FINANCIAL INSOLVENCY PREDICTION THROUGH ALTMAN EQUATION: EMPIRICAL STUDY ON ENTERPRISE IN THE INDUSTRIAL SECTOR

Dr. Khalid Alrawi
Professor, Economics Department, Al-Fallujah University, Baghdad, Iraq

ABSTRACT

This research is to shed light that Altman Z-score equation may be regarded as an empirical indicator for future company’s insolvency using the equation in a period of time. In this research, purposive sampling, Microsoft excel, and SPSS for data processing were determined. The company of the sample "Al-Hayat Enterprise for Manufacturing Durable Products" may go bankrupt due to the incorrect decisions practiced by its management, where the Altman Z-score for the given period (2013-2015) was less than 1.81, (Z-score <1.8), which represents the weakness of the enterprise for the given period. In conclusion, the financial distress in reasonably high, and the company management should take serious steps in order to keep the company working in the market within the economy.

The aim of this paper is to emphasize on the advantages of helping the management's enterprises and industries in taking the decisions to sustain a competitive advantage in the economy. The paper is focus on the practically negligence of these enterprises in financial analysis system implementation and the associated problems seriously.

The economic financial ratios was used as evidence, that the enterprise in this research is suffered a heavy liabilities and burdens and may going bankrupt in the future. Evidence analysis suggests that the picture of the given sample of this research is gloomy. To assess profitability and risk of the concerning enterprise The percentage of the working capital is less than (one), and the leverage ratios the total liabilities to total assets was increased from (38.69%) to (53.73%), indicating that assets is less than the liabilities. For the same period of time (2013-2015), the net profit to total sales became negative amount from (-33.61%) to (-80.01%), Inventory turnover is decreased by (1.10 times), the net profit to total assets percentage are negative and declining (-9.29%, -2.10%), and the book value ratio declined from (0.850 $) to (0.576 $) for the same period.

Key words: Working capital, Risks, Economic insolvency, Uncertainty, Altman Equation.
1. INTRODUCTION

Financial strength is a crucial objective for the business enterprises. This object is reflected through the profit and loss activities in a specific period of time. These results are the concerning issues for the management, shareholders, employees, Creditors, suppliers and banks as the financial institution in the economy. Also management enterprises are concerned on the rate of return for their investment, therefore, judging the financial capacity of these enterprises regarded as its sustainability of success or failure and shaping environmental internal or external relationships.

One of the reliable financial measures for assessing future financial capabilities of an enterprise is the Altman Z-score equation. This equation is based on many financial ratios to predict enterprise's insolvency. (Altman, 1968).

In general for all businesses the financial strength represents the abilities of these businesses in their payment in of the debts which is reflects its solvency in efficient manner, and at the same time sustaining continuous growth and positive contribution in the economy. In this respect the availability of the required liquidity reflect a healthy financial system of these enterprises, and represent a proactive measures and remediation against any potential financial difficulties. Also, when an enterprise is suffering from any type of a financial deficit or insufficient cash flows, it means the inability to meet its operations obligation, in this situation it may need to liquidate part of its assets. A continuous financial distress may lead to go bankrupt. In this respect, an enterprise need to assess its financial capacities by using different models and Altman Z-score equation is one of these measures. (Vikas, 2014).

There are many types of financial statements, and therefore the purposes of these financial statements are differing accordingly in terms of the information required and for whom the information is required. Irrespective to the stakeholders and their representative's objectives from these financial reports, profitability and the success of their enterprises are the main of their concerns. Thus, the main duties for these managements are to develop the available resources in to survive in the markets and contributing of these businesses to the economies more effectively and efficiently. Lenders and investors both are looking to the performances of the concerning enterprises abilities to pay their loans and their interests, the dividends of the stocks, to decide to sell or to buy these dividends within the investments process. (Jan, & Maran, 2015).

The financial strength of these enterprises will encouraged the trade creditors to made commercial transactions with these enterprises in terms of providing goods and services, as far as amounts owing to them will be paid when due. Such information will be considered as criteria upon the continuation of regarding these enterprises as major customers, and therefore, financial distress will change such attitudes. The continuous criteria predicted from such information will encourage the customers for involvement with these enterprises on long-term basis business relations. (Bashir, Ayesha, & Samra, 2015).

