Role of Accounting Information in Predicting the Financial Failure of Companies

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Abstract: The research aims to identify the importance of using accounting information in predicting the failure of companies listed in the Iraqi Stock Exchange through the use of Altman Model on a sample of (25) companies listed in the Iraqi Stock Exchange that use the accounting information appearing in the financial reports for the year 2016 and then verify the results of the forecast on what the financial statements revealed, trading prices and market values of corporate capital for the year 2017. Accordingly, the research reached the following: Altman Model is appropriate to predict the failure or success of companies to provide accounting information disclosed by companies which showed the most important reasons that led to the success or failure of companies such as the financial liquidity, market value of shareholder's equity, realized profits or losses before taxes and interests in addition to retained earnings. Accounting information has a significant role in the verification of the forecasting model results, through the accounting information of the research sample companies in 2017.

Key words: Accounting information, financial failure, Altman Model, verification, research, companies

INTRODUCTION

Accounting information represents the final outcome of the financial statements which are objective and relevant for decision making and serve many of the parties dealing with companies because the modern business environment in general and the Iraqi business environment in particular are uncertain due to economic fluctuations and many factors that affect investment decisions and other decisions. As one of the most important characteristics of accounting information is the predictive ability, so, the existence of financial indicators that can be applied to accounting information enables us to predict the failure or success of companies according to what has been disclosed in the financial statements and supplemented reports. These forecasts allow the parties that deal with the companies to identify parties that deal with companies to identify the reasons for failure or success and decision-making. The financial stumbling occurs in the event of a shortage or stop in the returns of shares, that is a company incurs consecutive losses and thus it is unable to pay their obligations on due dates. So, the financial failure means fully stopping from payment of the company's obligations and thus the bankruptcy and cessation of activity. The problem of this research was represented by the following questions:

- How well the accounting information disclosed by companies is able to predict the failure or success of companies by applying Altman Model?

- Can the accounting information evaluate Altman Model in light of the research findings from the application of the model?

Through the research problem, the research aims to apply Altman Model in predicting the failure of companies by apply it to a sample of companies listed in the Iraqi market for financial securities and to evaluate this model in light of the accounting information disclosed by these companies as well as the role of this information in predicting the failure or success of these companies. The research is based on the following two main hypothesis:

First main hypothesis: The accounting information in the research sample companies plays an important role in predicting their failure or success and identifying companies that are difficult to predict.

Second main hypothesis: The accounting information plays a role in verifying the results of Altman Model used to predict the failure of the research sample companies through what is disclosed in the financial statements.

Population and sample research: The research population consists of all companies listed in the Iraqi market for financial securities. While, the research sample consists of 25 selected companies from different sectors (industrial, telecommunications, banks and hotels).

Literature review: Lundqvist and Strand (2013) he pointed out that the bankruptcy-prediction capability of diverse financial proportions varies among years. However, simply in some cases, significant importance variances between manufactures were found. The overall tabulation ability was not importance increased when covering the industry effects but employment some Dedicated cut-off values a marginal increment was found. Sharma and Mahajan (1980) depend in their study on some financial percentages to develop a prediction model for the financial, trip by using to firms in the retail sector for a time of five years. The study complemented that the return on assets was one of the most significant indicators that refers to suitable future financial stumble or failure. While Lakshan and Wijekoon (2012) explain in their study that applied publicly ready data from annual reports of a taking of 70 failed companies and a taking of resemble 70 non failed companies registered on Colombo Stock Market for a time covering the 2002-2008 financial years with logical regression analysis. Corporate governance advantages matched with board size, CEO duplicity, outside directors, outsider's owner hip, audit opinion, presence of an audit committee and rewarding of board members. Outside director percentage, turnout of an audit committee and rewarding of board members turn out to be negatively pertain with the probability of company failure while CEO duplicity is positively proportion with the probability of firm failure. Board size, auditor's opinion and outside owner hip do not show to be significant determinants and offers guide on the extent to which company failure related with governance. It would be educational to investors, financial analysts, accounting professionals, management and be helpful for regulatory authorities in making decisions, evaluations and policies.

Appiah (2011), examines the phenomenon of bankruptcy forecasting from a developing economy perspective apply Altman Z-score Model. Drawing on empirical data from a sample of 15 failed and non-failed companies registers in Ghana Stock Exchange, the experimental model was examined by a cross section of vary companies with dataset of period from 2004-2005. Altman's Z-score is viable in certain, consideration in forecasting bankruptcy build on the nature and size of the company in query. Since, the literature on company failure in African contexts is rather parsimonious. This study gives an important contribution to the global discourse on company failure forecasting. Altman *et al.* (1977) built upon earlier Z-score Models and developed the ZETA Model (Altman, 2000). The sample includes of 54 companies were exposed to bankruptcy and 58 companies were not bankrupt for the period from 1967-1975. The

ZETA™ Model is 7% points by comparison with the previous models of Altman. However, because the form is suggested, operations are not detected. The new model was able to classify companies that faced bankruptcy for five years before failure with a 90% success rate a year before bankruptcy and a 70% success rate 5 years ago.

The study of Alfra showed that the financial stumbling has several aspects such as increased dependence on external sources of finance, weak sources of self financing, retention of large amounts of inventory and the lack of a safe collection policy. Therefore, the company must be able to face operational risks which negatively affect on its revenues and profits as well as the inability risk to pay its obligations. The financial stumbling does not occur as a phenomenon that does not occur suddenly without symptoms or previous phenomena. So, accounting plays an important role in monitoring these phenomena or predicting financial failure before it occurs. The research paper of Bunyaminu and Issah (2012), dealing with a comparative study of a number of models and financial ratios used to predict the failure of a number of British companies, showed that the ratio of return on assets, payment obligation ratio and obligation coverage ratio were the highest financial indicators and ratios which were applied to (100) British companies, half of which was exposed to failure and the other half was not exposed to failure for the period from (2000-2010). Altman (2000) discussed two of the successful models for evaluating the insolvency of a groups of industrial companies, namely Credit Risk Models which were named (1968) ZETA® 1977 score. The objective of the reserch paper was testing the failure for the purpose of quantification of variables that are considered effective indicators for predicting corporate bankruptcy through a set of quantitative and financial indicators to determine the probability of bankruptcy. While Anjum described Altman's studies to predict the bankruptcy of companies, based on regular variables to achieve a correct and integrated equation to predict the failure of companies. The study concluded that Altman Model can be applied in the modern economy to predict the failure or bankruptcy of companies over 2-4 years. Li (2014) showed classification of the prediction model of the bankruptcy of construction companies by measuring the accuracy of the financial ratio in applying a data set consisting of (108) bankrupt and non-bankrupt companies, over a time series from 1985-2013. The objective of the study was to reveal the predictive power of a group of construction companies compared with Altman Model, especially, during the measurement process by algorithms to convert data into matrices which

can predict bankruptcy more accurately than other methods. Non-linear matrices showed better than linear matrices. This means that Altman Model is effective and appropriate for predicting the bankruptcy of construction companies in.

Cherif and Abdelmalek analyzed the causes and dimensions of the failure of financial performance of investment projects and predict it using the analysis models, predicting failure and avoiding it in the future by applying them to three projects in different sectors proposed to the National Agency for Youth Employment Support in Algeria.

Demirhan and Anwar (2014) also, explained the factors affecting the financial performance of companies during the period of financial crisis for Turkish companies. The study paper explained that the factors affecting the performance of companies during the international financial crisis also, affected the Turkish economy. The study investigated a sample of 140 companies listed in the Istanbul stock exchange which were verified during the financial crisis for the year 2008 and used (11) financial ratio as independent variables and the two researchers used factor analysis on the independent variables. These variables were classified into 4 variables namely liquidity, profitability asset management efficiency and financial leverage. The results indicated that liquidity positively affects the market value of the company whereas the financial leverage adversely affects the performance of companies during the global financial crisis.

Zhu (2012) aimed to identify internal factors, especially, financial measures that may be related to the failure of public and business companies in China. The study concluded that bankruptcy usually does not lead to failure of business companies and not a measure of the application of the failure of companies in China. The researcher identified (26) potential financial measures that believed were related to the failure of companies. After that, 16 of them which are likely to be associated with corporate failure were selected and then the group of financial factors was reduced to 6. They are profitability, liquidity, operating efficiency, expense structure, growth status and profit structure. The study found that the factors of profitability, liquidity, growth and profit were only correlated with the probability of failure of public companies. Based on the four factors, the researcher built a model to predict the failure of companies and the total accuracy of the model amounted to more than 80%.

