Topic

To analyze The Effect of Credit Scoring on the Capital Structure Decisions of a Firm: Case of Retail Industry

Abstract

Purpose: The major aim of the research is to analyze the Effect of Credit Scoring on the Capital Structure Decisions of a Firm in the case of retail sector.

Background: It has been found that managers of different companies make efforts and issue new shares in the market for the purpose of preventing negative credit rating thereby striving to assume the debt within the company from speculative grades to investment grade. In this consideration, it has been found that CFOs consider credit rating as an important factor while deciding the capital structure of the company. Credit rating is essential for investors because it provides information to the investor about the current position of the company thereby providing an idea about the quality of the company.

Research Methods: The research understudy follows explanatory research design along with the with the survey strategy because interviews have been conducted. The study follows interpretivism and positivism research philosophies while the technique that has been used is both quantitative, as well as qualitative for gathering the data. Quantitative data has been gathered from annual reports and authentic website like Morning star.

Data Findings: The results of indicate that there is no relationship between credit scoring and capital structure decisions taken by the companies in the retail sector of the UK. The credit rating of Morrison and Debenhams Plc are attractive as compared to other retail companies; however, Tesco's credit score declined in 2013 and 2014. Moreover, the data reveals that decisions related to debt are taken regardless of the credit score of the companies; nevertheless, credit score provides the creditor with an idea of lending money to specific company.

Recommendations: The companies in the retail sector are advised to make regular payments of loans and choose the creditor who offers attractive credit terms. The companies are suggested to constantly track the credit report of the company so as to timely make the effective decisions while repairing the credit scores.

Acknowledgement

I am using this opportunity to express my gratitude to everyone who supported me throughout the course of this project. I am thankful for their aspiring guidance, invaluably constructive criticism and friendly advice during the project work. I am sincerely grateful to them for sharing their truthful and illuminating views on a number of issues related to the project.

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Table of Contents

List of Tables

List of Figures

Chapter 1: Introduction

1.1 Introduction

The first chapter of the research is introduction and deals with introducing the topic of research. This chapter includes background of the topic so as to understand the setting and origin of the certain topic while conducting the research in a better way. The chapter also provides a brief background of the industry that has been chosen in the research for analysis so that the current situation of the retail sector may be gauged. Furthermore, the research includes objectives of the study that are to be achieved in the conduct of this research along with the problem statement. Henceforth, the chapter includes scope and significance of the topic of the research so as to provide the rationale for the selection of the topic.

1.2 Research Background

In the view of Kisgen and Strahan (2010), managers of different companies make efforts and issue new shares in the market for the purpose of preventing negative credit rating thereby striving to assume the debt within the company from speculative grades to investment grade. In this consideration, it has been found that CFOs consider credit rating as an important factor while deciding the capital structure of the company. Similarly, Kisgen (2008), mentioned that in a survey of credit rating and capital structure around 57.1 % of CFOs provided the view that they consider credit rating while determining the capital structure of the company or estimating the right blend or mix of debt and equity. Credit ratings are important for taking effective capital structure decisions because of given costs and benefits of discrete costs linked with the varying levels of ratings (Roberts and Sufi, 2009). For example Desai, Foley and Hines (2008), stated that investment in numerous bonds is dependent directly on the credit rating therefore, levels of credit ratings affect that whether the specific groups of individuals (like pension funds and banks) should make investment in the bonds of the company or not.

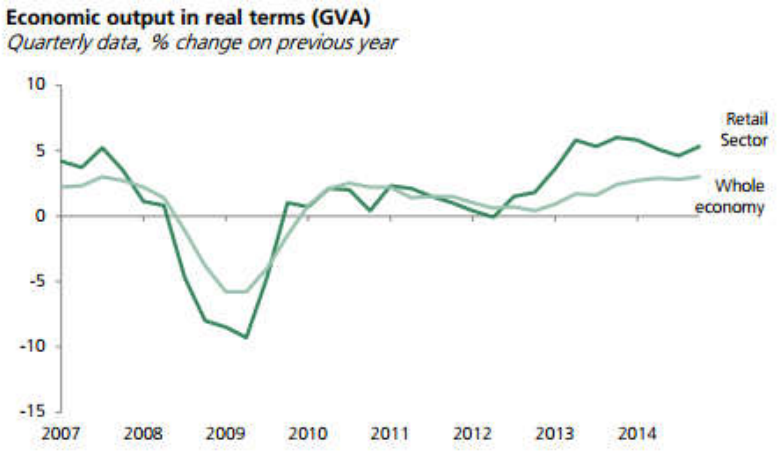
Yu (2008) highlighted that credit rating is essential for investors as well because it provides information to the investor about the current position of the company thereby providing an idea about the quality of the company. In case the credit rating information is considered as important and more informative then a pool is made comprising of firms with similar ratings and so the

change in ratings lead to discrete modifications in the cost of capital of the company (Chen and Kou, 2009).