Another vital agencies looking to the performance and activities results and how resources allocated of the enterprise are the governmental agencies. Information related to taxation assessment, and then regarded as a basis for national income and economic statistics are also needed. On the other hand the public in general is evaluating these enterprises in a variety of
ways through their financial statements looking to the recent development and the prosperity of these enterprises and their contribution to the economy.

Many researchers tried to express the characteristics of the successful enterprises and those facing financial distress in an attempt to develop a model based on the economic financial ratios in order to predict enterprises are likely going bankrupt in the future. (Celli, 2015). Altman developed a model, is perhaps the best known of those researchers using a statistical technique known as multiple discriminate analysis. (Ramana, & Hari, 2013).

In general, the information contained in an enterprise financial statement is historic. In our case accounts are prepared for enterprise financial year and only become an available some months after the end of that year.

The aim of this paper is to emphasize on the advantages to help the management's enterprises and industries in taking the decisions to sustain a competitive advantage in the economy. The paper is focus on the practically negligence of these enterprises in financial analysis system implementation and the associated problems seriously.

2. INDICATION OF FINANCIAL DISTRESS

For our research objectives, three methods were used for collecting the data. The basic resource is the analysis of the yearly (Balance sheet) for the three successive years (i.e. from 2013-2015). This financial statement may be regarded as the basis to perceive and judge if the enterprise is going insolvent or bankrupt. From economic point of view the percentage of the market price to the face value of the enterprises' stock is important which depends upon the stock price mentioned in the financial market bulletin issued by "The Chamber of Commerce", of the specified period (2013-2015) and also the daily local newspaper, represent another source of data collected, ranging in our case (46.1 $, 47.5 $, 28.5 $) respectively in the concerning period (2013-2015). The personal review with the official's executives in the enterprises is crucial as a source or a method of collecting information or data. The usage of (Altman Z-scores, 1968) equation for insolvency prediction is used as a mean for the data analysis. To benefit from this equation, five powerful financial ratios used collectively, this is correlated with insolvency. The following is version of Altman equation for insolvency can be seen as below:

\[ Z_{scores} = 1, 2 \times X_1 + 1, 4 \times X_2 + 3, 3 \times X_3 + 0, 6 \times X_4 +1, 0 \times X_5. \]

For our research purposes:

Net working capital
------------------------- = X_1
Total assets

Retained earnings
------------------------- = X_2
Total assets

Earnings before interest and tax
----------------------------- = X_3
Total assets

http://www.iaeme.com/IJM/index.asp 1326  editor@iaeme.com
Financial Insolvency Prediction Throw Altman Equation: Empirical Study on Enterprise in the Industrial Sector

Market values of equity
----------------------------------------------------- = X₄

Book value of liabilities

Sales
--------------------- = X₅
Total assets

When using this model Altman concluded:
Z-score < 1.81 = high probability of bankruptcy.
Z-score > 3.0= low probability of bankruptcy.
Z-score < 3 > 1.81= indeterminate.

The prosperity of an enterprise depends mainly on the financial development which is the responsibility of the financial managers and the employees as well. But the rules of the managers are crucial in this concern. (Alkhatib, & Al Bzour, 2011). Their experience in taking decisions when an enterprise experience financial problems, is vital in differentiating between losses or in rehabilitation the enterprise to survive and sustaining existence and success in the market. Upon such prevailing circumstances, and depending on their existed knowledge, experience, and expectations the concerning agencies mentioned before will assess and evaluate the financial position of the enterprise. What is needed here is the assessment of credit risks by the financial manager for allocating the available resources better. Increasing loans may not support the capital but probably the chances for failure or poor performance. Such poor performance represents only one prominent aspect of managing loans, therefore, the more allocation to loans the more failure-prone the enterprises. (Mizan, & Hossain, 2014). Within the operations process enterprises with large purchased funds positions are more likely facing financial distress. From economic and financial point of view, the ratio of the commercial loans to the total assets represent apparent precursor concerning insolvency.

