Financial Distress Factors And Market Capitalization Of Non-Financial Firms Listed At Nairobi Securities Exchange; Kenya

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Abstract:
The firms listed in the NSE are supposed to serve as investment vehicles for the public and they are supposed to be managed professionally in order to attract investor confidence and safeguard the public's interest. The literature shows that publicly traded firms do encounter financial distressed from time to time but does not conclusively determine whether or not such situations affect the returns of equity stocks issued by the firms. Therefore, the general objective of this study is to examine the effect of financial distress factors on market capitalization of non-financial firms listed at Nairobi Securities Exchange; Kenya. The specific objectives were to examine effect of liquidity level on market capitalization among non-financial firms listed in NSE, evaluate the effect of financial leverage on market capitalization among non-financial firms listed in NSE, examine the effect of operational efficiency on market capitalization among non-financial firms listed in NSE and examine the effect of profitability on market capitalization among non-financial firms listed in NSE, Kenya. The study was guided by Shiftability theory, buffer theory of capital adequacy, Wrecker's theory of financial distress and trade off theory. The study adopted descriptive survey design. The study narrowed on the 11 listed commercial and services firms which is one of the clusters of non- financial firms. The study utilized census method therefore; all the 11 listed commercial and services firms were studied. The study utilized secondary that was collected from NSE handbook between 2017 and 2021 for 9 firms. The quantitative data collected was analyzed using descriptive statistics and inferential statistics. The findings revealed that financial distress factors have an effect on market capitalization of commercial and services firms listed at NSE although there was mixed outcome in regards to significant effect and direction. Profitability (positive), financial leverage (negative) and liquidity levels (positive) were found to have significant effect whereas operational efficiency was found to have insignificant positive effect. Therefore, commercial and services firms listed at NSE are struggling with financial leverage and operational efficiency as financial distress factor which affects their market capitalization. The study recommended that managers of listed firms should ensure that they invest excess liquid in productive assets. The amount of debt finance in the financial mix of the firm should be at the optimal level to ensure adequate utilization of the firms' assets and reduce the effect of financial distress on market capitalization. A policy on efficient management should be put in place for listed firms' operational expenses to as to reduce their expenses against gross income. Management of listed firms are recommended to utilize their assets in a profitable manner so as to increase return on asset and return on equity.
Key Word: *Financial Distress Factors, Market Capitalization, Liquidity Level, Financial Leverage, Profitability*

I.   Introduction

The capital market in any country is one of the major pillars of long term economic growth and development. The market serves a broad range of clientele including different levels of government, corporate bodies, and individuals within and outside the country. For quite some time, the capital market has become one of the means through which foreign funds are being injected into most economics, and so the tendency towards a global economy is more feasible/ visible there than anywhere else. It is, therefore, quite valid to state that the growth of the capital market has become one of the barometers for measuring overall economic growth of a nation. Thus, an increase in the market share of a public limited liability company through the sales of its shares increases its capital base and encourages expansion leading to a higher level of growth and productivity (Onchangwa & Memba, 2018).

The main purpose of any firm is to enhance its shareholders' wealth. Investors, management and other stakeholders need to be aware of the company's performance to enable them make informed decisions about the future. Rational investors expect good long term return on their investment. Chauhan and Patel (2018) observed that maximizing market capitalization is becoming the new co-operate standard. Hartomo (2015) opines that, creation of shareholder value is becoming increasingly challenging as owners and managers are forced to make appropriate financial decisions that contribute to the management of operations that create value and also identify activities that destroy value. In addition it is necessary to implement effective instruments which are able to evaluate real value created.

Financial distress has characterized the corporate sector for many years. In recent times, the world has witnessed numerous cases of failure among globally reputed firms. These corporations were regarded as icons of corporate financial stability and their collapse came with tremendous surprise to researchers and analysts alike. When a firm is under financial distress, the situation frequently sharply reduces its market value, suppliers of goods and services usually insist on cash on delivery terms, and large customer may cancel their orders in anticipation of not getting deliveries on time (Almeida & Philippon, 2016).

A number of organizations listed at the NSE such as Uchumi Supermarkets Limited, Kenya Airways, Mumias Sugar Limited, and Express Kenya Limited etc. have gone through cycles of financial distress in the recent past arising from a myriad of factors. A research project on the effect of financial distress on the value of the firm, therefore, presents a pool of knowledge for companies listed at the NSE to establish if they are in distress and if so, how their values are affected and how to rectify the situation. Further, this study presents a perfect opportunity for assessing how firms operating in highly turbulent and competitive environment as well as with inherent operational risks may be affected by financial distress. These circumstances may be worsened if the firms are highly leveraged. High operational risks coupled with high debt levels may lead to financial distress leading to negative return on equity. These factors exacerbated by negative perception in the market, loss of market share and imminent low investor confidence often lead to depreciation of the value of the company (Muigai & Muriithi, 2017).

