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RESEARCH ARTICLE

WCM COMPONENTS IMPORTANCE RANKING ORDER BY SMES: FINANCIAL DIRECTORS
PERSPECTIVE

*Dr. Godfred Adjapong Afrifa

Lecturer in Accounting and Finance, Canterbury Christ Church University, The Business School,
North Holmes Road, Canterbury, CT1 1QU, UK

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ABSTRACT

This paper reports the results of an investigation into the ranking order of Working Capital Management (WCM) components of Small and Medium Enterprises (SMEs) listed on the Alternative Investment Market (AIM), from the perspective of financial directors. The analyses are based on questionnaire distributed to 248 AIM listed SMEs. The paper employs the one-way ANOVA and post hoc test on responses from 72 managers of AIM listed SMEs. The results show differences in the importance of each component of WCM. First, inventory holding period importance is shown to differ from that of accounts receivable period, accounts payable period and cash conversion cycle. The results also show that accounts receivable period importance is different from accounts payable period and cash conversion cycle. However, there is no difference of importance between accounts payable period and cash conversion cycle. In terms of ranking order, accounts receivable period is ranked first, leading to the conclusion that given the limited resources of SMEs, they need to prioritise their WCM by focusing on accounts receivable period to improve profitability.

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INTRODUCTION

Working Capital Management (WCM) involves the effective and efficient management of each component of working capital. These components include: (1) inventory holding period, (2) accounts receivable period, (3) accounts payable period and (4) cash conversion cycle (see, Deloof, 2003; Nobanee and Alhajjar, 2009; Padachi *et al.*, 2010; Afrifa, 2013a). The extant literature shows that each component is important to the profitability of firms (Garcia-Teruel and Martinez-Solano, 2007; Christopher and Kamalavalli, 2009; Lazaridis and Tryfonidis, 2006); however, no previous research has provided the ranking order of importance of each component of WCM. In this paper, the views of financial directors are sort in order to determine how important each component of WCM is relative to the others. Determining the relative importance of each component of WCM is important, particularly for Small and Medium Enterprises (SMEs). This is because SMEs do not have the necessary resources (e.g. financial, technology and personnel) to effectively manage all components of working capital (Tauringana and Afrifa, 2013). This lack of necessary resources means that SMEs should rather focus all their efforts in managing the most important component(s) (Tauringana and Afrifa, 2013). A research by Gockel and Akoena (2002) and Pansiri and Temtime (2008)

found that the lack of managerial competence leads to poor management of SMEs. Abor and Quartey (2010), Saleh and Ndubisi (2006), Berisha-Namani (2009) all argue that the lack of equipment and technology hamper the effective management of SMEs. Agyei-Mensah (2010) argues that both expertise and the information required to make sound judgments concerning terms of sales and so on, may not be available in SMEs. According to Atrill (2006), SMEs often lack the resources to manage their trade receivables effectively. Despite the importance of WCM components to SMEs, Howorth and Westhead (2003) argue that knowledge and understanding of WCM practices of SMEs is inadequate. There are many studies which indicate that WCM is very important to firms', but more especially SMEs (Weinraub and Visscher, 1998; Lazaridis and Tryfonidis, 2006; Stephen and Elvis, 2011). WCM is very important to SMEs because of their lack of access to credit from the financial markets. As argued by Padachi *et al.* (2011) traditional banks and other investors have been reluctant to offer credit to SMEs for number of reasons: (1) SMEs are regarded by creditors and investors as high-risk borrowers due to insufficient assets to provide as collateral and low capitalisation, vulnerability to market fluctuations and high mortality rates; (2) information asymmetry arising from SMEs lack of accounting records, inadequate financial statements or business plans makes it difficult for creditors and investors to assess creditworthiness of potential SME proposals and (3) high administrative/transaction costs of lending or investing small amounts do not make SME financing a profitable business. Due to their lack of

*Corresponding author: Dr. Godfred Adjapong Afrifa
Lecturer in Accounting and Finance, Canterbury Christ Church
University, The Business School, North Holmes Road, Canterbury,
CT1 1QU, UK

access to the financial markets, SMEs rely on suppliers' credit as their main source of credit (Afrifa, 2013a; Padachi *et al.*, 2010). SMEs reliance on short-term funds makes the efficient management of working capital crucial for their survival and growth (Grablowsky, 1984; Pass and Pike, 1987; Padachi, 2006). Also, SMEs maintain high liquidity which makes WCM very important in relation to profitability (Gill *et al.*, 2010; Garcia-Teruel and Martinez-Solano, 2007; Raheman and Nasr, 2007). As argued by Garcia-Teruel and Martinez-Solano (2007) the management of current assets and liabilities is particularly important in the case of SMEs because these companies' assets are in the form of current assets. Current liabilities also constitute the majority of the liabilities of a typical SME. According to Afrifa (2013b), education and experience enable managers to effectively cater for all components of WCM therefore improving firms overall performance. However, these valuable qualities are very much lacking in SMEs, which makes the management of all four WCM components somehow impossible as far as SMEs are concerned. A study by Howorth and Westhead (2003) found that SMEs focus only on areas of Working Capital Management where they expect to improve marginal returns.

