The relationship between working capital management and profitability of construction firms in Malaysia

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MASTER OF SCIENCE (FINANCE)
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Abstract

Working capital management has an important role to play in the firms' profitability. This study, the relationship between working capital management and profitability of construction firms in Malaysia, investigates the effect of working capital management on profitability of construction firms in Malaysia for a period of time between 2002 and 2012. In order to do that, this study uses a balanced panel data of thirty construction firms that are on the list of Kuala Lumpur Stock Exchange. The results of the study show that cash conversion cycle, which is used as a proxy of working capital management, along with its components, receivable collection period and payable collection period are significantly negative having an effect on the firms' profitability. However, the results show that the inventory collection period has a negative insignificant effect on the profitability. Additionally, there is a significant impact for the financial leverage, sales growth and firm size on the profitability of firms as well. The study comes to conclusion that the construction firms in Malaysia can develop their profitability by decreasing the inventory conversion period, cash conversion cycle, receivable collection period and payable collection period. The study comes to another conclusion and that is construction firms are required to focus and develop their collection and payment policy. The influential policies have to be formulated for the individual components of working capital. Moreover, the construction firms' profitability can be increased by efficient management and financing of working capital (current assets and current liabilities).

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LIST OF ABBREVIATIONS

variable	Abbreviation
Working capital management	WCM
Return on asset	ROA
Inventory conversion period	IVP
Receivable collection period	RCP
Payable collection period	PCP
Cash conversion cycle	CCC
Firm size	SIZE
Sale growth	SG
Debt ratio	DR

CHAPTER ONE

INTRODUCTION

1.0 Introduction

Working capital management has a crucial and decisive role to play in companies due to its impact on each of the goals of profitability and liquidity as the working capital management takes care of both the current assets, and current liabilities and accounts of great significance in research and financial studies.

One of the main financial duties for any institution, and one of the primary demands to fulfill, is to retain a proper quantity of liquidity to make sure that it fulfills its commitments on time. An institution aims to maintain the proper quantity of current assets and, especially in the receivable accounts and inventory. Additionally, it aims to control over payable accounts and monitor them by making sure that there is a proper variation between them within the limit that ensures the institution is not subjected to the risks of failing in fulfilling its commitments in the short term.

There are two common concepts in working capital. The first one is the gross working capital concept, known as the institution's total investments in current assets, in other words, the assets which are changed into cash during period of a year. These assets are made up of securities, receivable accounts, cash and inventory.

The contents of the thesis is for internal user only

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Appendix

Model1

Dependent Variable: ROA
Method: Panel EGLS (Cross-section weights)
Date: 05/17/14 Time: 20:07
Sample: 2002 2012
Periods included: 11
Cross-sections included: 30
Total panel (balanced) observations: 330
Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-9.788700	2.768839	-3.535309	0.0005
CCC	-0.000229	9.56E-05	-2.393285	0.0173
SIZE	1.123474	0.219534	5.117549	0.0000
SG	0.000349	0.001426	0.244737	0.8068
DR	-0.075804	0.015508	-4.888143	0.0000

Weighted Statistics

R-squared	0.112436	Mean dependent var	5.393939
Adjusted R-squared	0.101512	S.D. dependent var	7.493253
S.E. of regression	6.331295	Sum squared resid	13027.72
F-statistic	10.29271	Durbin-Watson stat	0.990340
Prob(F-statistic)	0.000000		

Unweighted Statistics

R-squared	0.037970	Mean dependent var	3.177909
Sum squared resid	13322.71	Durbin-Watson stat	1.577171

Model2

Dependent Variable: ROA
Method: Panel EGLS (Cross-section weights)
Date: 05/17/14 Time: 20:08
Sample: 2002 2012
Periods included: 11
Cross-sections included: 30
Total panel (balanced) observations: 330
Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-9.864460	2.774678	-3.555173	0.0004
ICP	-0.000201	0.000101	-1.994232	0.0470
SIZE	1.123866	0.220080	5.106620	0.0000
SG	0.000439	0.001437	0.305470	0.7602
DR	-0.074418	0.015526	-4.792989	0.0000

Weighted Statistics

R-squared	0.106952	Mean dependent var	5.381817
Adjusted R-squared	0.095961	S.D. dependent var	7.478765
S.E. of regression	6.336950	Sum squared resid	13051.01
F-statistic	9.730579	Durbin-Watson stat	0.977561
Prob(F-statistic)	0.000000		

Unweighted Statistics

R-squared	0.035865	Mean dependent var	3.177909
Sum squared resid	13351.86	Durbin-Watson stat	1.568245

Model3

Dependent Variable: ROA
Method: Panel EGLS (Cross-section weights)
Date: 05/17/14 Time: 20:11
Sample: 2002 2012
Periods included: 11
Cross-sections included: 30
Total panel (balanced) observations: 330
Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-8.747238	2.673133	-3.272280	0.0012
RCP	-0.002235	0.000495	-4.512351	0.0000
SIZE	1.083644	0.211262	5.129382	0.0000
SG	3.31E-06	0.001461	0.002267	0.9982
DR	-0.080603	0.015165	-5.315220	0.0000