It has been found by Yu (2005), that credit rating is the ability of a firm to fulfil their financial commitments in accord to the previous dealing of a firm. Moreover, credit rating is an evaluation of the worthiness of a debtor for a business or a government regardless of the individual consumers. The evidence reflects that the credit rating plays an essential role in the capital structure of a firm. The management intends to issue new shares for the capital to downgrade credit rating and strived firm's debt to upgrade from the speculative grade to the investment grade. According to Shin, Kim and Shin (2008), the credit scoring of a firm is the second highest concern for the CFO while determining the firm's capital structure.

1.2.1 Retail Industry

According to Hutchinson, Donnell, Gilmore and Reid (2015), the retail sector involves spending of the customers in online as well as in the conventional stores. In the statistical perspective, the evidence reflects that in the UK, the consumers spend around £ 30 billion that illustrates for every £ 1 spent on the online and retail stores, the 42 P has been spent on the food, 41 pence spent on the non-food stores and 11 pence has been utilized for the automotive fuel of the consumers (The guardian, 2015).



Graph 1: Economic Output of the Retail Sector

(Source: Rhodes, 2014).

The graph mentioned above highlights the economic output of the retail sector of UK for the period of 2007 to 2014. In evidence to above graph, it is found that the retail sector contributes around £ 179 billion in the UK economic output for the year 2014 that has been increased by 11 % in the current period (Rhodes, 2014). In the view of Ward and Rhodes (2014), the total retail sales of the UK online stores have increased from 2.8 % to 11 % within the time frame of 2007 to 2013. Moreover, the total retail sales of the conventional stores have increased in the range of 3 % to 5 % for the each quarter of 2010 and 2011 (Rhodes, 2014). In perspective to the current year, the British retail sector is suffering from the slowdown in sales, where the food sales continued to fall in the recent three months of the current year (Rhodes, 2014).

1.3 Research Objectives

The major aim of the research is to analyze the Effect of Credit Scoring on the Capital Structure Decisions of a Firm in the case of retail sector. However, the major aim of the study can be stated as:

- To comprehend the concept of credit scoring
- To analyze the impact of credit scoring on the capital structure decisions of the firms
- To critically evaluate the effect of credit scoring on the decisions of capital structure of the retail industry in The UK
- To develop and give a set of recommendations to the organizations operating in the retail sector regarding the management of credit scoring.

1.4 Problem Statement

In accordance with the brief background on the research topic, the problem statement of the study can be drafted as:

What are the effects of Credit scoring on the Capital Structure Decisions of a Firm in the case of retail sector?

1.4 Research Scope

The scope of the study defines areas that are being considered in the study. The scope of this particular research is based on the areas related to the retail sector of the UK, however, the two main components covered in this study includes credit scoring of the retail firms and the capital structure of a firm operating in the UK based retail sector. The researcher is also interested in analyzing the effects of the credit rating on the capital structure of a firm by gathering the secondary data from the official websites of the companies that are listed on the London Stock Exchange.

1.5 Research Significance

The researcher is motivated in exploring the effects of the credit rating on the capital structure of a firm. The significance of the study is to evaluate the aspects of the credit scoring for the effective decision of a firm while undertaking the Stakeholder's perception in an organisation. The researcher is interested to determine the effects of the credit scoring on the capital structure of a firm while evaluating the financial position of the selected firms for a predetermined time frame. Moreover, the researcher also seeks to evaluate the current capital structure of the firms by undertaking the existing debt and equity portion of the firms.

1.6 Structure of Dissertation

The structure of the current study can be stated as:

Chapter 1- Introduction:

The introduction is the first chapter of the research that intend to investigate the basic and essential components of the study in terms of research aim, research objectives, scope and significance of the research.

Chapter 2- Literature Review:

The Literature Review is the second chapter of the research that highlights the theories and models related to the research topic with the help of past researches and articles.