In general, there are two types of failure, economic, and financial. The economic failure represents an enterprise inability to cover the costs by its revenues. The other one is the financial failure which signifies insolvency. In this respect researchers, attempted to differentiate between bankruptcy sense, in other words the inability of the enterprise to pay its total liabilities when exceed its total assets (i.e. the net worth of the enterprise is negative), and the technical insolvency, when an enterprise is unable for one reason or another to pay its due current obligations temporarily, although its total assets may exceed its total liabilities. (Setyani, Retno, & Willy, 2016). The basis for such differentiation was what happened in early (1990s) when many rated enterprises, experienced financial problems, and these problems ranged from temporary liquidity need to restructure, to ultimate insolvency.

3. IMPORTANCE OF THE EQUATION & FINANCIAL INFORMATION
The financial strength is regarded as the greater concern for an enterprise continuous operation in the field of business, and its sustainability in the market and positive economic contribution. Such activities or operations as a profit or losses is reflected in the profit and loss report, whereas, the balance sheet reflect the value of the assets and the liabilities of the enterprise at a specific point of time. (Ke, et al, 2014). All the related information existed in
the financial reports for an enterprise is the concern and the interest of internal and external users or agencies (i.e. Suppliers, Creditors, Banks, and Stockholders).

Those agencies governmental or non-governmental are using this information to judge the financial strength of the enterprise including the shares and the stock values. Therefore, their concerns are if the enterprises in their capacity are able to pay off their required rate of return without any problems. Upon such existed facts, they utilize this information for taking the decisions concerning lending and collecting credits. In fact judging the financial ability for an enterprise needs huge information for capitalization. Financial capabilities means the enterprise ability to pay back their loans, the interest as well sustain the systematic growth and continued existence in the market. (Matthews, 2013). Thus, the amount of the liquidity is crucial for the survival of the enterprises which reflect sufficient cash flow existence for meeting the current obligations.

Financial insolvency may occur when enterprises are experiencing economic difficulties which have direct impact on the chain of production to distribution, for example when costs incurred for financing production operations are exceeding the level of the available income, with the difficulties of receiving receivables, may gradually leading to bankruptcy. Economic conditions for the enterprise which is still uncertain may results in a high risk as it is experiencing financial difficulties or even bankruptcy. (Nilanjana, 2013).

A number of researchers have attempted to differentiate between the financial characteristics of successful firm and those facing failure, in order to develop a model based on financial ratios in order to predict firms are likelihood of becoming insolvent in the near future. Due to the limitations of the use of the Z-Score which can only be used on public companies and manufacturing, then develop the two variants of the Altman Z-Score is Z'-Score and Z"-Score. Z'- score is intended for non-public company (private) by way of reformulating ratio used, namely eliminating the Market Value of Equity and replace it with the Book Value of Equity.

In the U.K. (Taffler) has been the most prominent researcher (Taffler, 1982). His discrimination point of view was:

Earnings before interest and tax  
1) -----------------------------------  
    Total assets Total assets

    Total liabilities  

2) -------------------------------  
    Net capital employed

    Quick assets  

3) -----------------  
    Total assets

    Working capital  

4) -------------------  
    Net worth
Cost of sales

5) ----------------------

Stock

For (Altman) and (Taffler) models the current profitability ratio (EBIT) to total assets was crucial criteria for differentiating between the solvent and insolvent enterprises. In other words, the successful enterprises have the ability to overcome short-term liquidity problems through a profit generating. Other interest of agencies will be encouraged to buy or takeover enterprises achieving profit despite it is poorly managed.

4. RESEARCH ANALYSIS AND RESULTS

From economic point of view to understand and evaluate an enterprise operations and performance, financial ratios analysis is crucial and the basis for judging such operations. As we mentioned there are five main financial ratios usually used in this respect. These main ratios are:

- The liquidity ratios: to find out the enterprise's ability to meet its due total short-term obligations.
- The leverage ratios: to measure to which the enterprise has been financed by debts. Agencies such as Creditors are looking to the amount of equity to evaluate the safety margin through many types of debts. On the other hand enterprise's owners may benefit from these debts through a successful investment, achieving control and better-off for their enterprises.
- The valuation ratios: to assess the capabilities of the enterprise of convincing the investors to invest in their enterprise through buying the different types of its shares and stocks.
- The activity ratios: to evaluate how the management enterprise using its available resources effectively.
- The profitability ratios: To judge the overall activities and performance of the enterprise's management as reflected by levels of returns generated on selling and investment operations.

