

WORKING CAPITAL MANAGEMENT AND PROFITABILITY OF BOTTLER'S NEPAL LIMITED (BALAJU)

Sanjay Shrestha

Department of Management, TU, Thakur Ram Multiple Campus, Birgunj

Email: snajayshrestha4111@gmail.com

Abstract

Working capital management is one of the essential determinants of firms' market value because it directly affects the profitability. This study investigates the relationship between the working capital management and profitability and its impact on profitability in Bottler's Nepal Limited (Balaju). Data analysis has been done using descriptive statistics, Pearson correlation, regression analysis, and F-test. The data used to analyze one (1) samples size, out of three which has found to be covering period 2009-2018 of listed multinational manufacturing company in Nepal. The working capital represents the variables of the Cash conversion period (CCP), Inventor Conversion Period (ICP), Receivable conversion Period (RCP), Payable deferred period (PDP), Current Ratio (CR) and the profitability including Return on Assets (ROA). The results are the finding of the impact of all five independent variables is tested together on dependent variable (ROA). From the model summary the value of R-square=0.851. It indicates that the five independent variables can explain approximately 85.10% of the proportion of variance of dependent variable. However, it is still left 14.9 % unexplained by these independent variables in this study. The results revealed that there is significant relationship between profitability and RCP, ICP and CCP and there is no significant relationship between profitability and PDP and CR.

Key words:

Working capital; management; profitability; CCR; ROA; RCP

INTRODUCTION

Working capital is the life blood for an organization; no business can be run successfully without it. Since there is an inverse relationship between liquidity and profitability therefore a firm should maintain a delicate balance of working capital so that smooth operations can be conducted without disturbing the profitability. There are studies proving both, relevancy and irrelevancy of working capital management with profitability (Sarwat, 2017).

Working capital management is a challenging task since it consists of managing various concepts of current assets, current liabilities along with managing cash, stock movement, trade receivables and trade payables as well. All these elements are inter-connected and affect the other; therefore there is always a risk to be managed. Managing one component in working capital may affect the other components and hence increasing the delicacy of the task; this means that there is always a risk-return trade off involved with working capital decisions (Al-Debi'e, 2011).

Working capital is a financial measure which represents operating liquidity available in a business. Simply working capital is the capital of a business which is used in its day-to-day trading operations. Decisions relating to working capital and short term financing are referred to as working capital Management (WCM).

WCM ensures that a company has sufficient cash flows in order to meet its short-term debt obligations and operating expenses. These involve managing the relationship between a firm's short term assets and its short term liabilities. The goal of working capital management is to ensure that the firm is able to continue its operations and that it has sufficient cash flow to satisfy both maturing short term debt and upcoming operational expenses (Sujeewa Kodithuwakku, 2015).

The management of working capital involves managing inventories, accounts receivable, accounts payable and cash. Implementing an effective working capital management system is an excellent way for many companies to improve their earnings. Working capital management is vital especially for manufacturing and construction firms, where a major part of assets is composed of current assets (Horne & Wachowitz, 2000). It directly affects the profitability and liquidity of firms (Raheman & Nasr, 2007). Deloof (2003), who conducted his study on Belgian firms, suggests that working capital management has a vital effect on the profitability of a firm. He also states that firms have to make a trade-off between liquidity and profitability. With working capital management is referred to the net working capital. Net working capital is current assets minus current liabilities. The net working capital is positive when current assets are greater than current liabilities (Hillier et al, 2010). Currents assets are cash and other assets

that can be converted into cash within the year. Current liabilities are obligations that require cash payments within one year (Hillier et al, 2010). According to Filbeck and Krueger (2005) the objective of working capital management is to maintain the optimum balance of each of the working capital components namely receivables, inventory and payables. Some firms minimize receivables and inventories while others maximize the payables. A widely used measure of working capital management by previous studies is the Cash Conversion Cycle (CCC) (Deloof, 2003; Padachi, 2006; Garcia-Teruel and Martinez-Solano, 2007; Mathuva, 2009).

Similarly, Raheman and Nasr (2007) posit that a company has to determine the equilibrium between liquidity and profitability because increasing profits at the expense of the liquidity of the firm can be harmful in terms of insolvency and bankruptcy of the firm. Accordingly, the three components of the cash conversion cycle are each managed in different ways to improve the profitability. This is due to firm specific (industry-wise) with different characteristics. Each of the researchers that have conducted case studies in different countries found different results on how the profitability of a firm is related to the cash conversion cycle and its three components. As far as is known, there has been no study on working capital management and its impact on the profitability of multinational manufacturing company in Nepal. It is

in this consideration that the research plan in this paper will be directed to the following research question: “*What is the relationship between the working capital management components and profitability of Bottler’s Nepal Limited (Balaju)?*”

LITERATURE OF REVIEW

Bellouma, (2018), found that the results of fixed and random effects models show a negative relationship between corporate profitability and the different working capital components. This reveals that Tunisian export SMEs should shorten their cash conversion cycle by reducing the number of days of accounts receivable and inventories to increase their profitability.

