

## Factors Affecting Working Capital Management of Small and Medium Enterprises in Malaysia

Hirnisssa Mohd Tahir<sup>1</sup> & Zariyawati Mohd Ashhari<sup>2</sup>

1 Kolej Universiti Poly-Tech Mara, Taman Shamelin Perkasa, 56100 Kuala Lumpur, Wilayah Persekutuan Kuala Lumpur.

Email: [hirnisssa@gapps.kptm.edu.my](mailto:hirnisssa@gapps.kptm.edu.my). Phone Number: +603-92069700

2 Dept. of Accounting and Finance, Faculty of Economics and Management, Universiti Putra Malaysia, 43400 Serdang, Selangor, Malaysia. Email: [zariyawati@upm.edu.my](mailto:zariyawati@upm.edu.my). Phone Number: +603 97697710

### Abstract

Small and medium enterprises (SMEs) in Malaysia are considered as the driving force of the nation's economic growth due to their huge contribution to gross domestic product (GDP). To ensure the contribution sustain, SMEs can maintain their operation with good working capital management (WCM). A positive creation of a firm values can be contributed by a well designed and implemented WCM. The objective of the study is to investigate the factor affecting WCM of SMEs in Malaysia for the period 2010-2013 using panel data analysis. The results indicate that profitability, debt ratio, firm size, and industry types were significantly related to firm's WCM. However, there is lack of evidence to significantly relate sales growth and gross domestic product with firm's WCM.

### ARTICLE INFORMATION

Received: 15 Oct 2019

Revised: 30 Oct 2019

Accepted: 20 Feb 2020

**Keywords:** : Panel data analysis, Small and medium enterprises (SMEs), Working capital management.

## 1.0 INTRODUCTION

Working Capital Management (WCM) is the primary concern of all firms. For the survival and growth of SMEs, WCM is important since SMEs are always facing financial constraints and difficulties in obtaining fund in the long-term capital markets (Barios-Caballero *et al.*, 2010). Thus, cash flow shortages are considered as a major problem of SMEs, which is often the result of poor WCM. According to Padachi and Carole (2014), 81% of the small business failures were caused by poor financial management. Besides that, there is also evidence of micro firms lacking in the usage of any systematic WCM.

Consequently, poor WCM will affect SMEs' performance because WCM directly influences the firm's liquidity and profitability (Manoori and Muhammad, 2012; Palombini and Nakamura, 2011). As a result of poor WCM, SMEs may face severe problems like failing to pay suppliers on time and unable to claim discounts for prompt payment. In the long run, SMEs with insufficient working capital will not be able to meet its current obligations and will be forced to stop trading even if it remains profitable. This shows that the importance of efficient management of WC is crucial for the survival and growth of the SMEs.

Furthermore, WCM is affected by various internal and external factors and it is crucially important that the SMEs' managers should be fully aware of the determinants of WCM. While most previous studies only

provided empirical evidence on internal factors of WCM (Saarani and Shahadan, 2012; Padachi and Carole, 2014; Banos-Caballero *et al.*, 2010; Naser *et al.*, 2013), very little research is done to investigate the external factors of WCM (Zariyawati *et al.*, 2010; Nazir and Afza, 2009). Thus, it is important to determine both the internal and external factors affecting WCM to facilitate SMEs managers on how to manage the companies' working capital efficiently for long-term survival.

Currently, there is also lack of study in the determinants of WCM for SMEs in Malaysia. Most of the research available only provided empirical evidence on determinants of WCM in listed firms or large firms (Palombini and Nakamura, 2011; Manoori and Muhammad, 2012; Chiou *et al.*, 2006). In developing countries, SMEs serve as intermediaries between the informal enterprises and the formalized corporate sector. SMEs can bring enormous income and contribute significantly to Malaysia's Gross Domestic Product (GDP), where in 2017 SMEs contributed 37% of the GDP. Therefore, it is important to investigate the factors affecting WCM of SMEs in Malaysia. Thus, the objective of this study is to determine the internal and external factors affecting SMEs' WCM in Malaysia.

