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Effect of Cash Management on Cooperate Going-Concern Status: A Comparative Study of Manufacturing Companies and Deposit Money Banks in Ethiopia and Kenya (2010-2014)

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Abstract

Ethiopia and Kenya are emerging economies in the horn of Africa. As emerging economies, the well-being of their manufacturing and financial sectors determine the fate of the economies. The study compared the going-concern status of the manufacturing sectors and going-concern status of the Deposit Money Banks consequent upon management of cash. Secondary data were collected from databases of these enterprises. Descriptive Statistics, Statistical Package for Social Sciences (SPSS) and Altman multivariate discriminant analysis model were used to test the going-concern of the entities under consideration. The liquidity, solvency, profitability and leverage ratios of the selected companies were used to assess their cash management strength and going-concern status. The study revealed that the Deposit Money Banks in the two economies were stressed. However, the Ethiopian manufacturing sector appeared healthier. The study revealed the strength in the application of Altman Z- Score Model.

Keywords: Cash management, liquidity, Solvency, Profitability, Leverage and Multiple Discriminant Analysis

INTRODUCTION

To run a successful business requires effective and efficient management of resources which include all or some of the following: people, equipment, property, cash, brand, product(s), service(s) and inventory. Of all these resources cash is probably the most important. With sufficient cash a business has the ability to buy almost any of the other resources in which it may be deficient. Whether the purchase of that resource is worthwhile at the price required is another matter, but the purchase can still be made. All the resources other than cash have a value to a business that is dependent on their availability, utilization, market demand and the prevailing economic climate. It is cash and only cash that maintains a constant value (though with changing purchasing power during economic instability i.e. inflation and deflation) and can easily be turned into other assets or resources. The global financial crisis has demonstrated the importance of establishing a sufficient level of liquidity to cope with adverse conditions. These tensions emerged in the financial market have highlighted serious flaws in methods of management of liquidity risk of some banks (Gomes & Khan, 2011). The liquidity shortage in 2007 reminds us similar events in 1998 and 2003, following a widespread reluctance to enter into transactions which caused paralysis in the financial system. These events should not be regarded as mere aberrations. They reflect characteristics of market liquidity that have been insufficiently appreciated until now.

Banks typically have the primary function of converting liquid deposit (liabilities) to illiquid assets such as loans, which makes them inherently vulnerable to liquidity risk. Management of liquidity risk is, for banks, to seek to preserve their ability to fulfill their role. While some outflows are known with certainty, others, however, depend on external events and become, therefore, sources of liquidity risk (Armstrong & Coldwdel, 2008).

Threat to corporate going-concern status is a process which starts with the poor decision making of the management and causes the disturbances in corporate soundness. Its route cause can be tracked by analyzing various accounting ratios. The manufacturing and the banking industries are the most vibrant and growing industries of the sub-Saharan African countries.

Cash is the oxygen which enhances a business survival and prosperity, and is the basic indicator of business health. As a business can survive for a short time without sales or profits, it cannot survive without cash i.e. it will lose its going concern status. As a result the inflow and outflow of cash need careful monitoring and management.

1.2 Statement of the Problem

Cash flows management is an important issue in the growth and survival of business and the ability to handle the trade-off between liquidity and profitability is a source of concern for financial managers. Liquidity and profitability are very important in the development, survival, sustainability, growth and performance. Profitability does not translate to cash in all cases. A company may be profitable without necessarily being liquid. Therefore, cash should be managed in order to obtain an optimal level, that is, a level that avoids excess cash holding which may translate to poverty of ideas by management. Also cash level should not fall below minimum requirement as it will lead to the inability of the organization to meet short term obligation that are due.

Strategic researchers had carried out series of research works on reason for holding cash balances among which are; Jensen (1986), Ang (1991), Bhattacharya and Gallinger (1991), pler,

Pinkowitz, Stultz, & Williamson (1999), Dittmar, Mahrt-Smith & Servaes (2003), Shin & Shoenen (1998, 2001) investigated relationship between liquidity and profitability. While most of these works used profitability as a proxy for business concern's ability to continue operation into a foreseeable future. This study access the relationship between cash management and going concern of some selected companies listed in the Stock Exchange of some sub-Saharan African countries.

