

Dissertation (LCBB6000)



Can Financial Ratios Predict Bankruptcy? A Quantitative Exploration with Case Study from Hospitality Industry in the UK

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Chapter One. Introduction

1.1 Research Significance / Problem

Bankruptcy is a legal action taken against a person or corporation who is unable to pay their debts. Which atomically turn the prediction of bankruptcy as a significant issue in finance, because accurate forecasting would allow stakeholders to take proactive measures to prevent their financial losses. The difficulty of detecting financial distress in enterprises that will lead to bankruptcy is known as bankruptcy prediction. Since at least the 1930s, bankruptcy prediction has been researched. Early bankruptcy prediction methods relied on univariate statistical models based on financial ratios. Multivariate statistical models, such as the well-known Altman Z-score model, followed the univariate models.

The purpose of this study is look at the financial health in different public organizations and eventually predicts bankruptcy. This study will be focus only of companies within hospitality sector based in United Kingdom. So we are not only going to check the condition of company itself, but also how stable is the industry. The only method that is going to be used for this investigation will be financial ratios.

1.2 Research Aim

To analyse the impact(s) of financial ratio on the level of bankruptcy particularly in the hospitality sector.

1.3 Research Objectives

The three objectives that this study will be based on are:

- To explore the impacts of financial ratios on firm's financial performance
- To explore various financial ratios that can predict bankruptcy
- To analyze the effect of various financial ratios on firm's health

1.4 Research Question

- What are the impacts of financial ratios on firm's performance?
- What are the various financial ratios that can predict bankruptcy?
- What are the various financial ratios on firm's health?

Chapter Two. Literature Review

2.1 Introduction

Business failure prediction (BFP) is one of the most important issues in the area of finance and economics. Over the years, it has piqued the curiosity of practitioners and researchers alike. Being able to predict future failure gives you an early warning system, allowing you to make timely judgments and make appropriate resource allocation adjustments. For BFP, researchers must choose variables. BFP must be completed in a timely manner to provide early warnings because the operational business environment changes rapidly. It has been shown that financial ratios have more forecasting power than other types of variables in such dynamic settings, *Li & Sun (2013)*.

2.2 Definition of Key Terms

2.2.1 Financial Ratios

To get useful information about a company, financial ratios are calculated using numbers from financial statements. The figures on a company's financial statements - the balance sheet, income statement, and cash flow statement – are used to undertake quantitative analysis and evaluate a company's liquidity, leverage, growth, margins, profitability, rates of return, and valuation, among other things.

Financial ratios are often grouped into the following seven main categories:

Liquidity

Solvency/ Leverage

Efficiency

Profitability

Market prospect

Investment

Coverage

In this project we will concentrate on just three, but highly important ratios which we help us to determinate the financial situation in some point for the chosen hospitality organizations that are going to be investigated in the following dissertation. The three ratios which are going to be used here are:

1. Current Ratio, which is a part of the Liquidity category and it is use to measure what is the ability of an organization to clear off their short-term liabilities with its current assets. The importance of this ratio is that whether a firm is able to cover its current liabilities which are in short time of matter, usually like an year. The formula of Current ratios is:

$$\text{Current ratios} = \text{Current Assets} / \text{Current Liabilities}$$

2. Debt to Equity Ratio, a part of Solvency/ Leverage group, compares the total debt of a company to total equities. The formula use to that:

$$\text{Debt to Equity Ratio} = \text{Total Liabilities} / \text{Total Equites}$$

3. Return to Assets (ROA) is a part of Profitability ratio category and it is used to measure the net income produced by the total assets. The main role of ROA is to estimate how efficiently a company can manage its assets to produce profits during a period. The ROA formula is as follow:

$$\text{ROA} = \text{Net Income} / \text{Average Total Assets}$$

Even if the above financial ratios are with hugely meaning to analyse a company and compare it to other company, they can only give you a good illustration of how the organization health is doing by calculating a single ratio. However, the purpose of this dissertation is to predict bankruptcy, so in this case we need a special tool for this. We are going to meet any of the five companies used for this project with the three single ratios mentions above, but later they will be taken under more critical analyse with a model which is created specially to predict bankruptcy, where can be find more information in the next part.