Chapter 3- Research Methodology:

Research Methodology is the third chapter of the study that intend to explain the tools and techniques used by the researcher to carry out the entire research process. The elements covered

in this section include research strategy, research approach, philosophy and sampling technique, etc.

Chapter 4- Data Analysis:

The fourth chapter of the study is data analysis that usually presents the findings of the research. The aspects covered in this section include demographic analysis of the respondents, descriptive statistics and frequency analysis of the data.

Chapter 5- Conclusion and Recommendation:

The last chapter of the study is Conclusion and Recommendation that intend to summarize the entire research findings in a brief. The researcher has presented recommendations to the organizations, and the limitations of the research have also been mentioned in this study.

1.7 Chapter Summary

In a nutshell, the discussion involved in this section reveals the essential components of the research. From the above discussion, it is found that the scope of this particular research is based on the areas related to the retail sector of the UK, that intend to study the two main components which includes credit scoring of the retail firms and the capital structure of a firm operating in the UK based retail sector. The major aim and brief objective of the research have been drafted along with the problem statement of the research. Moreover, the significance of the study has been covered in this section as the researcher is motivated in exploring the effects of the credit rating on the capital structure of a firm.

Chapter 2: Literature Review

2.1 Introduction

This chapter is meant to review the existing literature so that the relationship between credit scoring and capital structure decisions can be evaluated in the light of work done by previous researchers. The chapter is important as it reveals the extent of value addition of the study to existing literature. This is because this chapter explains the research gaps in the study, which helps to know how valuable the study being conducted is. Furthermore, in conducting the literature review, the concepts of credit scoring and capital structure have been explained. Also, included are the different theories and models that relate to the two variables under consideration. The study then extracts further variables from the literature and develops the frame work and hypothesis and concludes with a chapter summary.

2.2 Credit Scoring

The credit scoring is also known as risk scoring, and it's rated by a credit bureau to measure the credibility. It helps to determine the rate of interest you obtain on a loan. It does not involve race, religion, national origin, gender or marital status as features (Linnard, Bojmar and Berlekom, 2012). According to Michelson (2011), the increment in the credit score reduces the risk of default. Each and every credit bureau applies a distinct word for the credit score that inculcates Equifax, Experian and Empirica. It has been observed that the leaders avoid reporting account pursuit to the entire credit bureaus.

The average range of the credit scores involves from 400 to 900. It has been viewed that there are five crucial factors implemented to determine a credit score (Campbell, Dodd, Hill and Kelly, 2012). The five integral factors inculcates the payment history, amounts owed, length of credit history and types of credit in use. It is found that 35 % of credit score is relied upon the payment history. A credit score portrays a negative image if the bills are lately paid and negligence in payments in a credit account. A credit report consists of the record of public issues i.e. bankruptcy, collection accounts, etc. Furthermore, there is a negative impact on a credit score because of loans from several financial firms. If a request for credit is rejected by the lender and the score was a cause, then the cause helps the lender to elucidate the reason for lower score

(Kisgen and Strahan, 2010). It has been examined that the scoring practitioners embrace an approach for the maintenance and development of a model.

According to this standpoint, one can apply the methodology of SOAR that is developed by Don Brown. This procedure consists of goal understanding of a system that is developed and specified with a crystal clear understanding of data (Levin, Jenkins and Einav, 2013). Moreover, credit scoring is a phenomenon of judging and evaluating the customer's desire for loan including past experiences. The process of credit scoring can be used to forecast the behavioural range of the customers that whether it will go wrong or right. If is perceived from several cases that scoring emphasizes on the likelihood that the borrower will become criminal, or the loan will go bad (Ooi, Ong and Li, 2010).

The credit score is highly based on the nature of information such as qualitative and quantitative on customer behaviour. The term 'subjective scoring' is based on the qualitative information. It is a phenomenon of evaluating credit grids that are used by the micro-lenders to implement the numeric scores to knowledge gathered in the lending procedure. In this procedure, the weighting system establishes an applicant score that is based on the belief and experience of the firm's underwriting workforce (Ong, Chow and Li 2013). It is investigated that the system based on quantitative knowledge is stored in a database that is termed as 'statistical scoring'. It is a kind of credit scoring that is used by the credit bureaus and private lenders. It is investigated that the statistical scoring has dramatically altered the practices regarding lending (Kisgen and Strahan 2010).