An analysis on the Nairobi Securities Exchange reveals that at least 13 listed companies have undergone financial challenges between 2011 and 2016 (ROK, 2018). Further, more than 56 % of the companies listed in NSE had declining trend on their market capitalization for the years 2013,2014, 2015, 2016 and 2017 (CMA, 2018). There is thus need for the Nairobi securities exchange to come in handy and look at the financial circumstances of these firms in order to protect the interest of investors while the capital markets authority should regulate these institutions by providing guidance on proper financial management (NSE, 2018).

Firms quoted in Nairobi Securities Exchange did experience financial distress from time to time to which there was minimal reaction from market observable in terms of movement of stock returns. Koske, Tuwei and Kimwolo (2019) examined whether there's a relationship between stock market liquidity and the likelihood of financial distress among listed firms in Kenya. The study found a negative and significant effect of stock market liquidity on likelihood of financial distress. This finding revealed that stock market liquidity plays an important role in enabling firms to be financially stable and reduces chances of becoming financially distressed.

Financial distress is a global crisis reflected on the existing cases of corporate failure and bankruptcy. This can be traced back to historical dates as early as 1970s in connection to past financial crisis experienced by economies and commercial entities globally (Anderson, 2013; Hinds 1988). FD is a state that depicts an economic hitch in the operations of an entity and if successful turnaround is not administered on a timely basis the financial condition matures to events of default, absence of going concern, several attempts of recovery and restructuring strategies, operational inefficiency, incurring distress costs and liquidation (Carmassi & Patti, 2015; Muller, Steyn-Bruwer & Hamman, 2012). Distressed firms commonly experience traits such as; low or no value creation, high financial leverage as well as insufficient liquidity, a combination that eventually leads to exit options from an existing market share (Sitati &Odipo, 2009; Palinko & Svoob, 2016; Shaukat & Affandi, 2015). On the same note, other undertakings such as mergers and acquisitions, joint ventures, strategic alliances, delisting from the bourse, liquidation or major restructuring becomes subsets of business firms in grey zones headed to become distressed if not yet (Khaliq, Altarturi, Thaker, Harun, & Nahar, 2014; Muller et al., 2012).

The probability of distress in a trading organization is associated with high fixed costs, a number of illiquid assets compared to liquid assets and increased revenue sensitivity directly or indirectly influenced by economic recessions (Khaliq et al., 2014). Leveraged firms with compelling amounts of debt increase the probability of financial distress to a significant extent and this leads to other related costs such as; loss of exclusive financing, opportunity costs of projects, demotivated workforce due to lost confidence and bankruptcy costs (Berk et al., 2013; Khaliq et al., 2014). Volatility of operating profit is also a major determinant as to whether an entity is likely to encounter financial distress in the near future since it is directly proportional to increased susceptibility of business failure (Khaliq et al., 2014; Sporta, 2018). Financial distress contributes to volatility in cash flows which reduces return on equity and exposes creditors to credit risk (Brown, Ciochetti & Riddiough, 2006). This translates to possible balance sheet conflicts in form of either negative working capital or outstanding non-current

financial obligation (Carmassi & Patti, 2015: Outecheva, 2007). Carmassi and Patti (2015) identifies internal and external business

Statement of the Problem

The firms listed in the NSE are supposed to serve as investment vehicles for the public and they are supposed to be managed professionally in order to attract investor confidence and safeguard the public's interest. One of the possibilities of investor to achieve the greatest return on investment made is to gaining understanding of the investment decision (Ronoh 2014). However, Market capitalization, which measures shareholder's wealth, stood at about 2.1 trillion shillings (about 20.6 billion U.S. dollars), as at Dec. 24, 2018 NSE trading, having shed off some eight billion dollars since April 2018. In April, the index hit a high of 29 billion dollars, market data shows. On the other hand, the NSE All Share Index stands at an average of 140 points, which is 17 percent lower year-to-date while the NSE 20 Share Index, which measures stocks of the best performing blue-chips, dropped below the psychological 2,800 points. The index has fallen 25 percent year-to-date. The index on Dec 24, 2018 stood at 2,796.72 and like the rest of the indices; it is highly unlikely that it will rise significantly before the end of 2018. Nairobi Securities Exchange Market Capitalization was reported at 2,425.530 KES bn in Mar 2022. This records a decrease from the previous number of 2,492.460 KES bn for Feb 2022.

In regards to commercial and services listed firms at Nairobi Security Exchange, three firms have been so far suspended from trading at bourse due to financial distress. Insolvent Deacons (East Africa) was suspended from trading on the NSE-2018. Uchumi was suspended from trading shortly after it closed its stores in June 2006, on failing to meet its financial obligations. Trading in Kenya Airways (KQ, Nairobi Jomo Kenyatta) shares has been suspended for another year until January 5, 2024, as the technically insolvent airline continues its restructuring (NSE, 2022).

The literature shows that publicly traded firms do encounter financial distress from time to time but does not conclusively determine whether or not such situations affect the returns of equity stocks issued by the firms. A total of 21 listed firms have either been placed under receivership, undertaken financial restructuring or delisted from NSE altogether since independence (CMA, 2019). Existing studies have not conclusively and exhaustively examined the relationship between financial distress and market capitalization. Majority of the study have focused on determinants of financial distress (Ikpesu, 2019; Ndungu, 2019) as well as influence of financial distress on financial performance (Sporta, 2018; Wu, Shao & Zhang, 2020). Further, majority of these studies have focused on listed firms leaving a significant knowledge gap in regards to the effect of financial distress factors on market capitalization of non-financial firms listed at Nairobi Securities Exchange; Kenya.