## 2.0 LITERATURE REVIEW

A normal business's operation is always in need of capital to buy or pay for inventories, construction,

furniture, equipment, or machinery. It can be concluded that the life blood of a business is indeed its working capital (Samuel, 2011). Working capital provides the available and necessary capital in conducting the day-to-day operations of the business which ensures that the firm has sufficient resources to continue its operations. This is because a good management of working capital management will improve firm's profitability (Girma (2019), Manoori and Muhammad (2012); Suleiman and Rasha (2013)).

In addition, working capital is an important factor which allows a firm to get credit facilities from banks and credit institutions. It is imperative that a firm must maintain an adequate level of working capital in order to run its business smoothly and effectively. If the working capital becomes weak, the business will hardly survive, since no business can survive without an adequate amount of working capital. In cases where working capital is inadequate, low liquidity position may lead to firm's inability to meet its debts at maturity. Consequently, the presence of unsound financial position as a result of inadequate firm's liquidity will potentially lead to poor credit worthiness of the firm. Thus, firm will lose its reputation and it may not be able to get credit facilities which may further result to firm bankruptcy.

According to Chiou et al., (2006), many enterprises go bankrupt due to mismanagement of working capital. Thus, the performance of firms can be improved if managers are continuously monitoring its working capital and persistently maintaining the optimal level of various components of the working capital. This is to ensure that firm has a reasonable level of working capital or sufficient funds to cover its short-term liabilities and future operating costs. In fact, it is possible to see a profitable firm going bankrupt due to its inability to meet the short-term liabilities. It is therefore crucial for any firm to manage its working capital effectively and efficiently to ensure the firm's sustainability.

For SMEs, working capital can directly affect their long-term growth and survival because SMEs hold more current assets. Some SMEs do not have long-term assets like building and vehicle and therefore they require higher levels of working capital to support their sales growth or production. In addition, Pieterston (2012) suggested that SMEs faced the problem of lack of market power. In his study, he claimed that SMEs are always weak in negotiating credit terms with large businesses and they are forced to accept the late trade debtor settlement because SMEs often lack the resources to manage their trade debtors effectively. As a result, this will tend to increase the risks of late payment and defaulting debtors. Finally, the situation will lead to bad debts or poor credit management.

Several previous studies have used the net liquid balance (NLB) and working capital requirements (WCR) as the measures of firm's WCM (Chiou et al., 2006; Suleiman and Rasha, 2013). The empirical results of the

study done by Chiou et al. (2006) showed that debt ratio and operating cash flow evaluated by both WCR and NLB exerted influence on WCM, with consistent conclusions emerging in other studies. However, there is inconsistent conclusions on variables such as business indicator, industry effect, growth, firm performance and firm size.

Cash Conversion Cycle (CCC) has been used by many previous studies as a comprehensive measure for the efficiency of WCM (Samuel et al., 2008; Banos-Caballero et al., 2010; Zariyawati et al., 2010; Deloof, 2003). A study by Zariyawati et al. (2010) has investigated the determinants of WCM of listed firms in Malaysia for the period 2000-2006, using the CCC as a comprehensive measure of WCM. They suggested that firm size, debt ratio, company's growth, economic growth and inflation are all associated with firm's WCM.

Another study by Manoori and Muhammad (2012), showed that sales growth of listed firms in Singapore is positively correlated to the WCM. Anticipation of the future sales growth and increasing sales via expanding trade credit to customers might cause the firms to increase the amount of their investments in working capital. On the other hand, Banos-Caballero et al. (2010) analysed the determinants of WCM for SMEs and they found that firms with more growth opportunities maintain a lower level of investment in working capital. This means that firms with greater growth opportunities would have a more aggressive working capital policy. The firms will offer and receive more trade credit from their customers and suppliers.

In another study, Naser et al. (2013) explored the factors influencing WCM of non-financial companies listed on Abu Dhabi Securities Exchange and they also showed that there is a negative significant relationship between sales growth and WCM. Larger firms tend to have better negotiation power and they are in an advantageous position to increase and achieve their sales growth. High levels of sale growth rates are reducing the WCM.

