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Working Capital Management and Profitability of Real Estate Industry in Jordan: An Empirical Study

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Abstract

Working capital is described as the capital available to meet the day-to-day operations, and depending on the industry, it could be a relatively high percentage of the total assets of the organization. It is the difference between two current assets and current liabilities. Working capital management is important because of its effects on the firm's profitability and risk, and consequently its value. In this research paper, an attempt has been made to examine the impact of working capital management on the profitability of selected real estate companies in Jordan. ROCE is used as dependent proxy variable for profitability and CR, DTR, ITR are used as independent proxy variable for substantiating the impact of working capital management on the profitability of companies. The results of data analysis show that there is a significant impact of working capital management on the profitability of selected real estate companies.

JEL classification numbers: L85
Keywords: Working capital management, real estate industry, ROCE, CR, DTR, ITR

1 Introduction

Working Capital Management is a very sensitive area in the field of financial management. It involves the decision of the amount and composition of current assets and the financing of these assets. Current assets include all those assets that in the normal course of business return to the form of cash within a short period of time, ordinarily within a year and such temporary investment as may be readily converted into cash upon need. There must be a balance between current assets and current liabilities so as to eliminate the risk of inability to meet short term obligations on one hand and avoid excessive investment in these assets on the other hand. Working capital management is

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concerned with the problems that arise in attempting to manage the current assets, the current liabilities and the interrelationship that exists between them.
The importance of working capital management in a business enterprise cannot be underplayed. Management of working capital is central to the growth and survival of any business. Working capital is as inevitable in business as blood is in human body. The need for maintaining adequate working capital is imperative. Working capital is what makes business to run effectively and efficiently. Business organizations need to give proper attention to the management of their working capital. The going concern ability of an organization is greatly anchored on the continued solvency of that organization. Working capital management is important for creating wealth for shareholders. The working capital management contributes to ensure that a firm is capable enough to continue its day to day operations and it has sufficient ability to satisfy both short-term debt obligations and upcoming operational expenses. It helps in designing a framework to smooth the financial constraints of business so as make effective use of its resources. Working capital is described as the capital available to meet the day-to-day operations, and depending on the industry, it could be a relatively high percentage of the total assets of the organization. It is the difference between two current assets and current liabilities. Working capital management is important because of its effects on the firm's profitability and risk, and consequently its value. Working capital manager makes attempt to optimally use current liabilities with the least amount of current assets through adventurous strategy. Liquidity risk will be considerably higher in executing this strategy. On the other hand, since the volume of current assets reaches the least level, return rate of investment will be considerably higher. Working capital management is considered to be a vital issue in a firm's overall financial management. Working capital management has both liquidity and profitability insinuations. Favorable working capital management can be achieved by the finance manager of a firm, by trading off between liquidity and profitability in a precise way. It is learnt, that finest management of working capital positively contributes in creating firms' value. Working capital approved the company's ability to continue its activities without endangering liquidity. The management of working capital frequently considered as a tool to maintaining competence of the business inside their operations.

2 Literature Review

Padachi (2006) examined the relationship between profitability and working capital management. The sample of the study is 58 small manufacturing Mauritian companies and the period of analysis is 1997-2003. The dependent variable used in all models was the return on assets and the independent variables were RCP, the ICP, the PDP, and the CCC. **Afza and Nazir (2007)** examined the relationship between aggressive and conservative working capital policies for a large sample of 205 firms in 17 sectors listed on Karachi Stock Exchange during 1998-2005. The study found a negative relationship between the profitability measures of firms and degree of aggressiveness of working capital investment and financing policies. **Raheman and Nasr (2007)** discussed that working capital management has effect on liquidity as well on profitability of the firm. Their results showed significant negative relationship between variables of the working capital management and profitability of the firm. They also found that there is a significant negative relationship between liquidity and profitability. Besides, there is a positive relationship between size of the firm and its profitability; and significant negative

relationship between debt used by the firm and its profitability. **Hayajneh and AitYassine (2011)** determined the impact of working capital efficiency on profitability of Jordanian manufacturing firms. It was found that the average payment period, a proxy for working capital had a strong negative relationship with profitability of these firms. **Al-Debi'e (2011)** examined the relationship between working capital management on corporate profitability for industrial firms in Jordan for the period of 2001 –2010. The results indicate that there is a strong negative relationship between the working capital and corporate profitability. **Kimeli (2012)** examined the effects of working capital management on the profitability of Six manufacturing companies in Kenya. Data has been collected from the financial reports since 2006 to 2010.It has been revealed that the gross operating profit of the firms was positively correlated with the average collection period. **Ngwenya (2012)** investigated the relationship between working capital management and profitability for a sample of 69 companies listed on the Johannesburg stock exchange for the period of 1998 to 2008 by applying regression and correlation. It has been revealed that there is a negative relationship between profitability and CCC and a positive relationship between accounts payable and profitability. **Zubair and Muhammad (2013)** examined the impact of working capital management on profitability of 21 listed cement companies in Karachi Stock Exchange since 2004 –2010. The results highlighted that there is a negative relationship between working capital management on profitability of firms. **Hassan, Imran, Amjad and Hussain (2014)** elucidated that the average payment period was positively related to gross profit margin and negatively related to return on assets. **Solomons (2014)** assessed the impact of working capital management on the profitability of small and medium enterprise in South Africa. The study focused on all firms listed on AltX, a division of the Johannesburg Stock Exchange, for the period 2000 to 2013. Cash conversion cycle, average payment period, and stockholding period variables represented working capital management. Return on assets measured profitability. It was found that APP positively influenced profitability.