Objectives of the Study
i)   To examine the effect of liquidity level on market capitalization of non-financial firms listed at Nairobi Securities Exchange; Kenya.
ii) To evaluate the effect of financial leverage on market capitalization of non-financial firms listed at Nairobi Securities Exchange; Kenya.
iii) To examine the effect of operational efficiency on market capitalization of non-financial firms listed at Nairobi Securities Exchange; Kenya.
iv) To examine the effect of profitability on market capitalization of non-financial firms listed at Nairobi Securities Exchange; Kenya.

II. Literature Review

Theoretical Framework
Trade-Off Theory

The theory was advanced by Kraus and Litzenberger (1973). According to trade-off theory firms usually choose how much debt finance or equity finance to use by looking at advantages and disadvantages of both debt and equity. According to Kraus and Litzenberger (1973) trade-off theory is applied in a situation where the firm works towards striking a balance between taking advantage of tax shield on interest expense arising from debt financing and the actual cost of the debt. Companies will use debt but will be cautious of any risks that could come due to bankruptcy. At this point, the tax saving from other additional debts equals to costs that will arise from an increase in the likelihood of financial distress arising (Wang & Sheikh, 2011). So long as a company uses debt effectively, shareholders benefit from more debt than equity (Baker & Martin 2011). The theory is applicable since the quoted firms that carefully select equity and debt levels for as a measure of financial leverage. Trade-off theory actually supports the leverage to construct capital structure by assuming leverage-benefits. Optimal level of leverage is achieved by balancing the benefits from interest payments and costs of issuing debt. Financially, debt is considered beneficial because of the debt-tax-shields that help to minimize expected tax bills and maximize the after-tax cash flows. Trade-off theory hence predicts the cost and benefit analysis of debt financing to achieve optimal capital structure as firm specific financial factors.

Shiftability Theory

Shiftability Theory was proposed by Dodds in 1982. The theory states that liquidity is maintained if it holds assets that can be shifted or sold to other investors for cash or lenders for cash. The arguments indicate that a firm's liquidity can be enhanced if it has assets to sell or stands ready to purchase the asset offered for discount. This identifies and states that shiftability or transferability of assets is the basis for improving liquidity. Obilor (2013) adopted the theory to explain the impact of liquidity management on the profitability of banks in Nigeria. The theory was analyzed using short term funds, cash balances, bank balances treasury bills and profit after tax. Findings shows that liquidity management is a crucial problem in profitability hence recommended for optimal level of liquidity to maximize profitability. The theory has been adopted to explain influence of liquidity on market capitalization of listed firms. The shiftability approach allows firms to efficiently run with small amount of reserves or by making long term investments on assets. Firms can attempt to prevent liquidity crisis by always selling their securities at good prices as presumed by the shiftability theory. That is, firm hold assets that are marketable and their convertibility will not be at a discount. The theory ensures firms are liquid by assisting in the shiftability of assets (Koranteng, 2015).

Theory of Efficient market hypothesis (EMH)

Operational efficiency deals with the cost of transferring funds. In the theoretical world of perfect capital markets, transaction costs are assumed to be zero and markets are perfectly liquid, implying perfect operational efficiency. According Fama (1973), there three efficiencies in a firm; operational efficiency, allocative and pricing efficiency. The basic idea underlying the EMH developed by Eugene Fama in 1970 is that asset prices promptly reflect all available information such that abnormal profits cannot be produced regardless of the investment strategies utilized. Fama (1973) distinguished between three forms of market/pricing efficiency based upon the level of information used by the market: weak form, semi-strong, and strong form market efficiency. to survive, prosper and reduce the effects of financial distress; firms have to produce their output from input efficiently. Operational efficiency therefore, can be used as a proxy for competitive advantage, which affects the firm's current profitability and its future potential performance. This theory reflects efficiency as a key factor in financial performance of an organization, making investment choices by using all the available information reflected in the security prices. Further EMH indicates that poor operational efficiency may be costly to the firm, as a result, lead to financial distress due to high cash outflows for operational costs and this means that all forms of efficiency; operational, pricing and allocation efficiency are necessary for firms in order to reduce the effects of financial distress.

