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Does Average Collection Period affect Profitability of Manufacturing and Allied companies listed on NSE?

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Abstract

The study sought to evaluate the effect of average Collection Period on Profitability of manufacturing and Allied companies listed on NSE. An explanatory research design was used. The area of interest was all the nine firms listed in NSE. The study utilized secondary data, which was acquired from manufacturing and allied firms' annual reports for the last ten years between 2009 and 2018. The data was then analyzed by employing descriptive as well inferential statistics with the support of Statistical software SPSS for statistical analysis. Additionally, descriptive statistics mainly focused on computation of mean, percentage, standard deviation as well as frequencies. Inferential statistics composed of correlation as well as multivariate regression parameters and coefficients. The study found that ACP has an inverse and significant influence on profitability (ROA) of manufacturing and allied firms cited in NSE ($\beta_1 = -2375624$; $p\text{-value} = 0.000$). The study therefore recommends that manufacturing and allied firms should minimize the period of time that their customers take to pay for goods sold to them. This can be achieved through increasing the efficiency of industrial operations. The management of firms should establish ways of increasing ACP so as to improve their firms' profitability.

Keywords: Average Collection Period, Profitability, Manufacturing, Allied and Nairobi Stock Exchange

1.0 Introduction

In the 21st Century's recessionary economic environment, there is necessity for positive cash flow and liquidity in all companies regardless of their size and sector of operation. Working The WCM influences the profitability level of a company (Sarbpriya, 2015). Often financial managers have encountered difficulties in achieving a desired tradeoff between liquidity and firm's profitability. The firm's profitability together with firm's risk and value is highly influenced by liquidity management level. The theory of risk and return holds that risk is directly proportional to profitability (return). This indicates that organizations with high risks register high rates of return. As a result, the level of working capital constituents ought to be as high as feasible in order to enhance profitability while also protecting the company from liquidity issues (Mifta, 2016).

Firms with positive working capital are in a position to cater for short term debts for example the debt from suppliers while those firms with negative working capital are not capable of meeting the short term obligations (Ali & Syed, 2014). Excess working capital on the one hand, shows possession of inactive current assets which does not yield any benefit for the company during the working period. Insolvency results from lack of enough capital which has high chances of harming the company's credit worthiness as well as the day-to-day activities. WCM is a key requirement and is very essential in corporate finance since it is concerned with making financial decisions as well as short term investments. A tradeoff between firms' liquidity and profitability is achieved through efficient WCM which entails planning as well as controlling of both the current assets and liabilities (Ngendakumana, Jagero & Gondo, 2017). Poor control of working capital elements (accounts receivable, account payable as well as inventories) results to challenges in the firm's operations and also decline in the company's market value.

1.2 Statement of the Problem

Companies in private sector have one common goal and that is to ensure maximum profit. Maintaining organization liquidity in the manufacturing sector is very essential as well and profit maximization at the expense of liquidity can affect the firm adversely as it can lead to the problem of insolvency or bankruptcy (Mifta, 2016). As a result, all firms should give more consideration to ACP. ACP is attained through division of the average balance of the account

receivable by the gross sales in credit for the period the multiplying the fraction by the number of days taken. (Ngendakumana, Jagero & Gondo, 2017).

Nevertheless, most financial executives are more concerned with making decisions on long term financial issues especially decisions related to capital structure as well as investment. Business failure in the past has been linked to poor control of WCM by financial executives. In the manufacturing and allied sector, five out of the eight listed firms saw a drop in profit in 2016. In 2017, two companies experienced a decrease in profitability measured in terms of net profit (Nairobi Security Exchange, 2018). In addition, the current ratio for all the manufacturing and allied firms decreased from 1.45 in 2015 to 1.41 in 2016 and 1.32 in 2017.

ACP is critical to the manufacturing sector's success and survival, and it must be embraced in order to improve performance and contribute to economic growth. Working capital management, which strives to maintain an ideal balance between each element of working capital, namely cash, receivables, inventories, and payables, is critical component of a company's overall value creation strategy and a key source of competitive advantage. In order to ensure liquidity in manufacturing sector, it is essential to understand how ACP affect profitability (NSE, 2018).

Nevertheless, a longer period of time can also imply worse problems or high probability of problems that may have adverse effect on organization performance. This study covered the period between 2009 and 2018. In addition, while Nduati (2014) measured profitability in terms of Gross Operating Profit, this study measured profitability using ROA. This study sought to evaluate the effects of WCM on profitability of manufacturing and allied firms listed at NSE (2009 -2018).