Smith,(2017) Says that “Working Capital is usually defined as the excess of current assets over current liabilities and is calculated as Current Assets minus Current Liabilities in the balance sheet. If Current Assets are more than Current Liabilities, this is a surplus figure and, if less, a negative figure”.

Azeez (2016) revealed that ACP and APP are significant determinants of profitability, while ACP has negative effective on firm’s profitability. It was recommended that liquid cash should be judiciously channels towards operational activities with a view to expand business scope and increase profitability and it was recommended that company should sufficient plan and control their working

capital combinations with a view to cater for any shortfall and to maintain consistent profitability.

Lawal et al.(2015) Concluded that working capital management has significant impact on profitability of manufacturing companies and recommended that companies should manage their cash, accounts receivables, inventories and accounts payable with a view to reducing the cash conversion cycle so as to increase their profitability amongst other things.

Mawutor (2014) and Kodithuwakku (2015) on manufacturing companies of Ghana (2006-2010) and manufacturing companies listed on Columbia Stock exchange (2008-2012) respectively presented a similar view. The results showed that the working capital management had significantly negative influence on the profitability. Further, it was also shown in the analysis that the variables like growth, the size of the company and debt-equity ratio also had a strong influence on the profitability apart from the working capital management.

Marobhe (2014), has assessed the relationship between working capital management and profitability of twelve manufacturing companies listed in East African stock exchange during the period, 2005-2012. This study used ROA and Operating Margin as dependent variables whereas Current ratio, Quick ratio, Cash Cover Ratio, Inventory holding period, Receivables Collection Period, Payable

Deferred Period and Cash Conversion Cycle are used as independent variables, while Sale growth, Debt ratio, and Company size are used as control variables. It was observed that there exist a notable relationship between cash conversion components and profitability using Pearson correlation and multiple regressions.

Almazari (2013), has examined the relationship between the Working Capital Management (WCM) and firm's profitability on 13 Saudi cement manufacturing companies during 2008-2012, a period of 5 years. He proposed a model that addressed four hypotheses namely; H1: Liquidity position has significant impact on profitability, H2: Size has notable impact on profitability, H3: There is significant relationship between debt financing and profitability and H4: Working capital management has noteworthy impact on profitability. The study results proved that current ratio affects the profitability, and as the size of firm increases, the profitability also increases. Moreover, when debt financing increased, profitability declined. He analyzed that, liner regression test confirmed a higher degree of association exist between the working capital management and profitability.

Quayyum (2012) in his study investigated the relationship between working capital management and profitability of manufacturing firms from 2005 to 2009. The purpose of

study was to explain the optimum level of working capital in order to maximize the profitability. Similar ingredients of working capital management and profitability were considered as in (Marobhe, 2014). With the sample size of four industries, this study concluded that except in food industry, all other selected industries exhibit a significant level of relationship in profitability indices and various working capital components in addition to that; there is a valid relationship that varies from industry to industry.

Lingesiya & Nalini, (2011), in their study, determined the relationship between working capital management and firm's performance on the basis of various components of working capital; cash conversion cycle, current ratio, quick ratio, stock to current assets and return on total assets as a variable of profitability. This study used *estimated equation* on 30 manufacturing corporations which are listed companies during the period 2006-2010, and indicated that excessive investment in inventories and receivables lead to lower profitability and current assets to total assets lead to higher profitability. The result concluded that there is a strong relationship between working capital management and performance.

Nobanee, Abdulatif and Al Hajjar (2011) examined the impact of cash conversion cycle on non-financial Japanese firms listed on the Tokyo Stock

Exchange from 1990 to 2004. The results showed that except for consumer goods and service sector, there is a negative relationship between the cash conversion cycle and the return on equity.

Ebben and Johnson (2011), in their study, findings have been obtained the literature indicates that efficient working capital management leads to higher profitability. This research provides the empirical evidence of the relationship between working capital management and firm's profitability from selected manufacturing firms listed on the Ghana Stock Exchange.

Gill, Biger and Mathur (2010) concluded that no significant relationship exists between inventory conversion period and firms profit. They were of the view that collection period of accounts receivables is most influencing factor among components of cash conversion. Thus, managers can generate value for shareholders by shortening the average collection period.