2.2.2 Bankruptcy

The first issue that needed to be resolved or agreed upon before moving on is the definition of bankruptcy. The few early studies published in the 1930 to 1965 used the term “failing firms or business failure” but it did not specify in legal terms “are these firms bankrupt” or simply underperform as compare to the more successful firms. According to (Bellovary, Giacomino & Aker, 2007).while the studies did not specifically address bankruptcy prediction; the results are significant to the development of bankruptcy prediction models.

Karels and Prakash (1987) reported that there is a diverse set of definitions of failure used for prediction studies. Many studies define failure as actual filing for bankruptcy or liquidation; others define failure as suffering financial stress or an inability to pay financial obligations. The term bankruptcy was first used in (Beaver, 1966) and ever since study of business failures are called bankruptcy prediction even when it did not provide the definition of failure used for the research. This variance in the definition of failure can make it difficult to compare models. However, in general, they referred to deterioration to a firm financial position and bankruptcy the ultimate "failure."

2.2.3 Prediction

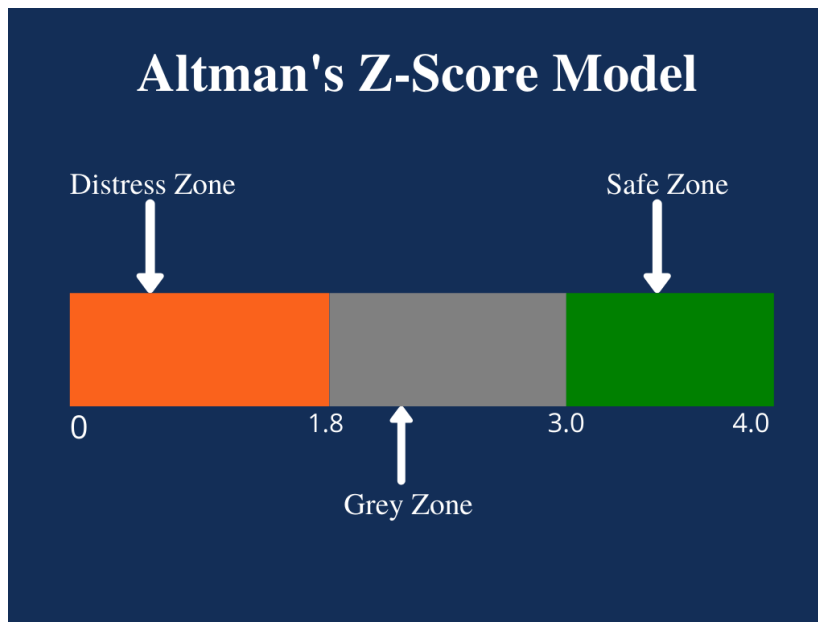
Bankruptcy prediction is critical for modern economies because early warnings of bankruptcy allow investors and policymakers to take proactive

efforts to reduce the impact of bankruptcies. The following are some of the factors that contribute to the importance of bankruptcy prediction:

- Better resource allocation
- Policymakers' input
- Managers should take corrective measures.
- Identifying issues that affect the entire industry
- Investors are being alerted.

2.2.4 Altman Z-score

Altman's Z-Score model is a numerical measurement that is used to foresee the chances of a company going bankrupt within the following few years. The model was created by American finance teacher Edward Altman in 1968 as a degree of the monetary soundness of companies.



Altman's Z-score model is considered an compelling strategy of anticipating the state of financial trouble of any organization by utilizing numerous balance sheet values and income statement. Altman's thought of creating the model for foreseeing insolvency begun at the time of the Great Depression, when businesses experienced a sharp rise in rates of default.