Wrecker's theory of financial distress

The wrecker's theory was developed initially by Campbell, Hilscher and Szilagy (2005) suggested that stocks of distressed firms perform in a manner which is vastly inferior to stocks of financially healthy firms. The wreckers' theory of financial distress seeks to explain the benefits that may step out of financial distress to stakeholders (Kalckreuth, 2005). This theory contributes to an efficient-market interpretation of an important stock market and normally it links work on private benefits to the literature on the empirics of asset pricing and that the financial distress and the probability of default may be important for determining the size of private benefits of control (Kalckreuth, 2005). Kalckreuth (2005) argued that with an increasing probability of default, there is a greater incentive to withdraw resources from the firm as private and non-dividend benefits. Shareholders will feel the full opportunity costs only in states where default does not occur. If default is certain, withdrawing resources is a free lunch. In this theory, this is termed "wrecking". According to Wrecker's theory therefore, asset quality is a significant factor of financial distress. With higher leverage, volatility of share prices increases with respect to private information; the ultimate fate of the firm depends on issues unknown to the general public (Nyamboga et al., 2014). Since investors or shareholders will start demanding for returns on their investments, there will be frequent withdrawals in terms of loans, advances and bank runs; consequently, the firm will be financially distressed, as it will be required to make huge payments to the shareholders.

Conceptual Review

A conceptual framework illustrates the researcher's combination on how to explain a phenomenon and the expectations of results to be derived from a study. It shows how the researcher's variables connects with each other. Conceptual framework is meant to assist the researcher on how to identify variables in a study (Regoniel, 2015). It is a way of determining the rough value of a company. A higher market capitalization indicates a more valuable company.
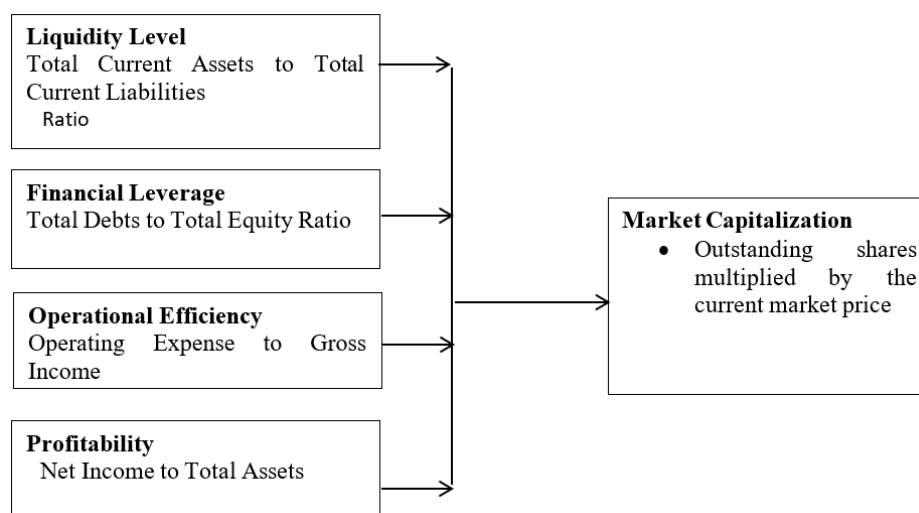
Independent Variables   Dependent Variable

Figure 1.0: Conceptual Framework

Empirical Review
Liquidity Level and Market Capitalization
Jihadi, Vilantika and Sholichah (2021) examine the effect of liquidity on firm value. The results show that the ratios of liquidity, activity, leverage, and profitability are significant to firm value in accordance with the initial hypothesis of the study. Putri and Rahyuda (2020) examined and analyzed the effect of liquidity, profitability, the size of the firm and its value in market capitalization. The results of this study indicate that liquidity, profitability, and firm size significantly influence market capitalization. Capital structure is not a mediator of the influence of liquidity and profitability on firm value, while the capital structure is a mediator of the effect of firm size on firm value. Contradicting results have been revealed by other studies. Example, Abubakar, Sulaiman and Haruna (2018) examined the Effect of Firms Characteristics and market capitalization of Listed Insurance Companies in Nigeria. The results of the study revealed that liquidity and Age have significant negative impact on financial performance of insurance companies in Nigeria. Waswa, Mukras and Oima (2018) used a cross-sectional retrospective research design was used for this study where the effect of liquidity was assessed in relation to financial performance of sugar industry in Kenya. The results reveal that liquidity current liability coverage ratio is negatively correlated with firm performance, indicating that a higher value of liquidity current liability invariably influences a firm's financial position

Financial leverage and Market Capitalization
Kumar, Bhatia and Chattopadhyay (2021) examined the relationship between the market value added and degree financial leverage, degree of operating leverage, and asset turnover ratio of the listed firms in India. We also reported an insignificant relationship between market value added and degree of operating leverage. Our results indicate that promoters holding and firm sizes are important factors driving the performance of the firms listed in India. Zimny (2021) examined the impact of leverage on the market valuation of companies. The results of data analysis showed that financial leverage capital has significant effect on the trend of stock price volatility in listed companies in Tehran Stock Exchange. Nyawira (2017) evaluated the relationship that exists between capital requirement set by the Central Bank of Kenya and the financial performance for the Kenyan banking sector. The findings of the study were that there was a significant negative relationship between leverage and financial performance as measured by ROA and ROE but the relationship was insignificant as measured by NIM.