A research into the ranking order importance of each component of WCM in SMEs is very crucial given that they are the strength of almost all economies around the world (Lukacs 2005; Abor and Quartey 2010; Afrifa, 2013a; Afrifa 2013b; Tauringana and Afrifa, 2013). As argued by Advani (1997), Levine (2005) and Newberry (2006), SMEs provide a number of economic benefits to countries around the world. Throughout the world, SMEs have been recognised as the engine through which the growth objectives can be achieved. However, it is often stated that the true benefits of SMEs are unknown because most SMEs are not registered and are therefore operating in shadow economy (Lukacs, 2005). One of the main contributions of SMEs to the economic development is their ability to create employment (Abor and Quartey, 2010). According to Caner (2010), both registered and unregistered SMEs are significant sources in providing employment. Swierczek and Ha (2003) argue that SMEs are increasingly seen as creators of new jobs. Lukacs (2005) states that SMEs provide employment to around 65 million people in the EU. SMEs are also believed to provide about 85 per cent of manufacturing employment in Ghana (Abor and Quartey 2010). According to the Department of Trade and Industry (DTI) (1997), SMEs share of employment in the United Kingdom (UK) amounts to 54.1 per cent.

The study makes a contribution to literature, policy makers and owners of SMEs by reporting the results of the WCM components importance ranking order. Even though the existing literature based on larger and SME firms has documented the importance of all components of WCM (Deloof, 2003; Garcia-Teruel and Martinez-Solano, 2007; Ramachandran and Janakiraman, 2009; Afrifa, 2013a), there is no evidence as to the relative importance of each WCM component. As suggested above, the ranking order of importance of WCM components is potentially helpful for the management of SMEs because of their limited resources (Gockel and Akoena, 2002; Abor and Quartey, 2010). The rest of the paper is organised as follows; the next section is the literature review, followed by the data collection and research

methodology. The results and discussion of the study are then provided. The summary and concluding remarks are presented last.

LITERATURE REVIEW

Inventory holding period

The extant literature supports the importance of inventory holding period to firms (Blazenko and Vandezade, 2003; Capkun *et al.*, 2009; Gill *et al.*, 2010; Mathuva, 2010). Inventory holding period is calculated by dividing inventory by cost of sales and then multiplied by 365 (Garcia-Teruel and Martinez-Solano, 2007; Tauringana and Afrifa, 2013). Inventory holding period measures the number of days, on average, that elapse between the purchase of raw materials and sale of finished product (Afrifa, 2013a). Inventory as a component of WCM is very important because inventory represents a substantial amount of both current and total assets of firms (Tauringana and Afrifa, 2013). According to Mathuva (2013), inventory represents about 43.92% and 18.17% of both current assets and total assets respectively. Empirical evidence shows that good inventory management has a positive impact on firm profitability (Eroglu and Hofer, 2011). However, Rajeev (2008) argues that SMEs lack effective and efficient management of inventory due to insufficient expertise and financing as compared to larger firms. Good inventory management will avert production and trading interruptions (Garcia-Teruel and Martinez-Solano, 2007; Gill *et al.*, 2010). It will also reduce the risk of stock out situation (Deloof, 2003), prevent a firm from price fluctuations (Blinder and Maccini, 1991) and save firms from the effects of ever-increasing prices because of inflation.

Accounts receivable period

Accounts receivable period measures the time gap between sale of inventory and collection of the receivable (Afrifa, 2013a; Tauringana and Afrifa, 2013). Accounts receivable period represents investment in working capital (Martinez-Solano *et al.*, 2013) and therefore it requires proper management. The extant literature is in support that accounts receivable affects firm profitability (Emery, 1987; Mian and Smith, 1992; Paul and Boden, 2008). An effective and efficient management of accounts receivable may lead to the reduction in operating and transaction costs (Ferris, 1981). Accounts receivable can reduce the stock-related cost including: warehouse storage cost, insurance, lighting and heating, theft and obsolescence. Accounts receivable may increase sales (Deloof, 2003), leading to higher firm profitability. As argued by Nadiri, (1969) and Blazenko and Vandezade (2003), the main purpose in granting trade credit is to increase sales. Granting of trade credit enhances sales by influencing the acquisition of merchandise at times of low demand (Emery, 1987). Accounts receivable serves as quality guarantee to buyers, which gives them time to assess product quality before payment (Smith, 1987; Long *et al.*, 1993).

