of royal family. After the political change in 1950, people initiated setting up schools on their own initiatives instead of waiting for the government to set up schools for their children. Such schools were termed as non-government schools rather than private schools.

The Nepal government introduced Education Act 2028 (1971) and nationalized all the existing schools, thus handicapping the growth of private sector education (Khaniya, 2007)^[4]. However, it was soon accepted that the government cannot provide education to all the children and the Education Act 2028 (1971) was amended in 1980. This once again offered equipment for private sector engagement in education. Thus, initially private schools as organizations in the education sector in Nepal, as in many South Asian countries, came as an

option to meet the excess demand of education. Since mid-1980s there has been rapid increase in the number of private schools in Nepal. The political change of 1990 further eased the exercise of privatization of education in Nepal. This has resulted in up starting of private schools, especially in the urban parts of the country. The Seventh Amendment of the Education Act 2028 (1971) in 1992 made a provision for registering existing private schools either as private limited company or as trust. This has changed the traditional perception of seeing school as not-for-profit organization. As a consequence of registration of private school as business organization (private limited company), several issues related to financial management of private schools has arose.

One of the major problems that the Nepalese institutional schools are facing is with working capital management. Most of the Nepalese institutional schools still lack such orientation and they could not able to build effective working capital management. The working capital management undoubtedly is a prime concern of any organization which influences almost all functions. Organizations are generally found to concentrate on acquisition of the working capital but not through proper analysis of trade-off between risk and return. They do not pay more attention on effective utilization in spite of high level of importance of optimum level and efficient use of working capital.

There is lack of such scientific and empirical research that could identify the issues of working capital management in Nepalese institutional schools. Adequate level of working capital or liquidity is determined by how an organization maintains its current assets and manages its current liabilities. In this regard, the performance of Nepalese institutional schools is to be analyzed in term of its working capital management. This study has attempted to find the facts and suggestions in connection with some major issues which can also be regarded as problem of working capital management.

II. Objectives

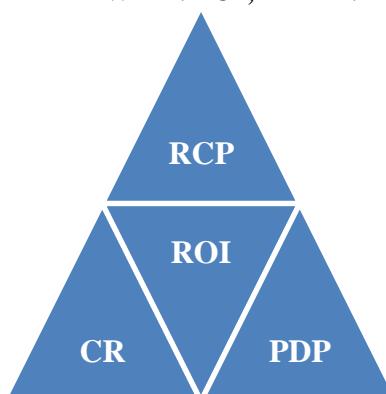
The major objective was to examine the strike of working capital management on profitability Nepalese institutional schools located in Khairahani Municipality of Chitwan District, Nepal. The other objectives were;

- To examine the relationship between Payable Deferral Period (PDP) and profitability of the schools.
- To explore the relationship between Receivable Conversion Period (RCP) and profitability of the schools.
- To trace the relationship between Current Ratio (CR) and profitability of the schools.

III. Conceptual Framework

Receivable conversion period (RCP) is the average period between the sales of the goods and services on credit and collection of accounts receivable. Payable Deferral Period (PDP) is the average period which a firm takes in paying its credit purchases. Current Ratio (CR) is a liquidity ratio that measures a firm's capacity to pay short term obligations. RCP, PDP and CR are the independent variables which strike the dependent variable ROI which shows the profitability of the firm.

FIGURE 1
RELATIONSHIP BETWEEN RCP, PDP AND CR WITH ROI



IV. Review of Literature

Sawarni et al. (2020) ^[5] looked at the effect of the effectiveness of working capital management (WCM) on the overall performance of a sample of Indian businesses and explored the way the dynamics of the firms' business influence the significance as well as direction of this particular influence. The data for the study was collected for the period of 2012-2018 for 414 non-financial firms listed on the Bombay Stock exchange. Fixed-effect regression models were used by taking Tobin's Q and return on equity (ROE) as dependent variables, and net trade cycle (NTC) as well as its components as explanatory variables in the presence of

liquidity, leverage, sizing, development and age as command variables. Sample companies were segregated into manufacturing, trading and service groups, and regression designs were used for all of the groups to recognize the outcome of the dynamics of a firm's business. It was found that WCM performance has a huge effect on the overall performance of the sample firms. Non-financial Indian firms provided better economic performance by having lower NTC. Like NTC, its parts also influence firms' value and profitability. The study also reported that the significance of the connection varies based on the dynamics of the firm's business. The prior investigation experiments did not made use of a sample of large selection of Indian companies. Not like previous studies, this particular study reported the impact of the dynamics of small business on the connection between firms' results along with WCM. Additionally, the study examined the way the individual parts of working capital impact the overall performance of Indian companies.