2.0 Review of Literature (Hypothesis Development)

2.1 Average Collection Period and Manufacturing and Allied firms' Profitability

The ACP involves the duration by a company to receive payments of goods sold on credit. The ACP is attained through division of the average balance of the account receivable by the gross sales in credit for the period the multiplying the fraction by the number of days taken. This measure is used in determination of how effectiveness of the firm's policies relating to credit granting and debt collection (Ngendakumana, Jagero & Gondo, 2017). The duration of time taken in converting the account receivable into cash flow is referred to the collection period. This is applicable in both personal transaction and organization's overall transaction history for the

duration of time. The less the period taken the more efficient the organization is in debt collection. Longer period of time taken in collection indicates many things but the key issues that the clients are not honest in honoring their debts (Kwaku & Mawutor, 2014). Nevertheless, a longer period of time can also imply worse problems or high probability of problems that may have adverse effect on organization performance.

In Pakistan, Nadeem, Shahzad & Javed (2017) researched on the influence of ACP on profitability of the textile sector. Secondary data were gathered and used for evaluation. Data were collected from companies' published annual reports during 2008-2012. Additionally, regression model was used for analysis. The results discovered that ACP is positively associated with organizations' corporate performance. Further, the study found out that the organization has a solid idea on how to collect efficiently collect debt. Furthermore, the results revealed that the industry extended interest-free loans to its customers.

Jakpar, Tingg and Siang (2017) examined the effect of ACP on companies' profitability in Malaysia. The research targeted 164 listed firms in Malaysia, with four years in operation from 2007. The study employed descriptive survey design. Findings showed negative as well as significant effect of ACP on organization profitability. Further, the research established that most of the customers in sector pay off their debts on time.

Kasozi (2017) investigated on influence of ACP on profitability of listed firms in South Africa. The research used a panel data methodology. Target area of interest comprised of 69 listed firms which have been in operation from 2007 to 2016. ACP was found to be negatively and significantly influencing profitability, this indicates that proper management of accounts receivable together with timely payment of creditors influence organization performance in a positive way. Moreover, the study found that purchases made by customers in the sector do not require a payment made in full at the time of purchase.

Kwaku and Mawutor (2014) researched on ACP and organization profitability in Ghana. The population consisted of five listed trading companies the data was for duration of 4 years from 2010. An ordinary linear time series regression model was used. ACP had influence on performance of listed companies. Further, the research showed that the firms ensured that customers meet the minimum credit requirement before issuance of products on credit.

In Zimbabwe, Ngendakumana, Jagero and Gondo (2017) researched on ACP and profitability companies in Zimbabwe. The research used a case study approach, correlation analysis and

linear regression analysis. Findings revealed weak negative association between ACP and profitability of smart bags manufacturing firm. In Meru County, Muturi, Kinyariro and Maina (2016) researched on ACP and tea companies' profitability. The study deployed descriptive research design. Simple linear regression analysis was utilized in describing the association between ACP and profitability. Findings revealed that ACP negatively influenced profitability, this indicates that the less the duration taken the high the profitability level.

H₀₁: Average Collection Period has no significant effect on Profitability of Manufacturing and Allied companies listed on NSE

2.2 Profitability of Manufacturing and Allied Firms

Profitability is the capability of an organization to make more income as compared to its expenses. Nduati (2014) argued that profitability refers to the capability of a firm to make profit. Organization profit is achieved through deducting the organization expenses from the revenue realized. Therefore organization income and expense is used in measuring profitability. The revenue realized from organization activities is referred to as income. Company performance and return on capital invested is directly proportional to the firm's profitability. In the manufacturing sector, organization revenue is realized through selling the manufactured goods. Organization expenses refer to the total costs of the used resources in the production processes, transportation, selling and administration. Mifta (2016) argued that for a firm to ensure continuity in its operations profit is a key requirement. Nevertheless, making loss in one financial year is not an indication that the business should be closed down or it is not viable but consistence loss spoil the business' reputation. Organization performance can best be measured through the profit realized. Hence the organization profitability is used in determining the firm's financial performance as well as the going concern of the firm in the business environment.