Accounts payable period

Accounts payable represent an important source of short-term funds for most firms (Mian and Smith, 1994; Ng *et al.*, 1999;

Wilner, 2000; Garcia-Teruel and Martinez-Solano, 2010). Petersen and Rajan (1997) stress that accounts payable is the single most important source of short-term external finance for firms in the USA. Accounts payable results from buying goods/services on credit, i.e. given a time period to make payment. According to Cunat (2007), accounts payable represents about 41 per cent of the total debt for Medium-size UK firms and 35 per cent of Medium-sized US firms. Garcia-Teruel and Martinez-Solano (2010) found that the amount of accounts payable in their sample of UK SMEs was 20 per cent of their liabilities. Despite the benefit of accounts payable to firms, it can be inherently costly and therefore requires effective and efficient management. This may emanate from using suppliers as a source of finance, resulting in the loss of discount for early payment. A loss of discount may result in high opportunity cost, depending on the discount percentage and the discount period received. A research by Ng *et al* (1999) found that the most common two part terms are 2/10 net 30. Their results indicated that the combination of the 2 per cent discount for payment within 10 days of supplies and a net period ending on 30 defines an implicit interest rate of 43.9 per cent. For SMEs, accounts payable may be particularly important given their greater difficulty in accessing capital markets.

Cash conversion cycle

Cash conversion cycle is the result of adding both the inventory and accounts receivable, then subtracting accounts payable (Afrifa, 2013a). The cash conversion cycle is used as a measure of the efficient management of Working capital (Richards and Laughlin, 1980; Taurigana and Afrifa, 2013). It measures the time lag between expenditure for the purchase of raw materials and the collection of sales of finished goods. Soenen (1993) asserts that the length of the cash conversion cycle determines the degree to which the firm must rely on external financing. Cash conversion cycle is a time dimension or flow concept, which makes it different from traditional measures of liquidity. Unlike traditional measures such as Current Ratio and Quick Ratio that focus on Balance Sheet values, cash conversion cycle is a dynamic measure of ongoing management, because it combines both Balance Sheet and Income Statement data to create a measure with a time dimension. Nobanee (2009) argues that cash conversion cycle is particularly useful to SMEs because they usually operate with fewer financial resources compared with larger companies, and that shortening the cash conversion cycle could be one important source of financing for SMEs.

Data Collection and Research Methodology

Data Collection

The survey questionnaire was distributed to 248 Alternative Investment Market (AIM) listed SME companies. The initial plan was to distribute the survey questionnaire to all the 250 non-financial SME companies listed on the AIM. However, at the time of the questionnaire distribution 2 of the companies had ceased business. Therefore, the survey questionnaire was sent to 248 AIM listed SME companies. Out of the 248 questionnaires, 7 were returned uncompleted. Therefore, out of the 79 survey questionnaires returned, 72 questionnaires, representing 29.03 per cent of the total sample were usable and

therefore could be further analysed. Although the response rate is low, it is comparable to similar studies involving questionnaire survey of SMEs (Sainidis *et al.*, 2001; De Saulles, 2008; Bates, 1995) who reported response rates of 10.6 per cent, 14.4 per cent and 19 per cent respectively. The questionnaire was designed with the sole purpose of gathering information on the WCM practices of AIM listed SME companies. This information was necessary to determine the WCM components importance ranking order of AIM listed SMEs profitability. To be able to capture such information, a five point likert scale questionnaire was used as defined by the UK Companies Act 2006, section 382 and 465 (see Appendix 2).

Background of Respondents

This section describes respondents' demographics including qualification levels, work experience, industry classification and position (see questions one, two, three and six of the questionnaire in Appendix 2). The highest educational level of the respondents was professional qualification with 58%, followed by master's degree with 28% and then the last qualification of respondents was bachelor's degree with 18%. However, there were no respondents with either high school or PhD qualification. The work experience of the respondents was grouped under five categories: 0-5, 6-10, 11-15, 16-20 and 21-25 years. The upper limit of 25 years means that the maximum years of work experience of respondents was 25 years. The respondents with work experience ranging between 0 and 5 years had the highest frequency of 34 (47.22%); this was followed by respondents with work experience between 6 and 10 years with a frequency of 25 (34.72%). Respondents with work experience of between 11 and 15 came third with a frequency of 5 (6.94%). Respondents with work experience of between 16-20 and 21-25 all achieved the same frequency tally of 4 (5.55%) each. These findings suggest that AIM listed SME companies have a very high WCM managers turnover given that the majority of them have been with their companies for at most five years.

With regard to the positions occupied by respondents within their companies, a total of 54 (75%) of respondents were the Chief Financial Officers of their companies, 4 (5.5%) were accountants, 2 (2.7%) were treasury managers, 9 (12.5%) were directors, whilst the rest of 3 (4.2%) were company secretaries. This finding contradicts the study by Solanki (2009), which found that working capital personnel are mostly the owners of SMEs themselves. The differences in results can be deduced from the fact that whilst Solanki's study concentrated primarily on unlisted SMEs, this present study focuses on SMEs listed on AIM. Also, a research by Agyei-Mensah (2010) in contraction to this study found results which suggested that SMEs lack qualified accounting staff. He noted that 60% of the SMEs in his sample had heads of finance department with little or no accounting background. However, a this difference is expected given that whilst he researched in a developing country, this research is based on companies in developed country – UK. In terms of the industry classification, a total of 43 responding companies representing 59.7% were in the service industry, the second industry with the highest respondents was manufacturing/construction industry with total respondents of 22, representing 30.5%.