Suleiman and Rasha (2013) in a study on the factors affecting WCM of Palestinian companies have found that there is a negative relationship between the debt ratio and WCM. A higher debt ratio means less internal capital available for firm's daily operations. Under such circumstances, the firm may tend to be more careful in managing working capital and getting external capital in response to shortage of funding. Hence, an increase in debt ratio will decrease WCM.

In another related study, Zariyawati et al. (2010) revealed that there is a negative relationship between CCC and debt ratio, which indicates that the listed firms in Malaysia with more debts have less WC since the cost of external financing is higher for these firms. Suleiman and Rasha (2013) also showed that leverage is negative and significant to WCR. The higher leverage will induce firms to pay more attention by reducing their capital that is tied to current assets. As a result, firms with

high leverage will show lower WCR which is consistent with the finding of Nazir and Afza (2009) on Pakistani firms.

Banos-Caballero et al. (2010) found that firms with lower leverage had longer CCCs because the cost of funds invested in CCC are lower and therefore they have to pay a lower risk premium. On the other hand, the cost of the funds invested in the CCC is higher in firms with a larger leverage because they have to pay a higher risk premium. This shows that the firms' CCCs are negatively affected by the cost of financing. In fact, the result also indicated that a reduction in WCM when firms increase their leverage would mean that leverage is negatively related to WCM. Thus, firms with larger leverage will maintain a more aggressive WC policy.

Alehegne, Bekalu and Mengist (2019) demonstrated that firm size has a negatively influence on the WCR. They suggest that larger firms should have to give due consideration for the bargaining power with credit suppliers and maintain a good relationship with suppliers. This would give the advantage to finance their working capital required for the daily operation and this could give the chance to divert the working capital finance to other profitable long-term investment. This is consistent with a prior study by Zariyawati et al. (2010) which revealed that there is a negative relationship between CCC and firm size, which is consistent with the findings of the study done by Manoori and Muhammad (2012) and Naser et al. (2013). Large firms tend to be more affordable in hiring expertise which therefore allows them to establish efficient WCM. Suleiman & Rasha (2013) also found that firm size is significant but negatively related to WCM, since larger firms may require less proportion of WC to total assets due to their market power and control over suppliers which enable them to negotiate a low payment term and longer period for their payables.

In a study by Naser et al. (2013), they found that CCC of companies listed on Abu Dhabi Securities Exchange is negatively related to industry type. They declared that the manufacturing companies have the longest CCC while the telecommunication and the real state companies have the lowest CCC. The explanation for such situation is related to the nature of manufacturing companies which need to go through a long operational process of ordering raw materials and converting them into finished goods. From the result, it can be concluded that the firm with a long process of operation will tend to have a long CCC. However, Chiou et al. (2006) found only the electronics industry has a significant influence on WCM. Meanwhile, no significant finding was found between WCM and livelihood industry and mechanics industry in the study.

Gross Domestic Product (GDP) is one the primary indicators used to gauge the health of a country's economy. Alehegne, Bekalu and Mengist (2019) suggest during economic expansion the financial managers of those firms should have to pay more attention on long term

investment by minimizing investing on short term asset in order to be the best beneficiary from the advantages of economic expansion. This is in line with Manoori and Muhammad (2012) who found that GDP is negatively correlated to the WCM which is measured by CCC. This relationship implied that for Singapore companies, they reduced WCM during economic expansion or they would increase WCM during an economic recession. The increasing WCM indicates that firms may increase their trade credit, investment in inventories or accounts receivable. However, in contrast, Zariyawati et al. (2010) investigated the important factors which affect WCM in Malaysian firms and they showed that GDP was positively related to WCM in the fixed/random models at 10% significance level. This indicates that firms expand their investment in working capital during the economic boom and reduce their investment during the economic recession. The increasing inventory and account receivables will also increase the WCM investments. In brief, there are many factors that can affect the working capital of SMEs in Malaysia.

