FINANCIAL HEALTH OF COMPANIES IN MALAYSIA: THE USE OF ALTMAN'S Z-SCORE MODEL

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Abstract: This study aims to determine the level of financial health among non-financial institutions in Malaysia by using Altman's Z-score model and to evaluate other qualitative factors (i.e. poor top management, senior manager or CEO turnover, the poor role of audit committees, types of ownership structure and the nature of companies) that contribute to the corporate failures. This study also aims to examine and compare the use of Altman's Z-score model among successful and unsuccessful non-financial institutions in Malaysia. The sample selection covers 201 successful listed companies in Bursa Malaysia for the year 2012. Data are hand-collected from the annual reports and through questionnaires. The findings of this study show that the 201 companies' performances do not portray a favorable condition because most of these companies have the likelihood to suffer bankruptcy. Also, a survey has been conducted to the companies that were listed as PN17 by Bursa Malaysia. From the questionnaires given, it is found that the poor role of top management shows the higher percentage rate (93.4%) of the respondents agree that this factor contributes to corporate failure compared to other factors. This study has found that the Altman's Z-score model is more accurate for manufacturing companies as compared to non-manufacturing companies. The relatively small sample size of financial distress companies would limit the generalizability of the findings. Further research could continue by examining the factors that contribute to financial distress companies across countries. The findings of this study can be useful to investors in making investment decisions by concerning on manufacturing and non-manufacturing companies. This paper contributes to the extant literature by demonstrating qualitative factors other than quantitative factors that may lead to the financial distress companies.

Keywords: Financial Health, Non-Financial Institution, Altman Z-Score

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Introduction

Regular health check-up helps us to monitor, maintain and improve our health. Similarly, the health of the non-financial institutions also needs to be maintained and enhanced once in a while. Non-financial institutions are principally engaging in the production of market goods and non-

financial services, their financial transactions are wholly distinct from those of their owners. Non-financial institutions consist of private and public corporations, holding companies, non-profit organizations or associations. These entities develop and deliver goods and services to fulfil the needs of businesses and consumers. The level of an institution's health depends on their financial performances. Therefore, understanding the financial health of an organization is an essential business skill for any business owners or entrepreneurs to succeed. Through the financial statements (i.e. statement of profit and loss account and statement of financial position), it could provide a clear idea of the businesses' financial health. By determining the financial health of an institution, one would be able to predict the financial distress of the respective institution. The importance of predicting financial distress has been increasing due to corporate governance. It has severe effects on the operation of an organization and the environment especially for management and stakeholders which includes credit institutions, shareholders, investors, employees, and the whole economy.

Several types of financial difficulties situations in which an institution may face shows the level of financial health of the company itself. The terms that are usually used to describe these situations are distress, bankruptcy, failure and insolvency. This study aims to understand further the level of financial health among non-financial institutions in Malaysia by using the Altman's Z-score model. However, this study does not recognize the financial health of the financial institutions in Malaysia because financial institutions tend to gain profits in its operation, and they are less prone to face financial distress. In addition, this study seeks to examine the factors used in Altman's Z-score model on how they influence the results of financial health among non-financial institutions in Malaysia. The factors include the organization management and nature of companies that may contribute to the failure of the non-financial institutions. Next, the objective is to examine the acceptable used of Altman Z-score model among the successful and unsuccessful non-financial institutions in Malaysia and predict their financial health.

The remainder of this paper is organized as follows. Section 2 discusses the literature review. Section 3 describes the research method. Section 4 explains the findings of the study and Section 5 concludes the study.

Literature Review

Financial distress is an important issue when it comes to the financial health of the company. It portrays the inability of the company to maintain the viability of its business. During 1997, Malaysia has been shocked by the Asian financial crisis that had impacted the Malaysian economy. The slowdown in the economy during that period has affected most of the businesses in Malaysia. This situation contributed to a large number of companies failed to continue its business and faced financial difficulties. Again, after 10 years, Malaysia has been affected by the global financial crisis in 2007 due to the weaknesses in the United States (US) financial industry. There was intensifying into a severe global international financial crisis and deep fall in global trade and recession by late 2008 (Khoon and Mah-Hui, 2010). Therefore, to overcome the situation, Bursa Malaysia has played its role in order to help those companies to maintain their healthy condition, especially for public listed companies. Bursa Malaysia has implemented many regulations as to maintain a sound financial condition of listed companies.

Previous studies stated that Malaysian listed companies that suffers financial distress are only temporarily suspended instead of filing for bankruptcy (Md Zeni and Ameer, 2010). Bursa Malaysia and Securities Commission (SC) of Malaysia offer a chance to those companies to

restructure back their company. Thus, early of 2005, PN No. 17/2005 (PN17) was issued effectively from 3rd January 2005 by Bursa Securities. It set out some of the criteria to identify those companies in financial distress such as a deficit in the consolidated adjusted shareholders' equity of the listed company; the auditors have expressed an adverse opinion in its latest audited accounts; listed issuer has an insignificant business or operations and others (Md Zeni and Ameer, 2010). The declaration of the listed companies to be on the PN17 is because there has an unsatisfactory financial condition and level of operations. Therefore, Malaysia is a developing country that has to consider for applicability in developing prediction model such as Altman Z-score. The accounting standards, as well as, the Companies Act in Malaysia derived from the common law sources such as the United Kingdom (UK) Companies Act 1948 (Md Zeni and Ameer, 2010). Thus, in Malaysia, it might be relevant to apply the developed country's prediction model such as in the UK. Md Zeni and Ameer (2010) stated that it will be better if enough information on distressed Malaysian companies were available during the past eight years to provide to academician as an opportunity for them to explore the usefulness of the developed countries prediction models in a developing country, specifically Malaysia.

To determine bankruptcy, many methods have been used in previous studies (i.e., Md Zeni and Ameer, 2010; Mohammed and Abusalah, 2012 and Muhamad Sori et al., 2001). One of the method is Multiple Discriminant Analysis (MDA), a statistical technique used to categorize an observation into one of several priority groupings dependent upon the observation's individual characteristics, for an example to classify or make predictions in problems which dependent variables appears in qualitative form likes bankrupt or non-bankrupt (Altman, 1968). Altman (1968) had developed a Z-score model by using five ratios i.e. working capital divided by total asset, retained earnings divided by total assets, EBIT divided by total assets, the market value of equity divided by total liabilities and sales divided by total assets. Altman (1993) identified that the most significant indicators of bankruptcy were by measuring profitability, liquidity, solvency and cash flow (Md Rus and Hiau Abdullah, 2002). Meanwhile, most of the previous studies such as Altman et al. (2017), Mbogo and Waweru (2014), Mohammed and Abusalah (2012), Smith and Graves (2005), Samarakoon and Tanweer (2003) and Muhamad Sori et al. (2001) have selected financial ratios as the popularity and predictive ability to predict the firms' bankruptcy. Among the most commonly used financial ratio by the previous studies were net income to total assets, total liabilities to total assets, and size (Ohlson, 1980). Net income ratio represents growth. As for this study, it is consistent with Lennox (1999) in which in UK, the bankruptcy is explained by using cash to current liabilities, debtor turnover ratio, and gross cash flow ratio to from the cash flow. In addition, evidence from Korea, the previous studies that have studied that financial expense to sales, debt coverage and receivables turnover was necessary.