Lundqvist and Strand (2013), test the ability of different financial ratios to predict the bankruptcy of companies by the nature of the industry and the time period. The study found that the existence of four financial variables led to the prediction of bankruptcy and

was focused on analysis. First, the logistic regression models were estimated excluding and placing industry impacts each year between 2006 and 2011. The models were analyzed to explain the differences between the years and industries. The results showed that there were statistically significant differences between the coefficients for 2006 and 2011. From this analysis, it can be concluded that the change in the marginal effect on bankruptcy over time has been changed. Leverage and size are important statistical analysis. However, the coefficients of other variables vary greatly, so, tests between groups of other factors and for other years may show different results. Xiao *et al.* (2012) provide an experimental case with the actual data of the Chinese sample search companies for the purpose of demonstrating the accuracy of the proposed method. The researchers found that the performance of the proposed method outweighs the performance of the existing work and the other multiple works.

Theoretical background
The ability of accounting information to forecast: Financial forecasting is defined as a set of estimates and measurements that an individual or company sets for future events and circumstances in order to prepare for the circumstances expected to occur through the plans and policies necessary to deal with these conditions Fortnum and Staton (1982). The Financial Accounting Standards Board (FASB) has referred to a set of qualitative characteristics of accounting information and their relationship to predictive ability and the ability to retrieve information. The board has reached a number of recommendations regarding the ability of this information to financial forecasting. These are: (FASB) the quality of the decisions taken depends on the relevance of the accounting information for these decisions when preparing forecasting models or when adjustments to made to previous expectations.

Accounting information has a predictive value, that is, the possibility of using such information as inputs to the forecasting process or a value that results from re-feeding the information. The predictive value of information relates to the ability to use accounting information in the forecasting process. This predictive value is a basis for distinguishing between the relevance and non-relevance of this information to decision-making. Providing the necessary information to assess the ability of the entity to make efficient and effective use of the economic resources available to serve external beneficiaries with limited or limited sources to obtain information and rely mainly on financial reports as an information source to evaluate the performance of the enterprise.
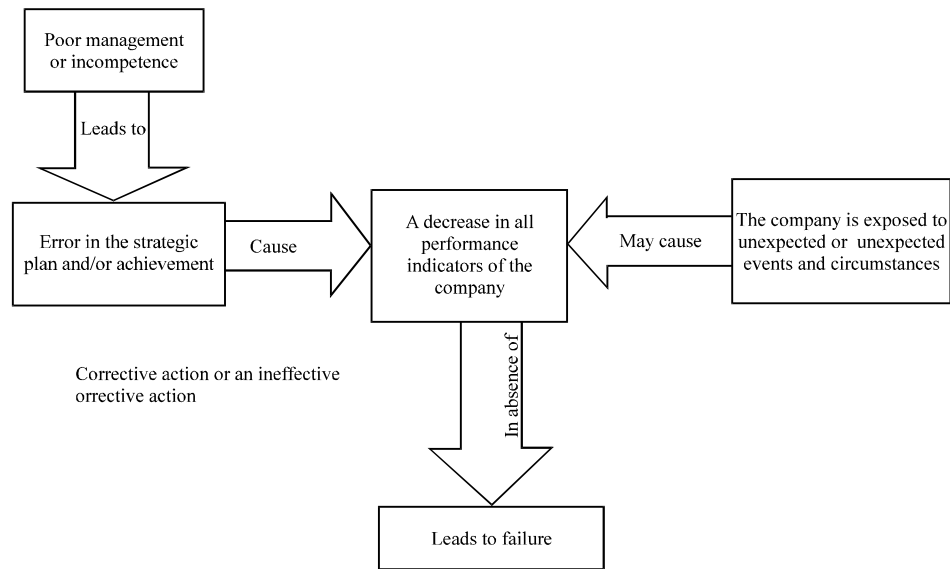
Fig. 1: Failure process

Definition of failure: Failure is defined as "a situation in which the activity of a company or other companies stops the performance of those activities because of its inability to collect sufficient revenue to cover its expenses". For example, if the company is unable to pay the debt, it may file an application for bankruptcy and stop performing the activities for which it was established. Corporate failure is a relatively common case in the first year of the activity for which it is created or so because the owner is unable to compete for any number of reasons farlex financial dictionary. Figure 1 illustrates the financial failure process.

The causes of company failure: Varies from researcher to researcher. Many studies and researchers have examined the financial statements of companies and the nature of their activities to determine the reasons for failure of these companies. Table 1 identify the causes of the companie's failure.

Predicting corporate failure: In order to predict the probability of failure of companies, there are many ways to predict. The financial failure of companies as many companies suffer today from liquidity problems and one of the most important indicators that use the ratio of liquidity/solvency, especially, current and fast rates. A comparison of how these percentages change over time and how they relate to recommended rates may refers to whether the liquidity problem and possible fall of companies are looming on the horizon. In today's economic climate, excessive risk could pose a risk of

liquidity and cause companies to fall. Tradition occurs when an organization attempt to support increased recurrent investment in working capital and non-current assets without sufficient long-term funding. Overtrading is especially, prevalent in the rapidly expanding business. Symptoms of overtrading may include:

- Increase the turnover rate quickly
- Rapidly increasing inventory reserves in addition to accounts payable by trade receivables
- Decrease in cash balances
- The deterioration of current and quick current assets
- The company's inability to meet its obligations to others as of due date

To avoid over trading arrangement must ensure that long term sources of funds are used to fund the investments in working capital and fixed assets.

Model of Altman's Z-Scores: Edward Ian Altman is a recognized indicator in predicting the company's failure. The Z-score Model has been developed for about 30 years and is still used today. Professor Altman discussed 66 companies that faced corporate failure to determine whether they could be predicted to fail. This model was used by many investors and analysts to learn about the financial risks associated with their potential investments.

The Z-score formula: Here is this equation is based on five weighted financial percentages:

Table 1: The causes of the companie's failure

Name of researchers and years	The causes of corporate failure
Argenti (1976)	The researcher identified three tracks related to the financial failure of companies
	Revealed that the qualitative failure of an emerging company with inappropriate management of personal behavior or skills
	Between the bankruptcy of small companies after the growth of high and very rapid and then a more severe decline. The breakdown is also due to administrative deficiencies but there is a significant difference with the first superior manager's personality that ensures quick take-off. The company goes bankrupt when the operational and financial management is ignored during the growth phase
	Applicable to mature and inactive companies that refrain from adapting to the management structure and lose contact with their customers. The company is subject to bankruptcy because it does not respond adequately to environmental changes
Cooney carey,	Low cash assets and weak cash management
http://www.cooneycarey.i.e/	Low value of shares when trading
blog-wp/wp-content/uploads/2012	Weak performance in financial management
/10/ How-to-Avoid-	Existence of unnecessary capital expenditures
Business-Failure-part-1-of-3.pdf	Low capacity and efficiency of financial control and access to information
(Manousaridis, 2017)	Weak control of costs
European Federation of	The causes of failure are classified into two types as follows:
Accountants (FEE) (Anonymous,	Internal reasons lead to failure of companies
2004)	Management inefficiency and poor performance
	Low accounting skills
	Inefficient management of cash flows
	Dr. Lack of adequate funding sources
	E. Rely on customers or suppliers and do not handle good offers from other suppliers
	Increase bad debts and not deal with reliable debtors who are committed to payment dates
	Overtrading
	Lack of research and development activity that meets requirements for adaptation to customer needs.
	Fraud/collusion
	External causes of business failure
	Economic crises
	Unexpected events and fluctuations
	Government procedures and international developments
	Environmental protection requirements in addition to regulatory requirements
	Due to the bankruptcy of some main customers or suppliers
Mbat and Eyo (2013)	Inefficient management
	Some prevailing social and cultural factors
	When the state suffers from economic instability
	The general policy of the state
Siddiqui (2001)	Poor and inefficient management
	Problems in the planning function of the company's activities and the continuous development of the techniques used
	There were problems with the management and the rate of money burning which they showed was too high to be tolerated
	Weak control of expenditures at the beginning of the performance of the company for its activities
	When the company suffers from liquidity problems

$$\text{Z-score} = 1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + 1.0X_5$$

Where:
X_1 = Working capital/total assets
X_2 = Retained earnings/total assets
X_3 = Earnings before interest and tax/total assets
X_4 = Market value of equity/total liabilities
X_5 = Sales/total assets

Working Capital/Total Assets (WC/TA): Working capital is the measure of the net liquid assets of the company relative to the total capitalization. Since, net working capital is defined as current assets minus current liabilities, according to Altman (1968), working capital to total assets is the most valuable ratio in predicting corporate failure compared to the other two liquidity variables, namely, the quick and the current ratio.