However, some studies have revealed positive relationship between leverage and firm performance. Almajali, Alamro and Al-Soub (2012) investigated the factors that mostly affect financial performance of Jordanian Insurance Companies. The study population consisted of all insurance companies' enlisted at Amman stock Exchange during the period (2002-2007) which count (25) insurance company. The results showed that leverage have a positive statistical effect on the financial performance of Jordanian Insurance Companies. Goel, Chadha and Sharma (2015) analysed the impact of financial leverage on various measures of operating liquidity. Further, the study examined the effect of both operating liquidity and financial leverage on the firm's performance. It was found that financial leverage has significant impact on different measures of operating liquidity. Further operating liquidity and financial leverage have considerable impact on performance of the Indian machinery firms.

Operational efficiency and Market Capitalization

Chortareas, Girardone and Ventouri (2012) investigated the dynamics between bank regulatory and supervisory policies associated with Basel II's three pillars and various aspects of banks' cost efficiency and performance for a sample of European Union's (EU) commercial banks over the period 2000-2006. Findings suggested that interventionist supervisory and regulatory policies such as empowering capital restrictions, fortifying official supervisory powers, private sector monitoring and restricting bank activities, can impede the efficient operation of banks. Chortareas, Girardone and Ventouri (2012) further noted that high operating efficiency reduces the effect of financial distress. The produced evidence also suggested that banks from countries with more open, competitive and democratic political systems are more likely to benefit from higher operating efficiency levels. From this study it can be argued that operational efficiency is a key factor of financial distress and market capitalization. However, the study of Chortareas, Girardone and Ventouri (2012) was mainly based on a sample of EU commercial banks and findings cannot be generalized for the Kenyan banking industry being a developing country.Ongore and Kusa (2013) concluded that efficiency is one of the key internal factors that determine bank market capitalization. However, Ongore and Kusa (2013) argued that operational efficiency is one of the complex subjects to capture with financial ratios. Moreover, operational efficiency in managing the operating expenses is another dimension for management quality. The management has the capability to deploy its resources efficiently, income maximization; reducing operating costs can be measured by financial ratios. Ongore and Kusa (2013) further suggested that the ratio of operating expenses to total asset is expected to be negatively associated with market value. The study did not link operational efficiency as a factor of financial distress and the findings could not be generalized to indicate distress in banking industry.

Profitability and Market Capitalization

Al-Nimer and Alslihat (2016) examined the effect of profitability ration on market capitalization in the Jordanian insurance companies listed in Amman stock exchange (ASE) by examining time series data collected over a period of four years from (2010 – 2013) which included 25 companies and utilizing content analysis to extract the data from the company's annual reports. The finding indicated that there's an effect of Return on Investment (ROI) upon market capitalization for the companies operating in the insurance sector listed in the ASE. Reschiwati, Syahdina and Handayani (2020) shown that market capitalization has positive relationship with ROI while negative relationship with credit risk, inflation, and year dummy for the Middle Eastern banks. Furthermore, no relationship has been observed between market capitalization and the ROA, ROE, growth and exchange rate for the Middle Eastern banks. Shawer and Al-Ajlouni (2018) explored the relationship between the profitability (measured by ROI, ROE and NPR)and the stock market prices of the Petrochemical Industry Firms in Saudi Arabia during the period 2008-2015. The study confirms that the stock prices of petrochemical companies listed in the Saudi Stock Market does not reflect the profit performance on the market price of the stocks. The affection trend on the profit performance is varied by different profitability measures. Leman, Suriawinata and Noormansyah (2020) aimed to determine the effect of profitability on firm value in the automotive industry sector listed on the Stock Exchange in 2014-2018. The results of this study indicate that first, capital structure affects firm value. This indicates that increasing DER will result in good management, which can increase company profits, thereby increasing company value. Second, profitability has a negative effect on firm value.

III. Material and Methods

A descriptive research design was adopted in this study. By adopting descriptive research design, the study was able to establish whether financial distress has an effect on market capitalization of non-financial firms listed at Nairobi Securities Exchange. This study's population comprised of the 11 commercial and services firms listed at the NSE. Since the target population is less than 100, according to Mugenda and Mugenda (2008), a census of all the 11 listed commercial and services firms were studied. Data can be collected from either primary or secondary sources. Secondary data was used while conducting this research, by collecting information from the published financial statements of the 11 commercial and services firms listed at the NSE. In this study the secondary data was collected for each variable. The secondary data collected was based on a five-year period between January and December of the year 2017 to 2021. Both descriptive and inferential statistics were computed using STATA 15. Descriptive statistics refer to methods of organizing and summarizing data, for this study frequencies and percentages as well as measures of central tendency (means) and dispersion (standard deviation) was used. Inferential statistics refer to methods of drawing conclusions from sample data about a population. For this study, regression and correlation analysis was used to determine both the nature and the strength of the relationship between study variables. Correlation analysis is usually used together with regression analysis to measure how well the regression line explains the variation of the dependent variable. The regression and correlation analyses were based on the association between two (or more) variables. Data was presented in form of tables and model.