Ojha, (2019)^[6] reported the outcomes of an investigation of the relative value of working capital management, assessed by the Return on Assets (ROA), and its components (Current Ratio, Average Payment period as well as Average Collection Period) on the profitability of Pukar International Trading. He analyzed the impact of working capital Management on firm's profitability for the period 2071 to 2072. Pearson's correlation as well as Descriptive analysis was utilized. The study found a negative relationship between average collection period and profitability as well as average payment period, but a positive relationship between profitability and current ratio.

Sareeya (2019)^[7] combined quantitative and qualitative exploration of SMEs food enterprises which performed in Thailand. Qualitative analysis is used is designed to investigate WCM system of firms. The results show that food enterprises typically set aim considered profits, risk, and liquidity. Additionally, companies have created the appropriate policy as well as WCM approach and can to attain the WCM objective in operational analysis. Next term by using path analysis focuses on the effect of WCM on profitability by employing monetary ratios as well as time period of cash as signs to evaluate WCM performance of firms. The end result shows that the proposed item has an influence on earnings and conforms to the collected empirical details. The business can boost the profitability of it's by aiming at increased liquidity in working capital management. Additionally, shortening receivable collection phase as well as inventory transformation period coupled with extending payable deferral period assistance also to acquire higher profit.

Shrestha (2019)^[8] analyzed the effect of working capital management on profitability of Unilever Nepal Limited. The primary objective of this study was working capital management as well as profitability of Unilever Nepal Limited. Data analysis was done using descriptive statistics, Pearson correlation, regression analysis, F-test and multi collinearity. Cash conversion period (CCP), Inventory Conversion period (ICP) and Receivable conversion period (RCP) were considered as independent variables and Return on Assets (ROA) as dependent variable. The study suggested that the four independent variables were able to explain more or less 77.0 % of the proportion of variance of dependent variable. This suggests that there was a tremendous connection between RCP and profitability, CCP and ICP. It also suggested that there was no significant relationship between PDP and profitability.

Afeef (2014)^[9] Working capital management adds to corporate profitability and shareholders' value. The indicators of working capital management had a very remarkable impact on the profitability of firms.

Daniel & Ambrose (2013)^[10] analyzed the effect of working capital management on firm's profitability in Kenya for the period 2003 to 2012. They used, balanced panel data of five manufacturing and construction firms each of which were listed on the Nairobi Securities Exchange (NSE). Pearson's correlation and Ordinary Least Squares regression models were used to establish the relationship between working capital management and firm's profitability. They found a negative relationship between profitability and number of day's accounts receivable and cash conversion cycle, while a positive association between profitability and number of days of inventory and number of day's payable. Moreover, the financial leverage, sales growth, current ratio and firm size also have significant effect on the firm's profitability.

Amarjit et al. (2010)^[11] examined the relationship between working capital management and profitability using a sample of 88 American firms listed on New York Stock Exchange for a period of 3 years from 2005 to 2007. They found statistically significant relationship between the cash conversion cycle and profitability, measured through GOP. They concluded that managers can create profits for their firms by properly managing the cash conversion cycle and by keeping accounts receivables at an optimal level.

V. Research Methodology

The population for this study consisted of all the institutional schools having existence in Khairahani Municipality of Chitwan District, Nepal. Four schools were selected using simple random sampling technique. Descriptive and correlation analysis technique have been used for the analysis. To analyze the strike of working capital Management on schools' profitability, data of 5 years has been used from 2013-2014 to 2017-2018. The study being focused on the relationship of working capital management on profitability aimed at identifying the relationship of working capital components such as Receivable Conversion Period, Payable Deferral Period and

Current Ratio on profitability. These variables have been considered as independent variable to analyze relationship between working capital management and profitability. For this, ROI is considered as the dependent variable. Measurement of the variables has been done by using down mentioned models.

$$ROI = \text{Net Income} / \text{Average Total assets} \times 100\%$$

$$PDP = \text{Accounts Payable} / \text{Cost of Goods sold} \times 360 \text{ days}$$

$$RCP = \text{Accounts Receivable} / \text{Net Sales} \times 360 \text{ days}$$

$$CR = \text{Current Assets} / \text{Current Liabilities}$$

VI. Data Presentation And Analysis

The findings of the investigation are presented obtained from descriptive and correlation data analysis using SPSS. Descriptive analysis is presented first followed by correlation analysis.

DESCRIPTIVE ANALYSIS

The descriptive statistics for all the variables under study are presented in table 1. It shows the mean and standard deviation of different variables in under investigation. It also gives minimum and maximum values of the variables.