1.3 Research Questions

In order to situate the thesis in the right perspective, the following pertinent issues are raised for investigation:

1. Is there any significant different between the trend and pattern of change in the Altman's Z-score for manufacturing companies in selected Ethiopia and Kenya?
2. Are there any significant associations between the trend and pattern of change in the Altman's Z-score for banks in selected Ethiopia and Kenya countries?

1.4 Objectives of the Study

The broad objective of the study is to determine the impact of cash management on the going concern of business organisations in the Ethiopia and Kenya. This broad objective is further broken down into the following specific objectives:

1. To examine the significant different between the trend and pattern of change in the Altman's Z-score of banks in Ethiopia and Kenya.
2. To confirm the difference between the trend and pattern of change in the Altman's Z- score of manufacturing companies in Ethiopia and Kenya.

1.5 Research Hypotheses

In order to achieve the above specific objectives the following propositions will be tested empirically.

Hypothesis 1

H_0: There is no significant difference between trends and pattern of change in the Altman's Z-score of Banks in Ethiopia and Kenya.

Hypothesis 2

H_0: There is no significant difference between trends and pattern of change in the Altman's Z-score of manufacturing companies in Ethiopia and Kenya.

1.6 Significance of the study

i. Authorities in sub-Sahara African countries may compare notes for healthy competition.
ii. Stakeholders in emerging economics such as World Bank and International Monetary Fund (IMF) may find the work reliable in refining their policies for the sake of global posterity..
iii. The going-concern status of the real sector (manufacturing) and that of the financial sector can determine the fate of an economy.

LITERATURE REWIEW

Cash as a measure of affluence, a determinant of an individual's position in society, is an instant measure of prosperity. Cash is also a measure of one's seriousness about life and can conjure respect and cause an entity to receive listening ear(s).

Cash, as a measure of affluence can bring joy and earn an individual a voice even in the committee of nations. If today's joy is not to become tomorrow's sorrow, cash must be prudently managed. If the well- clothed, housed and fed are not to be the paupers of tomorrow, cash must be prudently managed.

2.1.1 Cash Management Concept

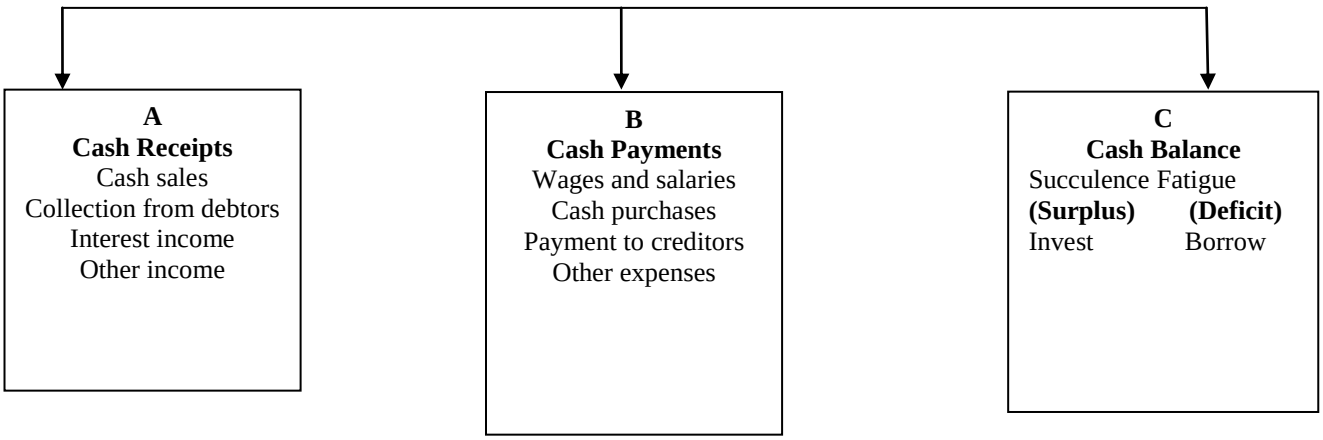
According to Moyer et al (2001) cash is the sum of currency an individual or company has on hand and/or the funds on deposit in the bank accounts. Cash is a medium of exchange that permits management to carry on the various functions of the business organization. The survival of a company can only depend on the availability of cash to meet financial obligations on time. Effective cash management is important in contemporary companies, government agencies, and not-for-profit enterprise.