The statistical scoring provides numerous advantages that can improve micro-lending performance. The advantages include, delinquency reduction, consistency in decision-making, enhanced efficiency in a lending procedure, development of products and implementation of risk-based pricing. Thus, credit scoring is a tool that lenders can implement to enhance the performance and efficiency of the loan programs. It is stated that, by using credit score, the creditors and receiver treat each other objectively due to the similar standards that are implemented to everyone. The credit scoring is applied in conjunction along with local evaluation by the relationship manager (Gujarati and Porter, 2010).

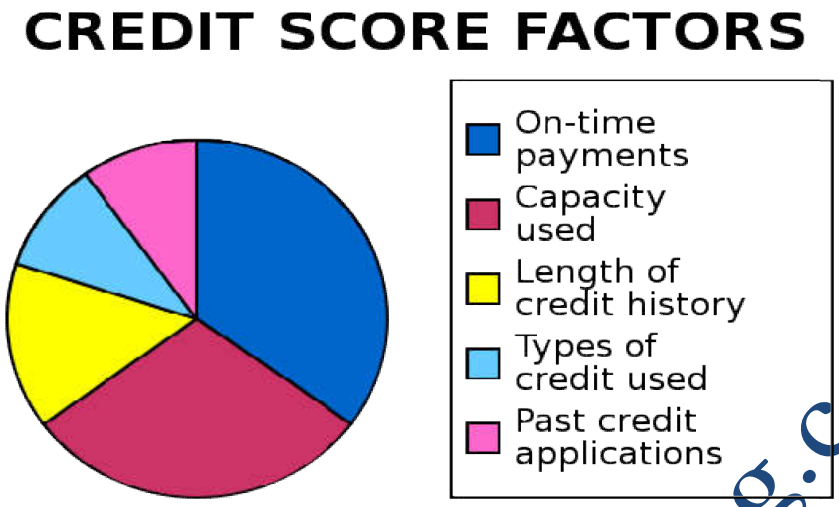


Figure 1: Model of Credit Score Factors

(Source: Ong, Chow and Li 2013)

The above given model of credit score explicates the essential factors that improve the procedure of credit score. These factors include, on-time payments, capacity used, length of credit history, types of credit used and past credit applications.

2.2.1 Improvement in Credit Score

The credit score can be greatly improved by making punctual credit payments for the necessary amount. It is necessary to make sure that the balance and approved overdraft boundary is enough to cover any payments due. It is noticed to boost the score it is important to pay down the balances and keep it low. There is a better way to enhance the credit score is to gather up the credit cards on which it have little balances and pay them off (Campbell, Dodd, Hill and Kelly 2012). The past survey report portrays that the presence of old debts on the credit report is considered as bad. The negative things are bad for the score and vanish from the report after seven years. The most significant way to enhance the credit score is to avoid the things that could sink it (Adeyemi and Oboh 2011).

2.2.2 Credit Reference Agencies

According to the previous study, the banks exercises credit references agencies to facilitate in making lending decisions and recognizing the customers (Kisgen and Strahan, 2010). It could be done by facilitating and compiling public and credit account knowledge. The public information inculcates electoral register information that delivered to local authorities by the householders. The banks utilize this data to help in confirming the names and addresses. The information regarding public consists of information on country court judgements, Scottish decrees, bankruptcies, individual voluntary arrangements and administration orders. The information of credit account inculcates data delivered to lenders that facilitate customers to handle the credit accords. Furthermore, it permits the bank to monitor the people who apply for the credit loans (Harrison, Panasian and Seiler 2011). It has been investigated that the application includes credit it seeks the database of more than one credit reference agencies for applicant information. The agencies maintain an evidence of entire searches and permit the bank to investigate that how many times the lenders have admittance the credit information of an applicant (Levin, Jenkins and Einav 2013).

2.3 Credit scoring models

According to Siddiqi (2012), the credit scoring models refers to the methods used by the "Credit Bureaus" to examine the worthiness to receive credit. The evidence reflects that a credit score is a numerical expression that is based on the individual credit files representing the creditworthiness of an individual. Moreover, the credit score is usually based on the information of credit report that has been obtained from the credit bureaus. Hand and Henley (2009) stated that credit scoring model revolves around a set of decision model and techniques that aid lender in granting customers credit (Siddiqi, 2012). The techniques depict who will be getting credit, amount of credit and operational strategies that increases the profitability of the borrowers of the lenders. The techniques also intend to assess the risk involved in the lending along with the assessment of the individual credit worthiness (Stat Soft, 2015).