Similarly, Beaver (1966) also, found that working capital to total assets is a useful factor in predicting bankruptcy. In addition, Chen and Lee (1993) explored how long firms were able to endure the oil and gas industry turmoil of the early 1980 before facing financial distress (Lakshan and Wijekoon, 2012).

Retained Earnings/Total Assets (RE/TA): This ratio measures the amount of reinvested earnings or losses which reflects the extent of the company's leverage. Companies with low RE/TA are financing capital expenditure through borrowings rather than through retained earnings. Companies with high RE/TA suggest a history of profitability and the ability to stand up to a bad year of losses.

Earnings Before Interest and Tax/Total Assets (EBIT/TA): This is a version of Return on Assets (ROA),

an effective way of assessing a firm's ability to squeeze profits from its assets before factors like interest and tax are deducted.

Market Value of Equity/Total Liabilities (ME/TL): This is a ratio that shows if a firm were to become insolvent how much the company's market value would decline before liabilities exceed assets on the financial statements. This ratio adds a market value dimension to the model that isn't based on pure fundamentals. In other words, a durable market capitalization can be interpreted as the market's confidence in the company's solid financial position.

Sales/Total Assets (S/TA): This ratio indicates how successful a firm is in utilizing its assets in obstetrics of sales revenue. This is computed by dividing net revenues of sales by total of assets. Altman (1968) reference that total assets rotation is the standard financial percentages presenting the strength of a company to result sales from assets and it is one measure of management's power to deal with competitive status (Lakshan and Wijekoon, 2012). The use of financial ratios in forecasting company failure in Sri Lanka.

Practical framework and hypothesis testing
Practical framework: The researcher used Altman Model on 25 companies listed in the Iraqi stock exchange for accounting statements for the fiscal year ended 31/12/2016, using Altman Model and applying the equations above. Table 1 shows (Z) value for each company. The reason is that the losing companies for the year 2017 according to the accounting information of the company data and trading data in the Iraqi market for financial securities for the years 2015-2017.

The first main hypothesis test: Accounting information in the research sample companies plays an important role in predicting their failure or success and identifying companies that are difficult to predict. Through the disclosure of financial statements and supplemental reports, Altman Model was applied and the results for each variable (X) shown in Table 1 were obtained. By analyzing the financial ratios of Altman Model, the researcher found that the companies have integrated accounting statements that show the financial position, realized profits or losses and values of the assets, liabilities, equity as well as changes in these elements published in the Iraqi market for financial securities in annual, semi-annual and monthly bulletins issued for use by the parties dealing with companies. These parties are interested in trading prices, daily bulletins of the Iraqi market for financial securities which proves the first main hypothesis of the research.

Analysis of the results: The results of Table 1 showed that the companies are classified into successful companies and failed companies according to the value of (Z) in Altman Model. The companies were also classified into three types as in the following form shown in Table 2-4:

- Successful companies in which the value of Z is greater than or equal to 2.99
- Failure companies where the value of Z is >1.81
- Companies that are difficult to predict and their (Z) values range between 1.81-2.99

For the value of X_1, the low net working capital is considered as indicator of low liquidity in sample companies. This means that companies are making losses

Table 2: Prediction function value of Z

Name of company	Equation of Altman Model					
	$1.2 X_1$	$1.4 X_2$	$3.3 X_3$	$0.6 X_4$	$1.0 X_5$	Z-values
Asia Cell Company	- 0.14	0.116	0.09	0.56	0.42	1.046
Baghdad Soft Drinks Company	0.27	0.12	0.47	5.44	1.00	7.3
Dates Production Company	0.57	- 0.19	- 0.37	2.61	0.25	2.87
National Chemical and Plastic Industries Company	0.39	-2.95	-0.55	0.512	0.06	- 2.54
Al Hilal Industrial Company	1.198	- 13.76	- 1.559	5.345	1.106	- 7.67
Modern Sewing Company	0.606	0.1006	0.299	1.587	0.481	3.074
Iraqi for Tufted Carpets	1.123	0.827	0.22	14.476	0.323	16.969
Baghdad for Packing Materials	0.028	0.005	0.014	18.743	0.08	18.87
Metallic Industries and Bicycles	- 0.466	-5.004	-1.29	1.517	0.1018	- 5.1412
Modern Animal and Agricultural Production	0.224	0	- 0.418	2.062	0.435	2.303
Al-Ahlyia for Agricultural Production	0.377	0.227	0.563	4.155	0.826	6.148
Baghdad for Public Transport and Real Investment	0.549	0.375	0.910	1.165	0.438	3.437
Al-Mansor Pharmaceuticals Industries	1.053	- 0.03	0.153	7.32	0.274	8.77
Middle East Producing and Marketing Fish	0.517	0.091	0.254	3.02	0.075	3.957

Table 2: Continue

Name of company	Equation of Altman Model					
	$1.2 X_1$	$1.4 X_2$	$3.3 X_3$	$0.6 X_4$	$1.0 X_5$	Z-values
Iraqi for Seed Production	0.892	0	0.29	0.069	0.193	1.444
Iraqi Company for Meat and Field Crops Production and Marketing	0.49	0.019	0.0565	1.56	0.046	2.1715
National for Tourism Investment and Real Projects	0.923	0.858	0.090	8.678	0.090	10.639
Babylon Hotel Company	0.464	-0.539	0.549	0.49	0.21	1.174
Ishtar Hotel Company	0.27	0	0.13	0.243	0.07	0.713
Modern Chemical Industries Company	1.15	0	- 0.15	33.2	0.023	34.223
Cihan Bank Islamic Investment and Finance	0.59	0.033	0.13	0.63	0.07	1.453
International Development Bank for Investment	0.56	0,033	0.10	0.43	0.064	1.484
Iraq Noor Islamic Bank for Investment and Finance	0.98	0.05	0.03	3.11	0.097	4.267
Al- Arabiya Islamic Bank	1.186	0.0214	0.003	22.9	0.002	24.11
Trans Iraq Bank for Investment	0.797	0.035	0.15	1.191	0.08	2.253

Table 3: Successful companies according to the classification of Altman Model

Successful companies (Z≥2.99)	Z-values
National for Tourism Investment and Real Projects	10.639
Baghdad Soft Drinks Company	7.3
Modern Sewing Company	3.074
Iraqi for Tufted Carpets	16.969
Baghdad for Packing Materials	18.87
Al-Ahlyia for Agricultural Production	6.184
Baghdad for Public Transport & Real Investment	3.437
Al-Mansor Pharmaceuticals Industries	8.77
Middle East Producing and Marketing Fish	3.957
Modern Chemical Industries Co	34.223
Iraq Noor Islamic Bank for Investment and Finance	4.267
Al-Arabiya Islamic Bank	24.11

