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Working Capital Management Practices and Profitability of AIM Listed SMEs

Godfred Adjapong Afrifa

This paper reports the results of an investigation of the effect of Working Capital Management (WCM) practices on profitability of Small and Medium Enterprises (SMEs) listed on the Alternative Investment Market (AIM), from the perspective of financial directors. Specifically, I look at their WCM target level practices, WCM alteration frequency and WCM strategy practices. The analyses are based on questionnaire distributed to 248 AIM listed SMEs. The paper employs OLS regression on responses from 72 managers of AIM listed SMEs. The results show that the WCM practices of AIM listed SMEs managers have an effect on profitability. However, the results show that given the limited resources of SMEs, the main focus of managers should be on the setting of specific target level for WCM so as to increase profitability.

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1. INTRODUCTION

Working Capital Management (WCM) practices have an effect on companies' profitability (Peel Wilson, 1996; Agyei-Mensah, 2010) because it affects firm risk and profitability (Smith and Sell, 1980). For Small and Medium Enterprises (SMEs), there is the need for particular attention to the control and monitoring of Working Capital because of their higher proportion of current assets, less liquidity, volatile cash flows and reliance on short-term debt relative to large firms (Peel et al., 2000; Howorth and Westhead, 2003). However, evidence suggests that few SMEs employ formal WCM practices but instead rely on ad hoc or subjective WCM decisions (Khoury et al., 1999, Howorth and Westhead, 2003), although Perren and Grant (2000) suggest that the lack of formalisation with SMEs does not necessarily imply poor firm control. The WCM practices of firms are very important because it determines the level of working capital available, which intends influences profitability. Despite the importance of WCM practices to SMEs, Howorth and Westhead (2003) argue that knowledge and understanding of WCM practices of SMEs is inadequate. The main reason that has been expended in the existing literature to explain this phenomenon is that SMEs lack adequate resources (Whited, 1992; Fazzari and Peterson, 1993; Peterson and Rajan, 1997).

Wilson (1996) found in a research conducted in the United Kingdom (UK) that good credit management practices have connection with company profitability. Berryman (1983) also concluded that poor or careless WCM is a major cause of SME failure. The WCM practices of SMEs are different from their larger counterparts because of their unequal access to finance (Tauringana and Afrifa, 2013). However, the advocates in finance literature seem to be focused on larger companies. Javis et al. (1996) interviewed 20 SMEs and indicated that 'best practice' models advocated by finance literature are not necessarily appropriate to SMEs and that alternative approaches may be viable. SMEs due to their smallness may be in a weaker position

in terms of their dealings with suppliers and customers. As argued by Solanki (2009), SMEs cannot command suppliers' credit in the way large firms do and also if they remain slow payees the supplier may refuse credit or they may quote higher prices. Research shows that WCM practices in SMEs are inadequate (Poutziouris et al., 2005). Very few researches have looked into the WCM practices of companies, more especially SMEs. In the UK, only few notable exceptions of researches have looked at the WCM practices of SMEs (Bolton, 1971; Peel and Wilson, 1996; Wilson, 1996; Jarvis et al., 1996; Singleton and Wilson, 1998; Soufani, 2002; Poutziouris et al., 2005).

According to Peel and Wilson (1994), there are factors that differentiate the WCM practices between SMEs and larger firms including: (1) SMEs have the tendency of great reliance on trade credit and bank overdrafts for short-term financing, (2) a willingness on the part of SMEs to grant over-generous credit terms to obtain business, particularly from larger companies, (3) relatively weak control procedures in SMEs and (4) lack of clear policy on WCM by SMEs. Likewise, Atrill (2006) also identified factors that distinguish the WCM practices of SMEs and larger companies including: (1) SMEs lack of appropriate resources to manage WCM and (2) lack of market power by SMEs.