The performance judgment for an enterprise may be accomplished when decisions is based through the consideration of different ratios at the same time and not looking to one absolute ratio. The decisions are significant based on composite ratios in a particular industry, or through the comparison of these ratios in many periods of time. Therefore, the trend analysis involves computing and considering all the important ratios for the given period of time to evaluate and taking judgment to assess if there are improvements or deteriorating achieved in this comparative analysis.

The researcher asked the financial manager to review the following results, which represent the fair analysis to the enterprise. (Table 1).
Table 1 Basis ratios for the period (2013-2015)

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>The Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquidity Ratios</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Working Capital</td>
<td>-3074457</td>
<td>-91889108</td>
<td>-14449115</td>
<td></td>
</tr>
<tr>
<td>Current ratio</td>
<td>69.4%</td>
<td>46.6%</td>
<td>30.3%</td>
<td></td>
</tr>
<tr>
<td>Acid Test</td>
<td>25.25%</td>
<td>17.25%</td>
<td>17.25%</td>
<td></td>
</tr>
<tr>
<td>Leverage Ratios</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liabilities/Assets</td>
<td>38.69%</td>
<td>46.01%</td>
<td>53.73%</td>
<td></td>
</tr>
<tr>
<td>Equity/Assets</td>
<td>55.26%</td>
<td>47.92%</td>
<td>40.22%</td>
<td></td>
</tr>
<tr>
<td>Average-Interest Coverage</td>
<td>-1.89 Times</td>
<td>-1.53 Times</td>
<td>-1.99 Times</td>
<td></td>
</tr>
<tr>
<td>Valuation Ratios</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Book Value ratio</td>
<td>0.850 $</td>
<td>0.737 $</td>
<td>0.576 $</td>
<td></td>
</tr>
<tr>
<td>Market value/Book value ratio</td>
<td>38.40 %</td>
<td>46.79 %</td>
<td>30.02 %</td>
<td></td>
</tr>
<tr>
<td>Activity Ratios</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inventory Turnover</td>
<td>1.01 Times</td>
<td>0.98 Times</td>
<td>0.83 Times</td>
<td></td>
</tr>
<tr>
<td>Inventory Average Period</td>
<td>280 days</td>
<td>370 days</td>
<td>321 days</td>
<td></td>
</tr>
<tr>
<td>Average Receivable Turnover</td>
<td>3.01 Times</td>
<td>4.29 Times</td>
<td>3.60 Times</td>
<td></td>
</tr>
<tr>
<td>Profitability Ratios</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net profit Ratio</td>
<td>-80.01%</td>
<td>-51.24%</td>
<td>-33.61%</td>
<td></td>
</tr>
<tr>
<td>Asset Revenue Ratio</td>
<td>-9.29%</td>
<td>-5.61%</td>
<td>-2.10%</td>
<td></td>
</tr>
<tr>
<td>Net equity Revenue Ratio</td>
<td>-16.27%</td>
<td>-8.53%</td>
<td>-3.69%</td>
<td></td>
</tr>
</tbody>
</table>

4.1. Liquidity Ratios Results
The results shows in Table 1, that the working capital ratio is less than one, which means that the current liabilities is exceeding the current assets, which reflecting a burden of debt. The current liabilities was increased from (3M $) to (14M $), the current ratio decreased from (69%) to (30%) and the quick ratio from (25%) to (8%) within the given period. Such analysis reflects that the enterprise is unable to pay the maturing debts in the near future. Management efforts are poor, and should maintain the appropriate working capital without affecting the basic liquidity of the enterprise.

4.2. Leverage Ratios Results
The burden of the enterprise debts was increased, during the given period of time, thus as the liabilities/ Assets increased from (38.69%) to (53.73%), the management should prepare itself for repayment. In turn such results will reduce the enterprise' bargaining power in an attempt to borrow new loans from the creditors. Results shows that the owner's contribution was decreased from (55%) to become (40%) for the concerning periods which indicate to the increased percentage of the debt within its capital structure, therefore the number of times interest that covered by the current earnings has been increased from (1.9 times) to (2.1 times), which reflect the necessities of the enterprise management to capitalize its interest due to its inability of payment. The current analysis shows that the management was not utilizing the retained earnings for financing its operations due to the increase in the liabilities, and therefore no growth for the enterprises in the concerning period.

