The Relationship Between Receivables Management And Financial Distress Of Non-Financial Firms Listed At Nairobi Securities Exchange In Kenya

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Abstract—The failure of non-financial firms in Kenya is enormous. This has led to loss of investors' wealth and erosion of confidence in the capital market. The specific objective of this study was to establish the relationship between receivables management and financial distress of non-financial firms listed in the Nairobi Securities Exchange Market in Kenya. The study adopted panel (pooled) research design. A census of all the 41 non-financial firms listed at (NSE) as at December 2016 constituted the population of study in the period 2007 to 2016. The study used secondary data which was extracted from the financial statements and published annual reports of individual companies using secondary data collection sheet. Descriptive statistics and multiple regression analysis techniques were used to analyze the data. Fixed effects model was used to model the relationship among the study variables. The F- test was used to determine the significance of overall model; while the t- test was employed to establish the significance of the independent variable. The results of this study were expected to mitigate losses through establishing cash management techniques for use in financially distressed non-financial firms trading on NSE. The study found that receivables management had a negative and significant relationship with financial distress. The study therefore recommended that in order to mitigate financial distress among non-financial listed firms average collection period (a proxy for receivables management) should be reduced.

Keywords—Receivables management, debt service coverage, average collection period, financial distress

1.1 Introduction

Failure of non-financial firms in Kenya is enormous. According to Mahama (2015) there has been several corporate failures throughout the world. Corporate failure is enormous especially for the stakeholders of public held companies (Madhushani & Kawshala, 2018). In Africa financial distress has affected numerous local banks, many of which have been closed down by the regulatory authorities or have been restructured under their supervision (Brownbridge, 1998). The author observed that the causes of financial distress among African banks include: insider lending, lending to high risk borrowers, macroeconomic instability, liquidity support and prudential regulation.

In Ethiopia the manufacturing firms experience financial distress situation due to low level of debt service coverage (Basa, 2011). Financial reports of manufacturing firms show that on average the debt service coverage ratio is less than 50% (Basa, 2011). Hence the available cash cannot cover the principal and interest on the bank loan. The liquidity status of the firms, measured by current assets to current liabilities is below the industry average. Since liquidity is not maintained a number of highly leveraged firms are not able to renegotiate their debt agreement if they have breached contract, instead they go for reorganization, acquisition, merger or liquidation. In 2009, when the Ethiopian government reduced subsidy for raw material price locally and increased tax burden, this increased the cost of production and squeezed profitability. This made many companies suffer big losses and shortage of cash. Low volume of liquidity and negative cash flow combined with high
leverage leads to financial distress (Outecheva, 2007).

In Ghana, cases of corporate failures include the Gateway Broadcasting Services, Ghana Cooperative Bank, Bank for Housing and Construction, National Savings and Credit Bank (Appiah, 2011). In the same vein, the acquisition of Merchant Bank Ghana Ltd. by Fortiz Private Equity Fund Ltd. is another case of corporate failure (Mahama, 2015). Among the reasons cited for the sale of Merchant Bank was solvency and liquidity challenges faced by the bank (Bank of Ghana, 2013). This indicates poor working capital management which led to the sale of the bank.

In Nigeria, many firms are facing challenges of inadequate working capital or illiquidity (Takon & Atseye, 2015). The mismanagement of working capital amongst firms has caused some promising investments with high rate of return to be failures and frustrated out of business (Olugbenga, 2010).

Since independence, Kenya has faced many cases of financial distress of listed firms. This is evidenced by some companies undertaking financial restructuring and others being placed under receivership and subsequently delisted (Ong’era et al., 2017). Firms that have shown an increasing trend of failure include Uchumi supermarkets, Mumias sugar and A- Baumann (Maina & Sakwa, 2010). According to Gibendi, (2015) firms that have undergone financial distress include Mumias sugar company, Webuye Paper Mills, Muhoroni Sugar Company, Uchumi Supermarket and Kenya Meat Commission.