The objective of this paper is to investigate the relationship between WCM practices (WCM target level, alteration frequency and WCM strategy) and AIM listed SME profitability using OLS regression. The study draws upon evidence from a questionnaire distributed to AIM listed SMEs that meet the UK Companies Act 2006 definition of an SME (see Appendix 1).

The study makes a contribution to literature and has implications for owners of SMEs by reporting the results of the importance of WCM practices to the profitability of SMEs companies, from the perspective of financial directors. Most existing literature based on both large firms and SMEs has employed only secondary data (Deloof 2003; Garcia-Teruel and

Martinez-Solano, 2007; Raheman and Nasr, 2007). The WCM practices importance to profitability is potentially useful for the management of SMEs who have limited resources, including management competency (Small Business Research Centre, 1992; Gockel and Akoena, 2002; Pansiri and Temtime, 2008) and equipment and technology (Abor and Quartey, 2010; Saleh and Ndubisi, 2006; Berisha-Namani, 2009) and need to prioritise deployment of resources to a particular practice in order to maximise profitability (Tauringana and Afrifa, 2013).

The rest of the paper is organised as follows; section 2 is the literature review, section 3 describes the data collection and research methodology. The empirical results of the study are provided in section 4. Section 5 presents the summary and concluding remarks.

2. LITERATURE REVIEW

The first research that comprehensively surveyed the working capital practices of companies was conducted in 1978 by Smith and Sell (1980) in the United States (US). In their research they used a survey instrument consisting of 35 questions. Out of a sample of 653 industrial firms, 210 usable responses were received representing a 32.2 per cent response rate. They concluded that WCM in practice is far more than just a series of independent technologies. Belt and Smith (1992) also conducted a research into the working capital practices in US with a sample of 448 largest industrial companies. With a questionnaire of 38 questions, they received 105 usable responses representing a 23.4 per cent response rate. Using longitudinal data of a ten-year period, they suggested a pattern of more formality and sophistication in how current assets and liabilities are managed in practice. A research into the WCM practices of SMEs in Canada, US and Australia was also conducted by Koury et al. (1998). They used a sample of 350 firms randomly chosen from ten industries within the BOSS database and received a 57

usable responses representing a 15.8 per cent response rate. The findings found that only 7 per cent of Canadian SMEs have formal working capital policies.

Recently, Nyamao et al. (2012) conducted a study to elucidate the WCM practices of SMEs in Kenya using a sample of 113 SMEs. They concluded that WCM practices are low amongst SMEs as majority had not adopted formal WCM routines. Agyei-Mensah (2010) also conducted a research into the WCM practices of SMEs in the Ashanti region of Ghana. Using a sample of 800 randomly selected firms the study revealed weak WCM skills within the sector. Despite the importance of WCM to SMEs, a research by Burns and Walker (1991) and Peel and Wilson (1994) show that only 24 per cent and 20 per cent respectively of the financial managers time is spent on working capital. Harif et al. (2010) did a research on the financial management practices of SMEs in Malaysia, with the results indicating that lack of working capital which accounted for 93.6 per cent is the most common weakness in the area of financial management.

2.1 Working Capital Management Target Level Practices of SMEs

The target level of WCM is important because it defines the extent of relationship between the company and its customers and suppliers. The objective of WCM is to maintain levels that maximise profitability and therefore the onus is on companies to ensure that the target levels of WCM set are adequate and feasible in order to attain the maximum profitability. As a norm, suppliers may always find means to reduce the amount of credit given to customers; while customers may always find means to demand greater credit from their suppliers. This means that the lack of proper management of the target level set for WCM will ultimately lead to a reduction in profitability due to the external pressures from both suppliers and customers. The target level of WCM will also have influence on the profitability of companies because whilst

suppliers' credit can be used as a vital source of finance to fund operations, credit extended to customers also represent money locked up in working capital which could have been invested to earn profit.