The Z-score model was introduced as a way of predicting the probability that a company would collapse in the next two years. The model proved to be an accurate method for predicting bankruptcy on several occasions. According to studies, the model showed an accuracy of 72% in predicting bankruptcy two years before it occurred, and it returned a false positive of 6%. The false-positive level was lower compared to the 15% to 20% false-positive returned when the model was used to predict bankruptcy one year before it occurred.

When creating the Z-score model, Altman used a weighting system alongside other ratios that predicted the chances of a company going bankrupt. In total, Altman created three different Z-scores for different types of businesses. The original model was released in 1968, and it was specifically designed for public manufacturing companies with assets in excess of \$1 million. The

original model excluded private companies and non-manufacturing companies with assets less than \$1 million.

Later in 1983, Altman developed two other models for use with smaller private manufacturing companies. Model A Z-score was developed specifically for private manufacturing companies, while Model B was created for non-publicly traded companies. The 1983 Z-score models comprised varied weighting, predictability scoring systems, and variables.

The Z-score model is based on five key financial ratios, and it relies on the information contained in the 10-K report. It increases the model's accuracy when measuring the financial health of a company and its probability of going bankrupt.

The Altman's Z-score formula is written as follows:

$$\zeta = 1.2A + 1.4B + 3.3C + 0.6D + 1.0E$$

Where:

Zeta (ζ) is the Altman's Z-score

A is the Working Capital/Total Assets ratio

B is the Retained Earnings/Total Assets ratio

C is the Earnings Before Interest and Tax/Total Assets ratio

D is the Market Value of Equity/Total Liabilities ratio

E is the Total Sales/Total Assets ratio

Usually, the lower the Z-score, the higher the odds that a company is heading for bankruptcy. A Z-score that is lower than 1.8 means that the company is in

financial distress and with a high probability of going bankrupt. On the other hand, a score of 3 and above means that the company is in a safe zone and is unlikely to file for bankruptcy. A score of between 1.8 and 3 means that the company is in a grey area and with a moderate chance of filing for bankruptcy.

Investors use Altman's Z-score to make a decision on whether to buy or sell a company's stock, depending on the assessed financial strength. If a company shows a Z-score closer to 3, investors may consider purchasing the company's stock since there is minimal risk of the business going bankrupt in the next two years.

However, if a company shows a Z-score closer to 1.8, the investors may consider selling the company's stock to avoid losing their investments since the score implies a high probability of going bankrupt.

The following are the key financial ratios that make up the Z-score model:

1. Working Capital/Total Assets

Working capital is the contrast between the current resources of a company and its current liabilities. The value of a company's working capital decides its short-term money related wellbeing. A positive working capital implies that a company can meet its short-term monetary commitments and still make reserves accessible to contribute and develop. In differentiate, negative working capital implies that a company will battle to meet its short-term monetary commitments since there are lacking current resources.

2. Retained Earnings/Total Assets

The retained earnings/total assets ratio shows the amount of retained earnings or losses in a company. If a company reports a low retained earnings to total assets ratio, it means that it is financing its expenditure using

borrowed funds rather than funds from its retained earnings. It increases the probability of a company going bankrupt. On the other hand, a high retained earnings to total assets ratio shows that a company uses its retained earnings to fund capital expenditure. It shows that the company achieved profitability over the years, and it does not need to rely on borrowings.

3. Earnings Before Interest and Tax/Total Assets

EBIT, a measure of a company's profitability, refers to the ability of a company to generate profits solely from its operations. The EBIT/Total Assets ratio demonstrates a company's ability to generate enough revenues to stay profitable and fund ongoing operations and make debt payments.

4. Market Value of Equity/Total Liabilities

The market value, too known as market capitalization, is the esteem of a company's value. It is gotten by increasing the number of extraordinary offers by the current cost of stocks. The market value of the equity/total liabilities ratio appears the degree to which a company's market value would decay when it pronounces insolvency some time recently the value of liabilities surpasses the value of resources on the balance sheet. A tall market value of value to add up to liabilities proportion can be translated to cruel tall speculator certainty within the company's monetary quality.