While a firm is trying to maintain liquidity in its daily operations as to meet its short-term obligations, asset-liability mismatch occurs which increases firms profitability in the short-run but at the risk of bankruptcy (Anand & Gupta, 2002). Takon and Atseye (2015) have shown that firms should choose what amounts of cash, accounts receivable and inventories that they should maintain given the level of sales and cost considerations. High current ratio provides a firm with low probability of financial distress (Tesfamariam, 2014).

Mathuva (2009) examined the influence of working capital management components on financial profitability using a sample of 30 firms listed at NSE for the periods 1993-2008. Using the pooled ordinary least squares and fixed effects regression models the study found that there exists a highly significant negative relationship between when it takes a firm to collect cash from their customers and profitability. Therefore the study found a significant negative relationship between average collection period and profitability.

Falope and Ajilore (2007) used a sample of 50 Nigerian quoted non-financial firms for the period 1996-2005. Using panel data econometrics in a pooled regression, the study found a significant negative relationship between net operating profitability and cash conversion cycle, inventory turnover in days, average collection period and average payment period for the sample of 50 Nigerian firms listed on the Nigerian Stock Exchange. Therefore the study found a negative and significant relationship between profitability and average collection period.

1.2 Statement of the Problem

The motivation to carry out the present study was informed by many corporate failures in the Kenyan Capital market. Moreover, for the firms that have gone into receivership only a handful of the companies have managed to come out of it in sound financial health (Maina & Sakwa, 2010). Most of the non-financial listed firms face challenges in balancing between surplus and shortage of cash. Consequently, the firms experience failure due to inability to pay daily expenses of their operations and difficulty to exploit new markets and undertake profitable projects due to shortage of cash resulting from poor cash management.

It is however notable that in spite of receivables management being such a critical determinant of a firm’s health, past empirical studies have failed to provide conclusive evidence on how receivables management influences financial distress. In spite of the studies employing different proxies of financial distress such as profitability, firm value, liquidity and growth in stock returns, inconsistent results have been obtained. A study carried out by Falore and Ajilore (2007) shows a significant negative relationship between net operating profitability and the average collection period, inventory turnover, average payment period and cash conversion cycle.

Dong and Su (2010) showed a significant and negative relationship between receivable collection period, inventory collection period, cash conversion cycle and profitability. However, the study found a significant and positive relationship between days of payables outstanding and profitability.

In his study of the relationship between profitability and accounts receivables Bavelid (2012) aimed at investigating how public listed firms in Netherland manage their working capital. The study compared two periods; the non-crisis period of 2004 to 2006 and the financial crisis period of 2008 to 2009. The study found a significant negative relationship between accounts receivable and gross operating profit during non-crisis period. However, during the crisis period no significant relationship between accounts receivables and gross operating profit was observed.

The majority of past empirical studies have analyzed the relationship between receivables management and firm performance based on different indicators of financial health of a firm. The measures mostly used have been based on profitability, liquidity, firm value, earnings per share and stock returns. This approach according to Muigai (2016) provides a limited scope of establishing the overall corporate
financial health and quality. The present study sought to address this gap by adopting the Altman’s Z-score to proxy for financial distress of non-financial firms listed at NSE in Kenya. This is on the premise that the Altman Z-score model is based on MDA statistical technique that provides a suitable mechanism of discriminating between financially healthy and financially distressed firms (Muigai, 2016).

Moreover, most of the empirical studies conducted to establish the relationship between receivables management and firm performance belong to developed countries. In developing countries studies on relationship between receivables management and financial distress of non-financial listed firms is limited.

Generally the insufficient research on the relationship between receivables management and financial distress involving non-financial firms listed at NSE in Kenya and the knowledge gap in this area informed the study. Therefore, this study sought to establish the relationship between receivables management and financial distress of non-financial firms listed at NSE in Kenya.

1.3 Specific objective
To determine the relationship between receivables management and financial distress of non-financial firms listed at NSE in Kenya

1.4 Hypothesis
Ho: receivables management has no statistically significant effect on financial distress of non-financial firms listed at NSE in Kenya

Literature Review.