### 3.0 METHODOLOGY

This study investigates the factors affecting WCM of SMEs in Malaysia using the secondary data obtained from 321 SMEs in Malaysia. The focus is on the manufacturing and services firms that have legal entities and have filed their annual reports to SMEs registration of firms. The completed financial data of these SMEs are collected from firms, SME Corporation Malaysia's database and Suruhanjaya Syarikat Malaysia (SSM). Meanwhile, the data for macroeconomics variable such as GDP is gathered from Bank Negara Malaysia (BNM) Statistics. The analysis period covers 4 years of the data which is from 2010 to 2013. Panel data analysis is used to determine the WCM of Malaysia's SMEs.

Working capital is the short-term funds used in the operation of a business while the working capital requirement (WCR) is an important tool of analysis to identify the effectiveness of WCM. WCR is the difference between current assets and current liabilities and is divided by total assets. WCR is deflated by total assets to control the firm size effect.

$$WCR = (Current\ Assets - Current\ Liabilities) / Total\ Assets$$

In order for the working capital to run efficiently, the firms should have low level of WCR because WCR is the fund required to keep in hand in order to be able to pay its debt obligations and other business related expenses. Even very profitable businesses can also run into trouble if they lose the ability to meet their short-term obligations. Therefore, firms need to manage efficiently their current assets and current liabilities. The WCR will be different for each firm, depending upon

many factors such as how frequently the firm receives earnings and how high their expenses are.

In conclusion, the goal of WCM is to minimize the level of WCR. A low level of WCR usually indicates the firm has better performance. Hence, the lower the WCR, the higher the probability that firms will achieve more efficient WCM. In this study, WCR is use as dependent variable to determine the level of WCM. WCR has been used by many previous studies as a comprehensive measure for the efficiency of WCM (Nazir and Afza, 2009; Suleiman and Rasha, 2013; Saarani and Shahadan, 2012).

**3.1 Model of Working capital Management**

This paper determines the factors affecting WCM of SMEs in Malaysia. The influence of internal factors (Profitability, Sales Growth, Debt Ratio, Firm Size and Industry Types) and external factor (Gross Domestic Product) on WCR are shown in this study. Panel data analysis is used to determine the relationship between these factors and WCR by using STATA software.

The model of WCM can be expressed as follows:

$$WCR_{it} = \beta_0 + \beta_1 PROF_{it} + \beta_2 SG_{it} + \beta_3 DR_{it} + \beta_4 FS_{it} + \beta_5 INDST_{it} + \beta_6 GDP_{it} + \varepsilon_{it}$$

where

$WCR_{it}$  = working capital requirement,  $PROF_{it}$  = profitability,  $SG_{it}$  = sales growth,  $DR_{it}$  = debt ratio,  $FS_{it}$  = firm size,  $INDST_{it}$  = industry types,  $GDP_{it}$  = growth domestic product,  $\varepsilon_{it}$  is the disturbance, and  $\beta_0$  is intercept. The indices of  $i$  and  $t$  denote firm and time respectively.

**4.0 RESULTS AND DISCUSSION**

**4.1 Descriptive Statistics**

Table 1 presents the descriptive statistics for the sample of this study. The mean of WCR is -88.30, indicating an efficient management of WCR to keep a relatively low level of working capital demand. Meanwhile the standard deviation of WCR is 669.8, indicating that most SMEs have excess current liabilities than current assets.

Table 1 Descriptive Statistics

Variables	Mean	Std. Deviation	Min.	Max.
WCR	-88.299	669.805	-6600.425	6.695
PROF	-12.044	86.097	-711.950	5.402
SG	0.343	2.052	-1.01	27.584
DR	87.878	65.184	0.012	601.425
FS	14.563	2.456	1.386	18.821
GDP	6.594	0.057	6.517	6.669

The mean of profitability is -12.04 with a standard deviation of 86.10. The negative mean score shows that most of the SMEs are facing business losses. In addition, the mean of firms’ sales growth is 34.31% with a standard deviation of 2.05. From the result of minimum and maximum scores of sales growth, it shows that some of the SMEs are experiencing negative sales growth and while others have positive sales growth.