2.1.2 Optimum Cash Levels

Cash succulence and cash fatigue can occur in any enterprise. These are polar situations. Cash as a means of exchange requires to be managed prudently. Prudence requires that this asset at hand, at any moment, must lie between these two extremes.

These polar situations, rationally, must differ from industry to industry. The quantum of cash and other readily convertible to cash assets at hand may enhance or jeopardise the continuity of a firm. Traditionally, businesses have believed that profits indicate success. The availability of cash balances (optimal cash level) is a key determinant of a company's competitive ability, because it provides the means to invest in people, technology, and other assets. Efficient Cash Management is therefore indispensable. A firm may be cash succulent or may experience cash fatigue. In between these extremes is the state of optimal cash level. Thus, understanding why the organizations have the need to keep cash resources is essential for their survival.

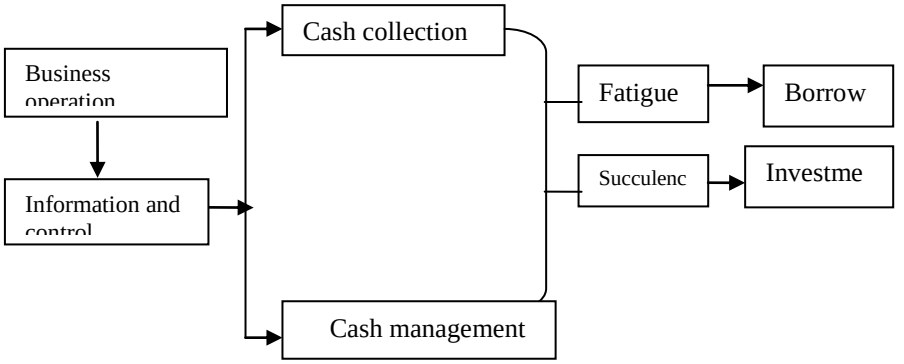
Figure 1: Elements of Cash Management



* Note: C=A-B; and Where **(A>B) = s**uccelence (surplus) & **(A<B) =** fatigue (deficit).

According to Pandey (2008), sales generate cash, which has to be disbursed out. Surplus cash has to be invested while the deficit has to be covered through borrowing. Thus cash management seeks to accomplish two cycles at minimum costs and at the same time to achieve liquidity and control.

Figure 2 cash management cycle



Source: ***I.M. Pandey PG 640***

2.1.3 Cash Succulence and Investing Idle Cash

According to Pandey (2008), if a firm has a temporary cash surplus, it can invest in short-term marketable securities. The market for short-term financial assets is called the *money market*. The maturity of short-term financial assets that trade in the money market is one year or less.

Most large firms manage their own short-term financial assets, transacting through banks and dealers. Some large firms and many small firms use money market funds. These are funds that invest in short-term financial assets for a management fee. The management fee is compensation for the professional expertise and diversification provided by the fund manager.

2.1.4 Cash Fatigue

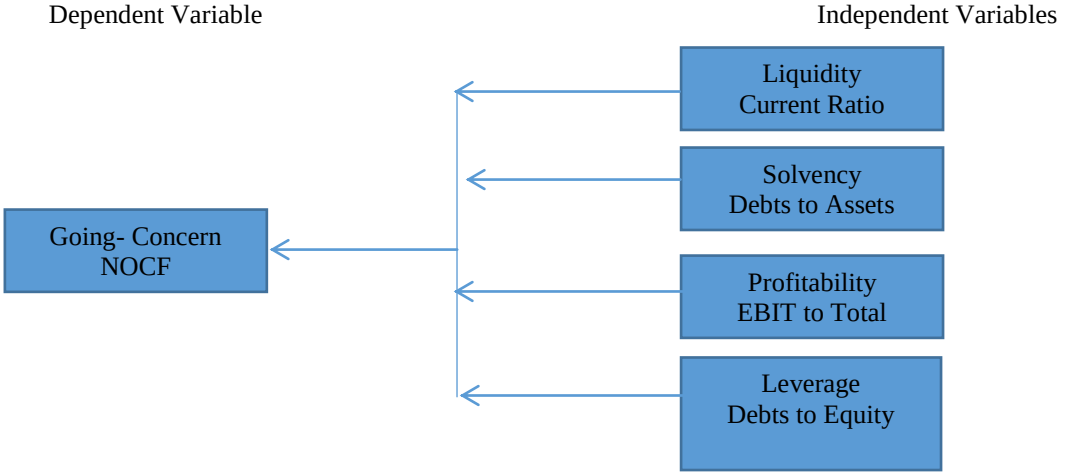
This situation arises when the cash outflows of a firm exceeds its inflows during a certain period. Such situation creates cash fatigue (cash shortage) in a firm. Shortage of cash is highly undesirable in all business holdings for the reason of dreadful consequences that it bears.