TABLE 1
DESCRIPTIVE STATISTICS

Name of the Schools	Ratios	Min. Value	Max. Value	Mean Value	Std. Deviation
Glow Shine Academy	RCP	12.69	36.78	25.44	8.98
	PDP	23.56	45.67	31.56	6.07
	CR	0.98	1.40	1.10	0.16
	ROI	3.44	5.67	4.56	4.14
Daisy School	RCP	11.92	33.59	21.97	9.07
	PDP	15.56	59.70	34.56	12.45
	CR	1.64	2.40	2.10	0.30
	ROI	4.0	6.55	5.67	2.34
Nepal Adharsha Sikshya Sadan	RCP	13.56	43.19	24.87	12.07
	PDP	14.56	51.45	34.65	1.06
	CR	0.99	3.0	2.54	0.35
	ROI	3.45	6.78	5.49	2.13
Motherland Academy	RCP	12.34	35.56	25.97	9.17
	PDP	11.34	56.45	34.56	13.24
	CR	0.80	1.90	1.66	0.64
	ROI	3.92	7.56	5.34	1.86

Table 1 depicts the summary of the variables used in the investigation of the annual financial data of five years. The mean value of return on investment is 4.56%, 5.67%, 5.49% and 5.34% for the selected schools respectively. The Payable Deferral Period is 31.56 days, 34.56 days, 34.65 days and 34.56 days for the selected schools respectively. Similarly Receivable Conversion Period is 25.44 days, 2.97 days, 24.87 days and 25.97 days for the sampled schools. Finally schools selected for the investigation have current ratio of 1.10 times, 2.10 times, .54 times and 1.66 times respectively.

CORRELATION ANALYSIS

Correlation among the observed variables in the investigation is presented in table 2. A correlation coefficient is a statistical measure of the degree to which changes to the value of one variable predict change to the value of another variable. A positive correlation indicates the extent to which those variables increase or decrease in parallel and a negative correlation indicates the extent to which one variable increases as the other decreases.

**TABLE 2
CORRELATION ANALYSIS**

			RCP	PDP	CR	ROI
Glow Shine Academy	RCP	Pearson Correlation	1			
		Sig. (2-tailed)				
		N	5			
	PDP	Pearson Correlation	0.564	1		
		Sig. (2-tailed)	0.000			
		N	5	5		
	CR	Pearson Correlation	0.918	0.714	1	
		Sig. (2-tailed)	0.046	0.000		
		N	5	5	5	
	ROI	Pearson Correlation	0.416	0.612	0.182	1
		Sig. (2-tailed)	0.000	0.000	0.000	0.000
		N	5	5	5	5
Daisy School	RCP	Pearson Correlation	1			
		Sig. (2-tailed)				
		N	5			
	PDP	Pearson Correlation	0.585	1		
		Sig. (2-tailed)	0.000			
		N	5	5		
	CR	Pearson Correlation	0.917	0.764	1	
		Sig. (2-tailed)	0.049	0.000		
		N	5	5	5	
	ROI	Pearson Correlation	0.406	0.634	0.188	1
		Sig. (2-tailed)	0.000	0.000	0.000	0.000
		N	5	5	5	5
Nepal Adharsha Sikshya Sadan	RCP	Pearson Correlation	1			
		Sig. (2-tailed)				
		N	5			
	PDP	Pearson Correlation	0.526	1		
		Sig. (2-tailed)	0.000			
		N	5	5		
	CR	Pearson Correlation	0.899	0.701	1	
		Sig. (2-tailed)	0.042	0.000		
		N	5	5	5	
	ROI	Pearson Correlation	0.412	0.604	0.172	1
		Sig. (2-tailed)	0.000	0.000	0.000	0.000
		N	5	5	5	5
Motherland Academy	RCP	Pearson Correlation	1			
		Sig. (2-tailed)				
		N	5			
	PDP	Pearson Correlation	0.601	1		
		Sig. (2-tailed)	0.000			
		N	5	5		
	CR	Pearson Correlation	0.938	0.756	1	
		Sig. (2-tailed)	0.048	0.000		
		N	5	5	5	
	ROI	Pearson Correlation	0.428	0.645	0.1	1
		Sig. (2-tailed)	0.000	0.000	0.000	0.000
		N	5	5	5	5

**Correlation is significant at the 0.05 level (2-tailed)*

VII. Conclusion

The purpose of the study was to investigate the relative relevance of Working Capital Management measured by Return on Investment (ROI) and its components (RCP, PDP and CR) on the profitability of Nepalese Institutional Schools located in Chitwan District of Nepal. From correlation analysis, it was found that relation between ROI and PDP is low, moderate correlation between ROI and RCP and finally low correlation between ROI and CR. In conclusion the researcher found that there is significant relationship between PDP and profitability of the firm. Significant relationship between RCP and profitability of the firm was observed. Finally a significant relationship between Current Ratio and profitability of the firm was observed.

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