Furthermore, the mean of firms’ assets that are financed by total debt is 87.88 with a standard deviation of 665.18. The huge difference in the minimum and maximum of SMEs’ debt ratio shows that some of the SMEs borrowings have led to high level of debt and low level of total assets. The average of firm size is 14.56 with a standard deviation of 2.46. The results of the huge variation in the minimum and maximum of firm size can prove that there is really a difference in firm size of SMEs based on their aggregate value of total assets. Finally, the mean for GDP is 6.59 with a standard deviation of 0.06. From the result of the difference between minimum and maximum of GDP, it shows that there is a little difference because of small growth in GDP of Malaysia from the year 2010 to 2013.

**4.2 Correlation**

Table 2 presents the correlations between the different variables of this study and the significant ratios. The table below shows that WCR is positively correlated with profitability (0.9879), firm size (0.6945) and industry types (0.2116) at 1% significant level. Meanwhile WCR is negatively correlated with debt ratio (-1.000) at 1% significant level. It can be interpreted that profitable and larger firms are more able to manage their working capital efficiently. Besides that, firms will pay more attention to WCM to avoid too much WC being consumed in accounts receivable or inventories when there is rising debt ratio. This is the reason why debt ratio is significant but negatively correlated with WCR.

Table 2 also shows that profitability is positively correlated with firm size (0.7078) and industry types (0.2277) at 1% significant level. While profitability is negatively correlated with debt ratio (-0.9878) at 1% significant level. From this relationship, it is agreed that the decreasing debt ratio and the larger the firm size will increase the SMEs profitability.

Table 2 Correlations

	WCR	PROF	SG	DR	FS	INDST	GDP
WCR	1.0000						
PROF	0.9879 ***	1.0000					
SG	0.0411	0.0119	1.0000				
DR	-1.0000 ***	-0.9879 ***	-0.0413	1.0000			
FS	0.6945 ***	0.7078 ***	0.0437	-0.6912 ***	1.0000		



INDST	0.2116 ***	0.2277 ***	-0.1344 ***	-0.2134 ***	0.3420 ***	1.0000	
GDP	0.0039	0.0184	-0.0360	-0.0048	0.0514 *	-0.0000	1.0000

Notes: \*\*\*Significant at 1%, \*\*Significant at 5%, \*Significant at 10%. Parentheses are p-values.

In addition, sales growth and debt ratio are negatively correlated with industry types (-0.1344 and -0.2134) at 1% significant level while firm size is positively correlated with industry types (0.3420) at 1% significant level. Furthermore, debt ratio is negatively correlated with firm size (-0.6912) at 1% significant level which means that larger firms always have low level of debt ratio. Finally, firm size is also positively correlated with GDP (0.0514) at 10% significant level.

### 4.3 Regression Analysis of Working capital Management Factors

Table 3 presents the analysis of Pooled OLS estimates of working capital requirement with various explanatory variables and their relationships. Additionally, random effects and fixed effects estimated are also carried out and compared with the Pooled OLS estimated. At this time, we tested whether the structure of error term is adequately captured by assuming a static model in levels. We expected to find such structural residuals since pooled data typically exhibit serial correlation, cross-sectional correlation and group wise heteroscedasticity.

In addition, Table 3 reports the coefficient and the significant level of the explanatory variables namely profitability (PROF), sales growth (SG), debt ratio (DR), firm size (FS) and gross domestic product (GDP) in determining the working capital management (WCM). According to Pooled OLS estimation, four out of five explanatory variables are significantly related with WCM. But, based on the random/fixed effects model, the results reveal that three out of five explanatory variables are significantly related with WCM.

Table 3 Determinants of Working capital Management for all sample

Dependent Variable: Working capital Requirement (WCR)			
Explanatory Variables	Pooled OLS	Random Effects	Fixed Effects
PROF	0.2564 (0.001)***	0.2856 (0.000)***	<b>0.1399</b> <b>(0.079)*</b>
SG	0.0149 (0.087)*	0.0080 (0.206)	0.0057 (0.387)
DR	-0.6863 (0.000)***	-0.5464 (0.000)***	<b>-0.3909</b> <b>(0.000)***</b>
FS	0.0336 (0.002)**	0.0782 (0.000)***	<b>0.1613</b> <b>(0.001)***</b>

GDP	0.3297 (0.088)*	-0.2425 (0.081) *	<b>-0.2944</b> <b>(0.071) *</b>
Constant	-2.9801 (0.303)	0.1658 (0.919)	-0.6568 (0.692)
LM Test	(0.000)***		
Hausman Test		(0.000)***	

Notes: \*\*\*Significant at 1%, \*\*Significant at 5%, \*Significant at 10%. Parentheses are p-values.