$Y = \beta_0 + \beta_1 X_{it} + \beta_2 X_{it} + \beta_3 X_{it} + \beta_4 X_{it} + \varepsilon$

Where:
Where: Y = Market Capitalization
α = is the constant which denotes the intercept
β_1, β_2, β_3, β_4, =are regression coefficients to be estimated of each explanatory Variable are
        X_1 = Liquidity Level X_2 = Financial Leverage
        X_3 = Operational efficiency X_4 = Profitability
        i=is the listed Non-financial firm   t=time in year
        ε = error term

IV. Result and Discussion

Descriptive Analysis

        Table 1 below is a representation of descriptive statistics and distribution of variables as considered for this study: liquidity level, financial leverage, operational efficiency and profitability on market capitalization. The descriptive statistics considered were mean, maximum, minimum, standard deviation, skewness and kurtosis. The results are shown in Table 1.

Table 1: Descriptive Statistics

Stats	Liquidity	Financial Leverage	Operational Efficiency	Profitability	Market capitalization
N	45	45	45	45	45
Min	0.001508	-33.1651	-6.9308	-0.57609	133,000,000
Maximum	3.115085	6.586766	36.06839	0.213369	49,100,000,000
Mean	1.187734	-0.43042	-0.74889	0.02039	6,290,000,000
Std Dev.	0.701483	1.43428	2.0914	0.130577	9,640,000,000
Skewness	0.675022	0.176308	0.051735	1.326016	1.440387
Kurtosis	2.48304	1.750556	1.58277	3.396664	4.040366

        This study considered nine commercial and services firms listed at NSE, whose variables were studied over 5 years (2017–2021), making a total of 45 observations. The summary of their characteristics is as presented in Table 1. Observing overall statistics as obtained from panel data from 2017 to 2021, market capitalization (proxied outstanding shares multiplied by share price) ranged from 133,000,000 to 49,100,000,000 with a mean of 6,290,000,000. The distribution had a standard deviation of 9,640,000,000. During study period, 2017-2021, operational efficiency ranged from -96.8308 to 36.068 with a mean of -0.74889 and standard deviation of 2.0914. Between 2017 and 2021, liquidity level ranged from 0.001508 to 3.115085 with a mean of 1.187734 and a standard deviation of 0.701483. In regards to financial leverage, it ranged from -33.1651 to 6.586766 with a mean of -0.43042 and standard deviation of 1.43428. Lastly, profitability ranged from -0.57609 to 0.213369 with a mean of 0.02039 and standard deviation of 0.130577.

Inferential Analysis
Correlation Analysis

        Correlation analysis provides a value that shows whether changes in the dependent variable are caused by changes in the independent variable. The correlation coefficient then measures the linear association between two variables (Crossman 2013). Correlation coefficients are numerical values indicating the direction of and strength of a relationship between two variables. If equal to 1, there is a strong and positive relationship; if 0, there is no relationship; and if -1, there is a strong, negative relationship.

Table 2: Pearson Correlation Analysis

		Market Capitalization	Liquidity	Financial Leverage	Operational Efficiency
Market Capitalization	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	45			
Liquidity	Pearson Correlation	0.5496**	1		
	Sig. (2-tailed)	0.0001			
	N	45	45		
	Pearson Correlation	-0.4731**	-0.423**	1	

Financial Leverage	Sig. (2-tailed)	0.001	0.0038		
	N	45	45	45	
Operational Efficiency	Pearson Correlation	0.5646**	0.569**	-0.3303*	1
	Sig. (2-tailed)	0.0001	0.000	0.0267	
	N	45	45	45	45
Profitability	Pearson Correlation	0.663**	0.7054**	-0.5461**	0.6741**
	Sig. (2-tailed)	0.000	0.000	0.0001	0.000
	N	45	45	45	45

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

As indicated in Table 2, there is significant positive relationship between profitability and market capitalization as indicated by0.663, p=0.000. This implies that increase in profitability would results to increase in market capitalization of commercial and services firms listed at NSE. Similarly, a correlation coefficient of 0.5646**, P=0.000 implied that there is significant positive relationship between operational efficiency and market capitalization. Therefore, increase in operational efficiency would results to increase in market capitalization of commercial and services firms listed at NSE. From the correlation Table 2, financial leverage is negatively correlated to market capitalization of DTS the coefficient is -0.4731 (p value < 0.05) this is significant at 95% confidence level. Thus, increase in financial leverage would make market capitalization to decrease. However, the correlation coefficient for liquidity level was 0.5496, P=0.0001, suggesting that there is significant positive relationship between liquidity level and market capitalization. Increase in liquidity level would results to increase in market capitalization.

Inferential Analysis
Unit Root Test
Stationarity test was utilized in determining if the statistical characteristics such as variance, mean, as well as autocorrelation change with the passage of time. The test results for the augmented Dickey–Fuller test unit root are shown in Table 3. Panels with unit roots were discarded because the p-values for all variables were less than 0.05. With this, the panel data for all the variables became stationary. The results are indicated in Table 3.