5. Sales/Total Assets

The sales to total assets ratio shows how efficiently the management uses assets to generate revenues vis-à-vis the competition. A high sales to total assets ratio is translated to mean that the management requires a small investment to generate sales, which increases the overall profitability of the company. In contrast, a low or falling sales to total assets ratio means that the management will need to use more resources to generate enough sales, which will reduce the company's profitability.

Chapter Three. Proposition of theoretical framework

The foremost well-known hypothesis for insolvency prediction is truly a notional one. The hypothesis is elaborated verifiably from budgetary measures in contrast to an financial concept being interpreted into a degree. This notional hypothesis exudes from the discernment of money related proportions as indicators of a firm's wellbeing. When the firm's indicators are "good" it is seen as solid, but it is seen as undesirable and at chance of bankruptcy in the event that the pointers are poor. Three major categories of these markers: liquidity, productivity and wealth. A positive and high estimation of these three suggests a lower risk of liquidation. The self-evident shortcoming of this notional hypothesis is its simplification. On the flip side, however, this "weakness" guarantees that the hypothesis does not strife with, and is comprehensive of other more prescriptive theories. However, entrance or exit of a company does not continuously cruel physical consideration in or exclusion from an industry. Entrance or exit can be watched as increment or diminish in operations, asset raise or deficiency, or alter in field of activity. In this setting, competition prepare may well be perceived as remaining or consideration of proficient resources within the industry and avoidance of inefficient ones from the industry. For illustration, decreasing request in a few items can cause reserved generation assets move into other production forms or shutdown of a production office. For expansive scaled companies, exit prepare might be characterized as rebuilding of allocations of generation assets. In this context, showcase economies and competition can be depicted as a stream or a development from inefficient forms to proficient forms. Theoretically, in profoundly competitive markets; insolvency, default, liquidation, process shutdown so called monetary trouble is once in a while observable (Hashi, 1997).

Chapter Four . Research Methodology

4.1 Introduction

Research Methodology is a set of procedures or techniques for locating, selecting, processing, and analysing information about a subject. The

methodology portion of a research article allows the reader to critically examine the study's overall validity and dependability. Two major questions are addressed in the methodology section: How was the information gathered or generated? What method was used to examine it?

The following chapter will discuss in a brief way the researching subcategories, including philosophy, methods, data collection, etc., and will point out the research structure of this study.

4.2 Research Philosophy

Research philosophy deals with the source, nature and development of knowledge, Bajpai (2011). A research philosophy is a set of beliefs about how evidence on a topic should be collected, analysed, and utilised.

There are four main research philosophies in the field of business studies in particular: Pragmatism

Positivism Realism Interpretivism

Practical considerations influence the choosing of a research philosophy. Studies that focus on facts and data, such as an analysis of the influence of foreign direct investment

on GDP development, and qualitative studies, such as an analysis of leadership style on employee motivation in businesses, have significant philosophical differences.

This study is based fully on numerical data which makes Positivism as a main research philosophy.

Positivism is data collection method associated with research philosophy that relies on high structure, large samples and measurements. It is considered as quantitative method.

4.3 Research Methods

The study will be based completely on quantitative method.

The method itself focuses on objective measurements and statistical, mathematical, or numerical analysis of data acquired through polls, questionnaires, and surveys, as well as modifying pre-existing statistical data using computing techniques.

4.4 Data Collection & Research Approach

After the brief information about the research itself including what philosophy and method this study will be based on, now it is the time to see from where the specific data will be extracted from and how it will be approached, but before that we will meet what is the five best collection for quantitative data:

Probability
sampling Interviews
Surveys/questionnaires
Observations
Document Review

As the study will use only the last nature of collection – Document Review. In this section will be explained with a bit more details about this type.