Mohamad and Saad (2010) analyzed the effect of working capital management on the profitability of 172 firms over a five-year period (2003-2007) listed on Bursa Malaysia. They found negative relationship between working capital management components (cash conversion cycle, current liabilities to total asset ratio, current assets to current liability ratio and profitability captured by return on equity (ROE) and return on total asset (ROA). On the other

hand, they also concluded that there is a significant positive relationship between the current assets to total assets ratio and firms' profit.

Zariyawati et al. (2009) used panel data of 1,628 firm years for the period between 1996–2006 that consisted of six different economic sectors, in order to examine the relationship between working capital management and firm profitability of the firms listed in Malaysia. Results of this study found that the CCC is significantly negatively associated with the firm profitability. They further emphasized that managers should focus on reduction of the cash conversion period in order to create shareholder wealth. The results of the study are consistent with that of other studies conducted in different markets.

Samiloglu and Demirgunes (2008) conducted a research on manufacturing firms in Turkey. They showed that account receivable period and inventory conversion period have significant negative effects on profitability. However, the research revealed cash conversion cycle has no significant effects on firm's profit.

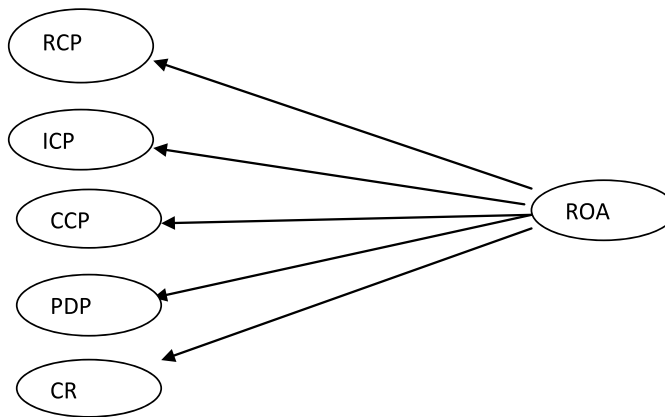
Raheman and Nasr (2007), investigated the effect of different components of working capital management including average collection period, average payment period, cash

conversion cycle, inventory turnover and current ratio on the net operating profit of firms in Pakistan. The findings indicated a negative relationship between the various components of working capital and profit.

Raheman and Nasr (2007) provide further evidence about the relationship of working capital management and profitability. Using variable and methodology as used by Deloof (2003) on a sample of 94 companies listed on the Karachi Stock Exchange (KSE) for the period 1999–2004, the results show that there is strong negative relationship between variables of WCM and profitability of the firms. It means that as the cash conversion cycle increases, it leads to decreasing profitability of the firm. Thus, managers can make the shareholders value positive by reducing CCC to the minimum possible level. The authors also found a positive relationship between the size of the firm and its profitability, and a significant negative relationship between debt and profitability.

CONCEPTUAL FRAMEWORK

The given conceptual framework presents the relationship among working capital management measures and profitability of Bottlers Nepal Limited (Balaju):



RESEARCH METHODS

Secondary data were used in the study. The data were collected from one (1) listed multinational manufacturing company of Nepal. Among the three listed multinational manufacturing company of Nepal, one has taken as a sample size. Descriptive and causal comparative design was used to analyze the data collected from one company.

Data Presentation and Analysis

The findings of investigation on

working capital management and its impact on profitability of Bottler’s Nepal Limited (Balaju) between the years 2010 to 2019 is presented in the study. The variables which were included in the study were Return on Assets (ROA), Cash conversion period (CCP), Inventor Conversion period (ICP), Receivable conversion period (RCP), Payable deferred period (PDP) and Current Ratio (CR). The following variables were used. This study analyzes the variables involved

Table no. 1

Variables:

Explained Variables	Description
ROA	Return on Assets
Explanatory Variables:	
Variables	Description
CCR	Cash Conversion ratio
ICR	Inventory conversion ratio
RCR	Receivable conversion ratio
PDR	Payable deferred ratio
CR	Current Ratio

Data Analysis

The data collected is analyzed using the computer software known as Statistical Package for Service Solution (SPSS) version 21.0. Descriptive, correlations and regression analysis was applied to study and compare the effect of independent variables on the dependent variable.