Table 3: Unit Root Test

Augmented Dickey–Fuller test			
Variable	**Hypothesis**	**p value**	**Verdict**
Liquidity	Ho: Panels contain unit roots	0.0340	Reject Ho
Financial Leverage	Ho: Panels contain unit roots	0.0001	Reject Ho
Operational Efficiency	Ho: Panels contain unit roots	0.0450	Reject Ho
Profitability	Ho: Panels contain unit roots	0.0054	Reject Ho
Market Capitalization	Ho: Panels contain unit roots	0.0003	Reject Ho

Hausman Test (Choice of Model)
A Hausman test was carried out to determine whether to use the fixed effect or random effect model to address objectives of this study. Under the test, the null hypothesis is that there is no significant correlation between the individual effects and the independent variables. Results in the table 4 indicated a prob>chi2 value of 0.0044 which is less than critical P value at 0.05 level of significance which implies that the null hypothesis that a random effect model is the best was not supported. The study hence used a fixed effect regression model. The results are indicated in Table 4.

Table 4: Hausman Test

Coefficients ----				
	(b) **Fixed**	**(B)** **Random**	**(b-B)** **Difference**	**sqrt(diag(V_b-V_B))** **S.E.**
Liquidity	6.91829	0.52468	6.39361	0.050263
Financial Leverage	-0.1457	-0.0098	-0.13593	0.002153
Operational Efficiency	0.00208	0.00428	-0.0022	0.000628
Profitability	0.39204	0.21712	0.17493	0.018028
b = consistent under Ho and Ha; obtained from xtreg				
B = inconsistent under Ha, efficient under Ho; obtained from xtreg				

Test: Ho: difference in coefficients not systematic
chi2(4) = (b-B)'[(V_b-V_B)^(-1)](b-B)
= 13.642
Prob>chi2 =   0.0044

Linear Regression

Fixed effect model was estimated between financial distress factors (profitability, operational efficiency, financial leverage and liquidity level) and market capitalization. Panel regression was conducted to determine whether there was a significant effect of financial distress on market capitalization. Table 5 presents the regression model on financial distress with market capitalization.

Table 5: Regression Fixed Effect of Financial distress on Market capitalization

Fixed-effects (within) regression				Number of obs =		45
Group variable: DTS				Number of groups =		9
R-sq:				Obs per group:		
within = 0.8971				min =		5
between = 0.6934				avg =		5
overall = 0.4341				max =		5
corr(u_i, Xb) = -0.9303(assumed)				F(4,32)=		69.77
				Prob > F=		0.000
ROA	**Coef.**	**Std. Err.**	**T**	**P>t**	**[95% Conf. Interval]**	
X1	6.918292	0.976	7.09	0.000	4.930246	8.906338
X2	-0.145679	0.057	-2.55	0.019	-0.195980	-0.0953774
X3	0.00208	0.002	0.83	0.413	-0.00303	0.007195
X4	0.392042	0.050	7.79	0.000	0.2894768	0.494609
_cons	-2.26575	0.690	-3.28	0.001	-3.61859	-0.91292

The analysis shows that the panels were strongly balanced for this multivariate analysis as shown by the number of observations per group. They were a total of 45 observations used in this analysis considering 9 groups of entities implying strongly balance panels. The minimum, maximum and average numbers of observations per groups were all equal to 5. The result obtained from fixed effect model indicated that the determinants accounted for 43.41% (Overall R square=.4341) of the variation in market capitalization of commercial and services firms listed at NSE. The F-statistic to the model shows is $F_{(4,32)}= 69.77$ which is greater than 0 implying that the estimated parameters in the model are at least not equal to zero. This implies that four financial distress have an influence on market capitalization of commercial and services firms listed at NSE. This influence is significant (P=0.0000). The study regression model as obtained from table above is as shown below.

$Y=-2.26575+6.918292X_1-0.145679X_2+0.00208X_3+0.392042X_4$

Where Y is the market capitalization,

$\quad\quad$ X_1 is Liquidity level

$\quad\quad$ X_2 is Financial Leverage

$\quad\quad$ X3 is Operational efficiency

$\quad\quad$ X_4 is Profitability

The results revealed that liquidity level had a regression co-efficient (β_1) of 6.918292, p=0.000 implying that when financial leverage, profitability and operational efficiency are controlled, a unit increase in liquidity across time and among commercial and services firms listed at NSE would result in significant increase of 6.918292 units in market capitalization. The results are supported by Jihadi, Vilantika and Sholichah (2021) showed that the ratios of liquidity, activity, leverage, and profitability are significant to market capitalization in accordance with the initial hypothesis of the study. Putri and Rahyuda (2020) examined and analyzed the effect of liquidity, profitability, the size of the firm and its value in market capitalization. The results of this study indicate that liquidity significantly influence market capitalization. However, some studies have indicated that liquidity has insignificant effect on performance. Vaita (2017) sought examine the effect of liquidity on the firm value of tier one listed commercial banks in Kenya. The study concluded that liquidity management is not a contributor alone of the firm's market capitalization and there exist other variable that will influence market capitalization.