A research by Solanki (2009) found that more than 50% of the sample companies estimate the level of WCM on the basis of either production or sales, while 14% did not adopt any formal method for estimating the level of WCM. Grasblowsky and Rowell (1980) found evidence from their research that approximately 95 per cent of SMEs sold on credit to anyone who wished to buy. This findings show that most SMEs do not set a specific WCM target level but rather depend on the demand and supply forces in the market. The first hypothesis therefore states that:

H₁ The setting of WCM target level is positively related to firms' profitability.

2.1 Working Capital Management Alteration Frequency Practices of SMEs

In order to maximise profitability, companies, especially SMEs must frequently review and if necessary alter the level set for WCM. The need to alter the target level of WCM stem from the fact that the circumstances of suppliers and customers may change, which may necessitate a change in relationship. For example, a customer in financial distress may give the company a reason to alter the target level of credit giving to that customer as a matter of urgency. The frequency at which companies alter their WCM has two major benefits. First, it has a positive influence on companies' profitability. This is because the frequency of alteration of WCM will help reduce the level of bad debts occurring. The frequent alteration will help detect early signs of problems with customers and suppliers. Second, the frequency of alteration shows the level of management commitment to WCM.

A research by Peel and Wilson (1994) reveals that 91.4 per cent of SMEs review their debtors' credit period with 23.5 per cent frequently reviewing it. In terms of suppliers' credit, their research shows that only 12.2 per cent of respondents stated that they never reviewed their payment period to suppliers. The same research also found that about 65.4 per cent of sample SMEs says they review the stock level of their companies. Solanki (2009) also did a research on a sample of SMEs in India and found that 13.75 per cent review WCM daily, 36.25 per cent review weekly, 27 per cent review monthly, 10 per cent did so in other period, while 13 per cent never did any review. These results indicate that SMEs do not frequently review both their suppliers and customers' credit. The second hypothesis therefore states that:

H₂ The alteration frequency of WCM level is positively related to firms' profitability.

2.2 Working Capital Management Strategy Practices of SMEs

Generally, the WCM strategy practices of companies can broadly be divided into three namely: conservative, moderate and aggressive WCM. A conservative strategy implies the holding of more current assets relative to current liabilities. A company that practices conservative strategy is termed as "risk averse" because it tries to make provision to cover any unforeseen circumstances. A moderate WCM strategy, which is termed "middle-of-the-road", is a hybrid of both aggressive and conservative strategies. An aggressive WCM strategy, which is termed as "risk taker" ensures that a company keeps small proportion of current assets in relation to fixed assets. The particular strategy chosen will ultimately determine the levels of current assets and current liabilities kept by a company. The levels of current assets and current liabilities kept will in turn have an effect on the profitability level. A research by Koury et al. (1998) found that 28.5 per cent of Canadian companies follow the conservative strategy, while only 10.2 per cent pursue an aggressive strategy. Afza and Nazir (2007) also found in their sample companies

that as the degree of aggressiveness of WCM strategy increases, the returns are likely to decrease. The higher percentage of conservative practices as against aggressive strategy contradicts the extant empirical evidence on the relationship between WCM and profitability (see, Nobanee et al., 2010; Uyar, 2009; Wang, 2002; Zariyawati et al., 2009; Lazaridis and Tryfonidis, 2006; Garcia-Teruel and Martinez-Solano, 2007). The contradiction in the existing literature leads to the following hypothesis:

H₃ The strategy of WCM is not related to firms' profitability.

3. DATA COLLECTION AND RESEARCH METHODOLOGY

3.1 Data Collection

The survey questionnaire was distributed to 248 AIM listed SME companies (see Appendix 2). 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 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 importance of WCM to AIM listed SMEs profitability. To be able to capture such information, a five point likert scale questionnaire was used. Table 1 gives a description of the variables employed.