In the view of Levich, Majnoni and Reinhart (2012), there are several credit models that can be used to determine the credit worthiness of an individual that can be validated statistically. The credit score models can be utilized for the purpose of statistical analysis or analysis of the

judgmental scoring. According to Siddiqi (2012), the statistical analysis of the credit scores involves several factors such as credit reporting of a firm or an individual, credit agencies and correlation between the actual performance and credit worthiness of a firm. On the other hand, the judgmental scoring considers several factors such as company's financial statements, payments schedule and history, references of bank along with the past experience of the individual in dealing with the credit product or service (Halim and Humira, 2014). The figure highlighted below depicts the Credit Scoring models in terms of three stages including data preparation, model building and model testing.

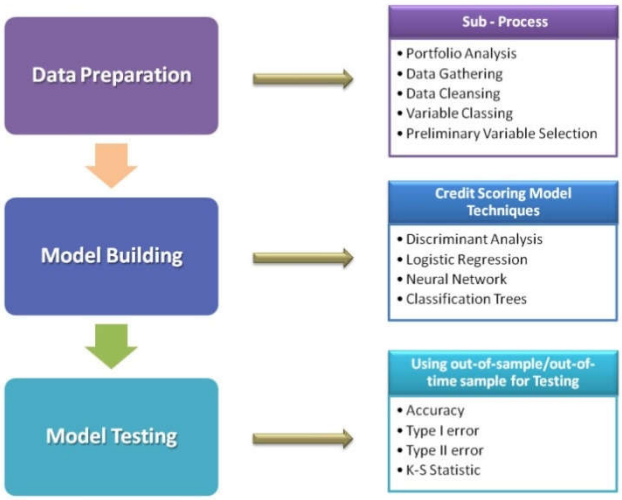


Figure 2: Credit Scoring Models

(Source: WMSL, 2015).

In the view of Tsai and Wu (2008), the companies that utilise scoring model prefers to maintain privacy and secrecy among the information and intend to deal with privately as the firms make money by selling the results of the scoring models. The factors that have been considered in the scoring models are bankruptcies, payment schedule, missed payments, length of the credit report, and time duration of the credit history for being with the bureau's database (Bellotti and Crook, 2009). In evidence to the above figure, the first stage i.e. data preparation involves analysis of the data and relevant information in terms of portfolio analysis, data gathering, data cleansing, and selection of the preliminary variables (WMSL, 2015). However, the techniques involved in the credit scoring model include logistic regression, classification trees and discriminate analysis of the data. The third stage of the credit scoring model is the model testing that involves utilisation

of the time sample for testing in terms of data accuracy, type I and type II error and K-S statics of the data (Stat Soft, 2015).

According to Halim and Humira (2014), the credit scoring model has developed with the passage of time-based on the behaviour of the customers while passing through the economic downturn. The three credit bureaus that collect information related to the customer's payments, credit histories, payment collections and outstanding balance are "Equifax", "Experian" and "TransUnion". These three versions of the credit bureaus are based on the different data as each bureau comprised of different data in terms of unique data of the customers (Siddiqi, 2012).

2.4 Importance of credit score

Credit scoring is pivotal for finance providers and borrowers alike. According to Bellatreche and Pinto (2011), the recent economic downturn was able to attract the attention of the banks to the credit worthiness of the firms before lending. This was measured by many methods; however, credit scoring stood out as an effective tool to measure the potential of the company to pay back its debts. Where, good applicants of credit scoring are used it yields various benefits. These benefits include the evaluation of the risk of customer and reduction in credit assessment cost in addition to making with ease and speed, the decision to lend or not. On the other hand, businesses need financing to run their operations and to grow and expand. Additionally, they need finance to maintain payment cycles and to survive during the extreme phases of economy. Also, where the firms are continuously growing, their need for finance increases substantially so that they could remain competitive in a fast changing environment. It is therefore, important that they are able to raise capital. Credit scoring is one tool that helps them to know if banks will be willing to lend; this will help them with planning ahead (Forbes 2015).

2.5 Capital structure and Weighted Average Cost of Capital

Debt and Equity

The sources of finance used by a company can be broadly defined into debt and equity. An issue of equity leads to the company giving away a part of ownership of the company to the shareholder. This normally leads to the dilution of control. However, the amount raised from the equity does not have to be paid back to the shareholder and the returns in the form of dividend

are only paid when the company has profits left after any payment of interest (Pratt and Salimi, 2010). On the other hand, debt is borrowed and has to be returned in a given time period. Also, the returns on loans in the form of interest have to be paid to the lenders on a regular basis. However, borrowing does not lead to dilution of control (Pratt and Salimi, 2010; Business news daily, 2014).