From the findings, financial leverage had a regression co-efficient (β_2) of 0.145679, p=0.019 implying that when operational efficiency, liquidity level and profitability are controlled, a unit increase in financial leverage across time and among commercial and services firms listed at NSE would result in a significant decrease of 0.145679 units in market capitalization. The current study aconcurs with Demirhan (2014) whose findings indicated that leverage as a financial distress factor has a positive relationship with financial performance. Demirhan (2014) found that high leverage was inversely correlated with firm financial performance during

financial crisis period and managing a reasonable amount of debt in the capital structure should be another consideration for finance managers. In addition, the results of the current study were in agreement with the pecking order theory by Stewart and Nicholas (1984). The theory asserts that use of leverage is less costly than any other source of external finance and as a result, leverage as a financial distress factor will positively affect financial performance However, Nyamboga et al (2014) based on non-financial firms listed in NSE, disagreed that leverage does not have significant influence on corporate financial distress and financial performance. The findings also contradicted those of Hussain and Fayyaz (2015); Innocent and Nnagbogu (2014) whose studies that were based on commercial banks in Pakistan and Nigeria respectively found that financial leverage has a significant negative relationship with firm's performance as measured by ROA. The current study also disagreed with Chinedu and Nnagbogu (2014) who in their study of the effect of financial leverage on financial performance of companies in Nigeria found out that financial leverage has no significant effect on financial performance of the sampled companies in Nigeria.

The study established that operational efficiency had a regression co-efficient (β_3) of 0.00208, p=0.414 implying that when liquidity level, financial leverage and profitability are controlled, a unit increase in operational efficient across time and among commercial and services firms listed at NSE would result to insignificant increase of 0.00208 units in market capitalization. The findings of the current study do not agree with findings of Chortareas, Girardone and Ventouri (2012) based on a sample of EU commercial banks which found that high operating efficiency reduces the effect of financial distress. Klingenberg, Timberlake, Geurts and Brown (2013) based on manufacturing firms in developed countries, found out that there was a positive relationship of operational efficiency and financial performance but there was no link of operational efficiency and financial distress as a factor of financial performance of Kenyan banking industry. Ongore and Kusa (2013) also found out that efficiency is a key internal factor that determines bank profitability but negatively associated with profitability.

From the findings, profitability had a regression co-efficient (β_3) of 0.392042, p=0.000 implying that when liquidity level, operational efficiency and financial leverage are controlled, a unit increase in profitability across time and among commercial and services firms listed at NSE would result in a significant increase of 0.392042 units in market capitalization. The results are in agreement with Prasad and Shrimal (2015) who focused to find an effect of profitability ratios and market value ratios on market capitalization. The study reveals that there is positive relationship between market capitalization and profitability ratios of selected infrastructural companies during the period. Result shows that there is significant relationship between ROCE, ROE and EPS with Market Capitalization. However, Shawer and Al-Ajlouni (2018) confirmed that confirms that the stock prices of petrochemical companies listed in the Saudi Stock Market does not reflect the profit performance on the market price of the stocks. The affection trend on the profit performance is varied by different profitability measures. Since operational efficiency had no significant effect on market capitalization, it was dropped thus the final models is as below;

$$Y=-2.26575+6.918292X_1-0.145679X_2+0.392042X_3$$

Where Y is the market capitalization,

X_1 is Liquidity level

X_2 is Financial Leverage

X_3 is Profitability

V. Conclusion and Recommendation

The study concluded that liquidity level has significant positive influence on market capitalization of commercial and services firms listed at NSE. The higher the liquidity value indicates that the lower the potential for financial difficulties experienced by the company because it shows that the company is able to fund and pay off its short-term obligations so that it can avoid financial difficulties. The study concluded that financial leverage has significant negative effect on market capitalization of commercial and services firms listed at NSE. The higher the debt owned by the company, the higher the potential for financial difficulties experienced by the company. because it allows the company to be unable to pay its debts in the future which will result in bankruptcy. The study concluded that operational efficiency has insignificant positive effect on market capitalization of commercial and services firms listed at NSE. The insignificant effect was as a result of significant deviation among the firms, with some firms exhibiting better positive operational efficiency while other negative operational efficiency. The study concluded that profitability has significant positive effect on market capitalization of commercial and services firms listed at NSE as indicated by multiple linear regressions. The higher the level of profitability the company has, the lower the potential for financial difficulties experienced by the company because it shows the company is able to generate profits by using its assets so that it avoids financial difficulties.

The study recommended that managers of listed firms should ensure that they invest excess liquid in productive assets. This ensures that they do not hold excess cash at the expense of fixed assets that can improve their market capitalization. The amount of debt finance in the financial mix of the firm should be at the optimal

level to ensure adequate utilization of the firms' assets and reduce the effect of financial distress on market capitalization. Therefore, managers should employ financial leverage in a way that enhances value for their company's owners that will lead to an increase in market capitalization of listed firms, other than being a financial distress factor affecting the market capitalization negatively. A policy on efficient management should be put in place for listed firms' operational expenses. This should be done by finding ways to obtain the optimal utilization of resources during production of products and services. The study also recommended that there is need for firms to increase their profitability so as to achieve superior market capitalization over time. This can be achieved by increasing the rate of return of assets. In this case, management of listed firms are recommended to utilize their assets in a profitable manner so as to increase return on asset and return on equity.

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