The dependent variables used in this research Return on Assets (ROA), Cash conversion period (CCP), Inventor Conversion period (ICP), Receivable conversion period (RCP), Payable deferred period (PDP) and Current ratio (CR). Based on the dependent variable, multiple regression models have been formulated as follows:

$$ROA = \alpha_i + \beta_1RCP + \beta_2ICP + \beta_3CCP + \beta_4PDP + \beta_5CR + \epsilon_{it}$$

Table no. 2

Correlations

	Mean S.D.		ROA	RCP	ICP	PDP	CCP	
ROA	.1066	.05499	1					
RCP	27.8195	34.86378	-.665*	1				
ICP	118.1967	15.11226	-.438*	.426	1			
PDP	133.4174	51.33933	-.648*	.868**	.622	1		
CCP	12.5987	21.32810	.163*	-.153	-.093	-.547	1	
CR	1.2182	.22326	.779**	-.510	-.807**	-.571	-.030	1
*. Correlation is significant at the 0.05 level (2-tailed).								
**. Correlation is significant at the 0.01 level (2-tailed).								

Descriptive statistics is presented in the table no 2. It shows that on average company's earn a net profit before and tax of 10.66% with standard deviation of 0.5499, whereas company's take average

Data Analysis

The collected data has been analyzed by descriptive statistics and inferential statistics. Firstly, data are analyzed by descriptive statistics. Mean and standard deviation is used in the descriptive statistics.

Descriptive Statistics and Correlation Statistics

The descriptive and correlative statistics of the explanatory and explained variable in this study are presented in table no. 2. It is based on a panel data set organized from mine Bottler's Nepal Limited (Balaju) in Nepalese financial market during the period from 2010 to 2019. Looking at them, generally, the statistics indicators of impact of working capital management on profitability of Bottlers Nepal Limited (Balaju).

118.1967 days to convert inventory into final goods with standard deviation of 15.11226. Company delays their payables for 133.4174 days with standard deviation of 51.33933 and average

collection period for company is 27.8195 days with standard deviation of 34.86387. On average firms' cash conversion cycle is 12.5987 days with standard deviation of 21.32810.

From table no. 2, we can easily find the relationship between profitability and components of working capital. It shows the Return on assets is negatively correlated with receivable conversion period and inventory conversion period, which shows that any increase in any of these factors will reduce profitability of company. It shows that payment period has a negative significant relationship with profitability, which means if company's delay their payments they will earn less profits; the reason behind this is that firms can take the advantage of discounts by paying soon. It shows that cash conversion period has a positive significant relationship with profitability.

The table no. 2 describes about correlation matrix between variables

under investigation. There is no significant negative relationship between ROA and RCP ($r=-0.665$, $p<0.05$). There is significant negative relationship between ROA and ICP($r=-0.438$, $p<0.05$). There is significant negative relationship between ROA and PDP($r=-0.648$, $p<0.05$) and there is significant positive relationship between ROA and CCP($r=0.163$, $p<0.05$) and there is significant positive relationship between ROA and CR ($r=0.163$, $p<0.05$).

Regression Analysis

The R-square is measure of the goodness of fit of the working capital management variables in explaining the variations in profitability of Bottler's Nepal Limited (Balaju). The regression analysis of ROA on working capital management has been separately analyzed below:

Table no. 3
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	
	B	Std. Error	Beta			
1	(Constant)	-.493	.213		-2.312	.069
	RCP	-.001	.000	-.328	-1.602	.170
	ICP	.002	.001	.627	2.106	.089
	CCP	.001	.000	.205	1.140	.306
	PDP	.001	.000	.313	1.456	0.000
	CR	.277	.078	1.124	3.560	.016
a. Dependent Variable: ROA						

The results are the findings of the research on the basis of observations and analysis. Regression analysis includes the major results extracted from the analysis of data to determine the impact of working capital management on profitability of Bottler's Nepal Limited (Balaju) from 2009 to 2018.

The findings of the analyzes is based on the significant level (alfa) of 0.05, degree of freedom (df) of 4 and two-tail test indicated. The impact of all four independent variables is tested together on dependent variable (ROA). From the model summary the value of R-square=0.851. It indicates that the five independent variables can explain approximately 85.10% of the proportion of variance of dependent variable. However, it is still left 14.90 % unexplained by these independent variables in this study.

From the ANOVA table, the estimated regression model is statistically significant ($F = 7.517$, $p = .027$). Five independent variables (ICP, RCP, CCP, PDP and CR) have been good predictors for ROA.

Above table describes about the multiple regression analysis, five variables i.e. RCP ($b = -0.001$, $p > 0.005$), ICP ($b = 0.002$, $p > 0.05$) CCP ($b = 0.001$, $p < 0.05$), PDP ($b = 0.001$, $p < 0.05$) and CR ($b = .277$ $p < 0.05$), have significant impact on ROA. The results revealed that there is significant relationship between

profitability and RCP, ICP and CCP and there is no significant relationship between profitability and PDP and CR.