Table 4: Analysis of success reasons of companies according to Altman Model

Name of company	Analysis of success causes
National for Tourism Investment and Real Projects	The value of Z increased because of the value of X_1 working capital to total assets ratio that is the company is able to pay its short-term liabilities. Although, the values of X_2 and X_3 were positive, it was low whereas the ratio of X_4 was high due to the rise of market value of equity multiplied by its weighted weight and the company's operating income to total assets was low. Therefore, it is clear that the reason of the company success is the increase of the market value of owner equity which amounted to 8.678
Baghdad Soft Drinks Company	It is noted that the value of Z was more than 2.99 where amounted to 7.3. The reason of the company success was the increase of market value of equity (X_4). In addition, the ratio of sales to total assets was high. Namely, the net revenue from sales was equal to total assets of the company
Modern Sewing Company	The value of Z was 3.074, we noted that the values of X_1 was positive more than 50%, i.e., the company has the ability to meet its short-term liabilities and maintains liquidity, in addition to the increase of market value of equity/total liabilities ratio. While the ratio of retained earnings to total assets was 0.116 and the ratio of sales to total assets was less than 481%. However, the company was classified as a successful company due to financial liquidity and high market value of owner equity
Iraqi for Tufted Carpets	The value of Z was (16.969) due to the increase in the market value of owner equity (X_4) and the increase in working capital/total assets ratio (X_1). The ratio of retained earnings to total assets (X_2) was 0.827 while (X_3) and (X_5) have declined. Therefore, the main reason for the company success was the increase of market value of owner equity which amounted to 14.476
Baghdad for Packing Materials	The analysis of value indicators of Z that amounted to 18.87 was due to the higher market value of owner equity. While we see a decrease in the values of X_1, X_2, X_3 and X_5 compared to the value of X_4 that amounted to 18.743
Al-Ahlyia for Agricultural Production	The value of Z amounted to 6.184 due to the increase of market value of owner equity and the value of X_4 amounted to 4.155. The remaining ratios (X_1), (X_2), (X_3) and (X_5) were positive and low compared to the value of X_4
Baghdad for Public Transport & Real Investment	It was noted that the reason of the company success and its status within the successful companies according to Altman scale was the increase of profits (X_3) where its ratio amounted to 0.910. The value of X_4 was 1.165 in addition to the increase in the ratio of working capital to total assets (X_1) Whereas the value of X_2 was the lowest among the values due to the decrease in retained earnings
Al-Mansor Pharmaceuticals Industries	The value of Z was 8.77 and the value of X_4 amounted to 7.32. This was due to the increase of the market value of the company shares. While the rest of the ratios were low except the value of X_1, which contributed to make the company successful according to Altman Model

Table 4: Continue

Name of company	Analysis of success causes
Middle East Producing and Marketing Fish	The company is considered successful according to Altman Model for the measurement of performance of financial companies and through the value of Z the researcher notes that it was 3.957 because of the increase in market value of owner equity that amounted to 3.02 and the increase of the working capital to total assets ratio more than 50%
Modern Chemical Industries Co.	The main reason for the company success was the increase of market value of owner equity where the value of X_4 was 33.2 whereas the value of Z was 34.223. The rest of the ratios were low and some of them carry a negative signal
Iraq Noor Islamic Bank for Investment and Finance	The values of Altman indicator indicate for the measurement of the bank's performance that the reason of irs success was the increase of liquidity represented by the value of X_1 that amounted to 0.98 and the market value of owner equity indicator (X_4) which amounted to 3.11. Whereas the value of Z reached 4.267 and the value of remaining indicators (X_2, X_3 and X_5) were low ratios compared to other indicators
Al- Arabiya Islamic Bank	The value of Z amounted to 24.11 which ranked the company within the successful companies. The main reason for success was the increase of the market value of owner equity (X_4) in addition to increase in the liquidity ratio (X_1). While the other indicators did not contribute significantly compared to indicators (X_1) and (X_4)

due to their inability to pay their obligations to others. However, if the value of X_1 increases, this indicates that the companies have high liquidity and have the ability to o pay their obligations which is one of the reasons of success and financial position strength.

The value of X_2 represents the ratio of retained earnings to total assets. A decrease in X_2 value means a decrease in retained earnings or incurring a cumulative deficit, compared to total assets and this means a decrease in its financial position. Conversely, if the value of X_2 rose, this means that the company has a strong financial position as a result of the realized profits.

The value of X_3 represents net profit before interests and tax/total assets. This is the rate of return on investment, so, if the company achieved a low return on investment, the value of z would be low. On the other hand, the companies that have a high ratio, this means that the achieved return on investment is high and therefore the value of Z is high.

While the value of X_4 represents the ratio of the market value of equity/total liabilities. If this ratio is high, this means that the market value of the shareholder's equity of the company is able to pay its debts. On the other hand, if the ratio decreases, this means the company is not able to repay its debts.

The second main hypothesis: Accounting information plays a role in verifying the results of Altman Model used to predict the failure of the sample companies, through what has been disclosed in the financial statements.

Al-Arabiya Islamic Bank: A company is considered successful because the value of Z is greater than or equal to 2.99 which is the value determined according to Altman Model. Table 3 shows the analysis of success reasons of companies according to Altman Model. Companies with a value of Z<1.81 according to Altman Model were classified as failure (Table 4).

Table 5: The failure companies according to the results of Altman Model

Companies failure (Z<1.81)	Z-values
Asia Cell Company	1.046
National Chemical and Plastic Industries Company	- 2.54
Al Hilal Industrial Company	-7.67
Metallic Industries and Bicycles	-5.1312
Iraqi for Seed Production	1.444
Babylon Hotel Company	1.174
Ishtar Hotels Company	0.713
Cihan Bank Islamic Investment and Finance	1.454
International Development Bank for Investment	1.484

In order to identify the reasons for the failure of companies described in Table 4, the researcher will present an analysis of the causes in Table 5. In Table 6-8, the researcher will explain the reasons that made the companies difficult to predict according to Altman Model. The reasons for the financial failure of companies included in the research sample can be calculated according to Altman Model as follows:

Through the accounting information that was presented from the financial statements of companies listed in the Iraqi market for financial securities, the results of Altman Model can be verified. To verify the above results, the researcher analyzed the market value of the companie's shares for the year 2017.

The second hypothesis test: "The accounting information plays a role in verifying the results of Altman Model used to predict the failure of the companies in the research sample". Through the disclosures in the financial statements, the researcher will verify the results of the prediction model of financial failure applied to a sample of companies listed in the Iraqi Market for Financial Securities for the year 2016, through the change in the market value of capital for the years 2016 and 2017 shown in Table 9 as well as the change in the share price in trading for the years 2016 and 2017 indicated in Table 10 and 11.

Asia Cell Company is considered among the failure companies according to Altman Model. The researcher

Table 6: Analysis of the causes of failure of companies in which the value of Z is <1.81

Name of company	Analysis of the reasons
Asia Cell Company	The company is considered unsuccessful due to:
	Liquidity is low represented by the negative ratio for (X_1)
	Low profits before tax and interests
	Low sales value, i.e., low revenues
	Low financial liquidity and the inability of the company to pay its obligations to creditors and lenders
	Thus, affecting the market value of owner equity and the value of $Z = 1.046$.
National Chemical and Plastic Industries Company	Z value declined due to:
	Low financial liquidity
	The company incurred a loss and (X_1) ratio appeared negative
	The company incurred a cumulative deficit for the year 2016
	Low market value of owner equity
	Low revenues for the year 2016
Al Hilal Industrial Company	The value of Z decreased according to the company's Altman Model for the following reasons:
	The company achieved liquidity but with a small percentage of X_1 value
	Low retained earnings and rise in the cumulative deficit of the company for the year 2016 with a percentage more than the percentage of working capital/total assets
	Low realized profits before interests and income tax for the year 2016
	The market value of owner equity increased with a percentage less than the cumulative deficit
	Sales revenues increased but the operating expenses were higher in the way that led to losses for the year 2016
Metallic Industries and Bicycles	The reasons below made the value of Z to be <2.99 for the company according to Altman Model:
	The ratio of working capital/total assets (X_1) was negative, i.e., reduction of liquidity ratio and inability to pay obligations to creditors and lenders
	The company incurred a cumulative deficit which led to a decrease in the retained earnings ratio to total assets represented by the value of X_2
	The company incurred losses for the year 2016, so that, the value of X_3 was negative
	A very small rise in the market value of equity in the form that the company cannot cover the losses or pay its obligations to others
	Low value of sales revenues in the form that led to the loss for the year 2016
Iraqi for Seed Production	The company is considered a failure company according to Altman Model for the following reasons:
	Low company's liquidity ratio for 2016 which was represented in the value of X_1, leading to non-payment of the company's obligations to the lenders and creditors
	The company achieved low profits, represented by the value of X_3 which covered the accumulated deficit for 2016 which resulted zero value of X_2
	Low market value of owner equity which was represented by the value of X_4
	Low value of revenues, represented by the value of X_5 which led to a decline in achieved profits for 2016
Babylon Hotel Company	The following reasons led to the company being among the failed companies according to Altman Model:
	The company incurred a cumulative deficit for 2016 and this led to the value of X_2 to be negative
	Low value of sales which led to a decline in profits before interests and taxes
	Low market value of owner equity for 2016
Ishtar Hotels Company	The reasons for making the company a failure according to Altman model are summarized in that the value of Z is as follows:
	The company did not achieve any retained earnings for the year 2016 and this led to the value of X_2 to be zero
	Low value of sales which led to a decrease in achieved profits before interests and taxes and thus making the value of X_3 negative
	Low market value of owner equity for 2016, compared to total liabilities
Cihan Bank Islamic Investment and Finance	The company is considered a failure according to Altman Model because the value of Z is <1.81 and the causes of failure can be analyzed as follows:
	Low liquidity ratio and inability of the company to pay its obligations which represented by the value of X_1
	Low company's retained earnings for the year 2016 which was represented by the value of X_2
	Low achieved profits for the year 2016 which was represented by X_3
	Low market value of owner equity which was represented by the value of X_4
	The sales were very low which was reflected in the profits as well as the retained earnings of the bank when evaluating its performance according to Altman Model
International Development Bank for Investment	The company is considered a failure according to Altman Model because the value of Z is <1.81 and the causes of failure can be analyzed as follows:
	The liquidity ratio was low which led to the inability of the company to pay its obligations which was represented by the value of X_1
	The retained earnings of the company declined for the year 2016 which was represented by the value of X_2
	The company's achieved profits for the year 2016 were very low due to the increase in operating expenses and decrease in revenues which represented by is by X_3
	Low market value of owner equity which was represented by the value of X_4
	The sales were very low which was reflected in the profits as well as the retained earnings of the bank when evaluating its performance according to Altman Model