2.1 Introduction
The chapter began by theories advanced in the area of receivables management. Subsequently, a conceptual framework was developed which formed the basis and linkages in establishing existing relationships among study variables. The chapter also covered empirical review, critique of existing literature and research gap on receivables management which was filled by the present study.

2.2 Theoretical Literature
A theory is a set of interrelated concepts, definitions and propositions that present a systematic view of events or situations by specifying relations among variables in order to explain and predict events or situations (Van & Heaney, 1992). Theoretical literature is concerned primarily with theories or hypotheses rather than practical application. Several theories establish relationships between receivables management and financial distress of firms. Some of the theories were discussed with their implications of financial distress.

2.2.1 Cash Management Theory
The cash management theory is concerned with the managing of cash flows into and out of the firm; cash flows within the firm and cash balances held by the firm at a point by financing deficit or investing surplus cash (Kipruto, 2013). Short term management of corporate cash balances is a major concern of every firm. This is so because it is difficult to predict cash flows accurately, particularly the inflows, and there is no perfect coincidence between cash outflows and inflows (Aziz & Dar, 2006). During some periods cash outflows will exceed cash inflows because payments for taxes, dividends or seasonal inventory will build up. At other times cash inflows will be more than cash sales and debtors may realize in large amounts promptly (Pandey, 2005). An imbalance between cash inflows and outflows would mean failure of receivables management function of the firm. Persistence of such an imbalance may cause financial distress to the firm and, hence, business failure (Aziz & Dar, 2006).

2.2.2 The Baumol-Allais-Tobin Model
The model analyses the cash management problems of firms. It can be used to establish the target cash balances of firms. The model describes cash management and the general current asset management (Kamara, 2014). For firms to determine optimum cash position, they must consider costs; opportunity cost, trading cost and total cost (Kamara, 2014). Opportunity cost is the cost uncured for holding of cash. Interest is the opportunity forgone for holding of cash. Trading cost is the cost incurred when trading in marketable securities during the fiscal period. Total cost is the sum of the opportunity cost and trading cost (Kamara, 2014). According to Jordan et al., (2010) the theory’s weakness is that it assumes a steady and certain cash outflow.

2.2.3 The Miller – Orr Model
This model operates in terms of the upper and lower limits of the firm’s cash balance. Hence firms allow their cash balance to wander around between the upper and the lower limits. As long as the cash balance is between the upper limit and the lower limit, everything is fine (Kamara, 2014). If the cash balance reaches the upper limit firms’ management buy marketable securities to bring cash balance back to its normal level. Moreover, when cash balance reaches the lower limit firms’ management sell marketable securities to bring the cash balance back to normal level (Jordan et al., 2010).

2.3 Conceptual framework

![Figure 2.1 Conceptual Framework](image)

**Figure 2.1 Conceptual Framework**
2.4 Empirical Literature

2.4.1 Receivables Management

The third largest and most important item of assets in firms is the accounts receivable besides the capital investment in plant and machinery, stocks of inventory (Mathur, 2003). The provision of trade credit is normally used by businesses as a marketing strategy to expand or maintain sales (Pandey 2004). Costs of cash discounts, losses of bad debts and costs of managing credit and credit collections constitute the carrying costs associated with granting credit which increases when the amount of receivables granted is increased (Wambuugu, 2018). Lost sales resulting from not granting credit to customers constitute the opportunity cost which decrease when the amount of receivables is increased. Firms that are efficient in receivables management usually determine their optimal credit levels which minimizes the total costs of granting credit (Ross et al., 2008). Efficient receivables management involves a shortened creditor’s collection period, low levels of bad debts and a sound credit policy which often improves the businesses’ ability to attract new customers and accordingly increase financial performance (Ross et al., 2008). Accounts receivable management entails managing the firm’s inventory and receivables in order to achieve a balance between risk and returns and thereby contribute positively to the creation of a firm’s value (Kennedy, 2014). It includes selecting the good credit customers and speeding up the collections from the customers (Shim & Siegel, 2000).