Document Review is a method for gathering information after analyzing existing materials. It is a time-saving and cost-effective method of data collection since papers are easily handled and provide a practical resource for obtaining qualified data from the past. Document review has developed as one of the most advantageous strategies for gathering quantitative research data, in addition to improving and supporting the research by offering supplemental research data.

For the purpose of collecting supporting quantitative study data, three basic document categories are being examined.

Public Records Personal Documents Physical Evidence

To specify even deeper, this study will use the category called Public Records.

Under this document review, official, ongoing records of an organization are analyzed for further research. Including annual reports and financial statements which actually will be the main source of information for the purpose of this study

4.5 Research Ethics

Large number of articles is used for the creation of this study. The whole data used here, included in a direct or indirect ways is carefully selected and announced in the last chapter 'references'.

The data used to analyse the performance of the companies is collected from trusted sources like, yahoo finance, morning star and/or the annual report of the specific company itself.

4.6 Conclusion

The structure is showing the process of the research techniques/methods used for this work:



Chapter Five . Data Collection and Analysis

5.1 Introduction

In the following chapter, we are going to get through the financial statements for the past three years of five British based public companies that operates in the hospitality industry. The companies and their operation segment in the industry are:

InterContinental Hotels Group PLC (IHG) – Lodging

Wetherspoon (J D) PLC (JDW) – F&B

Mitchells & Butlers PLC (MAB) – F&B

Young & Co's Brewery PLC (YNGA) – F&B

Whitbread PLC (WTB) – Lodging and F&B

The analyze of the companies will begin with the gentle look at and the use of the three single financial ratios mentioned earlier (Current Ratio, Debt to Equity and Return on Assets). On further instance of our analyzation we will get rougher and take in use in our hands, the powerful weapon, the specific tool or so called the Altman Z- score model, as already mentioned on here the model is created with mix of financial ratios specially to predict bankruptcy as it is the main purpose of this study.

We are not going to go through the whole financial statements of a company in details, but we are going to extract the exact necessary information from it, as follow:

For the single financial ratios:

Current Ratio – to find it out, we need the Current Assets and Current Liability for a specific period of time in this case for an year. They can be find in the Balance sheet of a company.

Debt to Equity Ratio – From the Balance sheet the needed information is Total Liabilities, where we are going to dived them to Total Equity

ROA – We need to extract the information from Income statement where we can find Net income and divide it to Total Assets from Balance sheet.

For the Altman Z-score model

Working Capital – We are going to need Total Current Assets and minus them with the Total Current Liabilities. This information can be get from the Balance Sheet.

Retained Earnings - From balance Sheet.

Earnings Before and Tax (EBIT) – From Income Statement.

Market Value of Equity or Market Cap - refers to the total value of all a company's shares of stock. It is calculated by multiplying the price of a stock by its total number of outstanding shares. And that is why **this** Altman Z-score formula is specifically for use only for public companies.

Net Sales – Can be found in the Total Revenue from the Income Statement

All the above are dividing to Total Assets, except Market Cap that is dividing to Total Liability.

The numbers are in thousands. Where GREEN color numbers mean healthy zone, the GREY color numbers are in between of the green and red zone and the RED color mean dangerous zone. The all numbers are taken from the official financial statements Interest from each of the organizations shown below.

5.2 Intercontinental Hotels Group PLC (IHG)

Current Ratio

Name	31/12/2020	31/12/2019	31/12/2018
Current Assets	2243	935	1376
Current Liabilities	1867	1387	1370
Result	1.2	0.71	1

Debt To Equity

Name	31/12/2020	31/12/2019	31/12/2018
Total Liability	6888	5441	4830
Total Equity	-1857	-1473	-1085
Result	-3.7	-3.7	-4.45

ROA

Name	31/12/2020	31/12/2019	31/12/2018
Net Income	-260	385	351
Total Assets	5039	3976	3753
Result in %	-5.16	9.68	9.35