found that the nominal value of capital was (310,000,000) Iraqi dinar. The increase in the market value for 2016 was 1,968,500,000,000 Iraqi dinars and the market value decreased in 2017 to (1,627,500,000) Iraqi dinars. The

Table 7: Companies that were difficult to predict their failure according to Altman Model

Name of company Z = 1.81-2.99	Z-values
Dates Production Company	2.87.0
Modern Animal and Agricultural Production	2.3030
Iraqi company for Meat and Field Crops Production and Marketing	2.1715
Trans Iraq Bank for Investment	2.2530

Table 8: Analysis of the reasons for companies that were difficult to predict

Name of company	Analysis of reasons
Dates Production Company	It is difficult to predict the company's failure according to Altman Model because the value of Z is between 1.81 and 2.99 The reasons for this can be analyzed as follows: Low liquidity ratio and inability of the company to pay its obligations which was represented by the value of X_1 The company suffered from accumulated deficit for 2016 which was represented by the value of X_2 The incurred loss of 2016 led to the value of X_3 to be negative The market value of owner equity increased which was represented by X_4 but it did not make the company successful due to lower profits Sales were very low which was reflected in profits as well as on the retained earnings of the bank when evaluating its performance according to Altman Model
Modern Animal and Agricultural Production	The following reasons made the company difficult to predict according to Altman Model: Low financial liquidity which was represented by the value of X_1 The company incurred a loss and the ratio of X_3 appeared negative The company had no retained earnings or a cumulative deficit for the year 2016 according to the value of X_3 The market value of the company's owner equity increased which was represented by X_4 The company's revenues for the year 2016 declined which was represented by the ratio of X_5
Iraqi Company for Meat and Field Crops Production and Marketing	Low financial liquidity which was represented in the value of X_1 The company incurred low retained earnings in relation to the value of the assets Low profits before interests and tax for 2016 The market value of owner equity increased Low sales revenues for the company for 2016
Trans Iraq Bank for Investment	Low financial liquidity ratio The company incurred low losses and the ratio (X_3) appeared low The company achieved low retained earnings for the year 2016 The market value of owner equity increased Low company's revenues for the year 2016

Table 9: Percentage of reasons of financial failure

Reason of financial failure	Number of companies having the reason	Total of companies research sample	Reason of failure (%)
Lack of liquidity	11	25	44
Low demand on goods and services	13	25	52
Low mark of owner equity	9	25	36
Low achieved earnings	13	25	52
Achievement of accumulated deficit or low retained earnings	12	25	48

Table 10: Change in capital market value of companies for the year 2017 (amounts in million dinar)

Name of company	Capital	Market capital in 2016	Market capital in 2017
Asia Cell Company	310,000,000,000	1,968,500,000,000	1.627,500,000,000
Baghdad Soft Drinks Company	144,500,000,000	332,500,000,000	475,252,000,000
Dates Production Company	17,250,000,000	28,463,000,000	15,180,000,000
National Chemical and Plastic Industries Company	15,187,000,000	9,416,000,000	8,667,000,000
Al Hilal Industrial Company	12,375,000,000	4,331,000,000	3,465,000,000
Modern Sewing Company	1,000,000,000	4,140,000,000	4,900,000,000
Iraqi for Tufted Carpets	500,000,000	2,575,000,000	4,050,000,000
Baghdad for Packing Materials	1,080,000,000	1,987,000,000	1,490,000,000
Metallic Industries and Bicycles	5,000,000,000	2,500,000,000	3,550,000,000
Modern Animal and Agricultural Production	4101000000	2051000000	1312,000,000
Al-Ahlyia for Agricultural Production	575,000,000	702,000,000	690,000,000
Baghdad for Public Transport & Real Investment	1,000,000,000	4,155,304,900	14,800,000,000
Al-Mansor Pharmaceuticals Industries	6,469,267,350	3,356,413,548	4,464,000,000
Middle East Producing and Marketing-Fish	300,000,000	2,280,000,000	2,415,000,000
Iraqi for Seed Production	10,500,000,000	46,050,000,000	43,050,000,000
Iraqi Company for Meat and Field Crops Production and Marketing	5,000,000,000	18,400,000,000	39,700,000,000
National for Tourism Investment and Real Projects	6,253,000,000	8,500,000,000	40,645,000,000
Babylon Hotel Company	2,000,000,000	65,000,000,000	75,000,000,000
Ishtar Hotels Company	3,500,000,000	46,550,000,000	42,000,000,000
Modern Chemical Industries Co.	1,518,700,000	9,416,000,000	8,657,000,000
Cihan Bank Islamic Investment and Finance	255,000,000,000	255,000,000,000	070,125,000,00
International Development Bank for Investment	250,000,000,000	150,000,000,000	125,000,000,000
Iraq Noor Islamic Bank for Investment and Finance	250,000,000,000	250,000,000,000	250,000,000,000
Al- Arabiya Islamic Bank	100,000,000,000	250,000,000,000	250,000,000,000
Trans Iraq Bank for Investment	264,000,000,000	184,800,000,000	184,800,000,000