In Malaysia, there are some studies that found significant ratios in explaining bankruptcy. Low, Mat Nor, and Yatim (2001) found that the cash flow is significant during 1996 to 1998. Muhamad Sori et al. (2001) have conducted the study in the manufacturing sector by using the MDA model. They have found that total liabilities to total asset, sales to current assets, cash to current liabilities and market value to debt were significant to financial failure in Malaysian companies during the period from 1980 to 1996. Besides that, a study by Alifiah, Ahmad and Salamudin (2013) also used the financial ratios in Z-score model and focus on consumer product industry. Khaliq et al. (2014) also used MDA model as the appropriate statistical technique for their research study to identify the financial distress for GLC's firms in Malaysia. Altman (1968) popularized one model that can be used to measure the company's bankruptcy. The model also relies on the statistical technique of an MDA and financial ratios (Md Zeni and Ameer, 2010). The model known as the Z-score model in which, this model is the best known and most widely used to measure a

company's financial distress. It has begun with predicting the financial failures of U.S manufacturing companies. The Z-score model measures how closely a firm resembles other companies that have filed for bankruptcy (Li, 2012). Another findings have shown that the model is accurate in predicting one year prior to bankruptcy in excess of 80% of the time (Li, 2012; Mbogo and Waweru, 2014; Schweizer and Nienhaus, 2017). Therefore, this study would like to use Altman's Z-score to measure the financial health of non-financial institutions in Malaysia.

Altman's Z-Score

Altman's Z-score is the statistically derived predictive models that have been used to forecast a firm's coming bankruptcy (Hayes et al., 2010). This model has gained acceptance by auditors, management accountants, and database systems beginning in the mid-1980s. Altman's Z-score model is a multivariate formula used to measure the financial health of a company and to predict the probability that a firm is going to bankrupt within a two-year period. The variables in the Altman's Z-score formula uses various accounting ratios and market-derived price data to predict financial distress and future bankruptcy (Hayes et al., 2010). Using this model, Altman (1968) has composed a sample of sixty-six corporations of manufacturing companies, where thirty-three for bankruptcy companies and another half for non-bankruptcy companies. The companies have stratified by industry and by size. The size that based on asset size ranges restricted to between $1-$25 million. From the study conducted by Altman (1968), he had selected only five categories from the twenty-two ratios to predict the company failure, namely liquidity, profitability, leverage, solvency and activity. The ratios are chosen because of the popularity of the literature and potential relevance to the study. The ratios were systematically weighted in his calculations. As the original formula created for the manufacturing industry, Altman amended the formula to allow its application to a certain situation. The accuracy of the Z-score models in predicting failure as mentioned by the previous studies shown that this model is 72 to 80 percent reliable, which means the percentage of companies that are correctly classified in a sample estimation (Hayes et al., 2010; Maina and Sakwa, 2010). Besides that, some of other studies have also mentioned that the accuracy was more than 80 percent (i.e., Mbogo and Waweru, 2014) or ranging from 80 to 94 percent and with a better prediction for one year prior to bankruptcy (Li, 2012).

Altman has developed three version of the formula. However, this study will only look at two of them. The Z-score was originally constructed for manufacturing industrial, which is as follows:

$Z = 1.2X1 + 1.4X2 + 3.3X3 + 0.6X4 + 1.0X5$

Where: X1 = Working capital / total assets
                 X2 = retained earnings / total assets
                 X3 = Earnings before earnings and taxes (EBIT) / total assets
                 X4 = Market value of equity / total liabilities
                 X5 = Sales / total assets
Decision criteria: Z < 1.81 bankrupted (high possibility)
                 Z = 1.81 to 2.67 gray area
                 Z > 2.67 non-bankrupted (low possibility)

The alternative model was designed for non-manufacturing industrial in order to respond to demand to predict the failure of non-manufacturing companies. The formula was slightly different from the original formula presented, where the alternative formula does not consider the variable X5. The reason is to minimize the potential industry effects of various types of assets

financing, like lease capitalization (Maina and Sakwa, 2010). Another study which is done by Mbogo and Waweru (2014), also have used the Altman's Z-score formula that designed for non-manufacturing companies. The formula is as follows:

$$Z'' = 1.2X1 + 1.4X2 + 3.3X3 + 0.6X4$$

Where: X1 = Working capital / total assets
                X2 = retained earnings / total assets
                X3 = Earnings before earnings and taxes (EBIT) / total assets
                X4 = Market value of equity / book value of debt

Decision criteria: Z'' < 1.10 bankrupted (high possibility)
                Z'' = 1.10 to 2.60 gray area
                Z'' > 2.60 non-bankrupted (low possibility)

Qualitative Factors that Contribute to Corporate Failure

Muhamad Sori et al. (2001) stated that predicting corporate failure is based on the premise that failure is a gradual process and a consequence of problems developed over many years and the symptoms of the problems are identifiable. The common symptoms are the financial factors that consist of declining in profits, working capital, asset quality, liquidity, loan repayment and arrears interest, delay in payment to suppliers, staff and all other creditors. Besides, looking at financial factors, this study aims to examine what other factors in term of non-financial factors that may contribute most to failure among non-financial institutions in Malaysia.

Role of top management

According to the previous studies, most stated that leadership requires genuine determination and commitment from top management (Gopinath, 1991; Grinyer, Muyes, and Mckiernan, 1990; Haron, Abdul Rahman and Smith, 2013). There is a need for effective communication between boardroom and shop-floor as to avoid failure recognition. Rushin (2012) indicates reasons for corporate failure due to the roles and responsibilities are lack of character, lack of vision, lack of execution and others. The earliest empirical studies business failure also examined the role of various owners in explaining business failures. The role of the owner related to personal decision-based characteristics such as lack of insight, inflexibility, emphasis on technical skills and managerial deficiencies such as lack management techniques (Arasti, 2011; Wu, 2010). A result of poor management skills, insufficient marketing and lack of ability to compete with other similar businesses had contributed to business failure (Arasti, 2011; Wu, 2010).

Senior manager or CEO turnover

Another factor that contributes to corporate failure is a senior manager or CEO turnover in the management. The first reason related to the turnover is the poor firm performance in which firms are affected by greater economic significance during economic downturns (Harry, Luo and J.Nagarajan, 2013). In the US, Friedl and Resebo (2010) found that when the firm's stock is performing badly, the management likely to change CEO. The second reason is the significant changes in the use of contractual provisions by fail firms (Harry et al., 2013). The previous studies have suggested that changes to the senior management team are an important step towards enacting a successful recovery (Smith and Graves, 2005). They further stated that changes in the senior management team are meant to inject stakeholders' confidence and continued supporting the organization. Besides, previous study have observed negative relations between firm

performance and the probability of senior manager or CEO turnover, the significant improvements in operating performance subsequent to the forced turnover suggest that the top management is effective monitors of management (Zhao, 2002).

Role of Audit Committee

The audit committee plays a significant role in monitoring the company's operation as well as its internal control system (Rahmat, Iskandar and Saleh, 2009). It aims to protect the interest of the stakeholders. The audit committee involves in the development of the strategic plan of the company. It is expected to provide input and recommendations on any financial and operational matters to the board. An effective competitive, particularly in changing business environment that is beyond the control of the company (Rahmat et al., 2009). Mueller and Baker III (1997) stated that the audit committee is identified as part of the company's strategic leadership that contributes to corporate failure. Hence, the effectiveness of the audit committee will affect the financial distress of businesses whereby the incompetence among audit committee members may contribute to corporate failure (Simpson and Gleason, 1999).There are prior research's findings on the association of audit committee size and company performance, whereby the audit committee become infective if their size either too small or too large. A large number of audit committee's members tends to lose focus and be less participative. Meanwhile, the small size of audit committee's members have possibility lacks diversity of skills and knowledge. The positive relationship between the size of an audit committee and company financial performance were supported by the argument in resource dependence theory (Rahmat et al., 2009). Another findings shows a weak relationship between the size of the audit committee and a performance of the company (Eichenseher and Shields, 1985; Menon and Williams, 1994; Pincus, Rusbarsky, and Wong, 1989).