According to Moyer et al (2001) in case of temporary shortage of cash, a concern is required to procure essential cash immediately for the anticipated short duration, so as to curb it at the very stage instead of sustaining the long-term implication later on. 'The immediate source to fall back upon remains the bank credit. In fact, bank credit is a means to meet cash shortages as well as source of financing the current assets. The various methods from which a firm can procure funds during the period when its outflows exceed the inflows include; using bank credit line, raising loans from institutions and creditors other than banks, Liquidity marketable securities, resorting to bills discounting schemes, disposing off surplus fixed assets, reducing the quantity of raw materials, unloading finished goods even at loss, delaying payments.

2.1.5 Financing Cash Fatigue

The matters of special consideration that can be gainfully employed by the firm for overpowering the situation of cash shortage are; reduction in purchase of inventories, increasing cash sales, selling-off redundant assets, selling short-term investments, deferment of capital expenditure, postponing and delaying payments Moyer et al (2001).

The Conceptual Framework



Theoretical Literature

2.2.1 Cash Management and Theoretical Research

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 of time by financing deficit or investment surplus cash. An imbalance between cash inflows and outflows would mean failure of cash management function of the firm. Persistence of such an imbalance may cause financial distress to the firm and, hence, business failure (Aziz & Dar, 2006).

2.2.1.7 Entropy Theory Approach to Cash Management

Theory According to the Entropy Theory (Statement of Financial Statement Decomposition Measure Theory), one way of identifying firms' financial distress could be a careful look at the changes occurring in their balance sheets (Aziz & Dar, 2006). This theory employs the Univariate Analysis (UA) and Multiple Discriminant Analysis (MDA) in examining changes in the structure of balance sheets. Univariate Analysis is the use of accounting based ratios or market indicators for the distress risk assessment (Natalia, 2007). The financial ratios of each company, therefore, are compared once at a time and the distinction of those companies through a single ratio with a cut – off value is used to classify a company as either distressed or non- distressed (Monti & Moriano, 2010). MDA (or Multivariate Statistic or Multivariate analysis) is a statistical analysis in which more than one variable are analyzed at the same time (Slotemaker, 2008). The aim of MDA is to eliminate the weakness of univariate analysis.

3.0 Methodology

This section states the research design, the population and sample of the study.

3.1 Study Population and Sampling Size

All the manufacturing companies and deposit money banks in Ethiopia and Kenya should normally be included in the sample. However, only those companies that have up-to-date data are included in the sample.

3.2 The Study Research Design

The research is analytical in nature and it is based on secondary data mainly acquired from the published financial statements of the companies under study. Altman discriminant analysis model is used to predict the financial health of selected manufacturing companies and deposit money banks in Ethiopia and Kenya between 2010 and 2014. Descriptive statistics; ANOVA; SPSS .and Excel are used in the work.

3.3 Data Analysis Techniques

There are various financial ratios available to predict threat to going-concern status or insolvency or sickness of a unit. In a business concern, different ratio has different significance and making a common interpretation from these independent financial ratios pertinent to going-concern threat prediction is a bit difficult. This research work adopts a Multiple Discriminant Analysis (MDA) based on four variables that form the model (Z-Score). The derived equation of Z-Score is dependent on Discriminant coefficient computed by MDA and actual values of independent variables i.e. financial ratios calculated from annual financial statements of the company. The Altman's Z-Score model is as follows;

$Z= 6\text{-}56x1 + 3.26x2 + 6.72x3 + 1.05X4.$

Where: x1= Liquidity Ratio= Current Asset / Current Liabilities,

x2 = Solvency Ratio = Total Liabilities / Total Assets,

x3 = Profitability = Earnings Before Interest and Tax / Total Assets

x4 = Leverage = Total Liabilities / Shareholders Fund.