Table 11: Shares market value of the companies for the year 2016

Name of company	Jan.	Feb.	March	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Asia Cell Company	6.75	6.82	5.3	5.150	4.55	4.4	4.36	-	5.79	5.82	4.65	6.35
Baghdad Soft Drinks Company	2.71	2.62	2.55	2.19	2.02	1.97	-	-	-	2.30	2.50	2.50
Dates Production Company	1.15	1.17	1.91	-	-	1.75	1.80	1.70	1.60	1.40	1.70	1.65
National Chemical and Plastic Industries Company	0.53	0.52	0.48	0.47	0.39	0.41	0.42	0.40	0.39	0.44	0.62	0.62
Al Hilal Industrial Company	0.34	0.31	0.31	0.27	0.23	0.28	0.30	0.27	0.28	0.31	0.36	0.35
Modern Sewing Company	2.90	2.57	2.50	2.35	2.25	3.4	3.21	2.72	3.03	3.10	4.05	4.14
Iraqi for Tufted Carpets	3.71	4.05	4.15	4.55	4.30	4.40	4.70	4.5	4.55	5.10	5.0	5.15
Baghdad for Packing Materials	1.32	1.35	-	-	1.35	1.35	1.35	1.40	1.45	1.45	1.55	1.84
Metallic Industries and Bicycles	0.61	0.59	-	0.55	-	-	0.55	0.50	-	-	-	-
Modern Animal and Agricultural Production	0.42	0.41	0.44	0.40	0.68	0.54	0.50	0.51	0.50	0.51	0.51	0.5
Al-Ahlyia for Agricultural Production	1.25	1.25	-	1.30	1.4	1.4	1.4	1.35	1.26	1.47	1.24	1.22
Baghdad for Public Transport and Real Investment	12.8	11.92	11.46	11.46	14.25	13	14.15	13.25	12.9	13.4	12.8	12.85
Al-Mansor Pharmaceuticals Industries	0.73	0.66	0.69	0.65	0.64	0.62	0.62	0.62	0.62	0.58	0.68	0.67
Middle East Producing and Marketing-Fish	7	7.1	7.05	7.3	7.3	7.3	7.1	7.1	6.8	-	7	7.6
Iraqi for Seed Production	-	-	-	-	-	-	-	6.04	6.05	5.12	5.68	6.14
Iraqi Company for Meat and Field Crops Production and Marketing	3.5	3	2.5	2.63	2.55	2.36	2.65	2.65	2.71	2.9	3.32	3.68
National for Tourism Investment and Real Projects	7.25	8.91	8.7	8.5	7.5	8.74	8.5	8.5	8.4	8.8	8.98	8.5
Babylon Hotel Company	31.5	31.15	31	27.61	24.05	23.40	23.50	24.60	-	34.9	34.25	32.50
Ishtar Hotel Company	11.8	11.3	11.55	10.3	10.85	11.3	11.10	11.10	12.35	13.3	14.3	13.3
Modern Chemical Industries Co.	-	-	-	-	70	-	-	-	-	-	-	-
Cihan Bank Islamic Investment and Finance	-	-	-	-	-	-	-	-	-	-	-	-
International Development Bank for Investment	-	-	-	-	-	-	-	-	-	-	-	-
Iraq Noor Islamic Bank for Investment and Finance	-	-	-	-	-	-	-	-	-	-	-	-
Al-Arabiya Islamic Bank	-	-	1	1	1	-	-	-	-	-	-	-
Trans Iraq Bank for Investment	-	-	-	-	-	-	-	0.70	-	7.00	7.00	7.00

company was going down and this confirms that the company's position within the failure companies according to Altman scale. While the value of traded shares for the year 2017 were going down as shown in Fig. 1.

Baghdad Soft Drinks Company: The company is considered within the group of successful companies according to the classification of the Altman Model and when this was verified the researcher noted a rise in the market value of shares where its market value was 3,325,000,000 Iraqi dinars in 2016 and became 475,252,000,000 Iraqi dinars in 2017. When studying the behavior of share prices in 2017 the researcher found that the market value of the company's shares tended to rise as shown in Table 11 after it was fluctuating between the rise and fall in 2016 as shown in Table 12.

Dates Production Company: It is one of the companies classified as difficult to predict according

to Altman technique because the value of Z lies between (1.81-2.99). The researcher noted that the reason for the inability to predict the failure or success of the company was that the market value of the capital was (28,463,000,000) Iraqi dinars in 2016 while the market value decreased and became (15,180,000,000) Iraqi dinars in 2017. The trading value of the share prices for 2016 and 2017 was going down (Table 10 and 11).

The capital market value of National Chemical and Plastic Industries Company in 2016 was (9,416,000,000) Iraqi dinars. It decreased and became (8,667,000,000) Iraqi dinars in 2017. This was the reason for classifying this company within the failure companies according to Altman Model because the value of Z was <1.81. When studying the prices of traded shares in the Iraqi market for financial securities for the year 2016 it was found they were heading downward in the first 10 months of the year and then rose slowly. While in 2017 the share values tended throughout the year to decline. This proves the validity and appropriateness of Altman technique to predict the company's failure.

Table 12: Shares market value of companies for the year 2017

Name of company	Jan.	Feb.	March	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Asia Cell Company	6.13	5.84	5.40	5.50	5.29	5.20	5.20	5.19	5.10	4.90	5.20	5.25
Baghdad soft drinks company	2.60	2.65	2.36	2.20	2,55	2.50	2.43	2,59	2.48	2.53	2.55	2.68
Dates Production Company	1.60	1.57	1.48	1.52	1.49	1.15	1.43	1.08	1.08	1.03	0.94	0.88
National Chemical and Plastic Industries Company	0.61	0.61	0.52	0.55	0.52	0.56	0.53	0.50	0.48	0.50	0.59	0.57
Al Hilal Industrial Company	0.37	0.37	0.31	0.31	0.28	0.28	0.28	0.27	0.28	0.28	0.29	0.28
Modern Sewing Company	4.40	4.22	4.20	4.10	4.00	2.99	2.80	4.00	3.50	5.15	4.90	4.90
Iraqi for Tufted Carpets	6.00	7.96	7.65	8.00	8.06	7.95	7.70	7.00	7.10	8.23	8.23	8.10
Baghdad for Packing Materials	1.65	1.75	1.85	1.67	1.55	1.35	1.30	1.25	1.22	1.40	1.41	1.38
Metallic Industries and Bicycles	-	-	-	0.490	0.63	0.72	0.72	0.66	0.60	0.65	0.63	0.71
Modern Animal and Agricultural Production	0.47	0.44	0.44	0.42	0.45	0.42	0.39	0.33	0.31	0.35	0.33	0.32
Al-Ahlyia for Agricultural Production	1.26	1.30	1.3	1.2	1.25	1.24	1.23	1.23	1.23	1.23	1.23	1.20
Baghdad for Public Transport and Real Investment	12.95	13.47	13.5	13.38	13.50	13.80	14.0	14.25	14.0	13.1	13.5	14.8
Al-Mansor Pharmaceuticals Industries	0.67	0.67	0.64	0.65	0.61	0.63	0.67	0.67	0.68	0.69	-	-
Middle East Producing and Marketing-Fish	8.00	8.06	8.05	8.05	8.07	8.05	8.05	8.050	8.05	8.10	8.25	8.05
Iraqi for Seed Production	6.14	-	-	-	-	6.00	6.50	4.77	4.10	4.23	4.10	-
Iraqi Company for Meat and Field Crops Production and Marketing	3.10	3.10	3.00	3.00	2.94	2.90	2.82	3.00	2.80	3.15	3.25	7.94
National for Tourism Investment and Real Projects	8.95	8.60	7.99	7.50	7.10	6.57	6.65	6.35	6.25	6.37	6.55	6.50
Babylon Hotel Company	33	32	29	29	26	24.25	24	31	34.25	37	34	37.5
Ishtar Hotel Company	13.55	13.50	13.20	12.49	12	12.25	11	11.35	11.50	12.60	12.25	12
Modern Chemical Industries Co.	-	62	60	60	-	60	-	-	-	-	-	-
Cihan Bank Islamic Investment and Finance	-	-	-	-	-	2.7	2.75	-	-	2.75	2.75	2.75
International Development Bank for Investment	-	-	-	-	-	-	-	-	0.8	-	0.8	0.8
Iraq Noor Islamic Bank for Investment and Finance	-	-	1	1	1	-	-	-	-	-	1	1
Al- Arabiya Islamic Bank	-	-	-	-	-	-	1	1	1	-	-	-
Trans Iraq Bank for Investment	-	-	-	-	-	0.7	0.7	0.7	0.71	0.7	0.7	0.7

The market value of Al Hilal Industrial Company's capital in 2016 amounted to 4,331,000,000 Iraqi dinars. While the market value of capital decreased and became 3,465,000,000 Iraqi dinars in 2017 as shown in Table 9. When studying the behavior of the traded share value of the company for the years 2016 and 2017 it was found that the value of shares was declining (Table 10 and 11). This confirms the validity of Altman technique in evaluating the company's performance and predicting its failure.

Modern Sewing Company: The market value of capital was 4,140,000,000 Iraqi dinars in 2016. While the value of capital increased to 4,900,000,000 in 2017 as shown in Table 9. The value of share in trading was high in the years 2016 and 2017 as shown in Table 10 and 11. These results prove the accuracy of Altman technique in forecasting the failure of companies where the value of (Z) was >2.99 and Altman technique is suitable for evaluating the performance of companies and predicting their failure.

Upon verification of the result of applying Altman technique to the Iraqi Company for Tufted Carpets, the researcher found that the market value of capital was 2,575,000,000 Iraqi dinars in 2016 and rose to 405,000,000

Iraqi dinars in the year in the 2017. The value of the share in trading also, increased in 2017 compared to 2016. This justifies the company's classification with successful companies according to Altman Model.