CONCLUSION

Working capital management is of importance in company's financial management. It is therefore vital to manage the trade-off between profitability and working capital management. The purpose of this study was to investigate the impact of working capital management on profitability of Bottler's Nepal Limited (Balaju). This would assist firms to understand the nature and extent of the impact of working capital components on company's profitability. Such an understanding is essential for managers as they try to enhance company's profitability and ultimately its value. The results are the finding of the impact of all five independent variables is tested together on dependent variable (ROA). From the model summary the value of R-square=0.851. It indicates that the four independent variables can explain approximately 85.10% of the proportion of variance of dependent variable. However, it is still left 14.90 % unexplained by these independent variables in this study. The results revealed that there is significant relationship between profitability and RCP, ICP and CCP and there is no significant relationship between profitability and PDP and CR.

References

- Almazari A. (2014) the relationship between working capital management and profitability: evidence from Saudi cement companies, *British journal of economics, management & trade* 4(1): 146-157, 2014
- Al-Debi'e, M. M. (2011). Working capital management and profitability: the case of *international journal of humanities and social science* and accounting, Vol 30, No. 3 &4, pp. 573-588.
- Azeez T.(2016) Analysis of the effect of working capital management on profitability of listed Nigerian conglomerate companies, *FWU journal of social science, summer 2016, vol.10, no.1.*
- Bellouma M.(2011) The impact of working capital management on profitability: The case of small and medium-sized export companies in Tunisia, *management international, Volume 15, Number 3, Spring 2011, ISSN 206-1697 (print) 1918-9222 (digital)*
- Deloof M (2003), 'Does working capital management affect profitability of Belgian firms', *Journal of business finance*
- Ebben, J. J., and Johnson, A. C. "Cash conversion cycle management in small firms: relationships with liquidity, invested capital and firm performance." *Journal of small business and entrepreneurship*, 24(3), (2011): 381-416, evidence from the United States", *business and economics journal*, 10, 1-9.
- Filbeck, G. & Krueger, T., 2005. Industry related differences in Working Capital Management. *Mid-American journal of business*, 20(2): 11-18.
- Firms. *Asian Review of Accounting* , 19 (2).
- Gill, A., Biger, N., Mathur, N. (2010). "The relationship between working capital management and profitability:
- Hillier, et. Al. 2010. *Corporate Finance*. Berkshire: McGraw-Hill.
- Hollie, D, Nichols, C, And Zhao, Q, 2010, "The effects of cash flow statement reclassifications pursuant to the SEC"s one-time allowance." Bucknel University, Louisiana State University, and the University of Colorado working paper. *International review of business research papers*
- Kodithuwakku S.(2015). Impact of working capital management on profitability: A study on listed manufacturing companies in Colombo stock exchange, *international conference on business management* <http://ssrn.com/link/12th-ICBM-2015.html>
- Lawal, A. A., Abiola, B. I. and Oyewole, O. M.(2015) Effect of working capital management on the profitability of selected manufacturing companies in Nigeria, *international journal of sciences: basic and applied research (IJSBAR) (2015) Volume 19, No 2, pp 370-386*

- Lingesiya, Y., & Nalini, S. (2011). Working capital management and firms' performance: An analysis of Sri Lankan manufacturing companies. *Faculty of commerce and management studies, ICBI. manufacturing firms*". Retrieved from <http://www.emeraldinsight.com/> on January 2010. *Int. Rev. Bus. Res.*, 2(2): 45-58.
- Marobhe, M. I. (2014). An empirical analysis of the relationship between working capital management and profitability: panel evidence from listed manufacturing companies in East Africa. *European journal of business and management*, 6(7), 212-219.
- Nobanee, H., Abdullatif, M., & Al Hajjar, M. (2011). Cash conversion cycle and firm's performance of Japanese Padachi K (2006). "Trends in working capital management and its effect on firms' performance: An analysis of Mauritian small and profitability in context of manufacturing industries in Bangladesh. *International journal of business and management*, 7(1), 58.
- Raheman, A. and Nasr M., (2007), 'Working capital management and profitability – case of Pakistani firms',
- Samiloglu, F., and Demirgunes, K. "The effect of working capital management on firm profitability: Evidence from Turkey." *The international journal of applied economics and finance*, 2(1), (2008): 44-55
- Sarwat S.(2017) Impact of working capital management on the profitability of firms: case of Pakistan's cement sector, *journal of advanced management science* Vol. 5, No. 3, May 2017.
- Smith, K., 1980. Profitability versus liquidity trade-offs in working capital management, in readings on the management of working capital. New York: St. Paul, *West publishing company*.