Table 1: Description of Questionnaire Instruments

Variables	Acronym
Inventory management importance to profitability	IMIMP
Inventory target set	IMTARGET
Inventory frequency of alteration	IMALTER
Inventory strategy	IMSTRATEGY
Receivables management importance to profitability	RMIMP
Receivables target set	RMTARGET
Receivables frequency of alteration	RMALTER
Receivables strategy	RMSTRATEGY
Payables management importance to profitability	PMIMP
Payables target set	PMTARGET
Payables frequency of alteration	PMALTER
Payables strategy	PMSTRATEGY
Cash conversion cycle management importance to profitability	CCCMIMP
Cash conversion cycle target set	CCCMTARGET
Cash conversion cycle frequency of alteration	CCCMALTER
Cash conversion cycle strategy	CCCMSTRATEGY

3.2 Research Methodology

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.

3.3 Descriptive Statistics

This section describes respondents' demographics including qualification levels, work experience, industry classification and position. 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 manager 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 Officer of their companies, 4 (5.5%) were accountants, 2 (2.7%) were treasury managers, 9 (12.5%) were directors, while 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 while 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 contradictory 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, this difference is expected given that while he researched in developing countries, 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.

3.4 WCM Importance by Industry

The one-way ANOVA and post hoc test are used as the statistical methods in establishing the differences in WCM practices among AIM listed SMEs managers and the effect on profitability across industries. One-way ANOVA is used to measure the statistical variation between two economic variables (Quartey, 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”*.

Table 2: ANOVA and Post Hoc test (Scheffe) – WCM importance to profitability by Industry

INDUSTRIES	INVENTORY			RECEIVABLES			PAYABLES			CASH CON. CYCLE		
	Mean	SD	F	Mean	SD	F	Mean	SD	F	Mean	SD	F
Retail/Wholesale	2.33#	2.30	3.97***	4.66#	.577	2.56***	4.66	.577	0.52	3.66	2.30	0.06
Manufacturing/Construction	3.81#	1.62		3.81#	1.65		3.77	1.37		3.59	1.56	
Service	2.50#	1.45		4.39#	.903		3.86	1.10		3.72	1.27	
Agriculture/Mining	2.00#	2.00		3.00#	1.41		4.00	1.15		3.5	1.73	

*** Significant at $p < 0.01$

** Significant at $p < 0.05$

* Significant at $p < 0.10$

Scheffe post hoc test, $p < 0.0$

As argued by Malhotra et al. (1999), ANOVA is by far the most flexible and widely used technique of quantitative analysis. The key statistic in one-way ANOVA is the variance ratio (F), testing if the means of the groups formed by values of the independent variables are different enough not to have occurred by chance. The larger the F-ratio, the bigger are the differences between the means of the groups making up a factor in relation to the differences within the groups and the more likely it is to be statistically significant (Cramer and Howitt 2004).

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 test is the most appropriate to use (Cramer and Howitt 2004).

Table 2 illustrates the ANOVA and post hoc test of WCM and profitability across all four industries. In general the ANOVA suggest that there is a significant difference across industries between inventory management practices and profitability with $F = 3.97$, $p < 0.01$. There is also a significant difference across industries between receivables management and profitability with $F = 2.56$, $p < 0.01$. However, there are no significant differences across industries between payables management practices and cash conversion cycle management practices and profitability.