We noted that the capital market value of Baghdad for Packing Materials decreased and became (14,900,000,000) Iraqi dinars in 2017 compared to its amount of (1,987,000,000) Iraqi dinars in 2016 as shown in Table 9. The value per share in trading in the years 2016 and 2017 tended to rise. This means that the decline in the value of capital was greater than the total liabilities to others as shown in Table 10 and 11 which led to making the company within the successful companies according to Altman classification.

While, the nominal value of capital decreased from (5,000,000,000) Iraqi dinars to (2,500,000,000) Iraqi dinars in 2016 and it continued to decline in 2017 as shown in Table 9. Therefore, the company was classified within the failure companies according to Altman Model. This is evidenced in what we note in Table 10 that the trading price of the share declined in the first months of 2016 and stopped trading in the last 4 months of the year. Table 11 showed that trading stopped in the first 3 months of 2017. In spite of that the value of share in

trading rose, thus, this led the nominal value of capital to rise compared to 2016. But it remained lower than the nominal value of capital of the company. This means that Altman Model is suitable for evaluating the company's financial performance and predicting its failure.

Modern Animal and Agricultural Production: This company was classified within the companies that are difficult to predict. The market value of capital was (20,5100,000,000) Iraqi dinars in 2016 as shown in Table 9, it also, decreased in 2017 and became (1,312000,000) Iraqi dinars. The trading price per share in 2016 as shown in Table 10 was fluctuating between the rise and fall but in 2017, the share price tended to decrease as shown in Table 11. Therefore, the company was classified from the companies that were difficult to predict according to Altman Model.

Al-Ahlyia for Agricultural Production: This company is considered within the successful companies according to Altman Model. The market value of capital was (702.000,000) Iraqi dinars in 2016. While the market value of capital amounted to (690,000,000) Iraqi dinars in 2017, i.e., it is more than the nominal value of capital. However, the price per share in trading was slightly high in 2016 and 2017. This confirms the prediction of Altman Model about the company's financial performance.

Baghdad for Public Transport and Real Investment: This company was classified within the successful companies according to Altman classification. In order to be sure, the researcher verified the market value of capital for 2016 that was 41553049 Iraqi dinars. Where, the company's capital market value increased in 2017 to 14,800,000,000 Iraqi dinars Table 9. This increases enhanced the rise of share value in trading for 2016 as shown in Table 10 and it continued to rise for 2017 (Table 11).

Al-Mansor for Pharmaceutical Industries: This company was classified within the successful companies according to Altman Model and through the researcher's knowledge of the market value of capital for 2016, it was found that the market value was less than the nominal value of capital which amounted to 3,356,413,548 Iraqi dinars and in 2017 it rose to 4,464,000,000 Iraqi dinars. While the prices of shares continued to rise in 2016 and 2017 as shown in Table 10 and 11. This confirms the validity of the model's prediction.

Middle East Producing and Marketing Fish: This company was classified among the successful companies according to Altman Model because the market value of

nominal capital amounting to 300,000,000 Iraqi dinars increased in 2016 to 228,000,000 Iraqi dinars and in 2017 continued to rise to reach 2,415,000,000 Iraqi dinars (Table 9). The value of the share in trading in 2016 increased over the year as shown in Table 10 and continued to rise in 2017 as shown in Table 11. This confirms the validity of predicting the company's success when using Altman Model.

Iraqi Company for Seed Production: The market value of shares rose to 46,050,000,000 Iraqi dinars in 2016 after the company's nominal value of shares was 10,500,000,000 Iraqi dinars. In 2017, the market value of capital decreased by an amount of 43,050,000,000 Iraqi dinars compared to the market value for 2016 as shown in Table 9. The trading value of shares for 2016 is shown in Table 10. The company started trading in August after a stopping period of 7 months which affected its financial performance and thus it was classified among the failure companies according to Altman Model. In 2017, the trading value of share throughout the year tended to decline as in Table 11.

Iraqi Company for Meat and Field Crops Production and Marketing: The company is considered among the companies that were difficult to predict according to Altman Model because the value of (Z) was between 2.99 and 1.81, despite the high market value of capital in 2016 after the nominal value of capital amounted to 5,000,000 Iraqi dinars. But the rise in the market value of capital in 2016 reached 18,400,000,000 Iraqi dinars. In 2017 the market value of capital increased to 39700,000,000 Iraqi dinars Table 10. The value of share in trading was moving once to the rise and once again to the fall as shown in Table 10 and continued in 2017 where it was fluctuating between the rise and fall Table 9 in addition to the rise in the market value of capital. The company's obligations and short-term debts were high, so, the company was classified of the companies that were difficult to predict according to Altman Model.

National Company for Tourism Investment and Real Projects: This company was one of the companies classified as successful according to Altman Model. The nominal value of capital was 6,253,000,000 Iraqi dinars, then the market value of capital became 850,000,000 Iraqi dinars for 2016 as shown in Table 10. In 2017, the market value of capital increased to 40,645,000,000 Iraqi dinars as in Table 9.While the price of share in trading was going up in 2016 as shown in Table 10 and in 2017 it continued to rise as shown in Table 11. However, in recent months the price of share in trading decreased by a low

percentage but this did not affect the market value of capital as well as company's obligations were low compared to the market value of owner equity.

Babylon Hotel Company: The company was considered among the failure companies according to Altman Model. When studying the growth of the company's market value of capital shown in Table 9 for 2016, it was noted that the nominal value increased from (2,000,000,000) Iraqi dinars to (65,000,000,000) Iraqi dinars and continued to rise in the year 2017 to become (75,000,000,000) Iraqi dinars. But the researcher believes that the reason for failure is that the company incurred accumulated deficit and the value of liabilities was high with a percentage greater than the increase in the market value of owner equity which led to a decline in ability of the company to pay its obligations to others. In other words, the increase in the market value of capital would be the reason for the company's success only if the achieved increase with a percentage greater than the liabilities of the company. Despite the small increase in the trading value of the shares, the company will not be able to pay its total obligations.

Ishtar Hotels Company: The company was considered among the failure companies according to the classification of Altman Model. The capital market value for the year 2016 was (46,550,000,000) Iraqi dinars and it decreased to (4,200,000,000) Iraqi Dinar in 2017 as shown in Table 9. While the share price in trading was fluctuating between the rise and fall in 2016 as in Table 10. We also, noted that the share price was fluctuating between the simple rise and fall in the year 2017 as shown in Table 11.

Modern Chemical Industries Company: The company is considered successful according to the classification of Altman Model. The researcher noted that the capital market value for 2016 in Table 9 was (9,416,000,000) Iraqi dinars. This value is higher than the nominal capital which amounted to (1,518,700,000) Iraqi dinars. While, the capital market value amounted to (8,657,000,000) Iraqi dinars in 2017. The value of company's share in trading was in the first months of 2016 was stopped from trading and entered in trading for one month and then stopped from trading as shown in Table 10. In 2017, the company entered in trading during the first 6 months and then stopped during the second 6 months of the year as shown in Table 11. The researcher found that the reason for the company's classification among the successful companies was because the market value of owner equity was greater than the total liabilities of the company (X_4) which led to the classification of the company among the successful companies.

Cihan Bank Islamic Investment and Finance: This bank is considered of the failure companies according to the classification of Altman Model as the capital market value for the year 2016 was (255,000,000,000) Iraqi dinars. This value was equal to the bank's capital nominal value. In 2017, the capital market value declined to (70,125,000,000) Iraqi dinar as shown in Table 9. While we noted that the trading share price in 2016 was fluctuated or that the bank did not enter in the trading as shown in Table 10. In 2017 we also noted the fluctuation of share price in trading or the stop of trading as shown in Table 11.

The International Development Bank for Investment: This bank was classified among the failure companies due to the capital market value for 2016 which amounted to (150,000,000,000) Iraqi dinars. This value was less than the bank's capital nominal value which amounted to (250,000,000,000) Iraqi dinars. In 2017, the capital market value decreased to (1,250,000,000,000) Iraqi dinars as shown in Table 9. While Table 10 showed that the bank did not enter in trading in the Iraqi Market for Financial Securities for the year 2016 as well as for the year 2017 for the first eight months of the year. The researcher also found that trading was during the last 4 months at a trading price below the nominal share price as shown in Table 11.