Audit committee members who have knowledge of accounting and finance may examine and analyze financial information. Prior researchers also found that the audit committees with good knowledge in accounting basis are able to reduce the number of failure companies (Abdullah, 2002; Rahmat et al., 2009). The requirement to be an audit committee is to have at least one member who is a member of the Malaysian Institute of Accountant (MIA) or must have experience of not less than three years and passed the professional examination. Rahmat et al. (2009) concluded that financially literate members of audit committee are those with knowledge of accounting and finance and have experience in practice.

Ownership Structure

The relationship between ownership structure and corporate performance have affected the corporate governance mechanisms vary around the world (Shleifer and Vishny, 1997; McCahery et al., 2016). The ownership structure of a firm would be able to explain the behavior of financial distress. Management ownership may affect the efficacy of the board of directors controls mechanism by boosting management's influence on the board (Iqbal and French, 2007; Aguilera and Crespi-Cladera, 2016). Previous studies found that family control was common in publicly traded firms around the world especially in the US and Western Europe, which have the majority of family-controlled (Maury, 2006; Sageder et al., 2018). From the Malaysian perspective, the prior studies found that family companies have contributed more than half of the Malaysian Gross Domestic Product where it is estimated that 80 percent of 890 companies listed on Bursa Malaysia are family-owned business (Amran, 2011). Most of the companies in Malaysia owned by Chinese, so they have some believed that "wealth does not endure three generation" and will

create the conflict, for an example is the case of Tan Chong Motor Holding Bhd and the Hong Leong Group (Amran, 2010) may contribute to corporate failure.

Government ownership of the companies may also be the factors that would be contributed to corporate failure. Huang and Xiao (2012) mentioned in their studies that there is effect of the "helping hand" and "grabbing hand" of government ownership on firm profitability and labor productivity. These may lead to conflict in the management and contribute to company failure. In other circumstance, government ownership might provide a control mechanism for ensuring that, there are no management self-interest behavior and improving performance (Ahmad, Aliahmed and Ab Razak, 2008; Bhatt, 2016). From China evidence, it reveals that higher level of government ownership plays a positive role in improving company's performance (Yu, 2013). In Malaysia, GLCs have a primary commercial objective and Malaysian Government has a direct controlling stake. Therefore, there is evidence from Malaysia showed that government ownership of company in Malaysia has better performance than non-government (Ahmad et al., 2008).

Beside those ownerships, there is evidence from Sri Lanka shows that a substantial increase in shareholdings by outside directors have affected greater incentives for monitoring management and have diminished the likelihood of financial fraud (Lakshan and Wijekoon, 2012). These are because by having outside ownership or foreign ownership may have effective monitoring on firm's performance. According to Fan, Huang and Zhu (2013) using evidence from China found that firms controlled by private parties or known as outside directors adjusted their policies much faster when dealing with financial distress. However, on the other perspective, the outsiders sometimes may not understand the complexities of the company and leads to technically ineffective monitors (Simpson and Gleason, 1999; Manzaneque, 2016).

Firm's Age

Company's age is one of the nature of companies that may has an influence on a company's performance as mentioned by several previous studies (Alamro and Al-soub, 2012). According to Sorensen and Stuart (2000), they argued that organizational that have been operated in old firms tend to make them inflexible and not updated with environmental changes. As a result, the newer and smaller companies take away market share in spite of disadvantages such as lack of capital, brand names and corporate reputation compared to older companies. The older companies usually have more experience because they have enjoyed the benefits of learning. Besides that, older companies might enjoy the benefit from reputation effects, which allow them to earn a higher margin on sales (Alamro and Al-soub, 2012).

Firm's Size

The large companies can exploit economies of scale and scope and thus being more efficient compared to small companies (Alamro and Al-soub, 2012). Usually small companies may have less power as compared to large companies. Therefore, they may find it difficult to compete with large firms, particularly in a highly competitive market. However, the larger companies also have possibility that might suffer from inefficiencies in management that leads to poorer company's performance. The previous study found that there is equivocal on the precise relationship between size and performance (Alamro and Al-soub, 2012). Smith and Graves (2005) stated that company size plays an important role where Paint (1991) found that a statistically significant relationship between turnaround success and size, generally smaller companies more likely to experience turnaround or distress.

Research Method

The sampling method for this study is to look at the successful companies that have listed on the Main Market of Bursa Malaysia and unsuccessful companies which known as PN17 on the Bursa Malaysia for the year 2012. The data collection for this study consists of both primary and secondary data. The objective of this study is to understand the level of financial health among non-financial institutions in Malaysia. Therefore, the data collection is from the Main Market of Bursa Malaysia. This study has selected 201 successful companies out of 765 companies on the Main Market of Bursa for the year ended 2012, excluded the financial institutions and PN 17 for that period. Sekaran and Bougie (2009) have provided the guidelines for determining the sample size of the population. The guideline also has suggested that based on the population of 765 listed companies on the Main Board for the year ended 2012, 201 samples of companies should be selected. Those companies have been chosen based on the largest profits and total asset.

From the 201 successful companies selected, they will be classified into two groups which are manufacturing companies and non-manufacturing companies. The formula of Altman's Z-score consists of calculations for both types of companies. The research study done by Mbogo and Waweru (2014) also have divided the companies according to their type of companies which are manufacturing and non-manufacturing. Secondary data was gathered from the annual reports and DataStream Database of the selected companies for the period under review. The purpose of the data collection because only covered the financial factor, the other factors like non-financial factors not always been reported in the financial statements of companies. The secondary data was audited and it was considered reliable for the purpose of study (Neville, 2007). Primary data was collected by distributing the questionnaires through e-mail and postage mail to selected companies. The main purpose of mail questionnaires is that a wide geographical area can be covered in the survey (Sekaran and Bougie, 2009), as one of the selected companies situated in Sarawak. Other advantages of distributing the questionnaires were the results that had received would get directly from the target respondents (Mbogo and Waweru, 2014) since this study would like to send the questionnaires to the finance manager and CEO of companies.

On April 7th, 2014, the researcher has sent a request through email regarding list of companies that have been listed under PN17 as at 31 December 2012 to the Bursa Malaysia. After that, on April 8th, 2014, the researcher received the feedback from the Bursa Malaysia. According to Bursa Malaysia (2014), there are 17 companies on Main Market which have been declared as PN17. The samples of data collection was selected for year 2012 and five years prior to being listed under PN17 because the observed evidence for five years prior to failure was cited as conclusive and the ratio analysis can be useful in the prediction of failure (Altman, 1968).Therefore, the total of the questionnaires return is 15 out of 17 companies that listed as PN17 by Bursa Malaysia. The return rates of postage mail questionnaires were not totally 100 percent. Besides the advantages of postage mail questionnaires, it also have some disadvantages in which any doubts the respondents might have cannot be clarified (Sekaran and Bougie, 2009). However, Sekaran and Bougie (2009) have stated in their guidelines that a 30 percent rate is considered acceptable. Therefore, the total percentage returns are 88.24 percent (15 out 17 companies) which is more than 30 percent, and it is deemed acceptable.

This study also aims to make a comparison between successful companies and unsuccessful companies which had listed as PN17. For this purpose, this study has identified 17 unsuccessful companies for the year 2012. However, ten companies have been declared bankrupt for the first

time in this year. The other seven companies have been the first time declared bankrupt prior to this year.