The discriminant coefficient calculated from MDA for different independent variables are as follows;

Z-Score >2.6	No threat to going-concern, safe zone
1.1<Z-Score< 2.6	Financial Position is distressing, going-concern threat
Z-Score < 1.1	loss of going-concern status (bankruptcy or Liquidation)

4.0 DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.1 Data and Source

This study is based mainly on secondary data obtained from the databases of the financial statements of selected companies. Random sampling technique was adopted in selecting five countries from the Sub-Saharan Africa. Banks and Manufacturing companies are considered in each of the selected countries.

4.2 Analysis and Discussion

Table 4.1

DESCRIPTIVE STATISTICS OF THE TRENDS AND PATTERN OF CHANGE BETWEEN ETHIOPIA AND KENYA DEPOSIT MONEY BANKS.

ETHIOPIA						KENYA					
	Liquidity	Solvency	Profitability	Leverage	Atman's Z-Score	Mean	Liquidity	Solvency	Profitability	Leverage	Atman's Z-Score
Mean	1.2880	0.7847	0.0807	8.8689	20.8617	Maximum	1.0347	0.8580	0.0327	6.0447	16.1509
Maximum	4.3500	1.0000	0.5200	15.19	35.3900	Minimum	0.7100	0.9000	0.0600	4.5000	18.9900
Minimum	0.0000	0.0600	0.0100	1.9000	10.6800		1.1500	0.8200	0.0100	8.5400	12.66

Interpretation

Hypothesis 1- There is no significant difference between the trends and pattern of change in the liquidity ratio OF ETHIOPIA AND KENYA DEPOSIT MONEY BANKS according to table 4.1, there no significant different in the pattern of change as both countries keeps a ratio that is above 1.00 but less than 105. We therefore accept the null hypothesis.

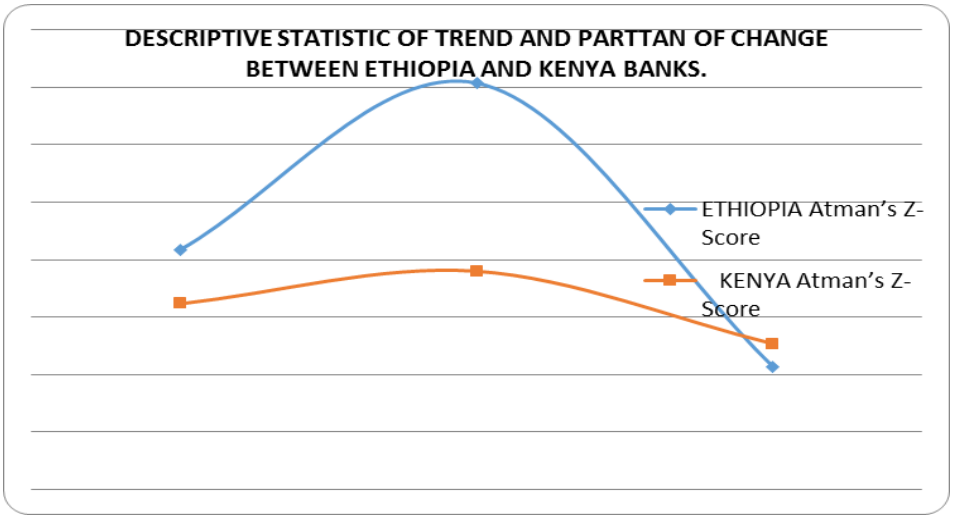
Hypothesis 2 - solvency. According to table 4.1, the descriptive statistics of the trends and pattern of change in the solvency of the two selected countries is uniform, 0.7847 and 0.8580 for Ethiopian and Kenya respectively. We here again, accept the null hypothesis.