3.5 Correlation Analysis

Table 3: Pearson correlation matrix for all variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 IMIMP	1.00															
2 ITARGET	0.69	1.00														
3 IALTER	0.73	0.60	1.00													
4 ISTRATEGY	0.52	0.41	0.53	1.00												
5 RMIMP	0.39	0.28	0.26	0.01	1.00											
6 RMTARGET	0.33	0.21	0.24	0.34	0.33	1.00										
7 RMALTER	0.42	0.50	0.42	0.28	0.11	0.27	1.00									
8 RMSTRATEGY	-0.01	0.17	-0.16	0.13	0.17	0.28	0.27	1.00								
9 PMIMP	0.33	0.23	0.12	-0.00	0.65	0.11	0.10	0.06	1.00							
10 PMTARGET	0.20	0.30	0.14	0.36	0.31	0.33	0.11	0.36	0.45	1.00						
11 PMALTER	0.23	0.24	0.21	0.31	0.45	0.12	0.32	0.33	0.43	0.50	1.00					
12 PMSTRATEGY	0.09	0.02	-0.02	0.10	0.31	0.18	0.18	0.33	0.34	0.34	0.36	1.00				
13 CCCMIMP	0.26	0.39	0.24	0.19	0.36	0.21	0.20	0.00	0.46	0.40	0.24	0.28	1.00			
14 CCCMTARGET	0.02	0.00	0.03	0.09	0.00	0.07	0.08	0.97	0.00	0.00	0.03	0.01		1.00		
15 CCCMALTER	0.30	0.49	0.35	0.11	0.14	0.20	0.66	0.15	0.26	0.19	0.25	0.20	0.39	0.44	1.00	
16 CCCMSTRATEGY	0.00	0.00	0.00	0.32	0.21	0.08	0.00	0.20	0.02	0.10	0.03	0.09	0.00	0.00		1.00
	0.99	0.02	0.93	0.04	0.79	0.36	0.01	0.04	0.11	0.00	0.05	0.00	0.00	0.00	0.00	

Note: variables are defined in table 1.

The correlation results in Table 3 indicate a significant and positive correlation between IMIMP and IMTARGET, IMALTER and IMSTRATEGY at the 1 percent level. Also, the results indicate a significant and positive correlation between RMIMP and RMTAGRET, RMALTER and RMSTRATEGY at the 1 percent level. The results in Table 3 indicate a significant and positive correlation between PMIMP and PMTARGET, PMALTER and PMSTRATEGY at the 1 percent level. Finally, the results indicate a significant and positive correlation between CCCMIMP and CCCMTAGRET, CCCMALTER and CCCMSTRATEGY at the 1 percent level. The results in Table 3 show that none of the correlations among the variables exceeds the threshold value prescribed by Field (2005).

4 EMPIRICAL ANALYSIS

4.1 Regression Model Specification

The following regression analysis models are specified to examine the relationship between WCM practices and profitability of AIM listed SME.

$$IMIMP_i = \alpha + \beta_1 IMTARGET_i + \beta_2 IMALTER_i + \beta_3 IMSTRATEGY_i + \epsilon_i$$

$$RMIMP_i = \alpha + \beta_1 RMTARGET_i + \beta_2 RMALTER_i + \beta_3 RMSTRATEGY_i + \epsilon_i$$

$$PMIMP_i = \alpha + \beta_1 PMTARGET_i + \beta_2 PMALTER_i + \beta_3 PMSTRATEGY_i + \epsilon_i$$

$$CCCMIMP_i = \alpha + \beta_1 CCCMTARGET_i + \beta_2 CCCMALTER_i + \beta_3 CCCMSTRATEGY_i + \epsilon_i$$

All the variables are defined in Table 1.

4.2 Inventory Management and AIM listed SME Profitability

Questions 10, 11, 12 and 13 of the questionnaire asked respondents to indicate their practices on the management of inventory. Results show that IMTARGET and IMALTER appear to be significantly correlated with IMIMP. As shown in Table 4, by examining t statistics for the constant and three independent variables, estimated regression shows that estimated coefficient for

constants, IMTARGET, IMALTER and IMSTRATEGY were statistically significant at 1% level (as p value < 0.01). All significant variables had a positive effect on profitability. Estimated coefficient of correlation ($R = 0.72$) shows a reasonable linear correlation between inventory management and profitability. Estimated coefficient of determination, R^2 is 0.65 indicating that 65% variance of profitability (dependent variables) is explained by the variance of inventory management (independent variables). These positive relationships of IMTARGET and IMALTER with IMIMP illustrate that higher practices of target level and frequency of alteration of inventory improve profitability.