From finance point of view the retained earnings represent funds reinvented in the business over a period of years. Also, are not usually held in cash, they are usually invested in other assets of the enterprise. The statement of retained earnings shows the amount of net income reinvested in the business.
4.3. Valuation Ratios Results
For this enterprise the actual book value for the stock of the firm is declining from (0.850 $) to (0.576) within the given period of time, which in turn affecting the percentage of the market value to the book value for each share. The result in the table shows that this ratio dropped from (38%) to (30%) for the given period. In economics the dividend yield ratio represents the most recent annual gross dividend as a percentage of the current market value. In short, this ratio indicates that the overall profitability of the company was decreased.

From economic point of view, Equity to debt ratio indicates the percentage the owners funding the long-term debit. For the enterprise in question this ratio has a decreasing trend which is not in the interest of the enterprise.

It may be reasonable to mention that stockholders equity represent the ownership of the enterprise.

4.4. Activity Ratios Results
The analysis for this enterprise concerning the assessment of the efficiency of inventory utilization is not encouraging. Inventory turnover, has been decreased from (1.01 times) to (0.83 times), indicating that this enterprise is starting entering the corner of risk. According to the trend analysis the inventory period increased from (280 days) to (370, and 321 days), which contributing to the increase of the average receivable from (3 times) to (3.6 times) which is not in the interest of the enterprise management. Also, such increasing is reflecting the low assets turnover which in turn affecting the efficiency of the enterprises' investment in the fixed assets.

4.5. Profitability Ratios Results
Analyzing these types of ratios is not in the interest of the enterprise. Ratio result of the net profit to the total sales is negative in the three successive years (-80.1, -51.24, -33.61). Also, the management has maintained the dropping substantially as assets is declining from (-2.01%) to (- 9.29%). Therefore, such management reflecting its poor performance in both percentages on sales and investment, as the annual profit per share is increased negatively from (-16.27%) to (- 3.69%).

Sales revenues in any enterprise, plays a crucial roles in supporting an enterprise activities which depending more or less on the volume of revenues. In this respect poor ratio indicates the poor financial management of the companies in the optimum utilization of its assets in generating the sales revenue. Therefore, higher ratios represent high management performance. In other words sales to total assets ratio measure the power of the asset in generating the sales. It is suitable to mention that long-term debt represents the enterprises' debt with maturity greater than one year

To support the ratios analysis, the researcher used "Altman, Z-scores" equation, indicating the increasing risks of bankruptcy of the given firm. (Table 2).
Table 2 Results Analysis by Altman Equation for the Period (2013-2015).

<table>
<thead>
<tr>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net working Capital</td>
<td>-30744578</td>
<td>9188910</td>
</tr>
<tr>
<td>Total Assets</td>
<td>47988777</td>
<td>53423895</td>
</tr>
<tr>
<td>Total Assets</td>
<td>-6.41%</td>
<td>-17.20%</td>
</tr>
<tr>
<td>Retained Earnings</td>
<td>-9901112</td>
<td>-3996301</td>
</tr>
<tr>
<td>Total Assets</td>
<td>47988777</td>
<td>47977600</td>
</tr>
<tr>
<td>X1</td>
<td>-2.06%</td>
<td>-8.90%</td>
</tr>
<tr>
<td>Total Assets</td>
<td>47988777</td>
<td>47977600</td>
</tr>
<tr>
<td>X2</td>
<td>-9901112</td>
<td>-2993080</td>
</tr>
<tr>
<td>Total Assets</td>
<td>47988777</td>
<td>47977600</td>
</tr>
<tr>
<td>X3</td>
<td>-1.89%</td>
<td>-5.99%</td>
</tr>
<tr>
<td>Share's Marketing Value</td>
<td>12990790</td>
<td>13990270</td>
</tr>
<tr>
<td>Total Liabilities</td>
<td>19990333</td>
<td>23990340</td>
</tr>
<tr>
<td>X4</td>
<td>64.49%</td>
<td>58.01%</td>
</tr>
<tr>
<td>Sales</td>
<td>2999706</td>
<td>5999540</td>
</tr>
<tr>
<td>Total Assets</td>
<td>47988777</td>
<td>53423895</td>
</tr>
<tr>
<td>X5</td>
<td>6.98%</td>
<td>11.23%</td>
</tr>
<tr>
<td>Earnings before interest and tax</td>
<td>-0.07%</td>
<td>-0.22%</td>
</tr>
<tr>
<td>Total Assets</td>
<td>47988777</td>
<td>47977600</td>
</tr>
<tr>
<td>X6</td>
<td>-0.40%</td>
<td>-1.22%</td>
</tr>
<tr>
<td>Total Assets</td>
<td>47988777</td>
<td>47977600</td>
</tr>
<tr>
<td>X7</td>
<td>-0.9%</td>
<td>-0.20%</td>
</tr>
<tr>
<td>Total Assets</td>
<td>47988777</td>
<td>47977600</td>
</tr>
<tr>
<td>X8</td>
<td>0.39%</td>
<td>0.33%</td>
</tr>
<tr>
<td>Total Assets</td>
<td>47988777</td>
<td>47977600</td>
</tr>
<tr>
<td>X9</td>
<td>0.07%</td>
<td>0.11%</td>
</tr>
<tr>
<td>Total Assets</td>
<td>47988777</td>
<td>47977600</td>
</tr>
<tr>
<td>Z</td>
<td>-0.9%</td>
<td>-1.20%</td>
</tr>
</tbody>
</table>