For all models and data sets, the LM test implies that random effects are more appropriate than Pooled OLS model because the p-value is less than 0.05. Therefore, the Pooled OLS estimator for determinants of WCM model cannot be applied in this study. This is the reason why the results from random/fixed effects model are more favourable in explaining the results below. Then, based on the panel data analysis, the random effects are needed to compare with the fixed effects to select the most appropriate estimation. Thus, fixed effects model is chosen as an alternative approach by referring to the result of Hausman Test which the p-value is less than 0.05. A fixed effects model is a statistical model that represents the observed quantities in terms of explanatory variables that are treated as if the quantities were non-random. Fixed effects model analyses the impact of variables that vary over time. It explores the relationship between predictor and outcome variables within an entity. Each entity has its own individual characteristics that may or may not influence the predictor variables.

From Table 3, profitability is found to be positively related with WCM at 10% significant level. The higher the SMEs gained profit, the more that they will invest in WCM. This may be due to the fact that the higher profits earned by SMEs would put them in the position of having more accounts receivables and inventories because they can afford it. They would attempt to generate higher profit in future by fulfilling huge demand immediately.

Debt ratio is negatively related to WCM at 1% significant level. The increasing debt ratio will lead to lower WCR. This is because firms will pay more attention to WCM to avoid too much investment in current assets when there is rising debt. They use cash to pay their obligation on current liabilities. Firm size is positively related with WCM at 1% significant level. The larger SMEs, the larger their investment in WCM, hence, indicating that the increase in firm size will accelerate their operating activities, which will lead to increase in the investment of working capital related to current assets and liabilities.

The regression result also shows that GDP is negatively related with WCM at 10% level. This is in line with the study done by Manoori and Muhammad (2012). This relationship implied that WCM tend to increase

during economic recession. The increasing WCM indicates that firms may increase their trade credit, investment in inventories or accounts receivable. However, there is lack of evidence on the relationship of sales growth with WCM and this result is consistent with the findings of Nazir and Afza (2009).

Table 4 Determinants of Working capital Management of Manufacturing Firms and Services Firms

Dependent Variable: Working capital Requirement (WCR)		
Explanatory Variables	Manufacturing Firms	Services Firms
PROF	0.5131 (0.000)***	-0.3570 (0.105)
SG	0.00011 (0.999)	0.0284 (0.136)
DR	-0.4119 (0.000)***	-0.2907 (0.006)***
FS	0.1699 (0.000)***	0.4716 (0.033)**
GDP	-0.7846 (0.000)***	-0.7288 (0.003)***
Constant	2.40266 (0.028)**	-31.3742 (0.002)***

Notes: \*\*\*Significant at 1%, \*\*Significant at 5%, \*Significant at 10%. Parentheses are p-values.

Table 4 reports the regression analysis of determinants of WCM between manufacturing firms and services firms by using fixed effects model. Based on the fixed effects model, the results reveal that four out of five explanatory variables of manufacturing firms are significantly related with WCM while three out of five explanatory variables of services firms are significantly related with WCM. In managing working capital, manufacturing and services firms will consider the level of debt ratio, firm size and GDP. In addition, the manufacturing firms will also consider their firm profitability before make decision on WCM. From the results presented in Table 4, it can be concluded that firms' types of industry are related to WCM because most of the variables are significantly related with WCM. The WCM practices of these firms will be different depending on the sectors that they are operating. Thus, there will be different factors that affects WCM of firms depending on the types of industry.