3 Research Gap

A number of researches have been conducted in this field but few researches are available on the real estate industry in relation to working capital management. It has been found that most of the researchers have used the variable ROA (return on assets) as a dependent proxy variable for analyzing the profitability. The present study has taken ROCE (return on capital employed) as a proxy variable for evaluating the effect of working capital management on the profitability of selected real estate companies in Jordan. In this way, this research differs from earlier studies.

4 Objectives of the Study

1. To provide an introductory background of working capital management.
2. To investigate the working capital position of selected real estate companies of Jordan.
3. To examine the impact of working capital management on profitability of selected automobile companies.

5 Research Methodology

The study is primarily based on secondary data and therefore annual reports of selected three real estate companies were approached and calculations were made out of it. The period of study taken in this research is 15 years which ranges from calendar year 2000 to 2015.The companies taken are Jordan Decapolis Properties, Al-Tajamouat for Touristic Projects Co Plc, Real Estate Development. The study used correlation coefficient to check the linear relationship between proxy variable of working capital and proxy variables of profitability, where as regression analysis is used to assess the impact of various proxy variables of working capital on ROCE (return on capital employed) of the selected companies. The independent proxy variable for working capital are taken as current ratio (CR), inventory turnover ratio (ITR), and debtors turnover ratio (DTR).where as ratio of ROCE (return on capital employed) were taken as dependent proxy variable for checking the profitability of companies.

Hypothesis of the study

Ho1: Current ratio has no significant impact on return on capital employed (ROCE).
Ha1: Current ratio has a significant impact on return on capital employed (ROCE).
Ho2: Debtors Turnover Ratio (DTR) has no significant impact on return on capital employed (ROCE).
Ha2: Debtors Turnover Ratio has a significant impact on return on capital employed (ROCE).
Ho3: Inventory Turnover Ratio has no significant impact on return on capital employed (ROCE).
Ha3: Inventory Turnover Ratio has a significant impact on return on capital employed (ROCE).

Table 1: Jordan Decapolis Properties

	VARIABLES			
	Dependent	**Independent**		
	ROCE	**CR**	**DTR**	**ITR**
Minimum	11.02	0.78	17.22	48.71
Maximum	31.51	1.92	43.66	30.61
Mean	22.88	1.31	29.03	25.11
Std. Deviation	5.655	2.393	3.851	4.202
R	-	0.473	0.744	0.338
R^2	-	0.18	0.403	.012
T Value	-	1.324	-2.32	0.307
Regression Coefficients	-	6.93	-0.533	0.171
P Value	-	0.689	0.049	0.559

Source: Output of SPSS_19

Table 1 shows the detail description of data taken for validating the hypothesis regarding Jordan Decapolis Properties. It shows correlation coefficients and regression coefficients between the dependent variable (ROCE) and various independent variables. The

correlation coefficient between current ratio and profitability is found to be positive (0.473) and which indicate that there is positive linear relationship between two variables. The value of regression coefficient corresponding to variable CR is 6.93 and the p value of t statistic (0.689) is greater than 0.05 and therefore we have strong evidence to say that CR has no significant impact on ROCE and therefore accept null hypothesis. The value of R (0.744) in case of DTR is also found to be positively related with the dependent variable ROCE. The regression coefficient (β) corresponding to DTR (0.533) showed negative impact of independent variable (DTR) on dependent variable (ROCE), although the p value is found to be significant (0.049) as it is less than 0.05 and therefore we have strong evidence to say that DTR of the company have positive and significant impact on ROCE. Therefore null hypothesis has been rejected and it can be said that there is no significant impact of DTR on ROCE. The value of R (0.338) for independent variable (ITR) is also found to be positively related with profitability variable ROCE but the relationship seems to be insignificant as the p-value (0.599) found to be more than 0.05 and therefore it validates the acceptability of null hypothesis and shows the insignificant impact of inventory turnover ratio (ITR) on Profitability (ROCE).