Table 1: Summary of Bankruptcy Firms (First Time Declared as Bankrupt)

Year of first time declared bankrupt	Number of companies
2012	10
2011	-
2010	4
2009	1
2008	2
Total	**17**

Table 1 shows the proportion of the companies and the year they have declared bankrupt for the first time. The earliest study that has been conducted by Altman (1968) who used 66 corporations from manufacturing industries comprising of bankrupt and nonbankrupt firms for five years prior to failure. It is consistent with the other previous studies such as (Muhamad Sori et al., 2001) in which, they also use the techniques of "one-to-one match" that they have selected 24 failed firms matched with 24 non-failed firms for five years prior to failure. Therefore, this study has used 15 out of 17 unsuccessful companies matching with the sample of 15 successful companies. The matched companies were chosen based on some criteria that were set as control factors (Muhamad Sori et al., 2001) which are the same year, nearest asset size and same industry. The data was collected from the annual report and DataStream database that sourced for 2012 and five years prior (Altman, 1968; Muhamad Sori et al., 2001) to unsuccessful companies listed as PN17 by Bursa Malaysia.

Results

The analysis for 201 successful companies has classified into two which for manufacturing and non-manufacturing companies by computing the Altman's Z-score model. It would be more understandable on how the Altman's Z-score identify the financial health for those types of companies. Previous study only focusing on the predicting for unsuccessful companies, however, in this study, it is intended to identify the level of financial health for 201 successful companies in Malaysia. The 201 successful companies are selected randomly by considering sample size that have been suggested by Sekaran and Bougie (2009) and their company's size which based on the total asset. Besides that, the researcher also considered the years of company that have been listed on Bursa Malaysia which is more than 10 years. There are 26.37 percent of the successful companies had been listed for between 10 – 20 years and the remaining, 73.63 percent of the companies were listed for over 20 years. The researcher has categorized the 105 of companies classified as the manufacturing companies and the remaining (96 companies), classified as non-manufacturing companies. Then, the researcher has used the Altman's formula in order to calculate the financial health of those companies. The researcher has presented the result in percentage because it would be easier to understand.

Table 2: Frequency Analysis for Probability of Bankruptcy (Year 2012)			
Type of industries	**No. of companies**	**Probability of Bankruptcy**	**Percentages**
Manufacturing	105	Low	22.86%
		Gray area	35.24%
		High	41.90%
Non-manufacturing	96	Low	12.50%
		Gray area	48.96%
		High	38.54%

Table 2 portrays the frequency of probability of bankruptcy by the 201 successful companies for the year 2012. The result based on the calculation done by using Altman Z-score's model. There are three probability areas which are low, gray and high. However, as referring to the table, it shows that the percentage of low likelihood of company for both types of industries to bankrupt showed in small percentage if compared to high and gray area. The percentage of low probability of bankruptcy for manufacturing shows 22.86 percent and gray area shows 35.24 percent. For the non-manufacturing companies, there are almost of 50 percent of the companies in the gray area. The percentage of high probability for both industries is high. The percentage probability of bankruptcy for manufacturing is at the high area which 41.90 percent. From the table, this indicates that the reality level of financial health for those successful companies in Malaysia was not in great condition. Although they have been listed in the Bursa Malaysia at the Main Board, it is does not mean their companies are really in stable condition.

Descriptive Analysis

Manufacturing

This study has done the descriptive statistics for financial factors as the independent variables in the Z-score formula. The result based on the successful companies from the manufacturing companies which consists of 105 companies. Therefore, the independent variables consist of working capital divided by total asset ($X1$), retained earnings divided by total assets ($X2$), EBIT divided by total asset ($X3$), the market value of equity divided by total liabilities ($X4$) and sales divided by total assets ($X5$). The mean statistics for all variables are 0.1831, 0.3542, 0.2425, 0.7070 and 0.7671. Since all the values were under 1, it indicates that the decrease in the variables value leads to the decrease in the Z-score's value. If the lower value of Z-score which is 1.875 and below would have high possibility to bankrupt.

Non-manufacturing

This study also has done the descriptive statistics for financial factors as independent variables which based on non-manufacturing companies which consists of 96 companies. The independent variables for non-manufacturing industries were as same as the manufacturing industries excluded the sales divided by total asset ($X5$). The means for the independent variables, $X1$ to $X4$ are 0.2818, 0.2613, 0.2378 and 0.9113 respectively. This indicates that most of the non-manufacturing companies were in the gray area and had high probability to go bankrupt.

Frequency Analysis for the Non-Financial Factors of the Independent Variables

This section looks at the results from the questionnaires that have been distributed to unsuccessful companies which had declared as PN17 as at 31st December 2012 by Bursa Malaysia. The selected companies are based on the information received from Bursa Malaysia on April 8th, 2014. 15 out of 17 questionnaires returned with the response rate of 88.24 percent. Section C of the questionnaires is the section with questions on other factors that may contribute to corporate failure. The section requires respondents to answer by indicating the appropriate number that best describe the level of agreement for each factor.The question for this section is "In your opinion what are the most factors that lead to the corporate failure?" The results referred to the level of agreement that the respondents would have indicated which are 1 refers to "*strongly disagree*", 2 refers to "*disagree*", 3 is "*neutral*", 4 is "*agree*" and 5 is "*strongly agree*." Therefore, the results are shown in Table 4.4, 4.5, 4.6 and 4.7. The results are hoped to achieve the fourth objective of this study in which to determine the other factors that may contribute to corporate failure. Besides that, in determining either the factors will affect the level of the financial health of the non-financial institution, the response rate is referred. Therefore, the purpose of the questionnaires is to gather the information directly from the finance officers or Chief Executive Officers (CEO) in the sampled companies to avoid the incorrect information. The information will be more reliable and valid. On the other purpose, the secondary data only covered the financial factors that have been collected from the DataStream and annual report, the other factors like non-financial factors not always been reported in the financial statements of companies.

TABLE 3: Summary of Descriptive Statistics for Non-Financial Factors of Independent Variables

	N	Minimum	Maximum	Mean	Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Statistic
Role of top management Poor role of top management **Senior manager/CEO turnover**	15	3	5	4.60	.632
More than 3 years	15	2	4	2.93	.704
Less than 3 years **Poor role of audit committee**	15	2	5	3.73	.961
Size of audit committee	15	1	5	3.13	1.356
Knowledge in accounting **Ownership structure**	15	2	5	3.80	1.014
Family ownership	15	2	5	3.20	1.014
Government ownership	15	1	5	3.20	.941
Foreign ownership **Size of company**	15	1	4	2.73	.704
Less than RM 100,000	15	2	5	3.13	.834
>RM 100,000, but <RM 1,000,000	15	2	5	2.73	.594
>RM 1,000,000, but <RM 10,000,000	15	2	5	3.00	.926

	N	Minimum	Maximum	Mean	Std. Deviation
More than RM 10,000,000 **Age of company**	15	2	4	2.93	1.100
1 - 5 years	15	2	5	3.53	.834
6 - 10 years	15	2	4	2.73	.594
11 years and above	15	2	4	2.93	.961
Valid N (listwise)	15				