In making credit granting decision, net present value (NPV) technique is used (Pandey, 2010). If NPV is positive then credit is granted, otherwise credit is denied. NPV is the subtraction of present value of lost investment in payment not received from receivables from present value of payment received from receivables. According to Brealey et al., (2004) receivable management involves the following steps: first, firms should decide the sales terms on which they sale their goods to their customers. Second, firms should have decision making on what evidence the firm requires from their customer who owes the payment. Third, firms should analyze the risky customers and non-risky customers. This is called credit analysis. Fourth, firms make the sales on credit and have the problem of collecting the payment when the bills become due. This is called the collection policy.

According to Pandey (2010) increase in the investment in accounts receivable results into two things: first, the marginal rate of return falls. Second, risk increases so the required rate of return increase as shown in figure 2.2.

![Figure 2.2: Optimum level of receivables: Source Pandey (2010)]

From figure 2.6 the optimum investment lies at a level of investment below that which maximizes operating profit. In the figure operating profit is maximum at the point where incremental rate of return is zero.

According to Wanjiku (2013) the standard measure of receivables management is the Average Collection Period (ACP). ACP is the time taken to collect cash from customers (Mathuva, 2009).

2.4.2 Financial Distress

Financial health of firms is a very crucial indicator of the company’s performance to investors as well as management. Investors prefer to devote their capital to those companies which are financially healthy as risk of default is kept to the minimum for the firms. The area of financial distress has been researched by various researchers but little effort has been made by the studies to establish the relationship between receivables management and financial distress of non-financial firms listed at Nairobi Securities Exchange Market (NSE) in Kenya. Financial distress is defined as a situation where a firm’s operating cash flows are not sufficient to satisfy current obligations and the firm is forced to take corrective action (Westefield & Jaffe, 2005).

Financial distress can be subdivided into four sub-intervals: deterioration of performance, failure, insolvency and default (Outecheva, 2007). Whereas deterioration and failure affect profitability of the company, insolvency and default are rooted in the company’s liquidity. Failure is a situation when the realized rate of return on invested capital, with allowance for risk consideration, is significantly and continually lower than prevailing rates on similar rates on similar investments (Altman & Hotchkiss, 2005). In the circumstances the financial ratios of the company reflect revenues insufficient to cover costs and the average return on investment lies far below the cost of capital (Outecheva, 2007). Under insolvency a company faces a serious problem of lack of cash flows generated from operating activity (Altman & Hotchkiss, 2005). Insolvency is categorized into flow based and stock based. Stock based insolvency implies that the market value of the company’s assets
is less than the face value of its debt leading into negative economic worth. Flow based insolvency occurs when the operating cash flows are insufficient to cover current obligations (Ross et al., 2002). This leads to a cash shortage together with a debt overhang (Uhrig-Homburg, 2004).

Insolvency leads to default which signifies the peak of distress development. Default contains an important message to all recipients of the company’s financial information. Before default investors have incomplete information about the true magnitude of the adverse processes inside the distressed company, the intensity of financial distress as well as the time until default and the probability whether default will happen (Giesecke, 2005).

2.4.3 Relationship Between Receivables Management and Financial Distress

Failure by a firm to meet its current obligation signals a high probability of financial distress. This means that receivables are an important determinant of financial distress.

A study carried out by Jose et al., (1996) examined the relationship between aggressive receivables management and profitability of United States firms using cash conversion cycle as a measure of receivables management. The results of the study were a significant negative relationship between the cash conversion cycle and profitability. However, a study by Kennedy (2014) found that more aggressive receivables management is associated with higher profitability. Using sample of 131 listed companies in Athens Stock Exchange Lazaridis andTryfundi (2006) also investigated the relationship between accounts receivables management and corporate profitability. The study which covered the period 2001-2004 used regression analysis to show that there was a statistically significant relationship between gross operating profit (a measure of profitability) and the cash conversion cycle. However, Raheman and Nasr (2007) investigated the relationship between cash conversion cycle and its components using a sample of 94 firms listed on Karachi Stock Exchange to find that cash conversion cycle is negatively related to net operating profit.