Table 2: Al-Tajamouat for Touristic Projects Co Plc

	VARIABLES			
	Dependent	**Independent**		
	ROCE	**CR**	**DTR**	**ITR**
Minimum	**2.70**	**0.48**	**15.33**	**9.11**
Maximum	**28.62**	**1.12**	**23.41**	**13.08**
Mean	19.91	0.84	21.01	10.44
Std. Deviation	8.68	0.20	2.541	2.345
R	-	0.80	0.019	0.44
R^2	-	0.65	0.00	0.19
T Value	-	3.87	0.045	1.39
Regression Coefficients	-	32.58	0.067	1.93
P Value	-	0.000	0.896	0.203

Source: Output of SPSS_19

Table 2 of Al-Tajamouat for Touristic Projects shows the detail description of data taken for examining the reliability of hypothesis. Minimum, Maximum, Mean and standard deviation, correlation coefficient (R), R^2, regression coefficient (β**),** t, and value of p of all the variables are shown. ROCE is used as a proxy variable for profitability where as CR, DTR, ITR are independent variable used as proxy for knowing the impact of profitability respectively. The correlation coefficient (R) between current ratio and dependent variable ROCE is found to be positively (0.80) which shows strong positive linear relationship between the two variables. Regression coefficient (β) (32.58) between the variables is also found positive (32.58) and the p-value of t-statistic (0.000) is less than 0.05 which shows that the impact of CR on ROCE is positive and significant. So we have strong evidence to reject our null hypothesis and accept the alternative hypothesis. The value of R between DTR and ROCE is found to be (0.019) which shows weak positive linear relationship between the two variables. The value of regression coefficient corresponding to DTR is

(0.067) and the p-value of t-statistic is (0.896), which is greater than the significant value of 0.05.Thus we have strong evidence to say that there is no significant impact of DTR on ROCE of the company and therefore the null hypothesis is accepted. Similarly the independent variable ITR has also positive linear relationship with ROCE and the p- value of t statistic is greater than 0.05 and which indicate the insignificant impact of ITR on ROCE. Therefore, we have strong evidence to accept null hypothesis.

Table 3: Real Estate Development

	VARIABLES			
	Dependent	**Independent**		
	ROCE	**CR**	**DTR**	**ITR**
Minimum	17.44	1.39	7.12	6.32
Maximum	22.13	2.54	14.05	11.61
Mean	19.22	1.76	10.44	8.90
Std. Deviation	2.123	1.415	3.456	1.48
R	-	0.217	0.372	0.291
R^2	-	0.047	0.138	0.085
T Value	-	0.629	1.13	0.861
Regression Coefficients	-	1.08	0.263	0.355
P Value	-	0.597	0.290	0.415

Source: Output of SPSS_19

Table 3 shows the detail description of data taken for validating the hypothesis regarding Real Estate Development. The correlation coefficient (R) between the independent variable current ratio with dependent variable ROCE values (.217) which shows very low linear relationship between the variables. P value of t-statistic corresponding to CR is (.597) which is much greater than the significant value (0.05) hence it validates that impact is positive and insignificant and we have strong evidence to accept null hypothesis. The correlation coefficient between DTR and ROCE is also found to be positive (.372). The value of (β) regression coefficient is (.263) and the p-value of t-statistic is (.290), which is greater than the significant value (.05) which indicates that DTR has insignificant impact on ROCE. Therefore we have strong evidence to accept our null hypothesis. Relationship between ITR and ROCE is also found to be less strong as correlation coefficient between these two is positive but weakly related. Level of significance at p is (.415) which is greater than .05.hence the null hypothesis once again is accepted with the result that there is an insignificant impact of independent variable ITR on ROCE dependent variable of Real Estate Development.

6 Conclusion

The present study has investigated the impact of profitability on working capital management of three real estate companies namely Jordan Decapolis Properties, Al-Tajamouat for Touristic Projects Co Plc, Real Estate Development of Jordan. ROCE is used as a dependent proxy variable for profitability where as CR, ITR & DTR are used as

independent proxy variable for working capital. The analysis of the data revealed that only debtors turnover ratio in case of Jordan Decapolis Properties and current ratio in case of Al-Tajamouat are positively related with the profitability and their impact is also found to be significant. Besides, the remaining independent proxy variable in each company are found to be positively but less correlated with the dependent proxy variable of profitability (ROCE). However, it is also found that rate of inventory turnover is very low in all the companies. As ITR is a measurement of effectively converting the inventory into sales hence this ratio should be improved otherwise it may be problematic for the companies in the long run. Debtor's turnover ratio is found to be significant in Jordan Decapolis Properties only. It is low positively related in the remaining two companies. DTR is an accounting measure used to quantify a firm's effectiveness in extending credit as well as collecting debts. So the DTR should also be highly correlated so as to maintain the liquidity. Current ratio is found to be significant with ROCE in case of Al-Tajamouat for Touristic Projects and it is positively correlated at moderate level in remaining two companies but having insignificant relationship with the profitability of selected companies.

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