ROA is used in doing an analysis of the profitability of companies in the manufacturing sector. ROA is used to show the relationship between profitability and organization asset furthermore it shows the best way of utilizing organization assets to generate maximum profit. Ngendakumana, Jagero and Gondo (2017) indicated that ROA in an organization must be positive and standard figure for ROA is 10% to 12%. High ROA indicates that an organization is having increased return on invested capital which is better for the financial health of the company. WCM is essential in ensuring improved profitability in companies. Through ensuring a balance between

firms' profitability and liquidity, companies will be in a position to ensure optimal WCM. A balance always exists between liquidity and profitability (Fredrick, 2013). Benefiting from one means you have foregone the other. Organization profitability is ensured through proper WCM. Through effective WCM, an organization is in a position to increase profitability and hence ensure its survival in the industry.

3.1 Material/methods

This research employed an explanatory research design. Additionally, the study was performed to identify the nature and also the degree of cause-effect relationship between variables under investigation. Explanatory research can be conducted in order to assess an impact change on existing norms and various processes (Singpurwalla, 2013). This research design was appropriate as the researcher seeks to determine the influence of WCM on organizational performance of listed companies in NSE.

Pre-diagnostic time series tests such as stationary test, normality test and autocorrelation test, multi-collinearity test were performed on data to ascertain conformity to the model assumptions. The hypotheses in this study were tested using regression analysis results. The study used 95% confidence level and hence the significance level of 0.05. For the effect of independent variable on dependent variable to be considered statistically significant, p-value had to be not more than significance level of 0.05.

4.0 Findings and Discussion

4.1 Average Payment Period

Figure 4.3 shows the trend of average conversion period among manufacturing and allied firms quoted in NSE for the duration between 2009 and 2018.

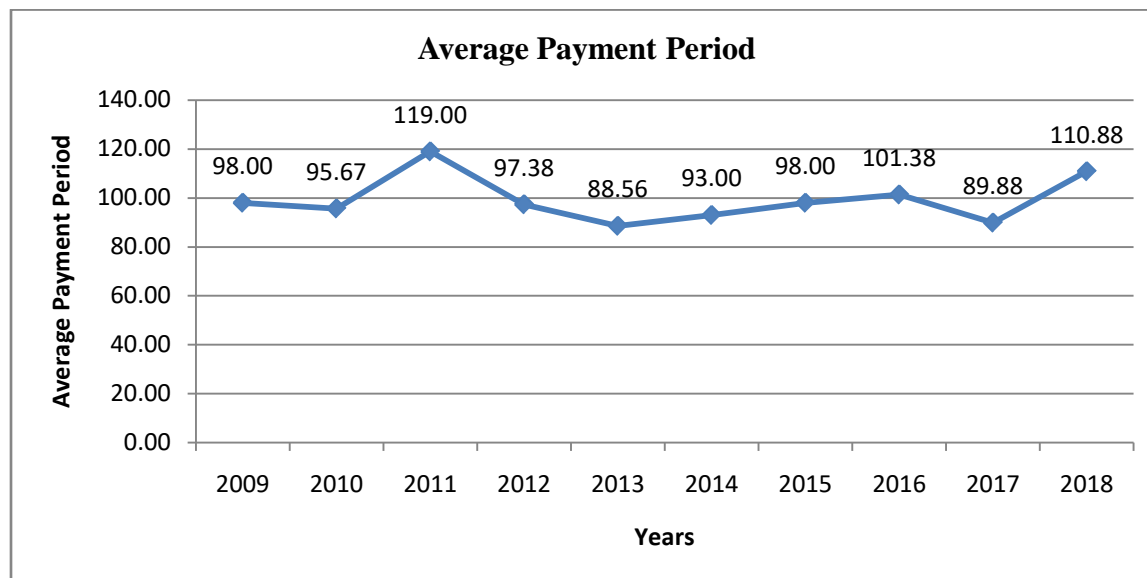


Figure 4. 1: Trend of Average Payment Period (2009-2018)

The average payment period among manufacturing and allied firms quoted in NSE in the year 2009 was 98.00, which increased to 95.67 in 2010 and 119 in 2011. The results further show that the average payment period decreased to 97.38 in 2012, 88.56 in 2013 and 88.56 in 2013. In the year 2014, the average payment period increased to 93.00, which later increased to 98.00 in 2015 and 101.38 in 2016. This figure then decreased to 89.88 in 2017, but later increased to 110.88 in 2018. Iqbal and Zhuquan, (2015) indicated that it is beneficial for an organization to manage the day-to-day account payable so as to ensure no problems are associated with the account.

4.2 Inventory Conversion Period

Figure 4.4 shows the trend of inventory conversion period among manufacturing and allied firms quoted in NSE for the duration between 2009 and 2018.