Altman Z-score

Name	31/12/2020	31/12/2019	31/12/2018
Working Capital	376	-452	6
Retained Earnings	568	809	1166
EBIT	-141	657	578
Market Cap	12068	11027	9590
Net Sales	2394	4627	4337
Total Assets	5039	3976	3753
Total Liability	6888	5659	5416
Z-score Result	1.68	3.03	3.16

5.3 Wetherspoon (JD) PLC (JDW)

Current Ratio

Name	31/12/2020	31/12/2019	31/12/2018
Current Assets	242	92	111
Current Liabilities	331	326	316
Result	0.73	0.28	0.35

Debt To Equity

Name	31/12/2020	31/12/2019	31/12/2018
Total Liability	1929	1205	1190
Total Equity	317	317	286
Result	6.1	3.8	4.2

ROA

Name	31/12/2020	31/12/2019	31/12/2018
Net Income	-97	73	67
Total Assets	2246	1522	1476
Result in %	-4.31	4.79	4.53

Altman Z-score

Name	31/12/2020	31/12/2019	31/12/2018
Working Capital	-94	-243	-217
Retained Earnings	91	204	154
EBIT	-44	129	115
Market Cap	1237	1091	989
Net Sales	1262	1818	1693
Total Assets	2245	1521	1476
Total Liability	1931	1205	1189
Z-score Result	0.89	2.01	1.87

5.4 Mitchells & Butlers PLC (MAB)

Current Ratio

Name	31/12/2020	31/12/2019	31/12/2018
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Current Assets	239	225	328
Current Liability	701	520	630
Result	0.34	0.43	0.52

Debt To Equity

Name	31/12/2020	31/12/2019	31/12/2018
Total Liabilities	3432	2945	3109
Total Equity	1677	1947	1769
Result	2.05	1.5	1.76

ROA

Name	31/12/2020	31/12/2019	31/12/2018
Net Income	-112	143	104
Total Assets	5109	4892	4878
Result in %	-2.19	2.92	2.13

Altman Z-score

Name	31/12/2020	31/12/2019	31/12/2018
Working Capital	-462	-295	-302
Retained Earnings	721	854	695
EBIT	5	291	256
Market Cap	1537	1488	1402
Net Sales	1475	2237	2152
Total Assets	5109	4892	4878
Total Liability	3432	2945	3109
Z-score Result	0.65	1.13	1.01

5.5 Young & Co's Brewery PLC (YNGA)

Current Ratio

Name	31/12/2020	31/12/2019	31/12/2018
Current Assets	14	21	18
Current Liabilities	91	51	47
Result	0.15	0.41	0.38

Debt To Equity

Name	31/12/2020	31/12/2019	31/12/2018
Total Liabilities	399	288	251
Total Equity	591	593	549
Result	0.68	0.49	0.46

ROA

Name	31/12/2020	31/12/2019	31/12/2018
Net Income	19	31	30
Total Assets	989	882	800
Result	1.92	3.51	3.75

Altman Z-score

Name	31/12/2020	31/12/2019	31/12/2018
Working Capital	-34	-30	-73

Retained Earnings	331	288	207
EBIT	37	44	43
Market Cap	739	680	60
Net Sales	311	303	279
Total Assets	989	882	800
Total Liability	399	289	251
Z-score Result	1.98	2.34	2.28

5.6 Whitbread PLC (WTB)

Current Ratio

Name	31/12/2020	31/12/2019	31/12/2018
Current Assets	833	3544	332
Current Liabilities	647	950	932
Result	1.28	3.73	0.35

Debt To Equity

Name	31/12/2020	31/12/2019	31/12/2018
Total Liabilities	4077	4381	4817
Total Equity	3749	5652	2582
Result	1.09	0.78	1.87

ROA

Name	31/12/2020	31/12/2019	31/12/2018
Net Income	218	177	436

Total Assets	7825	10034	7399
Result	2.78	1.76	5.89

Altman Z-score

Name	31/12/2020	31/12/2019	31/12/2018
Working Capital	201	2606	-501
Retained Earnings	5861	7938	4594
EBIT	424	364	380
Market Cap	6393	6299	5438
Net Sales	2071	2049	3295
Total Assets	7825	10034	4892
Total Liability	4076	4381	4816
Z-score Result	2.46	2.41	2.93