Hypothesis 3 – profitability table 4.1, descriptive statistics of the trends and patterns of change in profitability ratio of the deposit money banks in the selected countries is uniform as Ethiopian had 0.0807 and 0.0327 of Kenya. Therefore, we accept the null hypothesis.

Hypothesis 4 - According to table 4.1, the descriptive statistics of the trends and patterns of change in leverage of deposit money banks in the selected countries in uniform with 8.8689 for Ethiopia and 600447 for Kenya. The null hypothesis is therefore accepted.

Hypothesis 5: Atman's Z- Score - the descriptive statistics of the trends and pattern of change in the Atman's Z-Score of the selected bank is uniform with 20.8617 for Ethiopia and 16.1509 for Kenya – the null hypothesis in accepted.

Figure 1 Graph of The Altman's Z-Score of The SPSS Result of One-Way ANOVA of Descriptive Statistic of the Trends and Patterns of Change in Ethiopia and Kenya Deposit Money Banks.



Inference

The going- concern of Ethiopia and Kenya deposit money banks were increasingly certain for some time then later dropped steadily but still remain safe. However, Ethiopia deposit money banks showed a greater promise of continuity.

SPSS Result of One-Way ANOVA of the Descriptive Statistics of the Trends and Pattern of Change of Ethiopian and Kenya Deposit Money Banks.

ETHIOPIA						KENYA					
	Liquidity	Solvency	Profitability	Leverage	Atman's Z-Score		Liquidity	Solvency	Profitability	Leverage	Atman's Z-Score
Mean of square	1.432	0.019	0.041	6.483	51.777	Mean	0.015	0.000	0.001	1.337	3.098
F	3.622	0.636	3.492	18.537	0.175	Maximum	2.972	21.700	0.344	0.172	0.604
Sig.	0.059	0.546	0.064	0.000	0.841	Minimum	0.089	0.00	0.716	0.844	0.5630

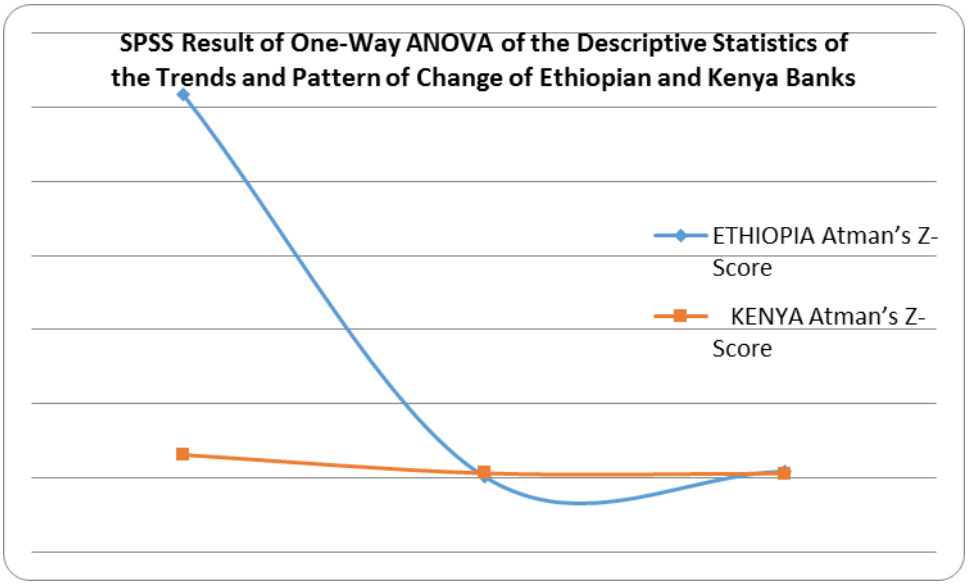
Interpretation

Hypothesis 1: according to table 4.2, SPSS result of One- Way ANOVA of the descriptive statistics of the trend and pattern of change in Atman's Z-Score of deposit money banks in the selected

countries in uniform as the value of f calculated for both countries are lower than the table value of 0.175 for Ethiopia and 0.604 for Kenya). We reject again the null hypothesis.

Figure 4

Graph of the Altman's Z-Score of the SPSS Result of One-Way ANOVA of the Trends and Patterns of change Between Ethiopia and Kenya Deposit Money Banks



Inference

According to figure 4- the going- concern of Ethiopia and Kenya deposit money banks using SPSS result of one-way ANOVA showed a distressed condition.