Table 3 presents the summary of frequency analysis for the non-financial factors of the independent variables. The table shows that the minimum, maximum and mean values for "*Poor role of top management*" are 3, 5 and 4.60 (SD = 0.632), respectively. This can indicate that most of the respondents were agreed with *poor role of top management* where the frequency respondents chosen (5) "*strongly agree*" are 66.7 percent and (4) "*agree*" is 26.7 percent. The total of companies is 14 of them agreed with that factor. Next, the mean value for "*Senior manager or CEO turnover more than three years*" is 2.93 (SD = 2.93). This indicates that the respondents were chosen (3) "*neutral*" by the frequency rate 53.3 percent, while most respondents answered (4) "*agreed*" by 66.7 percent, that "*Senior manager or CEO turnover less than three years*" is the factor to company failure. The frequency of company agrees with the factor that top management turnover less than three years would contribute to corporate failure is high by showing 12 of the companies indicated that they were agreed. Types of the ownership structure also one of the independent variables under organization management. Table 3 presents the summary results of frequency analysis of ownership structure. There are three types of ownership structure which are family ownership, government ownership, and foreign ownership. The minimum, maximum and mean score for family ownership structure are 2, 5 and 3.20 (SD = 1.014), respectively. The frequency rate for family ownership is 40.0 percent of respondents chosen (3) "*neutral*". The frequency respondents were chosen (5) "*strongly agree*" was 2 companies. The mean score for government ownership is 3.20 (SD = 0.941) and frequency rate is 53.3 percent where the respondents also chosen (3) "*neutral*" by 8 companies. From the response rate also the researcher had identified that the respondents (i.e., 5 companies) agreed that the family and government ownership leads to corporate failure. The mean score for foreign ownership is 2.73 (SD = 0.704). This type of factor shows most of the respondents do not agree that ownership structure would contribute to the corporate failure.

The other independent variable is nature of the company. There are two characteristics that are the size of the company that based on the total assets and age of the company. This study has classified the total assets into four categories which are based on the total assets of the listed companies on the Main Market; (i) less than RM100,000; (ii) more than RM100,000 but less than RM1,000,000; (iii) more than RM1,000,000 but less than RM10,000,000, and (iv) more than RM10,000,000. The results presented in Table 4.2 for category (i) to (iv) are 3.13 (SD = 0.834), 2.73 (SD = 0.594), 3.00 (SD = 0.925), and 2.93 (SD = 1.100), respectively. This is because most of the respondents chosen (3) "*neutral*". The frequency rate for a company that have total asset less than RM100,000 is 40.0 percent of the respondents were chosen (4) "*agree*" that this factor brings to company failure and 6.7 percent of respondents chosen (5) "*strongly agree*". Then, 60.0 percent of the respondents were chosen (2) "*disagree*" that more than RM10,000,000 factor would lead to failure.

For the age of company which consists of three categories of years which are 1 until 5 years, 6 until 10 years and over 11 years company have been established. Therefore, the mean scores for that factors are 3.53 (SD = 0.834), 2.73 (SD = 0.594) and 2.93 (SD = 0.961), respectively. The frequency rate for this type of independent variables shows that the respondents were chosen (4) "*agree*" by 26.7 percent, if the company has been established less than 5 years may contribute to company failure. The respondents highly chosen (2) "*disagree*" by 46.7% rate, if the company has been established over 11 years.

Correlations analysis of the independent variables

Manufacturing

This study has done the Pearson correlation matrix of independent variables for financial factors in the Z-score formula with the level of financial health. The results show the relationship between working capital divided by total asset (X1), retained earnings divided by total assets (X2), EBIT divided by total assets (X3), market value equity divided by total liabilities (X4) and sales divided by total assets (X5) which are the independent variables for financial factors in the manufacturing Z-score formula with the level of financial health of the companies were investigated using Pearson correlation coefficient. The correlation between X1 and level of financial health present a strong relationship, a negative correlation which are r = -.549, n = 105, p < .0005, with an increase of X1 with decrease level of financial health. Next, the correlation between X2 and level of financial health has a strong relationship, negative correlation, r = -.504, n = 105, p < .0005, with an increase of X2 with decreased level of financial health. The correlation for X3 and level of financial health was a medium correlation between the two variables, suggesting quite a strong relationship, r = -.479, p < .0005, with an increase of X3 with decrease the levels of financial health. There was strong, negative correlation between X4 and levels of financial health, r = -.527, p < .0005, while there was a quiet strong relationship, negative correlation between X5 and level of financial health, r = -.408, p < .0005, with increase the X4 and X5, with decrease the level of financial health of the company.

Non-manufacturing

The results of Pearson correlation matrix of the independent variable for financial factors in the non-manufacturing Z-score formula with the level of financial health show there are medium correlation between X1, X3 and X4, with level of the financial health. These describe the negative correlation which the results were X1, r = -.350, p < .0005, X3, r = -.349, p < .0005 and X4, r = -.459, <.0005. The correlation relationship X2 and level of financial health was small correlation, r = -.293, p < .0005.

Qualitative Factors

The Pearson correlation matrix for non-financial variables between levels of the financial health show the results for all the variables are less than 0.5, and there has positive and negative relationship. The factor of "Poor role of top management" has a small correlation with level of financial health by r = -.163, p < .0005, which describe the negative correlation. Next factor which is "Senior Manager or CEO turnover more than 3 years or less than 3 years" have small and medium correlations with level of financial health where more than 3 years have resulted that negative correlation, r = -.063, p < .0005, while less than 3 years have resulted that positive correlation, r = .345, p < .0005. The factor of "senior manager or CEO turnover less than 3 years"

more affected the level of financial health by showing the medium relationship. The factors of the role of audit committee have a positive correlation with the level of financial health. The size of audit committee has medium correlation, $r = .320$, $p < 0005$, and knowledge of audit committee in accounting also have medium correlation, $r = .371$, $p < .0005$. This indicates those factors have affected the level of financial health.

Next, the factors of ownership structure also have positive correlation for family ownership and negative correlation for government and foreign ownership with the level of financial health. However, three of factors have weak relationship with the dependent variables, where family ownership, $r = .051$, $< .0005$; government ownership, $r = -.127$, $< .0005$; and foreign ownership, $r = -.138$, $< .0005$. The factors of nature of companies consist of size and age of companies. The result showed that there are positive correlations. However, size of companies that have total assets more than RM 1,000,000, but less than RM 10,000,000, have medium correlation by $r = .370$, $p < .0005$, as compared to other which have the small correlation. This indicates that this factor has a medium relationship with the level of financial health. The factor of age, showed there are a negative and positive correlation. The companies that had established for 11 years and above have the positive correlation which $r = .131$, $p < .0005$, indicates that there has a weak relationship with the level of financial health. Overall of the results from the correlations for non-financial factors indicates that there are weak relationships. This is because the data were taken from the questionnaires that have been distributed. The results were not too strong because the sample size is too small. It is only 15 companies that have been responded to the questionnaires. However, this study has run the correlation analysis to determine the level of relationship between non-financial factors with the level of financial health in clear overview.

Analysis of the Comparison Between Successful Companies and Unsuccessful Companies

The comparison was made to achieve the objective of the study in which to assess the use of Z-score model among the non-financial institution in Malaysia. Besides that, it would increase the understanding on the level of financial health among non-financial institutions in Malaysia. *Manufacturing*
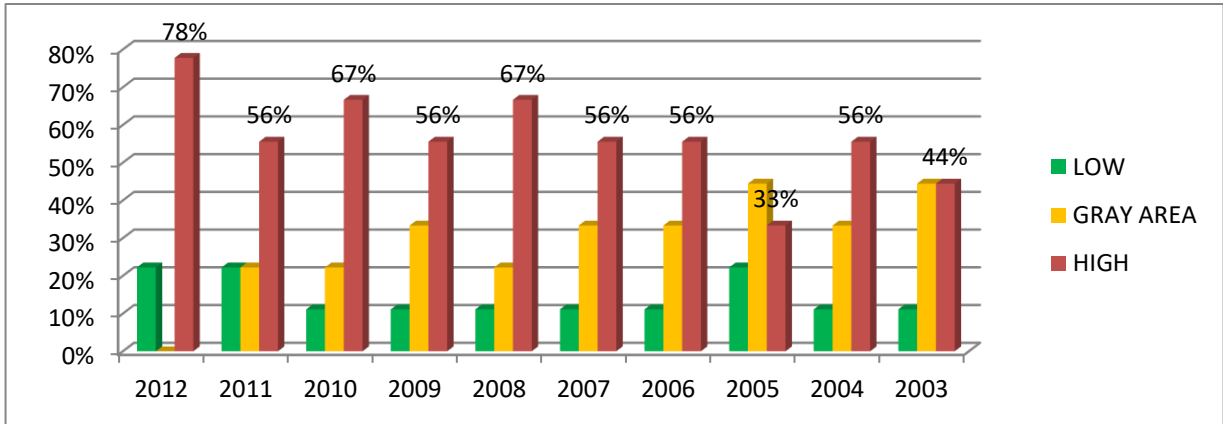