Agriculture/mining industry achieved the third highest number with 4 respondents representing 5.5%, followed by retail/wholesale industry with a total number of 3 respondents, representing 4.1%. The dominance of service sector companies is evident in a similar survey in the UK by Cosh and Hughes (2003), which also reported a large number of companies in the service sector.

MATERIALS AND METHODS

The Cronbach's coefficient alpha internal consistency measure is used for reliability test. The use of Cronbach's alpha is based on the fact that it is seen to represent a more efficient way of assessing reliability (Pavot *et al.*, 1991). The Cronbach's alpha will help to answer the question as to what extent do the tests and/or procedures measure the same construct in the study with precision. A high internal validity facilitates a better argument that a relationship is causal while a low internal validity indicates less valid results (Sekaran, 2000). The scale reliability test outcome shows a high reliability of 0.7471 in a scale of 0 to 1. This suggests that the instruments used are valid and of a high degree of reliability.

One-Way ANOVA

One-way ANOVA is used to measure the statistical variation between two economic variables (Quarthey 2003). According to Zikmund (2003), analysis of variance is "the investigation of the effects of one treatment variable on an interval-scaled dependent variable; a hypothesis-testing technique to determine whether statistically significant differences in means occur between two or more groups". As argued by Malhotra *et al.* (1999), ANOVA is by far the most flexible and widely used technique of quantitative analysis. One-way ANOVA is specifically chosen as a statistical methodology to compare the differences in mean values of the instruments because they are being measured on an interval scale. The advantages of using ANOVA come from the following. Firstly, it shows whether the means of two groups differ in some way although it does not tell which way those means differ. To determine that, it is necessary to compare two means at a time. Secondly, it provides a more sensitive test of a factor where the error term may be reduced (Cramer and Howitt, 2004).

Post-hoc procedure

Whilst the ANOVA procedure provides a method of rejecting the null hypothesis and accepting the alternative hypothesis that groups' means are not equal, it does not pinpoint exactly where the significant difference lies if there are more than two groups (Field, 2005). In order to ascertain whether the means of the different groups that integrate each of the variables are significantly different, the pairwise multiple comparisons post hoc tests is used. There are a number of post hoc tests, however, there is no clear consensus about which tests are the most appropriate to use (Cramer and Howitt, 2004). In this research, the post hoc test of Tukey's Honestly Significant Difference (HSD) is used.

RESULTS AND DISCUSSION

Respondents were asked to indicate in a ranking order which WCM component they give much attention in cases of limited resources. Table 1 shows the ANOVA results of the ranking order of importance of each component of WCM in case of

limited resources. Results suggest there is a significant difference in the ranking order of WCM components of AIM listed SME companies with $F = 16.657$, $p < 0.01$. The significant result means that in times of limited resources, SMEs manage components of WCM in a ranking order. The evidence of a ranking order of WCM components by SMEs is not a surprise, given that SMEs have limited resources compared to their larger counterparts.

Table 1. One-Way ANOVA of The Ranking Order of WCM Components

	Sum of Squares	DF	Mean Square	F	Sig.
Between Groups	59.917	3	19.972	16.657	.000
Within Groups	340.528	284	1.199		
Total	400.444	287			

Respondents were also asked to indicate the importance of the management of each of the four components of WCM to profitability. The descriptive statistics result of the ranking order of WCM components is specified in Table 2. The descriptive statistics results indicate that accounts receivable period has the highest mean scores of ($M = 2.9028$, $SD = 1.16474$), followed by cash conversion cycle with a mean score of ($M = 2.4722$, $SD = 1.20996$), then followed by accounts payable period with a mean score of ($M = 2.4306$, 0.96161) and then finally inventory holding period with a mean score of ($M = 1.6389$, $SD = 1.02511$). This pattern reveals that AIM listed SME companies rank accounts receivable period higher than all the other WCM components. The mean score of both the CCC and APP have almost the same importance as far as SMEs are concerned, meaning they are ranked by companies almost at par. The results also show that inventory holding period is the least ranked WCM component because it achieved the lowest mean score.