DESCRIPTIVE STATISTICS OF THE TRENDS AND PATTERN OF CHANGE IN ETHIOPIA AND KENYA MANUFACTURING COMPANIES.

	ETHIOPIA					KENYA				
	Liquidity	Solvency	Profitability	Leverage	Atman's Z-Score	Liquidity	Solvency	Profitability	Leverage	Atman's Z-Score
Mean	1.2900	1.3667	0.1753	0.6680	14.7974	1.1587	0.5427	0.0853	1.6620	11.6885
Maximum	2.43	2.13	0.46	0.95	22.28	2.20	0.86	0.23	6.60	17.04

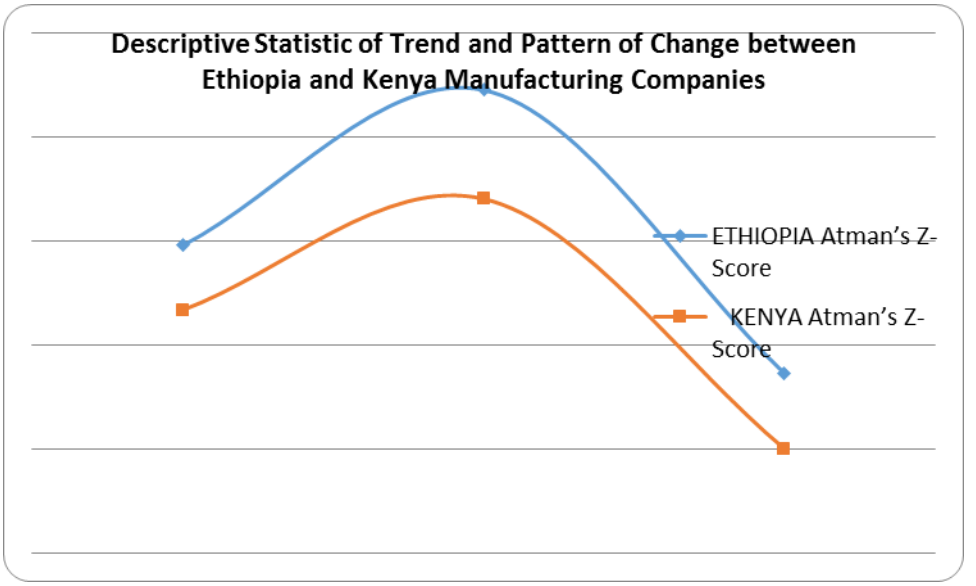
Minimum	0.70	0.80	0.02	0.28	8.64	0.41	0.38	-0.11	0.06	5.01

Interpretation

Hypothesis 2: Atman's Z-Score. The descriptive statistics of the trends and pattern of change in the Atman's Z-Score of the selected Manufacturing companies is uniform with 14.7974 for Ethiopia and 11.6885 for Kenya – the null hypothesis in accepted.

Figure 3 Graph of the Altman's Z-Score of the Descriptive Statistic of the Trends and Patterns of change Between Ethiopia and Kenya Manufacturing Companies.

Figure 5 **Graphs of Descriptive Statistic of Trend and Pattern of Change between Ethiopia and Kenya Manufacturing Companies.**



Inference

According to figure 5- the going- concern of Ethiopia and Kenya manufacturing companies were in good state. The mean of the descriptive statistics showed 14.7974 and 11.68 for Ethiopia and Kenya respectively, this is far above the original 2.6 of the Atman's Z-score.