5. CONCLUSION

Altman Z’ Score can be seen as a way to judge enterprise's financial distress. The research is highlighted the use of financial ratios analysis to evaluate and assessing the level of the enterprise performance, and how the management managing risks from the point of view of the investors and other creditors. There are different purposes to obtain from the analysis of the financial ratios taking into consideration the economic and trading conditions.

In such understanding the research applied Altman Z-scores approach to judge the enterprise financial credibility and strength otherwise will go bankrupt. The analysis shows that the enterprise is not using efficient policies or controlling system over spending for generating profits by reducing costs for example in buying assets. There are problem of liquidity shortages at least to cover its daily operational costs as the enterprises' management is unable to sell its goods and services in a profitable manner. Liquidity shortages condition is putting the firm in economic difficulties.

The financial distress due to the reduction in liquidity, and the poor performance, both are affecting the firm’s shares value in the stock market negatively. Such environment is not stepping up investors and encouraging them to buy the shares of this enterprise expected to be bankrupt, at the end this situation contributing to the fallen of the dividends' yields, and respectively the shares prices over years.

We may conclude from the above discussion that the concerning enterprise operations are not encouraging, and the continuous concern about such expecting gloomy future. Such perdition is crucial for pushing the management to set up new policies and strategies. From the above conclusions we have the following recommendations:

1. In the researcher opinion, for this enterprise to improve its financial credibility is through the following of the decentralization approach to give the employees more initiatives and
responsibilities in taking decisions concerning their enterprise and expressing more ideas and suggestion for improving the working environment.

2. In order to reduce costs and generating profits, to achieve a significant change has to take place, it is necessary for the management to improve and control the information system and taking steps to improve the operational process of selling the firm's goods and services.

3. An urgent step is needed for this enterprise such as applying policies depending on the short term loans and reducing the account receivable period concerning the customers' credit selling. Such strategies is an attempt to improve the enterprises' liquidity within the acceptable operational environment, as its total debts is (4.5M), which represent (15%) of the enterprises' capital.

4. Emphasizing intense control in reducing the raw materials buying within the approved contracts, as a step for reducing inventory and production costs, also, changing the present production procedures practicing enterprises' management experiences.

5. To avoid a cash problems urgently, the enterprise management according to the cash inflow/outflow has to rescheduling its obligation precisely accordingly. Such steps will improve and strengthening the enterprises’ credibility towards its creditors in the market, and this in turn may improve the market value of its stocks in.

6. LIMITATIONS OF THE STUDY

1. Similarities or differences in the working environment for many enterprises in the different sectors of the economy are not easy to happen. Therefore, in dynamic environment of business operations, it is not easy and not clear of how past experience is transformable to future.

2. The issues of how enterprises are going bankrupt need more explanation and more analysis, as there are no specific theory is existed to support these issues from financial point of view.

3. For evaluating enterprises strength or credibility, more economic criteria or indicators are needed.

REFERENCES