Table 2. Descriptive Statistics of The Ranking Order of WCM Components

	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
IHP	72	1.6389	1.02511	.12081	1.00	4.00
ARP	72	2.9028	1.16474	.13727	1.00	4.00
APP	72	2.4306	.96161	.11333	1.00	4.00
CCC	72	2.4722	1.20996	.14260	1.00	4.00
Total	288	2.3611	1.18122	.06960	1.00	4.00

The post hoc test shows that inventory holding period with a mean score of (1.6389, $SD = 1.02511$) is ranked significantly different from that of accounts receivable period with a mean score of (2.9028, $SD = 1.16474$) at the 1 per cent level. The results also indicate that inventory holding period is ranked significantly different from accounts payable period, which has a mean score of (2.4306, $SD = 0.96161$) at the 1 per cent level. Inventory holding period is again found to be ranked significantly different from the ranking of the cash conversion cycle with a mean score of (2.4722, $SD = 1.20996$) at the 1 per cent level. From the post hoc test, accounts receivable period is also found to be ranked significantly different from the ranking of accounts payable period at the 5 per cent level. Accounts receivable period is once again ranked different from the ranking of cash conversion cycle but at the 10 per cent level of significance. However, there was no significant differences between the ranking of accounts payable period and cash

conversion cycle. The above analyses show that although each components of WCM is important to AIM listed SMEs, accounts receivable period is relatively more important. This means that AIM listed SMEs should channel all their resources into the management of accounts receivable period before any other component is considered. The evidence of the difference in importance of WCM component is useful for the management of SMEs due to their limited resources (Pansiri and Temtime, 2008; Tauringana and Afrifa, 2013).

Table 3. Post Hoc Test Of The Ranking Order Of WCM Components

	WCM components	WCM components	Mean Difference	Std. Error	Sig.
Tukey HSD	IHP	ARP	-1.26389***	.18250	.000
		APP	-.79167***	.18250	.000
		CCC	-.83333***	.18250	.000
	ARP	IHP	1.26389***	.18250	.000
		APP	.47222**	.18250	.050
		CCC	.43056*	.18250	.087
	APP	IHP	.79167***	.18250	.000
		ARP	-.47222**	.18250	.050
		CCC	-.04167	.18250	.996
	CCC	IHP	.83333***	.18250	.000
		ARP	-.43056*	.18250	.087
		APP	.04167	.18250	.996

The mean difference is ***Significant at 0.01 level; **Significant at 0.05 level; *Significant at 0.10 level

Summary and Conclusion

The objective of the study was to investigate the WCM components importance ranking order of SMEs listed on the AIM, from the perspective of financial directors. Although few researchers have examined the WCM practices of firms (Agyei-Mensah 2010; Belt and Smith 1991; Belt and Smith 1992), none has examined the ranking order of these WCM components. The study was based on 72 responses from a questionnaire distributed to 248 AIM listed SMEs. Using one-way ANOVA and post hoc test the results show differences in the importance of each component of WCM. First, inventory holding period importance is shown to differ from that of accounts receivable period, accounts payable period and cash conversion cycle. The results also show that accounts receivable period importance to profitability is different from accounts payable period and cash conversion cycle. However, there is no difference of importance between accounts payable period and cash conversion cycle. In interpreting the results, however, some limitations need to be noted. First, the study is limited to a questionnaire survey response rate of 29.03%, although it is comparable to other response rates for SMEs (Sainidis *et al.*, 2001, De Saulles, 2008; Bates, 1995). In spite of the limitations, taken overall, these results have implications for both the SMEs and future research on the ranking order of WCM components. The findings lead to the conclusion that given the limited resources of SMEs, they need to prioritise their WCM by focusing on accounts receivable period to improve profitability.

REFERENCES

Abor J. and Quartey, P. 2010. Issues in SME Development in Ghana and South Africa. *International Research Journal of Finance and Economics*, 39, 218-228.

- Advani, A. 1997. Industrial clusters: A support system for small and medium-sized enterprises, the private sector development. World Bank Occasional Paper No. 32, Washington DC.
- Afrifa G.A. 2013b. Working Capital Management Practices of UK SMES: The Role of Education and Experience, *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 3(4).
- Afrifa, G.A. 2013a. *Working capital management and AIM listed SME companies profitability: a mixed research method approach*. PhD. dissertation, Bournemouth University, Bournemouth.
- Agyei-Mensah, B.K. 2010. Working Capital Management Practices of Small Firms in the Ashanti Region of Ghana. Available from: <http://ssrn.com/abstract=1596734> [Accessed 23 July 2011].
- Atrill, P. 2006. *Financial Management for Decision Makers*, (4th edition) Prentice Hall.
- Bates, T. 1995. Analysis of survival rates among franchise and independent small business startups. *Journal of Small Business Management*, 33(2), 26-36.
- Belt, B. and Smith, K.V. (1992). Recent Changes in Working Capital Management Practices. *Midwestern Journal of Business and Economics*, 1, 1-18.
- Belt, B. and Smith, K.V. 1991. Comparison of working capital management practices in Australia and the United States. *Global Finance Journal*, 2(2), 27-54.
- Berisha-Namani, M. 2009. The role of information technology in small and medium sized enterprises in Kosova. Fulbright Academy 2009. Conference Small Places Can Change the World. Available from: http://www.fulbrightacademy.org/file_depot/0-n+SMEs+in+Kosovo.pdf [Accessed 15 July 2010].
- Blazenko, W. and Vandezande, K., 2003. The product differentiation hypothesis for corporate trade credit. *Managerial and Decision Economics* 24: 457-469.
- Blinder, A.S. and Maccini, L.J. 1991. The Resurgence of Inventory Research: What Have We Learned? *Journal of Economic Survey*, 5 (1), 73-96.
- Caner, S. 2010. The Role of Small and Medium Size Enterprises in Economic Development. *HSE Conference*, Moscow.
- Capkun, V., Hameri, A.P. and Weiss, L.A. 2009. On the relationship between inventory and financial performance in manufacturing companies. *International Journal of Operations & Production Management*, 29 (8), 789-806.
- Carter (2002),
- Christopher, S.B. and Kamalavalli, A.L. 2009. Sensitivity of profitability to working capital management in Indian corporate hospitals. Working Paper, NGM College. Available from: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1331500. [Accessed 19 April 2010].
- Cosh, A. and Hughes, A. 2003. Enterprise Challenged: Policy and Performance in the British SME Sector 1999-2002, ESRC Centre for Business Research, Cambridge.
- Cramer, D. and Howitt, D. 2004. *The SAGE Dictionary of Statistics*. SAGE Publications LTD: London.
- Cunat, V. 2007. Trade credit: suppliers as debt collectors and insurance providers. *Review of Financial Studies*, 20, 491-527.