Weighted Statistics

R-squared	0.168043	Mean dependent var	5.491068
Adjusted R-squared	0.157803	S.D. dependent var	7.727776
S.E. of regression	6.281716	Sum squared resid	12824.49
F-statistic	16.41125	Durbin-Watson stat	1.051335
Prob(F-statistic)	0.000000		

Unweighted Statistics

R-squared	0.058418	Mean dependent var	3.177909
Sum squared resid	13039.53	Durbin-Watson stat	1.628908

Model 4

Dependent Variable: ROA
Method: Panel EGLS (Cross-section weights)
Date: 05/17/14 Time: 20:12
Sample: 2002 2012
Periods included: 11
Cross-sections included: 30
Total panel (balanced) observations: 330
Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-9.774219	2.742585	-3.563871	0.0004
PCP	-0.001335	0.000603	-2.213438	0.0276
SIZE	1.119022	0.217328	5.149010	0.0000
SG	0.000344	0.001446	0.237789	0.8122
DR	-0.071081	0.015511	-4.582677	0.0000

Weighted Statistics

R-squared	0.114245	Mean dependent var	5.384630
Adjusted R-squared	0.103344	S.D. dependent var	7.528265
S.E. of regression	6.335856	Sum squared resid	13046.50
F-statistic	10.47970	Durbin-Watson stat	0.968939
Prob(F-statistic)	0.000000		

Unweighted Statistics

R-squared	0.038453	Mean dependent var	3.177909
Sum squared resid	13316.02	Durbin-Watson stat	1.564582

Descriptive

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ROA	330	-43.220	39.340	3.17791	6.487898
CCC	330	-540.000	49391.000	998.72424	2937.882287
ICP	330	16.000	47248.000	940.71818	2839.040038
RCP	330	14.000	8736.000	245.82727	526.391533
PCP	330	2.000	6593.000	187.82121	420.131389
SIZE	330	9.410	16.040	12.92739	1.092465
SG	330	-93.990	2254.710	29.41964	183.229249
DR	330	.000	85.130	21.25639	18.206279
Valid N (listwise)	330				

Correlations

Correlations

		ROA	CCC	ICP	RCP	PCP	SIZE	SG	DR
ROA	Pearson Correlation	1	-.044	-.030	-.137*	-.066	.042	.012	-.158**
	Sig. (2-tailed)		.421	.584	.013	.235	.445	.833	.004
	N	330	330	330	330	330	330	330	330
CCC	Pearson Correlation	-.044	1	.995**	.866**	.819**	.016	-.046	-.078
	Sig. (2-tailed)	.421		.000	.000	.000	.778	.406	.160
	N	330	330	330	330	330	330	330	330
ICP	Pearson Correlation	-.030	.995**	1	.834**	.841**	.029	-.046	-.059
	Sig. (2-tailed)	.584	.000		.000	.000	.600	.402	.287
	N	330	330	330	330	330	330	330	330
RCP	Pearson Correlation	-.137*	.866**	.834**	1	.833**	-.035	-.060	-.073
	Sig. (2-tailed)	.013	.000	.000		.000	.531	.275	.188
	N	330	330	330	330	330	330	330	330
PCP	Pearson Correlation	-.066	.819**	.841**	.833**	1	.043	-.067	.055
	Sig. (2-tailed)	.235	.000	.000	.000		.432	.223	.322
	N	330	330	330	330	330	330	330	330
SIZE	Pearson Correlation	.042	.016	.029	-.035	.043	1	.007	.440**
	Sig. (2-tailed)	.445	.778	.600	.531	.432		.896	.000
	N	330	330	330	330	330	330	330	330
SG	Pearson Correlation	.012	-.046	-.046	-.060	-.067	.007	1	-.071
	Sig. (2-tailed)	.833	.406	.402	.275	.223	.896		.198
	N	330	330	330	330	330	330	330	330
DR	Pearson Correlation	-.158**	-.078	-.059	-.073	.055	.440**	-.071	1
	Sig. (2-tailed)	.004	.160	.287	.188	.322	.000	.198	
	N	330	330	330	330	330	330	330	330

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

**. Correlation is significant at the 0.01 level (2-tailed).

Samples:

The names of the construction firms that were included in this study are as listed below:

1. A & M REALTY BERHAD
2. ASIAN PAC HOLDINGS
3. BERTAM ALLIANCE
4. COUNTRY VIEW BHD
5. DUTALAND BHD
6. ENCORP BERHAD
7. GLOBAL ORIENTAL BHD
8. FARLIM GROUP
9. HUA YANG BHD
10. I-BERHAD
11. IJM LAND BHD
12. KELADI MAJU BERHAD
13. KEN HOLDINGS BERHAD
14. LBI CAPITAL BHD
15. LBS BINA GROUP BHD
16. MAGNA PRIMA BERHAD
17. MALAYSIA PACIFIC
18. MEDA INCORPORATED
19. MKH BHD
20. MULPHA LAND BHD

21. ORIENTAL INTEREST

22. PJ DEVELOPMENT HLDGS

23. PARAMOUNT CORP BHD

24. PASDEC HOLDINGS

25. PETALING TIN BERHAD

26. SBC CORPORATION BHD

27. SELANGOR DREDGING

28. SP SETIA BHD

29. Y&G CORPORATION

30. YNH PROPERTY BHD