Table 4: OLS regressions – Inventory Management and AIM listed SME Profitability (Dependant variable – IMIMP)

Variables	Coefficient	Stan err	t	Sig
(Constant)	0.2238054	0.2708252	4.83	0.000
IMTARGET	0.4493293	0.1118890	4.02	0.000
IMALTER	0.5845901	0.1281903	4.56	0.000
IMSTRATEGY	0.2186878	0.1397224	1.57	0.122

Model fit:

R	0.72
R ²	0.65
Adjusted R ²	0.64

4.3 Receivables Management and AIM listed SME Profitability

Questions 14, 15, 16 and 17 of the questionnaire asked respondents to indicate their practices on the management of receivables. Results show that RMTARGET and RMALTER are significantly associated with RMIMP at the 1 percent level. As shown in Table 5, by examining t statistics for the constant and three independent variables, estimated regression shows that estimated coefficient for constants, RMTARGET and RMALTER are statistically significant at 1% level (as p value < 0.01). RMTARGET and RMALTER have positive effect on profitability.

Estimated coefficient of correlation ($R = 0.21$) shows a reasonable linear correlation between receivables management and profitability. Estimated coefficient of determination, R^2 is 0.12 indicates that 12% variance of profitability (dependent variable) is explained by the variance of receivables management (independent variables). The positive relationship of RMTARGET and RMALTER with RMIMP illustrates that higher practices of target level set for receivables improve profitability.

Table 5: OLS regressions – Receivables Management and AIM listed SME Profitability (Dependant variable –RMIMP)

Variables	Coefficient	Stan err	t	Sig
(Constant)	3.1405290	0.3929303	7.99	0.000
RMTARGET	0.2800298	0.1096123	3.55	0.003
RMALTER	0.0062837	0.1127729	0.06	0.006
RMSTRATEGY	0.0669647	0.1004879	0.67	0.507

Model fit:

R	0.21
R ²	0.12
Adjusted R ²	0.08

4.4 Payables Management and AIM listed SME Profitability

Questions 18, 19, 20 and 21 of the questionnaire asked respondents to indicate their practices on the management of payables. Based on Table 6, estimated regression shows that the coefficient for constant, PMTARGET and PMALTER are statistically significant at 1% level (p value < 0.01). The PMTARGET and PMALTER variables have positive effects on PMIMP while and PMSTRATEGY has no relationship with PMIMP. Results implied that higher practices of payables target set and alteration frequency by AIM listed SME firms enhances profitability. The estimated coefficient of correlation ($R = 0.35$) and the estimated coefficient of determination, ($R^2 = 0.29$) indicate a linear correlation between payables management and profitability.

**Table 6: OLS regressions – Payables Management and AIM listed SME Profitability
(Dependant variable – PMIMP)**

Variables	Coefficient	Stan err	t	Sig
(Constant)	2.1737290	0.3623325	6.00	0.000
PMTARGET	0.2874270	0.1191322	3.41	0.009
PMALTER	0.2172280	0.1164096	3.87	0.006
PMSTRATEGY	0.1556023	0.1105870	1.41	0.164
Model fit:				
R	0.35			
R ²	0.29			
Adjusted R ²	0.25			

4.5 Cash Conversion Cycle Management and AIM listed SME Profitability

Questions 22, 23, 24 and 25 of the questionnaire asked respondents to indicate their practices on the management of cash conversion cycle. Results show that CCMTARGET and CCMALTER are significantly associated with CCCMIMP. As shown in Table 7, by examining t statistics for the constant and three independent variables, estimated regression shows that estimated coefficient for constants, CCCMTARGET and CCCMALTER are statistically significant at 1% level (as p value < 0.01). All significant variables have positive effects on profitability. Estimated coefficient of correlation ($R = 0.52$) shows a reasonable linear correlation between cash conversion cycle management and profitability. Estimated coefficient of determination, R^2 is 0.48 indicating that 48% variance of CCCIMP (dependent variable) is explained by the variance of cash conversion cycle management (independent variables). These positive relationships of CCCMTARGET and CCCMALTER indicate that higher practices of target level and frequency of alteration of cash conversion cycle improve profitability.