Iraq Noor Islamic Bank for Investment and Finance: The company was considered successful according to the classification of Altman Model. The researcher noted that the capital market value for the year 2016 in Table 9 amounted to (250,000,000,000) Iraqi dinar. This value was equal to the nominal capital which amounted to (250,000,000,000) Iraqi dinar. While in 2017 the market value remained equal to the nominal value. As for the company's share value in trading for 2016, the company was stopped from trading and its shares did not enter in trading as shown in Table 10. In 2017, the company entered in trading during the months (March, April and May) at a trading price equal to the nominal value of share. Then company stopped during the months (June, July, August and September) and returned again for the months (November and December) at the same price as shown in Table 11. The researcher found that the reason for the company's classification among the successful companies was because the market value of owner equity is greater than the total liabilities of the bank represented by value of X_4 within Altman Model which led to the company's classification among the successful companies.

Al-Arabia Islamic Bank: The company was considered successful according to the classification of Altman
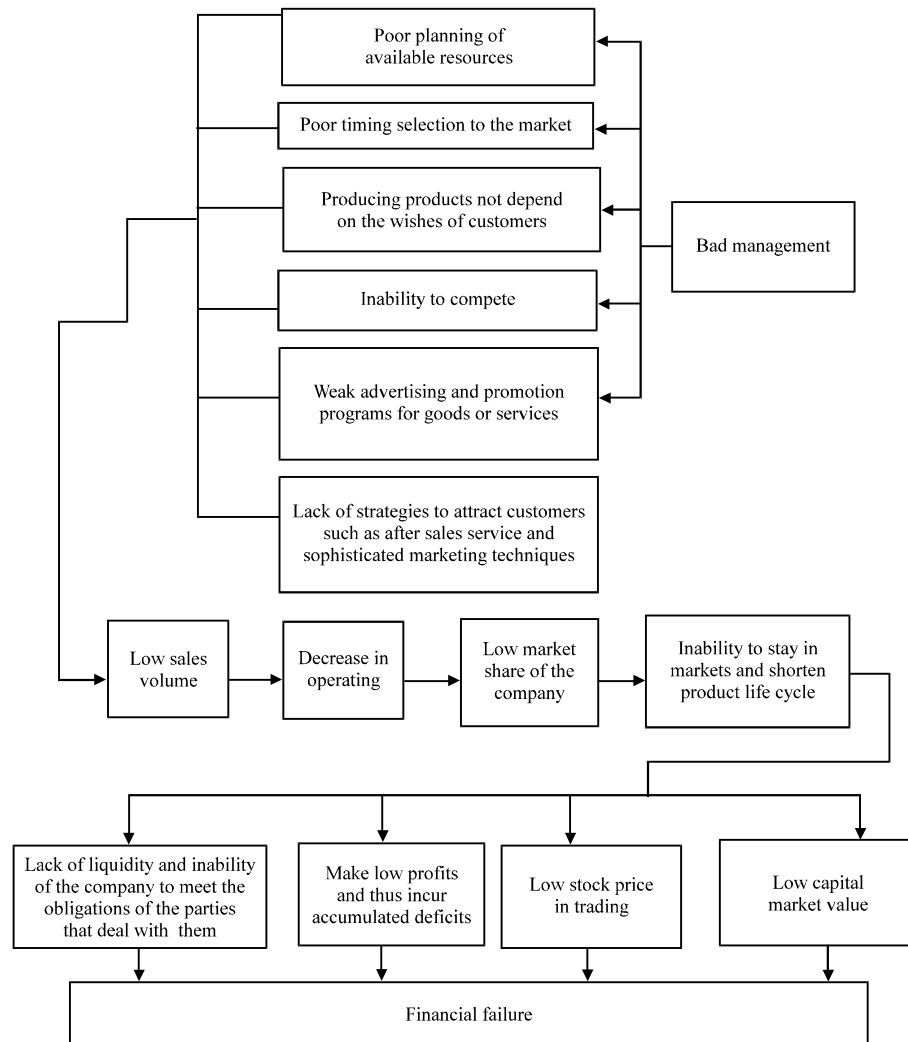
Fig. 2: Factors that led to financial failure of companies

Model. The researcher noted that the capital market value for the year 2016 in Table 9 amounted to (250,000,000,000) Iraqi dinar. This value was higher than the nominal capital which amounted to (100,000,000,000) Iraqi dinar. While in 2017 the market value amounted to (250,000,000,000) Iraqi dinars. As for the company's share value in trading for 2016, the company was stopped from trading during the first months and it entered in trading in the months March, April and May and then stopped from trading as shown in Table 10. In 2017, the company entered in trading during the months July, August and September and then stopped the rest of the year as shown in Table 11. The researcher found that the reason for the company's classification among the successful companies was because the market value of owner equity is greater than the total liabilities of the company (X_4) which led to classifying it among the successful companies.

Trans Iraq Bank for Investment: The bank was classified among the failure companies because the capital market value for 2016 amounted to (184,800,000,000) Iraqi dinars which is less than the bank's capital nominal value of (264,000,000,000) Iraqi dinars and the capital market value continued to decline in the year 2017 to reach (184,800,000,000) Iraqi dinar as shown in Table 9. While it was noted that the bank did not enter in trading during the first months of 2016 whereas the bank's shares were traded with less than the nominal value of share for the months (August, October and November) for the year 2016 as shown in Table 10. In the year 2017 the bank stopped from trading for the first 5 months of the year and the bank entered in trading for the last 7 months of the year at a trading price lower than the nominal value of shares as shown in Table 11. Figure 2 illustrates the most

important factors that led to the failure of research sample companies listed in the Iraqi Market for Financial Securities.

CONCLUSION

The research reached the following important conclusions: Altman Model for predicting the evaluation of companie's performance is considered appropriate for companies listed in the Iraqi Market for Financial Securities due to the availability of relevant accounting information disclosed in the financial statements. This information provides indicators through which to identify the company's performance and predict failure or success in the future.

The reasons that led to the failure of companies according to Altman Model were as follows: low financial liquidity due to the decline in the cash balances of the research sample companies for the year 2016. Low market value of owner equity compared with the total liabilities of companies in the research year which may be the result of the company's policies towards shareholders and profit distribution policies.

When the company achieves a small profit or incurs a loss in the research year. Decreased retained earnings or realization of accumulated deficit by the company in 2016. Increase of company's financial obligations towards parties with which it deals with such as lenders and creditors. Reduced demand for products, resulting in decreased revenues from operational activities and may be due to poor management decisions on pricing, distribution, advertising and promotion. Conflicts of interest between the company's management and the parties that deal with it such as (owners, shareholders and lenders).

The reasons that led to the success of companies according to Altman model were as follows: increased financial liquidity due to the increase in the cash balances of the research sample companies for the year 2016. Increase of market value of owner equity compared with the total liabilities of companies in the research year which resulted from the company's successful policies towards shareholders and profit distribution policies. When the company achieves high profits resulting from the increase in demand for products. This leads to an increase in retained earnings and thus, the company achieves accumulated surplus in the research year. Decrease of company's financial liabilities towards the parties which deal with such as lenders and creditors. Increased demand for products, resulting in increased revenues from operational activities. This may be due to good management decisions on pricing or distribution

policy, advertising and promotion policy for products. Consent and non-conflict of interest between management of the company and the parties it deals with such as (owners, shareholders and lenders).

Accounting information disclosed in the financial reports of the research sample companies plays a major role in the application of Altman Model to evaluate the financial performance of companies in addition to the role of this information in verifying the results of the model through the accounting information of the research sample companies in the year next year of the research year.

RECOMMENDATIONS

At the end of the research and in light of the results reached, the researcher presents the following recommendations: the research sample companies should use the financial performance evaluation models each year, especially, Altman Model to predict the failure of companies, so that, they are prepared to face failures and reduce them through financial policies and making good decisions in favor of the company. The need to provide interim financial reports, so that, the financial performance evaluation can be accessed continuously and throughout the year. The research sample companies should continue to provide the Iraqi Market for Financial Securities with financial reports in order to be available to all current and potential shareholders, through which the shares trading will be expanded.

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