Figure 1: Bar Charts for The Unsuccessful Manufacturing Companies

Figure 1 presents the bar charts for the manufacturing companies that has been listed as PN17 by Bursa Malaysia. There are nine companies that consist of several types of business which are industrial products, constructions, food producer, technology hardware and equipment, and forestry and paper. Bar charts present that manufacturing companies have high possibility to

bankrupt by 78 percent for the year 2012. For the other years also shows that the percentage of high probability bankrupt was higher.
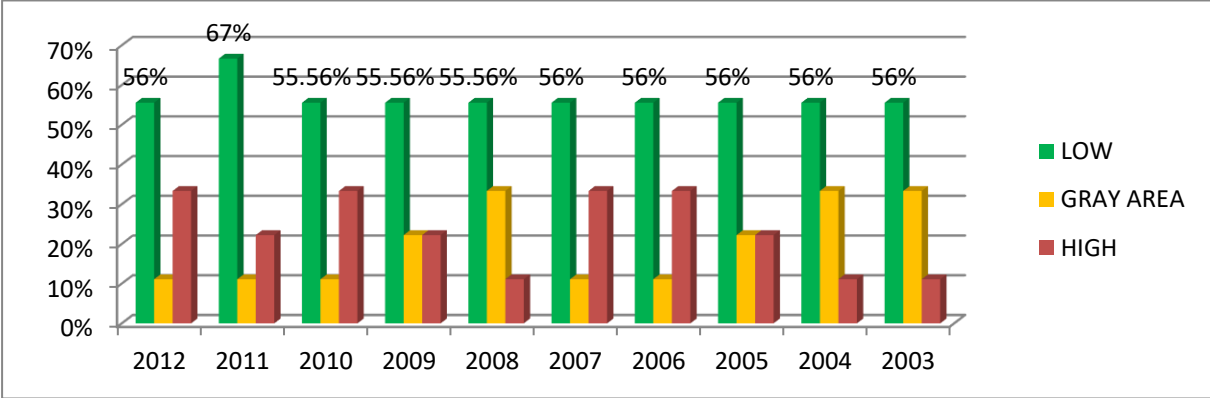

Figure 2: Bar Charts For The Successful Manufacturing Companies

Figure 2 presents the bar charts for the manufacturing companies which are successful companies and have been listed on the Main Market of Bursa Malaysia. The percentage for low possibility to bankrupt had shown the higher percentage in every study year. However, there was still having the companies that have high possibility to bankrupt.
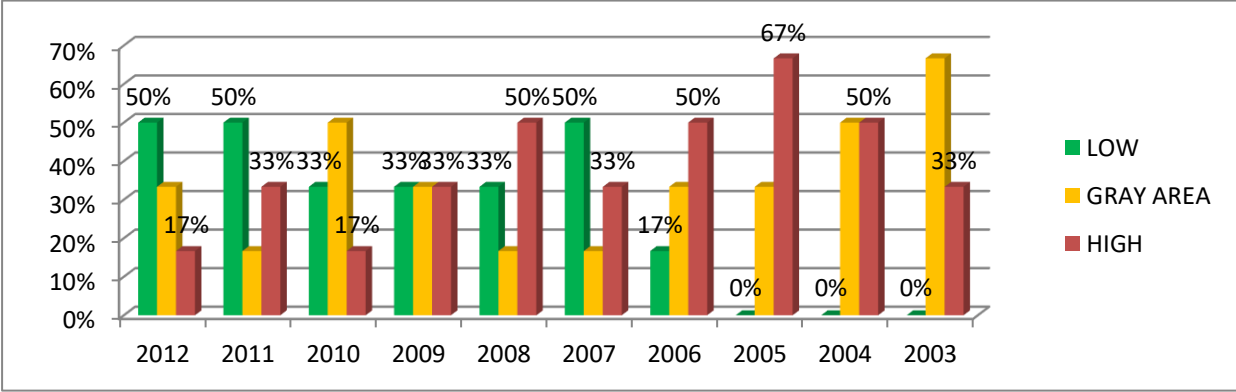
Non-manufacturing

Figure 3: Bar Charts for The Unsuccessful Non-Manufacturing Companies

Figure 3 shows the bar charts for the unsuccessful non-manufacturing companies. There are six companies that consist of several types of business namely software and computer services, health care equipment and services, real estate investment and services, and oil equipment, services, and distribution. From the bar chart, it shows that for the years 2011 and 2012, there are the percentage of low probability to bankrupt were higher by 50 percent. The percentage for high probability to bankrupt for the year 2012 was lower which is by 17 percent. However, those companies have been declared as PN17. There must have some other factors that contribute to this situation. Besides that, it indicates that the formula of Z-score results are not clear as mentioned by Eidleman (1995) that it was one of the pitfalls for the model (Maina and Sakwa, 2010). So this formula must cooperate with other factors such as non-financial factors and will make the result become more accurate. Besides that, for years 2005 shows 67 percent for high possibility to bankrupt during that year, this can be related to the financial crisis for that year and have affected the Malaysian economy.
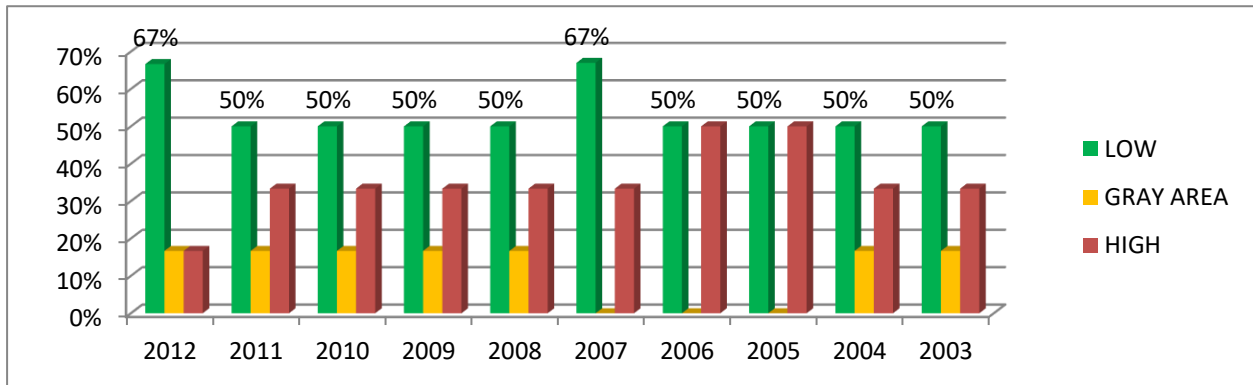
Figure 4: Bar Charts for Successful Non-Manufacturing Companies

Figure 4 presents the bar charts for the successful non-manufacturing companies. Most of the years have the same percentage of the low probability to bankrupt which are 50 percent except for the years 2007 and 2012 the results present the percentage were 67%. During the year 2007, the successful companies have the low possibility to bankrupt because they no had business competition, this can be related to the situation in the not strong companies have to struggle to face the crisis of slowdown economy at that time (Khoon and Mah-Hui, 2010). For year 2012, the establish companies with the strong economy condition may not have problem to maintain low possibility to bankrupt. However, there is still having high probability to bankrupt since the bar chart shows the percentage of high probability also high.