Waweru (2011) studied the relationship between receivables management and the value of companies quoted at the NSE using a sample of 22 companies. The study that covered 7 years from 2003 to 2009 used regression models to indicate that there was some relationship between receivables management and the firm’s value. The study’s Pearson correlation indicated a negative relationship between average cash collection period, inventory turnover in days, cash conversion cycle and the value of the firm. Research has shown that when a firm extends the accounts receivables period through the use of credit sales, the risk of collecting the outstanding receivables increases significantly (Tsai, 2011).

Samiloglu and Demirgunes (2008) examined the relationship between working capital components and profitability. The study concluded that accounts collection periods and inventory conversion periods are negatively related to profitability. Hence the shorter the average collection period the more profitable was the firm.

Ikram et al., (2010) studied 14 firms from cement industry in Pakistan in the period 2004 to 2009. The study used receivables days, current ratio payable days, inventory days, current ratio, liquid ratio and current assets to total assets ratio to predict the behavior of the return on investment. Employing regression analysis and correlation analysis to measure the relationship between the variables, the study concluded that the relationship between the study variables and return on investment is moderate. Hence from the study the relationship between average collection period and return on investment was moderate.

In his study of the relationship between profitability and accounts receivables Baveld (2012) aimed at investigating how public listed firms in Netherlands manage their working capital. The study compared two periods; the non-crisis period of 2004 to 2006 and the financial crisis period of 2008 to 2009. The study found a significant negative relationship between accounts receivable and gross operating profit during the crisis period. However, during the crisis period no significant relationship between accounts receivables and gross operating profit was observed.

Mathuva (2009) studied the influence of working capital management components on corporate profitability using a sample of 30 companies listed on the NSE in the period from 1993 to 2008. The study found that there is a highly significant negative relationship between accounts collection period and profitability. However, the study found a positive and significant relationship between profitability and the inventory conversion period.

Wambugu (2013) sought to determine the effects of working capital management practices on profitability of small and medium enterprises in Kenya. The study found that average receivables period had a negative and significant relationship with profitability.

The reviewed literature indicate that the majority of past empirical studies have analyzed the relationship between receivables management and firm performance based on different indicators of financial health of a firm. The measures mostly used have been based on profitability, liquidity, firm value, earnings per share and stock returns. This approach according to Muijai (2016) provides a limited scope of establishing the overall corporate financial health and quality. The present study sought to address this gap by adopting the Altman’s Z-score to proxy for financial distress of non-financial firms listed at NSE in Kenya. This is on the premise that the Altman Z-score model is based on MDA statistical technique that provides a suitable mechanism of discriminating between
financially healthy and financially distressed firms (Muigai, 2016).

Moreover, the reviewed literature shows that most of the empirical studies conducted to establish the relationship between receivables management and firm performance belong to developed countries. In developing countries studies on relationship between receivables management and financial distress of non-financial listed firms is limited.

Generally the insufficient research on the relationship between receivables management and financial distress involving non-financial firms listed at NSE in Kenya and the knowledge gap in this area informed the study. Therefore, this study sought to establish the relationship between receivables management and financial distress of non-financial firms listed at NSE in Kenya.

3. Methodology

A research design is the process that the investigator will follow from the inception to the completion of the study (Cooper & Schindler, 2011; Kothari, 2011). It is therefore the heart of planning for research work to undertaken. According to Kothari (2011) a research design is a plan of research that is used to answer the research objectives. It gives direction and makes research systematic. A research design determines work involved in the project, estimating costs involved, preparing time schedule and verifying results (Omari, 2015). A research design is the structure, or the blue print of research that guides the process of research from the formulation of the research questions and hypotheses to reporting the research findings (Wanjiru, 2015). The study adopted panel (pooled) research design. This is because the design enables collecting and analyzing data from several units (firms) over several periods of time (Muigai, 2016). The research design is suitable in studies where both cross-sectional and longitudinal characteristics of the units being studied are required (Gujarati, 2003).