Table 7: OLS regressions – Cash Conversion Cycle Management and AIM listed SME Profitability (Dependant variable – CCCMIMP)

Variables	Coefficient	Stan err	t	Sig
(Constant)	1.4592820	0.3244666	4.50	0.000
CCCTARGET	0.5026047	0.1558867	3.22	0.002
CCCALTER	0.1461575	0.1255606	3.16	0.004
CCCSTRATEGY	.2118457	.1319591	1.61	0.113
Model fit:				
R	0.52			
R ²	0.48			
Adjusted R ²	0.45			

5 SUMMARY AND CONCLUSION

In this study the focus was put to investigate the effect of WCM practices on profitability of SMEs listed on the AIM, from the perspective of financial directors. Although many researchers have empirically examined the WCM influence on profitability (Jose et al., 1996; Deloof, 2003; Padachi, 2006 Raheman and Nasr, 2007; Garcia-Teruel and Martinez-Solano, 2007; Nobanee, 2009; Falope and Ajilore, 2009; Kieschnich et al., 2006), only few have examined the WCM practices present in SMEs. This study was based on 72 responses from a questionnaire distributed to 248 AIM listed SMEs.

First, the regression analysis results showed that the target level set has an influence on profitability. These results indicate that firms, especially SMEs should endeavour to set target levels for inventory, receivables, payables and cash conversion cycle in order to maximise profitability. The setting of inventory level will help a firm to minimise the various cost of holding inventory such as warehouse, security, wear and tear, theft etc (Tauringana and Afrifa, 2013a). It will also avoid the prospect of unnecessarily tying funds that could have been invested in a profitable venture in inventory (Afrifa, 2013b). The setting of receivables level will assist a company to avoid the over-investment in customers. This is because firms that over-invest in customers should sort after external funds to finance the investment in customer.

The setting of payables level can help firms to balance the costs and benefits of using suppliers' credit as a source of finance and discount offered for early payment.

Second, the results indicate that the WCM alteration frequency practices enhance firm profitability. By frequently altering the level of WCM, firms are able to determine the appropriate level of WCM at each particular point in time. For example, by altering the level of receivables based on a customer's circumstance may help reduce the incidence of bad debt occurring (Afrifa, 2013c). Also, altering the level of payables can offer firms a good opportunity to take full advantage of the offer of payment discount by suppliers when the benefits outweigh the cost or demand the maximum credit period if that increases profitability.

Third, the regression results above do not support the idea that the particular strategy chosen by a firm affects profitability. Specifically, inventory management strategy, receivables management strategy, payables management strategy and cash conversion cycle management strategy do not influence firm profitability.

The study makes important contributions to the extant literature by providing evidence to show that the setting of target levels for inventory, receivables, payables and cash conversion cycle improves profitability. Also, the study shows that firms can improve their profitability by frequently altering their inventory level, receivables level, payables level and cash conversion cycle level.

In terms of its implications for SMEs and policy makers, overall the results imply that although the management of each WCM practices affect the profitability of SMEs, specific target level set and frequency of alteration are relatively more important. The study indicates that given the limited resources of SMEs, including management competency (Small Business Research Centre, 1992; Gockel and Akoena, 2002; Pansiri and Temtime, 2008) and equipment and technology (Abor and Quartey, 2010; Saleh and Ndubisi, 2006; Berisha-Namani, 2009)

there is the need to focus the deployment of resources to target setting and alteration frequency practices of WCM in order to maximise profitability.

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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 2

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 qualification
 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

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

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

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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

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Thank you for your help and participation