Chapter Six . Discussion

The results of Current Ratio where we can understand what is the ability of a company to cover their Current Liabilities in a short period of time, where the results show between 1.2 and 2 can be understood as good performance, we can say that with the best indicators is WTB, where in 2 out of three years it reaches the green zone. But the results themselves show also we cannot make specific conclusions with only one financial ratio. During the three years there are strong and inexplicable changes in the results of WTB. In 2018 it is deep on the bottom in the danger zone with 0.35 score, until only a year later it makes an impressive jump and not only reaches, but also passes with the high score the green zone to hit a result of 3.73. In 2020 the Current ratio score of WTB falls more than twice to stay on 1.28 score but still remains in the green zone

and while we can think for a logical explanation for the decline in 2020 compared to 2019, like the lockdown in 2020 for instance, the jump from 2018 to 2019 is very inexplicable, at least for quantitative analysis. Excluding WTB, the Current Ratio results of other organizations are not so much a subject for discussion, even if the results are very disturbing, there are no big differences in them.

The next financial ratio we will consider is Debt to Equity, in this case this is the only ratio in this study where a higher number means more risky and negative position. For example the results between 1 and 1.5 are consider as good, but more than 2 a company fall into the red (risk) zone and less than 1 company is in the green or favorable zone. However, in case the company's score shows negative result below 0 then it is called deficit and it means that liabilities are more than assets. When we look at the scores of this ratio, we can notice the extremely oppressive results of IHG. For the period of the three years 2018 – 2020 the company struggles with a very serious deficit. The things are not particularly acceptable in JDW where it shows results between 3.8 and 6.1, which is much above the normal norm, where is understood as good a score to 1.5. We can see a quiet positive result for WTB, but the most favorable Debt to Equity score is on YNGA, which makes the most of what this ratio has to offer and stays comfortable in the green area.

The last ratio ROA is shown as a percentage and where above 5% is consider as good and above 20% as excellent. Here, however, we can see the lack of security in the industry as a whole, most of the companies are in the red or grey zone, even the positive accents from IHG in which they reached the green zone with results above 9% are crushed in 2020 where they go to -5.16%.

In general we can say that the most interesting scores in Current ratio belong to WTB, but when we look at all of the three ratios, the most dynamics and surprising scores belong to IHG.

According Altman Z-score formula IHG was the only company in this study that that hit the green zone for two out of three years. However, IHG also showed a drastic declined in 2020 and straight fall into the danger or so called the red zone with a score of 1.68. In the matter of fact 2020 was the worst year with three out of five companies that are in the red zone. In anyways for WTB which

was the only company that did not have any drastic changes for the period of the three years 2020 was with better impact compared 2019. Even of the fully grey zone WTB still could be considered for as stable company, especially compared to the other fully grey zoned YNGA that in the 2020 felt under the score of 2. It is interesting the fact that one of the most famous pub chains in the UK Wetherspoon has a massive drop in 2020 compared to the years before. 2018 was pretty grey year for JDW where Z-score hit 1.87, a year later in 2019 was a bit better year for the budget chain that jumped with

0.14 points and not only reached but even passed the score of 2, however 2020 was a complete disaster for JWD with massive and the most shocking drop compared to the other four companies with declined of 1.12 points and hit the very dark red score of 0.89. But even that this is not the worst, one of the main competitors of JDW, MAB is in extreme financial distress. The company is literally burning in a score of 0.65, this huge worrying as the collapse of the company seems to be just around the corner. The interesting fact here is that the troubles for the company are not from yesterday, and should not be blame Covid-19 for instance. MAB is struggling from the years before and this is the only company in this study that is completely in the danger (red) zone. Now when we discuss the result of each of the five companies, which are serious players on the market in the industry, we can summaries that the best year of financial comfort is the year 2018 when the total collection of scores of these five companies point the number 11.25. It is not surprising the year 2019 is the next year with best score with number of 10.92. Year 2020 is the worst year in this three years collection of data with a number of 7.66 Z-score.