Discussions

The first objective of this study is to understand the financial health of the non-financial institutions in Malaysia by using the Z-score model. Therefore, the researcher has selected sample size that is 201 successful companies excluding the financial institutions from the Main of Bursa Malaysia for the year 2012. The extended levels of the financial health of companies are based on the criteria in Altman Z-score model. The Altman Z-score model consists of two formulas that are for manufacturing companies and non-manufacturing companies. There are 105 manufacturing companies and 96 non-manufacturing companies. The indicators that have created by Altman (1968) using the Z-score formula consists of three levels which are low, gray area and high possibility of bankrupting. From the results, it shows that the percentage of high probability to bankrupt for the manufacturing companies were higher by 42 percent, if compared to low probability bankruptcy was 23 percent for the year 2012. The non-manufacturing companies also have a high percentage on high probability bankruptcy by 39 percent as compared to the percentage of low probability bankruptcy which by 13 percent. This study found that most of the manufacturing and non-manufacturing companies that identified as at high area had total asset of RM 5,000,000 and below. For companies in the low area and gray area, most of them have the total assets of RM 1,000,000 and above. The companies in that area have been established over 15 years. From this finding the researcher can indicate that the reality level of financial health for those companies in Malaysia was not in great condition. Although the companies have been listed on the Main Market of Bursa Malaysia, this does not mean their companies are really in a stable condition.

Factors use in the Altman's Z-score model

This section looks on the findings to achieve the second objective which is to determine the factors use in the Altman Z-score model. The factors were the independent variables which

consist of working capital over total asset (X1), retained earnings over total asset (X2), earnings before tax over total asset (X3), market value equity over total liabilities (X4) and sales over total asset (X5). The relationships between all the factors with the level of financial health are significant by showing the negative correlation. The negative correlation means that one variable increase, the other decrease. For the manufacturing companies, the relationship between the variables and the level of financial health are a strong relationship which the results were more than 0.5. This can indicate that the Altman Z-score model are more accurate and perform better (Grice and Ingram, 2001) for predicting the manufacturing companies' failure rather than non-manufacturing companies (Altman, 1968; Li, 2012). Altman (1968) has developed the Z-score model because he wanted to predict the financial failure of the United States' (U.S) manufacturing companies (Li, 2012). Therefore, the model became well-known and most widely used in testing corporate financial distress.

The result of Pearson correlation also shows that as for non-manufacturing companies the relationship between the dependent variables and the independent variables that the factors use in the Z-score formula are significant but not strong. The result shows most of them was less than 0.5. Therefore, there is one independent variable that influences the level of prediction for both type of companies either in low, gray area or possibility high bankruptcy. The independent variable is the market value of equity divided by total liabilities (X4). In the result, it is also showed that there has a strong correlation between X4 and the dependent variable where for the manufacturing companies, the results indicate that -0.527 and non-manufacturing companies, the result was -0.459. The variable of X4 has the characteristics limit the effectiveness of Altman's model in predicting corporate failure (Li, 2012). There were some arguments about the Altman Z-score model by previous studies argued that the model comprise different measures of accounting variables that are derived from the financial statements. The financial statements are backward looking and prepared on a going concern assumption. By nature, it may not provide predictive value for an entity's future (Li, 2012). However, only one from the five variables in Altman's original model which is market value of equity divided by total liabilities (X4) is market-based and "forward-looking" (Gutzeit, 2011; Li, 2012).

The use of Altman Z-score model among the non-financial institutions in Malaysia

The discussion is to assess the use of Altman Z-score model among non-financial institutions in Malaysia. Besides that, to look how the model uses in predicting the financial health of those companies in Malaysia. Next, the finding also would determine the acceptance of use this model among the Malaysian companies.

The comparison between the successful companies and unsuccessful companies

The comparison between the successful and unsuccessful companies is to assess the use of Altman Z-score model among the non-financial institutions in Malaysia. Therefore, it was comprised of two types of companies which are manufacturing and non-manufacturing because of the different formula. So, it would easy to understand it. The analysis has done for ten years which is between 2003 until 2012. The total companies were 15 unsuccessful companies and 15 successful companies. For the comparison in manufacturing companies between successful and unsuccessful consist of 9 companies. For non-manufacturing companies, the total is six companies for both, successful and unsuccessful. From the result that presented in the bar, charts show that the Z-score model accurately predicts for the unsuccessful manufacturing companies and also for the successful manufacturing companies. As presented that there are showing every

year of the prediction show there are possibility high bankruptcy for unsuccessful companies. The Z-score model performs better with manufacturing companies than with companies in other industries (Grice and Ingram, 2001; Li, 2012). Besides that, in the study done by Li et al (2012) stated that the prior research found that the model performs well in predicting bankrupt firms, with accuracy rate ranging from 80% to 94 percent. It was better prediction from one year prior to bankruptcy.

The unsuccessful and successful non-manufacturing companies

The results for unsuccessful non-manufacturing companies show that the percentage for possibility low bankruptcy was higher for years 2011 and 2012 which are 50 percent. Supposedly the result will show that there has high possibility to bankrupt because Bursa Malaysia had declared them as unsuccessful companies and known as PN17 for the year 2012. Therefore, there are some possibilities that may contribute to this situation. Firstly, the unsuccessful companies maybe not have a problem in the financial factors but there must have some other criteria that made Bursa declared those companies as PN17. The criteria are probably the company is facing a deficit in the consolidated adjusted shareholder's equity of the listed company; the auditors have expressed adverse opinion in its latest audited account; the receivers and/or managers have been appointed over the property of the listed company, or over the property of its major subsidiary or major associated company whose property accounts for at least 70 percent of the total assets employed of the listed company on a consolidated basis; listed issuer has a significant business or operations; and listed issuer has been suspended or ceased all of its business or its major business or its entire major operations for any reasons (Md Zeni and Ameer, 2010). Secondly, Altman Z-score model is not really accurate for non-manufacturing companies. Therefore, the results presented were not clear. Eidleman (1995) has mentioned several pitfalls in using this type of model such that the model often does not give a clear result. This is because the variables that used in the model are based on financial statements (Maina and Sakwa, 2010). Besides that, the users of the model must look at the qualitative issues such that non-financial factors. It indicates that Altman Z-score model must cooperate with other factors which not always stated in the financial statement such as poor role top management and audit committee; ownership structure and other non-financial factors.

Overall comparison analysis

From the results for the years 2007 and 2008, the percentage for high possibility bankrupt was quite high where the unsuccessful manufacturing companies show the increasing percentage from 56 percent in 2007 to 67 percent in 2008. For the unsuccessful non-manufacturing companies, the percentage of high possibility bankruptcy for year 2008 was 50 percent which higher than low probability bankruptcy. The reason for this situation might be able to be related to the global financial crisis. Malaysia has suffered a contraction in Gross Domestic Product (GDP) growth because of the Asian financial crisis which originated from Thailand in year 1998 (Khoon and Mah-Hui, 2010). Presently, the financial crisis had affected Malaysia due to the weaknesses in the United States financial industry which escalated into a severe international financial crisis and created the global trade and global recession by late 2008 (Khoon and Mah-Hui, 2010).