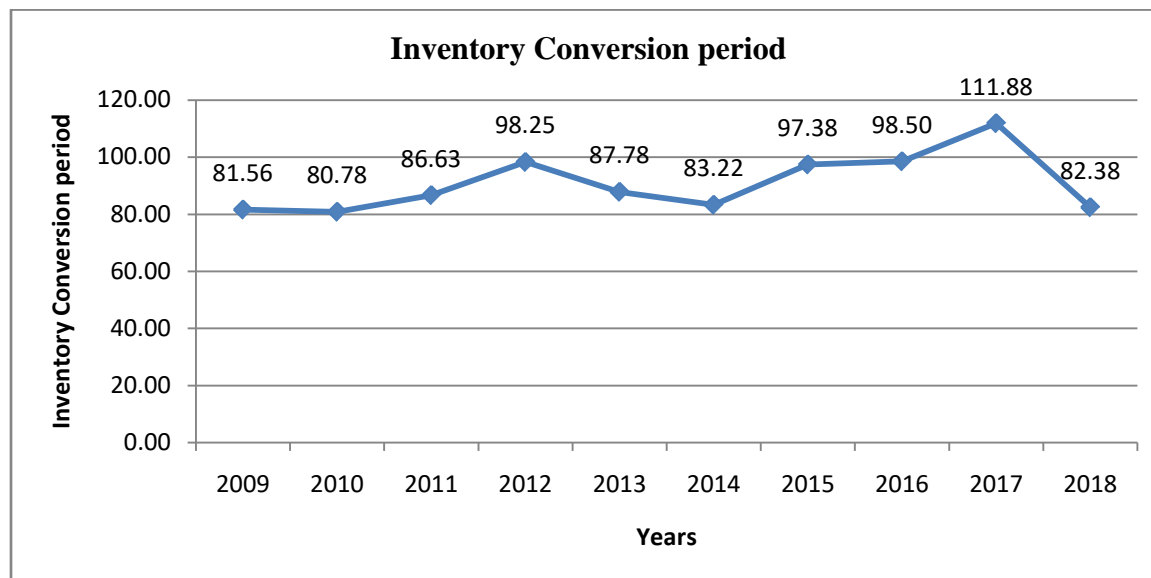


Figure 4. 2: Trend of Inventory Conversion Period (2009-2018)

According to the results, the average ICP among manufacturing and allied firms listed in NSE in the year 2009 was 81.56, which decreased to 80.78 in 2010, but increased to 86.63 in 2011, 86.63 in 2012 and 98.25 in 2013. In the year, 2013, inventory conversion period decreased to 87.78, which later decreased to 83.22 in 2014, but later increased to 97.38 in 2015, 98.50 in 2016 and 111.88 in 2017. However, the average ICP among manufacturing and allied firms quoted in NSE in 2018 was 82.38. Makori and Jagongo (2013) concluded that increase in inventory to a reasonable level increases the organization’s profit.

4.3 Average Collection Period

The trend of inventory conversion period among manufacturing and allied firms quoted in NSE for the duration between 2009 and 2018 is shown in Figure 4.5.