Chapter Seven . Conclusion

7.1 Introduction

The above study is just a brief example how powerful the quantitative analyze of a company could be. One single financial ratio can tell you a lot and

meanwhile almost nothing for the financial health of a company, but when we involved more and more ratios whether check the situation of a company or compare to other company, the picture is getting clearer and brighter. As anything in the world is evolving so does the finance tools as well. The Altman Z-score is a great example for that. Even if they could be any kind of factors and countless accidental or non-accidental events that can damage or improve a company condition. Altman Z-score model is proven for probably the best tool of checking a firm's health or even predict a bankruptcy. The formula created by Edward Altman and published in 1968 was found to be 72% accurate in predicting bankruptcy two years prior the event, in an initial test. While in subsequent tests over 31 years up until 1999, the model was found to be 80-90% accurate in predicting bankruptcy one year prior to the event. The formula itself is very powerful as it is combination of different financial ratios in once which suck out the most important financial data from a company statements, estimate all that information and point out a specific number that helps to show a lot for a company past, present and future condition. The final conclusion we probably all can agree that even if 2020 and the coronavirus had a great impact on the organizations here with negative aspect, also we can see the years before are not a paradise. Basically the hospitality industry in UK is highly competitive, highly dynamic and highly risky business. Lots of factors can turn it up or down in a matter of time. The life there is hard for surviving, but the pie is huge and anybody wants a bite or more. The hospitality industry in the UK generate the impressive £59.3 billion. But if we can see from other point of view, a good point of view for instance, this massive competitive and unfriendly environment can lead to some positive things, like bringing more and more innovation, creativation and progresivation at all for the industry.

Even if this study already finished with its conclusion, the answer that we are looking for from the beginning it is still not given yet. So, the next and last part of this pages will try to give an answer of the question whether or not financial ratios can predict bankruptcy?

7.2 The Forecast

According to the above study, there should be no dispute that the most stable company is WTB, but the main propose here is the prediction of bankruptcy with specific tools. Whether it can or not only the future can say, but according the past, the tools and the Altman Z-score model are provenly working well. The information and the collected data which was analyzed and discussed on here can point us to MAB. Mitchells & Butlers plc, is with huge possibility of collapsing in the near future. This is the only company in this study that did not get even one green number for the years 2018, 2019 and 2020. The Current ratios for these years shows great struggling for the organization, where the current liabilities are double and even more higher than their current assets. In 2020 their current liabilities are nearly 3 times bigger than their current assets. The situation does not looking good in Debt to Equity Ratio, where even if the company hit twice the grey zone, they are still struggling with this ratio as well. ROA is completely red, and most importantly the Altman Z score shows numbers which are consider as extremely worrying, especially in 2020 where the score is quiet under the safe zone with result of 0.65.

The whole this results opened our interest, what will be the situation for the company in year 2021. Specially for MAB here is inserted table with their numbers in 2021 calculated with the Altman Z-score model below:

Altman Z-score

Name	31/12/2021
Working Capital	-284
Retained Earnings	690
EBIT	80
Market Cap	1254
Net Sales	1065
Total Assets	5209
Total Liability	3105
Z-score Result	0.62

Well, not a prove yet, as the company still operating, but we are on the right path unfortunately for MAB. As we can see the numbers keep decline and the situation is even worse than 2020.

END

Words from me: The study speaks with numbers. I, personally wish a lot of luck to Mitchells and Butlers and rather prefer the study to be wrong instead to see the worst (bankruptcy) and 44000 people on the street jobless. But definitely there is something that must be change. Now, I am going to celebrate the finishing of this dissertation (hopefully this time for good) with a tiny contribution to MAB, a pint of beer in a local Mitchells and Butlers pub. Cheers!

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