Panel data estimation technique was adopted by the study. This is because the technique takes care of heterogeneity associated with individual firms by allowing for individual specific variables (Muriithi & Waweru, 2017). Moreover, by combining time series of cross sectional observations, panel data provides more informative data, more variability, less collinearity among variables, more degrees of freedom and more efficiency (Muriithi & Waweru, 2017). Further, panel data enriches empirical analysis in such a way that may not be possible if either only time series data or cross sectional data is used (Ogboi & Unuafye, 2013). The study employed secondary data that was extracted from audited financial statements and annual reports of non-financial firms listed at NSE in Kenya over the 10-year period, 2007 to 2016.

3.1 Model Specification

The study adopted panel data estimation technique to establish the relationship between receivables management and financial distress of non-financial firms listed at NSE in Kenya. The panel regression equation differs from a regular time series or cross- section regression by the double subscript attached to each variable. The general form of the panel data model is

\[ Y_{it} = \beta_0 + \beta_1 X_{it} + e_{it}. \]

\(i\) = the cross – sectional dimension. It represented 1 to 41 non-financial firms listed at NSE in Kenya.

\(t\) = time series dimension. It represented the study period in years which was a ten year period from 2007 to 2016.

\[ Y_{it} = \text{financial distress of non-financial listed firm } i \text{ at time } t. \]

\(\beta_0\) = the model constant or intercept term

\(\beta_1\) = the coefficients of explanatory variables

\(X_{it}\) = the independent variables in the model.

\(e_{it}\) = random error term

To test the influence of receivables management on financial distress of non-financial firms listed at NSE in Kenya the study employed equation (ii):

\[ Y = \beta_0 + \beta_1 X + e. \]

Where:

\(Y\) = financial distress of non-financial firms listed at NSE in Kenya

\(\beta_0\) = the intercept term

\(\beta_1\) = coefficient of cash management

\(X\) = receivables management measured by average collection period

\(e\) = random error term

4. Research Findings and Discussion

4.1 Correlation Analysis

Karl pearson’s product moment correlation coefficient was used to infer the nature of the relationship between receivables management and financial distress of non-financial firms listed at NSE in Kenya. The result was shown on table 4.1

<table>
<thead>
<tr>
<th>Table 4.1 Correlation Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial distress</td>
</tr>
<tr>
<td>---------------------</td>
</tr>
<tr>
<td>Financial distress</td>
</tr>
<tr>
<td>Average collection</td>
</tr>
<tr>
<td>period</td>
</tr>
</tbody>
</table>


This analysis was meant to find out whether there was a relationship between receivables management (independent variable) and financial distress (dependent variable). Table 4.1 showed that there was a negative relationship between receivables management and financial distress of non-financial firms listed at NSE in Kenya.

4.2 Regression Analysis

Panel regression analysis was employed on the panel data for a ten year period from 2007 to 2016. A linear regression using a feasible generalized least square (FGLS) estimation procedure for the relationship between the independent variable measured by average collection period (ACP) and the dependent variable measured by Z-score was summarized on table 4.2.

Table 4.2: FGLS -Financial Distress and Receivables Management

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>t-statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average collection period</td>
<td>-0.01380</td>
<td>0.002307</td>
<td>-5.9817</td>
<td>0.0000</td>
</tr>
<tr>
<td>Constant</td>
<td>4.8697</td>
<td>0.2335</td>
<td>20.85</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