**5.0 CONCLUSION**

This study investigates factors that influence SMEs in managing their working capital. Hence, SMEs are more efficient in managing working capital which further leads to improve SMEs performance. The results show that profitability, debt ratio, firm size, economic condition and industry types have a significant

relationship with WCM. Therefore, SMEs may consider focusing on these factors in managing or improving their WCM in the future. For example, SMEs need to consider firms' debt level or economic condition before they decide the investment in working capital. SMEs with higher debt are supposed to keep low investment in working capital because they use cash to pay the debt. Meanwhile, SMEs should increase WCM during the recession. This is due to SMEs increasing their trade credit, investment in inventories or accounts receivable. Findings of this study may be used by policymakers as a guideline to assist SMEs in improving their performance. Potentially, the findings can be used to help SMEs to manage and expand their business effectively. In addition, the current study adds value to the literature of WCM especially related to SMEs. Most of the previous studies only focus on the relationship between WCM and public firm performance. This study enriches the literature since it covers the factors determinant of WCM mainly for SMEs in a developing country. However, this study only covers the manufacturing and service sectors of SMEs and it would be interesting to investigate WCM determinant of other industrial sectors in SMEs and to observe a longer period in the future study.

**References:**

Alehegne, D., Bekalu, E., & Mengist, A. (2019). Determinants of Working Capital Requirement on Manufacturing Firms. *European Business & Management*, 5(1), 1.

Banos-Caballero, S., Garcia-Teruel, P. J., & Martinez-Solano, P. (2010). Working capital Management in SMEs. *Accounting & Finance*, 50(457), 511–527.

Chiou, J., Cheng, L. & Wu, H-W. (2006). The Determinants of Working capital Management. *The Journal of American Academy of Business*, Cambridge, 10(September), 149–156.

Deloof, M. (2003). Does Working capital Management Affect Profitability of Belgian Firms? *Journal of Business Finance & Accounting*, 30(May), 573–587.

Girma, A. M. (2019). The Effects of Working Capital Management on Profitability of Manufacturing Companies: The Case of Dire Dawa City. *Science Journal of Business and Management*, 7(6), 135.

Manoori, E., & Muhammad, D. D. J. (2012). Determinants of Working capital Management : Case of Singapore Firms. *Research Journal of Finance and Accounting*, 3(11), 15–24.

Naser, K., Nuseibeh, R. & Al-hadeya, A. (2013). Factors Influencing Corporate Working capital Management: Evidence from An Emerging Economy. *Journal of Contemporary Issues in Business Research*, 2(1), 11–30.

Nazir, M. S., & Afza, T. (2009). Working capital Requirements and the Determining Factors in Pakistan. *The Iefai Journal of Applied Finance*, 15(4), 28–38.

Padachi, D., & Carole H. (2014). Focus on Working capital Management Practices among Mauritian SMEs : Survey Evidence and Empirical Analysis. *Journal of Business Management and Economics*, 5(4), 97–108.

Palombini, N. V. N., & Nakamura, W. T. (2011). Key Factors in Working capital Management in the Brazilian Market, 52, 55–70.

- Pieteron, A. (2012). Working capital Management Practices of Small and Medium Enterprises in the Western Region: A Survey of Selected SMEs in the Sekondo- Takoradi Metropolis.
- Saarani, A. N., & Shahadan, F. (2012). Analyzing the Validity of Working capital Determinant Factors of Enterprise 50 (E50) Firms in Malaysia using Partial Least Square- Structural Equation Modeling. *Prosiding Persidangan Kebangsaan Ekonomi Malaysia Ke VII*, 1, 466–472.
- Samuel, A. O. (2011). Effective Management of Working capital is the Life Blood of Every Business: An Assesment of Working capital Management Practices within Ghana Water Company Limited.
- Samuel, M., Darcy, F., Claudio, C., & Johan, C. (2008). Determinants of Working capital Management in Latin American Companies.
- Suleiman, M. A., & Rasha, T. A. (2013). The Determinants of Working capital Requirements in Palestinian Industrial Corporations. *International Journal of Economics and Finance*, 5(1), 65–75.
- Zariyawati, M. A., Taufiq, H., Annuar, M. N., & Sazali, A. (2010). Determinants of Working capital Management: Evidence from Malaysia. *Financial Theory and Engineering ICFTE 2010 International Conference on*.