- De Saulles, M. 2008. SMEs and the web. Available from: <http://www.mdesaulles.net/storage/SMEWebSurveyJul08%20M%20De%20Sa%20lles.pdf> [Accessed 29 April 2011].
- Deloof, M. 2003. Does Working Capital Management Affect Profitability of Belgian Firms? *Journal of Business, Finance and Accounting*, 30(3), 573-587.
- DTI. 1997. *Small and Medium Enterprise Statistics for the United Kingdom, 1996*, SME Statistics Unit, Department of Trade and Industry, URN 97/92, HMSO, London.
- Emery G.W. 1987. An Optimal Financial Response to Variable Demand. *Journal of Financial and Quantitative Analysis*, 22, 209-225.
- Eroglu, C. and Hofer, C. 2011. Inventory Types and Firm Performance: Vector Autoregressive and Vector Error Correction Models, *Journal of Business Logistics* 32 (3): 227-239.
- Ferris, J.S. 1981. A Transactions Theory of Trade Credit Use. *Quarterly Journal of Economics*, 96 (2), 243-270.
- Field, A. 2005. *Discovering statistics using SPSS*. Second ed. London: Sage Publications Ltd.
- Garcia-Teruel, P.J. and Martinez-Solano, P. 2007. Effects of Working Capital Management on SME Profitability. *International Journal of Managerial Finance*, 3(2), 164-177.
- Garcia-Teruel, P.J. and Martinez-Solano, P. 2010. A dynamic approach to accounts receivable: a study of Spanish SMEs. *European Financial Management*, 16(3), 400-421.
- Gill, A., Biger, N. and Mathur, N. 2010. The relationship between working capital management and profitability: evidence from the United States. *Business and Economics Journal*, 10, 1-9.
- Gockel, A.G. and Akoena, S.K. 2002. Financial intermediation for the poor: credit demand by micro, small and medium scale enterprises in Ghana – a further assignment for financial sector policy? IFLIP Research Paper 02-6, International Labor Organization, Geneva.
- Grablowsky, B.J. 1984. Financial Management of Inventory. *Journal of Small Business Management*, 59-65.
- Howorth, C. and Westhead P. 2003. The Focus of Working Capital Management in UK Small Firms. *Management Accounting Research*, 14(2), 94-111.
- Lazaridis, I. and Tryfonidis, D. 2006. Relationship between working capital management and profitability of listed companies in the Athens stock exchange. *Journal of Financial Management and Analysis*, 19(1), 26-35.
- Levine, R. (2005). Does firm size matter for growth and poverty alleviation? Prepared for the Brookings Blum Roundtable: The Private Sector in the Fight against Global Poverty. Brown University and the National Bureau of Economic Research. Available from: http://www.brookings.edu/global/200508blum_levine.pdf. [Accessed 5 July, 2009].
- Long, M.S., Malitz I.B. and Ravid, S.A. 1993. Trade Credit, Quality Guarantees, and Product Marketability. *Financial Management*, 22(4), 117-127.
- Lukacs, E. 2005. The economic role of SMEs in world economy, especially in Europe. *European Integration Studies, Miskolc*, 4(1), 3-12.
- Malhotra, N.K., Petersen, M. and Kleiser, S.B. 1999. Marketing research: A state-of-the-art review and directions for the twenty-first century. *J. Acad. Marketing Sci.* 27(2), 160-183.
- Martinez-Sola, C., Garcia-Teruel, P. and Martinez-Solano, P. 2013. Trade credit and SME profitability. *Small Business Economics*. Forthcoming
- Mathuva, D. 2010. The influence of working capital management components on corporate profitability: a survey on Kenyan listed firms. *Research Journal of Business Management*, 4(1), 1-11.
- Mathuva, D.M. 2013. Determinants of Corporate Inventory Holdings: Evidence from a Developing Country. *The International Journal of Applied Economics and Finance* 7(1): 1-22.
- Mian, S. L. and Smith, C. 1994. Extending Trade Credit and Financing Receivables. *Journal of Applied Corporate Finance*, 7, 75-84.
- Mian, S. L. and Smith, C.W. 1992. Accounts receivable management policy: theory and evidence. *Journal of Finance*, 47(1), 169-200.
- Nadiri, M.I. 1969. The Determinants of Trade Credit in the U.S. Total Manufacturing Sector. *Econometrica*, 37, 408-423.
- Newberry, D. 2006. The Role of Small and Medium-Sized Enterprises in the Futures of Emerging Economies. Available from: <http://earthtrends.wri.org/features/view> [Accessed 6 May 2010].
- Ng, C.K., Smith, J.K. and Smith, R.L. 1999. Evidence on the determinants of trade credit terms used in interfirm trade. *Journal of Finance*, 54(3), 1109-1129.
- Nobanee, H. 2009. Working capital management and firm's profitability: an optimal cash conversion cycle. Available from: <http://ssrn.com/abstract=1471230> [Accessed 10 October 2010].
- Nobanee, H. and Alhajjar, M. 2009. A note on working capital management and corporate profitability of Japanese firms. <http://ssrn.com/abstract=1433243>. [Accessed 12 October 2010].
- Padachi, K. 2006. Trends in working capital management and its impact on firms' performance: an analysis of Mauritian small manufacturing firms, International. *Review of Business Research Papers*, 2(2), 45 -58.
- Padachi, K., Howorth, C. and Narasimhan, M.S. 2011. Working Capital Financing Preferences: The Case of Mauritian Manufacturing SMEs. Cambridge Business & Economics Conference, 27-28 June 2011 London: Cambridge.
- Padachi, K., Howorth, C., Narasimhan, M.S. and Durbarry, R. 2010. Working Capital Structure and Financing Pattern of Mauritian SMEs. Available from: www.gcbe.us/.../Kesseven%20Padachi,%20C.%20Howorth,%20M.%20S.%20Narasimhan,%20R.%20Durbarry [Accessed 23 September 2010].
- Pansiri, J. and Temtime, Z.T. 2008. Assessing managerial skills in SMEs for capacity building. *Journal of Management Development*, 27(2), 251-60.
- Pass, C. and Pike, R.H. 1987. Management of Working Capital: A Neglected Subject. *Management Decision*, 25(1), 18-24.
- Paul, S. and Boden, R. 2008. The secret life of UK trade credit supply: setting a new research agenda, *The British Accounting Review*, 40, 272-281.
- Pavot, W., Diener, E., Colvin, C.R. and Sandvik, E. 1991. Further validation of the Satisfaction with Life Scale:

Evidence for the cross-method convergence of well-being measures. *Journal of Personality Assessment*, 57, 149–161.

Petersen, M. A. and Rajan, R.G. 1997. Trade Credit: Theories and Evidence. *The Review of Financial Studies*, 10(3), 661-691.

Quarthey, P. 2003. *Finance and Small and Medium-sized Enterprise development in Ghana*. Thesis, PhD. University of Manchester.

Raheman, A. and Nasr, M. 2007. Working capital management and profitability – case of Pakistani firms. *International Review of Business Research Papers*, 3(1), 279-300.

Rajeev, N. 2008. Do IM practices affect economic performance? An empirical evaluation of the machine tool SMEs in Bangalore. *International Journal of Management Science and Engineering Management*. 3(4): 312-320.

Ramachandran, A., Janakiraman, M. 2009. The relationship between working capital management efficiency and EBIT. *Managing Global Transitions*, 7(1), 61-74.

Richards, V.D., and Laughlin, E.J. 1980. A Cash Conversion Cycle Approach to Liquidity Analysis, *Financial Management*, Vol. 9 (1), pp. 32-38.

Sainidis, F., Gill, R.E., and White, A. 2001. *Emergent strategies in SMEs*. 4th SME International Conference, Allborg, Denmark, pp. 242-247.

Saleh, A.S. and Ndubisi, N.O. 2006. An Evaluation of SME Development in Malaysia. *International Review of Business Research Papers*, 2(1), 1-14.

Sekaran, U. 2000. *Research method for business: A skill building approach*, John Wiley and Sons, Inc.

Smith, J.K. 1987. Trade credit and information asymmetry. *Journal of Finance*, 863-872.

Soenen, L.A. 1993. Cash conversion cycle and corporate profitability. *Journal of Cash Management*, 13(4), 53–58.

Solanki, A.H. 2009. *Working Capital Management in Selected Small Scale Industries of Gujarat State*. Thesis, (PhD). Saurashtra University.