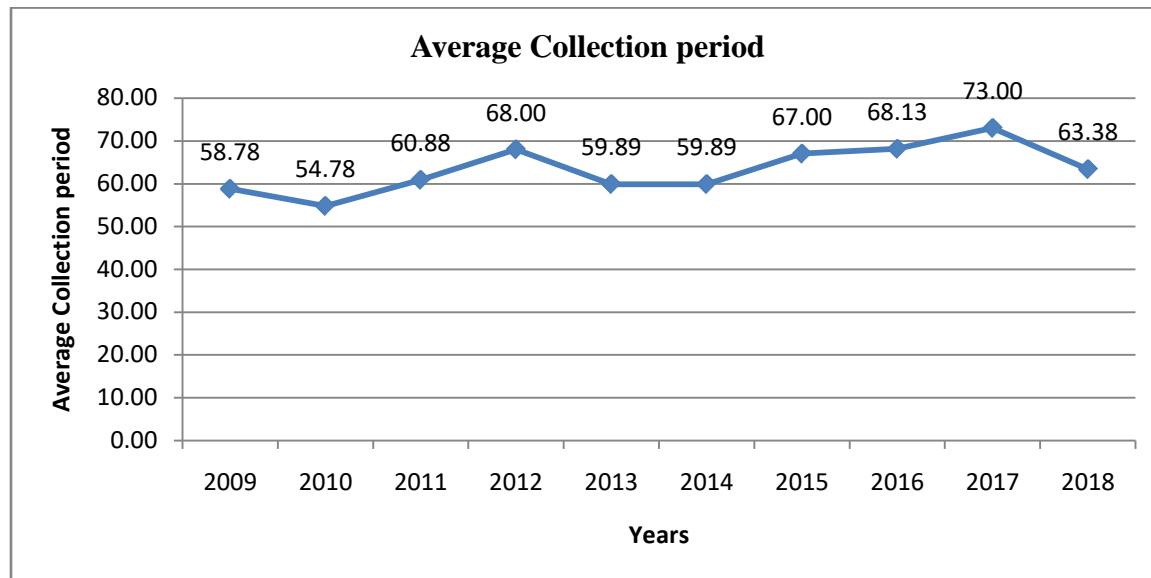


Figure 4. 3: Trend of Average Collection Period (2009-2018)

From the results, as shown in Figure 4.5, the average collection period among manufacturing and allied firms listed in NSE in the year 2009 was 58.78, which decreased to 54.78 in 2010, and later increased to 60.88 in 2011 and 68.00 in 2013. In the year 2013, the average collection period decreased to 59.89, remained constant in 2014, increased to 67.00 in 2015, 68.13 in 2016 and 73.00 in 2017. However, the average collection period among manufacturing and allied firms listed in NSE decreased to 63.38 in 2018. Jakpar, Tingg and Siang (2017) found that purchases made by customers in the sector do not require a payment made in full at the time of purchase.

4.4 Im-Pesaran-Shin Unit-Root Test

Variable	t-statistic	p-value	Fixed-N	exact	critical
			values	5%	10%
ACP	-2.1380	0.096	-2.320	-2.060	-1.930

In relation to the ACP, null hypothesis is that ACP in all panels (8 manufacturing and allied firms quoted in NSE contains unit roots and alternative hypothesis was that some panels are stationary. Since p-value (0.096) was greater than significance level of 0.05, we accept null hypothesis and hence Average Collection period has unit root (all panels contain unit root).

According to the findings, ACP has an inverse and significant effect on profitability (ROA) of manufacturing and allied firms quoted in NSE as indicated by beta coefficient of -

0.2375624. This means that unit increase in Average Collection Period (ACP) across time as well as panels (manufacturing and allied firms) would lead to a 0.2375624 decrease in profitability of firms. The association was significant as p-value (0.000) was less than significance level (0.05). Moreover, the findings conform to Kwaku and Mawutor (2014) findings that ACP had a negative influence on performance of listed companies in Ghana. In addition, Ngendakumana, Jagero and Gondo (2017) found that there a weak negative correlation between ACP and profitability of smart bags limited manufacturing firms.

Summary

Average Collection Period and Profitability

The study established that average collection period has an inverse and significant influence on profitability (ROA) of manufacturing and allied firms quoted in NSE. ACP is an important part of WCM because it determines a company's cash flow. It is the time span between when a credit facility is widened and when payment is actually received. A loosened credit policy may result in a rise in sales in industries with high competition, but it also raises the chance of loss because of client default. However, results of regression analysis show that in order to boost profitability, businesses should lower their debtor days. As a result, the prevailing inverse relation between the firm's profitability and receivable collection period will tend to lower the firms' profitability if the collection period of account receivable is high. The inference is that businesses do not need to use cautious credit techniques to reduce bad debts. This is because if the corporation goes forward and implements the conservative credit procedures of collecting receivables for the firm. However, with much favorable ad lenient policies, a firm can manage to increase its profitability.

The ACP involves the duration by a company to receive payments of goods sold on credit. The ACP is attained through division of the average balance of the account receivable by the gross sales in credit for the period the multiplying the fraction by the number of days taken. This measure is used in determination of how effectiveness of the firm's policies relating to credit granting and debt collection. The duration of time taken in converting the account receivable into cash flow is referred to the collection period. This is applicable in both personal transaction and organization's overall transaction history for the duration of time. The less the period taken the more efficient the organization is in debt collection. Longer period of time taken in collection indicates many things but the key issues that the clients are not honest in honoring their debts.

Nevertheless, a longer period of time can also imply worse problems or high probability of problems that may have adverse effect on organization performance.

Conclusion

The study concludes that the ACP has an inverse and significant influence on profitability (ROA) of manufacturing and allied firms listed in NSE. This means that an increase average collection period would decrease the profitability (ROA) of manufacturing and allied firms quoted in NSE.

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