From table 4.2 a linear regression model of the form $Y = \beta_0 + \beta_1 X + e$ was fitted as:

$$Y = 4.8697 - 0.01380X.$$  

The table indicated that receivables management was significant at 5% significance level. This is because the p-value was 0.0000<0.05. Moreover, the regression coefficient for receivables management was negative. Therefore, the study findings revealed that receivables management had a negative and statistically significant effect on financial distress of non-financial firms listed at NSE in Kenya. The results indicated that a 1% increase in average collection period leads to an average of 1.4% increase in financial distress. This was because as average collection period increased the Z-score decreased. Hence, average collection period and financial distress were inversely related. The study findings were in consonance with prior studies; Deloof (2003), Raheman and Nasr (2007), Gill et al., (2010), Sayhir et al., (2011), Charitou et al., (2010), Karaduman et al., (2011), Hussain et al., (2011), Mojtabahzadeh et al., (2011). The studies found that average collection period (a measure of accounts receivables) have a significant negative relationship with the firm’s profitability. Moreover, the present study’s findings were consistent with the trade – off theory. If the trade-off theory holds, then profitability should be negatively correlated with the firm’s liquidity which is measured by average collection period (Jakpar et al., 2017).

Table 4.3 Model Summary – Financial Distress and Receivables Management

<table>
<thead>
<tr>
<th>Model</th>
<th>R-squared</th>
<th>Adjusted R-squared</th>
<th>Std. error of regression</th>
<th>Sum of squared resid</th>
<th>F-statistic</th>
<th>Prob. F-stat.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.7372</td>
<td>0.7065</td>
<td>1.7737</td>
<td>1104.24</td>
<td>24.013</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

From table 4.3 the coefficient determination of 0.7372 showed that 73.7% of total variation in financial distress of non-financial firms was explained by receivables management. The F-statistic obtained was 24.013 and was significant at 5% significance level as supported by a p-value of 0.0000. This indicated that the model was a good fit.

Test of hypothesis

The study sought to test the hypothesis that receivables management has no statistically significant effect on financial distress of non-financial firms listed at NSE in Kenya. Table 4.4 showed the wald test output.

Table 4.4: Test of hypothesis – Financial distress and Receivables management

<table>
<thead>
<tr>
<th>Wald test:</th>
<th>Test statistic</th>
<th>value</th>
<th>probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>t-statistic</td>
<td>-5.982</td>
<td>0.0000</td>
<td></td>
</tr>
<tr>
<td>F-statistic</td>
<td>35.78</td>
<td>0.0000</td>
<td></td>
</tr>
</tbody>
</table>

Null Hypothesis: C(2) = 0

Null Hypothesis Summary:

<table>
<thead>
<tr>
<th>Normalized Restrictions (=0)</th>
<th>value</th>
<th>Std. error</th>
</tr>
</thead>
<tbody>
<tr>
<td>C(2)</td>
<td>-0.01380</td>
<td>0.002253</td>
</tr>
</tbody>
</table>

Restrictions are linear in coefficients

From table 4.4 the t-statistic was found to be significant at 5% level. Moreover, the coefficient of receivables management (C2) was tested to be -0.03138. This led to the rejection of the null hypothesis HO: $\beta_2 = 0$. Hence, receivables management as a study variable was a significant variable that must be considered when studying financial distress of non-financial firms listed at NSE in Kenya. Since F-statistic was significant at 5%, the null hypothesis H0: $\beta_0 = \beta_2 = 0$ was rejected in support of the alternative that at least one coefficient of the model is greater than zero. This meant that the model between financial distress and receivables management was significant at 5% level.

5. conclusion and Recommendation

5.1 Conclusion

The analysis of panel data together with test of hypothesis revealed that receivables management had a negative and significant effect on financial distress of non-financial firms listed at NSE in Kenya.
5.2 Recommendations

The study recommended that listed firms should embrace robust receivable management techniques. This would be through reduction in average collection period. This would in turn reduce financial distress of the firms. This is because the study findings revealed that receivables management was a negative and a statistically significant predictor of financial distress of the firms. To reduce financial distress the study findings indicated that the firms should reduce their average collection period.

5.3 Suggestion for Further Research

The study was carried out in Kenya. This was due to budgetary and time constraints the researcher faced. Hence the applicability of the study results may be limited to Kenya. Hence a comparative analysis of the relationship between working receivables management and financial distress of non-financial firms listed in other countries should be undertaken.

REFERENCES