Stephen, M. and Elvis, K. 2011. Influence of Working Capital Management on Firms Profitability: A Case of SMEs in Kenya. *International Business Management*, 5(5), 279-286.

Swierczek, F.W. and Ha, T.T. 2003. Entrepreneurial orientation, uncertainty avoidance and firm performance: an analysis of Thai and Vietnamese SMEs. *International Journal of Entrepreneurship and Innovation*, 4 (1), 46-58.

Tauringana, V. and Afrifa, G.A. 2013. The relative importance of working capital management and its components to SMEs' profitability, *Journal of Small Business and Enterprise Development*, Vol. 20 Issue: 3, pp.453 – 469.

weinraub, H. and Visscher, S. 1998. Industry Practice Relating to Aggressive Conservative Working capital Policies. *Journal of Financial and strategic Decisions*, 11 (2), 11-18.

Wilner, B. 2000. The Exploitation of Relationships in Financial Distress: The Case of Trade Credit, *The Journal of Finance*, 55(1), 153–178.

Zikmund, W.G. 2003. *Business Research Methods*. Mason, OH: South Western.

Appendix 1.

The UK Companies Act 2006 Section 382 Definition of A Medium and Small Firm

Medium	Small
A turnover of not more than £25.9 million	A turnover of not more than £6.5 million
A balance sheet total of not more than £12.9 million	A balance sheet total of not more than £3.26 million
Not more than 250 employees	Not more than 50 employees

Appendix 1.

QUESTIONNAIRE ON WORKING CAPITAL MANAGEMENT PRACTICES OF AIM LISTED SMES

SECTION A

1. What is your position in the company?.....
2. What is your highest educational qualification or nearest equivalent?
 1. High school
 2. Bachelor
 3. Masters degree
 4. Professional qualificatio
 5. PhD
3. How many years of experience do you have in your current position?.....
4. How many years of general experience do you have?.....
5. What is the age of your company?
6. Which industry does your company operates in?
 1. Retail/Wholesale
 2. Manufacturing/Construction
 3. Service
 4. Agriculture/Mining
 6. Others (Please specify) _____

SECTION B

- 7 Do you sometimes have to prioritise which component of WCM you manage because of resources constraint? Yes No
- 8 Please indicate in a ranking order which of the following WCM components your company gives much priority in cases of limited resources (please give each of them a number where 4 means highest priority.... and 1 means lowest priority)
- 1 Inventory holding 2. Accounts receivable 3. Accounts payable
4. Cash conversion cycle
- 9 Please indicate the extent to which the following act as a constraint to an effective WCM
- a. Technology 1 2 3 4 5
- b. Expertise 1 2 3 4 5
- c. Money 1 2 3 4 5
- d. Time 1 2 3 4 5

SECTION C

Please indicate the extent of your disagreement or agreement with the following statements by ticking one of the boxes from (1) to (5) where (1) = strongly disagree (2) = disagree (3) = neither agree or disagree (4) = agree (5) = strongly agree

INVENTORY HOLDING PERIOD

- 10 Management of inventory is important for increasing the company's profitability
1 2 3 4 5
- 11 The company sets a specific level of inventory to be maintained
1 2 3 4 5
- 12 The company alters its inventory level frequently
1 2 3 4 5
- 13 Increase in inventory improves our company's profitability
1 2 3 4 5

ACCOUNTS RECEIVABLE PERIOD

- 14 Management of accounts receivable is important for increasing the company's profitability
1 2 3 4 5
- 15 The company sets a specific level of accounts receivable
1 2 3 4 5
- 16 The company alters its accounts receivable period frequently
1 2 3 4 5
- 17 Increase in accounts receivable improves our company's profitability
1 2 3 4 5

ACCOUNTS PAYABLE PERIOD

- 18 Management of accounts payable is important for increasing the company's profitability
1 2 3 4 5
- 19 The company set a specific level of accounts payable
1 2 3 4 5
- 20 The company alters its accounts payable period frequently
1 2 3 4 5
- 21 Increase in accounts payable improves our company's profitability
1 2 3 4 5

CASH CONVERSION CYCLE

22 Management of Cash Conversion Cycle is important for increasing the company's profitability

1 2 3 4 5

23 The company sets a target Cash Conversion Cycle

1 2 3 4 5

24 The company alters its Cash Conversion Cycle frequently

1 2 3 4 5

25 Increase in Cash Conversion Cycle improves our company's profitability

1 2 3 4 5

26 Please give any reason as to why you think the management of inventory affects or does not affect your company's profitability

.....
.....
.....
.....

27 Please give any reason as to why you think the management of accounts receivable affects or does not affect your company's profitability

.....
.....
.....

28 Please give any reason as to why you think the management of accounts payable affects or does not affect your company's profitability

.....
.....
.....

29 Please give any reason as to why you think the management of cash conversion cycle affects or does not affect your company's profitability

.....
.....
.....

Thank you for your help and participation