Altman's Z-score model – Financial Health and Knowledge

From the questionnaires that have been distributed to the 15 unsuccessful companies which has declared as PN17 for year 2012, it is noticed that 100% of respondents that had returned the questionnaires indicate that they are really concern about their financial health. The companies were asked to indicate either they knew about the Altman's Z-score model, 100% of the companies do not know about this model. These questionnaires had also asked what are the reasons that they do not apply this model. Then, 7 of companies answered that they were not familiar and aware of this model. The second reason is the respondents have indicated that the model is difficult to understand. This is because the formula in the model depends on the type of companies either manufacturing or non-manufacturing companies were used. Besides that, the formula that created by Altman also has been re-estimated based on other datasets for private manufacturing and service companies. Altman (1968) agreed to improve the formula to make it more effective and accurate to predict the financial distress status for every type of business companies.

The third reason is the respondents have indicated that the model do not always give a clear result. Eidleman (1995) also have mentioned pitfall in using this model that the model often do not give a clear result, and it cannot totally depend on the financial factors that stated in financial statement. They must look to the intangibles and identify the qualitative issues (Eidleman, 1995). One of the respondents also stated that the model is not a popular measurement for their company to use for the internal assessment. The other reason is the respondents have indicated that it is a waste of time to predict the financial health by using the model. This is because maybe those companies are only relying on the financial health based on the annual financial statement. Since the ratios of formula used in the model are based on the financial statement, it is no need for them to make it into twice.

Qualitative factors of corporate failure

The other factors are divided into several categories which are organization management, audit committee, ownership structure and nature of the company. The result in the Pearson correlation which calculated using the SPSS version 21 was not significant because the sample size was too small which n = 15. Therefore, the relationship between the factors with the level of financial health cannot be justified by multiple regressions. However, this study has justified the result based on the frequency analysis of the response to the other factors that contribute to corporate failure. The factors in the organization management consist of role of top management and senior manager or CEO turnover. The respondents were asked to indicate the level of agreement for each the factors that contribute to corporate failure. The respondents have indicated by chosen (4) "agree" and (5) "strongly agree" that poor top management as the main factor which may contribute to corporate failure. The genuine determination and commitment from top management would introduce the better leadership (Haron et al., 2013). From the web page of journal that written by Gary Rushin (2012), mentioned that several of causes of business failure and poor leadership. Rushin has studied that one of the main causes of business failure is due to the poor top management and leadership (Rushin, 2012). Lack of management depth also causes the company failure when many companies' management are lacks of adequate skills. The result of a manager's failure to maintain the alignment of a company's strategy, structure and objectives with a changing and evolving environment lead to a company's decline (Md Zeni and Ameer, 2010).Therefore, this may be part of the reasons the respondents of the survey totally agree with the factor that leads to corporate failure. Next, the senior manager or CEO turnover may also

cause the company failure. Some of previous argument stated that the changes of senior management team are important step enacting a successful recovery (Smith and Graves, 2005). However, the other previous studies had also mentioned that CEO turnover increase following a poor firm performance by giving it greater economic significance during economic downturns (Harry et al., 2013; Murphy and J.Zabojnik, 2006). The respondents of this study agreed that the senior manager or CEO turnover less than three years would contribute to corporate failure. It is consistent with the result from the interview that done by Friedl and Resebo (2010) where the CEO turnover less than three years, continues to have a negative effect on company performance for the certain period of years. However, the effects are not statistically significant because more research is still needed for this area. The senior manager or CEO turnover less than three years have an effect on financial health of companies could be the changes of the company's vision and the management structure. Besides that, the negative effects on company performance could be that the boards have chosen the senior manager or CEOs with inappropriate characteristics (Friedl and Resebo, 2010).

Audit committee plays an important role in contributing to the success of a company. Therefore, this study found that the size of audit committee has an impact to the financial health of companies when the 4 companies chosen (5) "strongly agree" that this characteristic may contribute to corporate failure. The evidence that found by Aldamen, Duncan, Kelly, McNamara, and Nagel (2012), the size of audit committee has a positive impact on performance. The lower the number of audit committee members, the more likely it is for a firm to have better performance (Aldamen et al., 2012). This can indicate that the larger size of audit committee members leads to inefficient in governance. The other characteristic is knowledge of audit committee members in financial or accounting. This characteristic show that whether the audit committee members are expert and competence in company management. Most of the companies in this study indicate that they are agreed that knowledge in accounting among audit committee members affected the financial health of the company. This is consistent with previous literature that the lack of competency among audit committee members may contribute to the financial distress (Rahmat et al., 2009; Simpson and Gleason, 1999). If the audit committee have accounting expertise, it may contribute to the strong governance and leads to enhanced conservatism (Aldamen et al., 2012).

In Malaysia, there are many types of ownership structures in a company. This study has identified three companies, which are strongly agree with family ownership leads to corporate failure. Family ownership is common in Malaysia, however it also brings some conflict that may contribute to corporate failure (Amran, 2010, 2011). The companies also suggest that foreign ownership does not really an important factor to contribute to corporate failure because some of the companies chosen disagree. The evidence found by Lakshan and Wijekoon (2012) that foreign ownership variable is insignificant where the result of logistic regression show that there is no influence of foreign ownership on the occurrence of corporate failure. however, otherwise evidence found by Simpson and Gleason, (1999) that the outsiders may not really understand the complexities of the company and cannot monitor efficiently. Therefore, it will lead to corporate failure. The respondents (i.e., 11 companies) agree that foreign ownership have positive impact to corporate failure. Besides, the results show that there are some effects between government ownership and the financial health regarding the numbers of the companies indicated "*agree*" for the level of agreement. The companies owned by government usually have some rules and districted in their management. Evidence from China found that there are "helping hands" and "grabbing hand" in companies' productivity and profitability (Huang and Xiao, 2012) may contribute a conflict and corporate failure. However, Zeitun et al. (2009) found that government

ownership negatively related to corporate failure, because their main focus in social benefit rather than profit. This consequence with finding by Ahmad et al., (2008) showed that government ownership of company in Malaysia have better performance than non-government.

Two characteristics of nature of companies are size and age of company. The finding for the size of company in this study found that the companies indicated more agree at total asset amount less than RM1,000, 000 would contribute to corporate failure. This is because smaller companies may have less power than larger companies and they have difficulties to compete with the large companies in extreme competitive markets (Alamro and Al-soub, 2012).The finding also identified seven of the companies indicated "*disagree*" that company that have experienced more than 11 years would contribute to corporate failure. This can indicate that the old companies have more experience and have better reputation, so it has lower possibility to influence the corporate failure (Alamro and Al-soub, 2012). Therefore, the statement would also supported this study's finding where most of the respondents agreed that age of companies are less than 10 years may contribute to corporate failure. Besides that, this study also found that some of respondents have mentioned the possible factors that may contribute to the corporate failure. One of the factors is the changes in market conditions affecting business. This factor is relating to the external factor which depends on the economy changes (Amran, 2011). The other factor mentioned by the respondents is corruption. The corruption is also important factor that lead to the failure. This factor is relating to the internal factor, which is about the attitudes and ethics of employees and internal management (Abebe, 2009; Rangaswamy, Prabhakar and Prabhakaran, 2011). These findings can be supported by the case of Enron, which can relate with corruption and attitudes of management.

Conclusion

This study shows the level of understanding on the financial health of the non-financial institutions in Malaysia using the Altman's Z-score model as the indicator tool to predict their financial health. The findings show that the financial health among successful non-financial institutions is not in a great condition. By using the Z-score model which predicts the level of financial health of the successful companies, most of the companies are at level of high possibility to bankrupt. This study has found that the Altman's Z-score model is more accurate for manufacturing companies as compared to non-manufacturing companies.

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