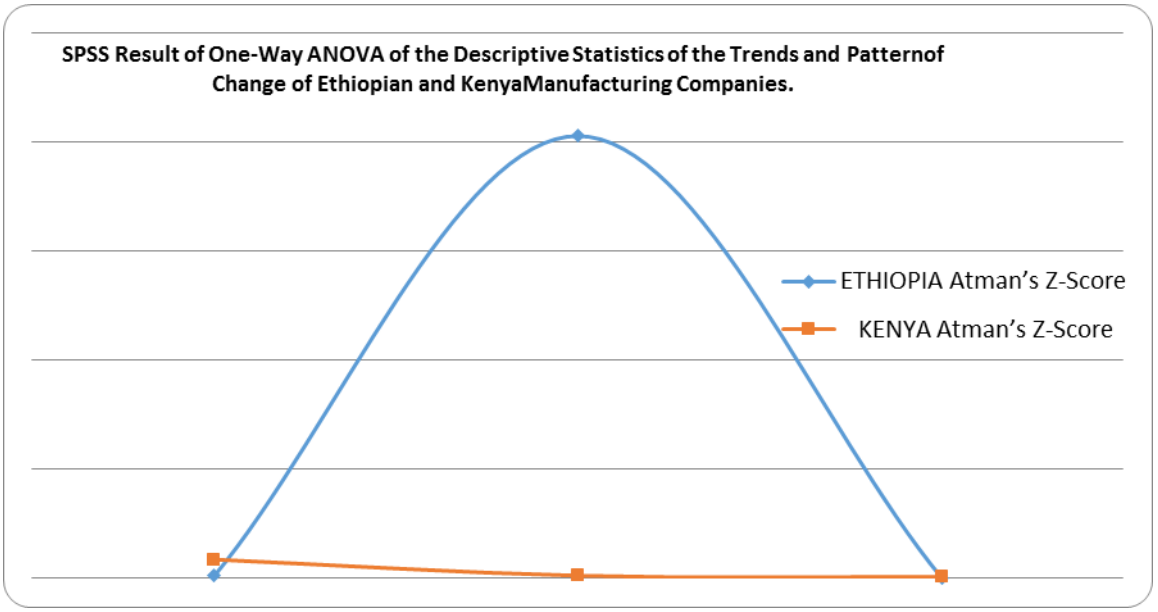
SPSS Result of One-Way ANOVA of the Descriptive Statistics of the Trends and Pattern of Change of Ethiopian and Kenya Manufacturing Companies.

ETHIOPIA							KENYA				
VARIABLES	Liquidity	Solvency	Profitability	Leverage	Atman's Z-Score		Liquidity	Solvency	Profitability	Leverage	Atman's Z-Score
Mean of square	0.050	0.075	0.001	0.022	0.955		0.188	0.019	0.003	3.271	8.438
F	33.253	13.449	121.773	0.313	202.961		1.438	1.492	15.795	1.784	1.007
Sig.	0.0000	0.001	0.0000	0.737	0.0000		0.276	0.264	0.000	0.210	0.3940

Interpretation

Hypothesis 2: According to table 4.2 SPSS result of One –Way ANOA of the Altman's Z Score model of Deposit Money Banks of sampled countries is not uniform as Ethiopia had 202.961 and Kenya had 1.007 Therefore we reject the null hypothesis.

Figure 6 **Graph of the Altman's Z-Score of the SPSS Result of One-Way ANOVA of the Trends and Patterns of change Between Ethiopia and Kenya Manufacturing Companies.**



Inference

According to figure 6, the going- concern of Ethiopia manufacturing companies showed a strong state of continuity as the F value calculated 202.96 was far above the table value of 2.6 as against Kenya whose going-concern status is distressing with 1.007. However, Ethiopian manufacturing companies again showed a greater promise of continuity.

5.1 SUMMARY OF FINDINGS

The study revealed that the financial health of the deposit money banks of the two countries under consideration is in distress zone (state of bankruptcy or liquidation). Only Ethiopia manufacturing companies have a healthy financial status.

5.2 Conclusion

An attempt has been made in the present study to bring an insight into the analysis of financial health of listed selected deposit money banks and manufacturing companies in Ethiopia and Kenya. The study concludes that the deposit money banks in Ethiopia and Kenya are distressed. The manufacturing sector in Ethiopia has a heath advantage over its Kenya counterpart. This comparative study of the manufacturing sectors (real sectors) and the financial sectors of two prominent East African countries (Ethiopia and Kenya), two rapidly growing economies in the horn of Africa provides a needed integral to an envisaged model of economic appraisal for sub-Saharan Africa.

5.3 Recommendation

Trend analysis of going-concern status should be carried out regularly on deposit money banks and the real sector of emerging economies of Africa. Going-concern status should be given cognizance in corporate and national financial planning.

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