Cost of debt and equity

The payment of returns on equity is done so after the payment of interests; also, when a company is declared bankrupt, the equity holders are paid once all the debts have been paid. This uncertainty of payment makes the equity very risky for the investors and, therefore, to compensate for the high risk, they demand high returns. This demand of high return on equity makes the equity expensive for the company, leading to high cost of equity (Verma, 2009; Bragg, 2010). On the other hand, since, debt-holders are secure that they will be paid first; debts are less risky to the investor keeping all other factors constant. However, debt is riskier for the firm as debt requires regular payments, the non-payment of which may jeopardise the company's survival. Even so, the debt is cheaper for a firm; this is because debt is tax deductible (Verma, 2009; Forbes 2009).

Value of a company

A company's value is determined by discounting the future expected cash flows of the company using the weighted average cost of capital of the company (Damodaran, 2012). The weighted average cost of capital of a company is found by multiplying the cost of equity and cost of debt with the market value of equity and market value of debt respectively. The market values in this case are taken as weights. Therefore, the cost of equity and cost of debt that goes into the calculation of the discount factor have an impact on the value of the company. Where the cost of capital is high, the value of the company will be low and where the cost of capital will be low the value of the company will be high (Verma, 2009).

2.6 Capital structure theories

Miller and Modigliani (perfect market hypothesis)

Modigliani and Miller proposed that the capital structure decisions were not relevant to the value of the firm and, therefore, companies can choose to have any combination of capital structure. The theory was however based on unrealistic assumptions of a perfect market. Among others, the

assumptions included that there were no transaction costs and no government intervention. However, since the world is far from perfect the model was not considered sound (Kaumann, 2009; Villamil, 2008).

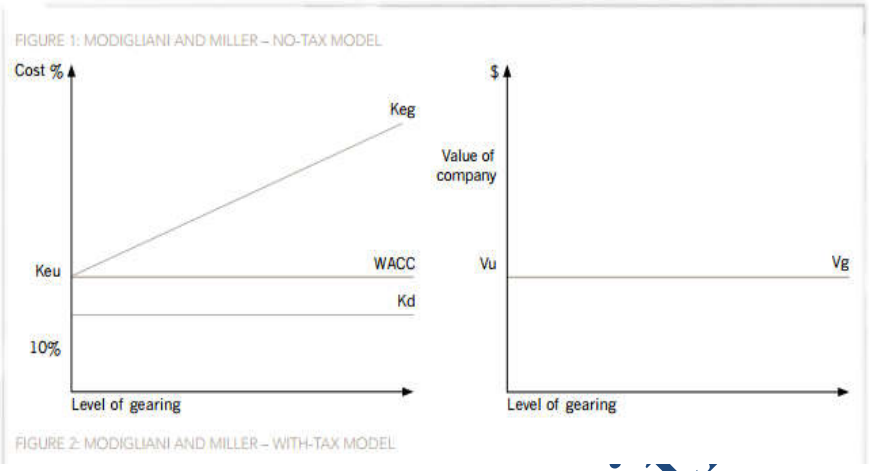


Figure 3: MM No Tax Model

(Source: ACCA, 2009)

The graph above shows that even when the level of gearing is increasing the weighted average cost of capital is constant at every combination. The graph on the right side shows that since weighted average cost of capital is the same, the value of the company is also the same at every possible gearing level.

Miller and Modigliani (Tax world)

Miller and Modigliani then developed another theory where they considered the imperfections of the market and relaxed the assumptions. One important assumption relaxed here was related to tax. The relaxation of this assumption implied that debt was cheaper than equity and that, the more the company raised debt, the more the company could lower its weighted average cost of capital and increase the value of the company. Therefore, according to the theory the company would benefit the most by raising maximum amount of debt (Baker and Powell, 2009). The criticism attached to this theory is that at very high levels of debt, the lenders are not willing to lend. Also, at high levels of debt, the earnings for equity holders become volatile and they demand higher returns overcoming any benefit that should have accrued due to the low cost of debt. Moreover, the company may face increased agency and bankruptcy cost when high level of debts are borrowed (Dincer andHacioglu, 2013).

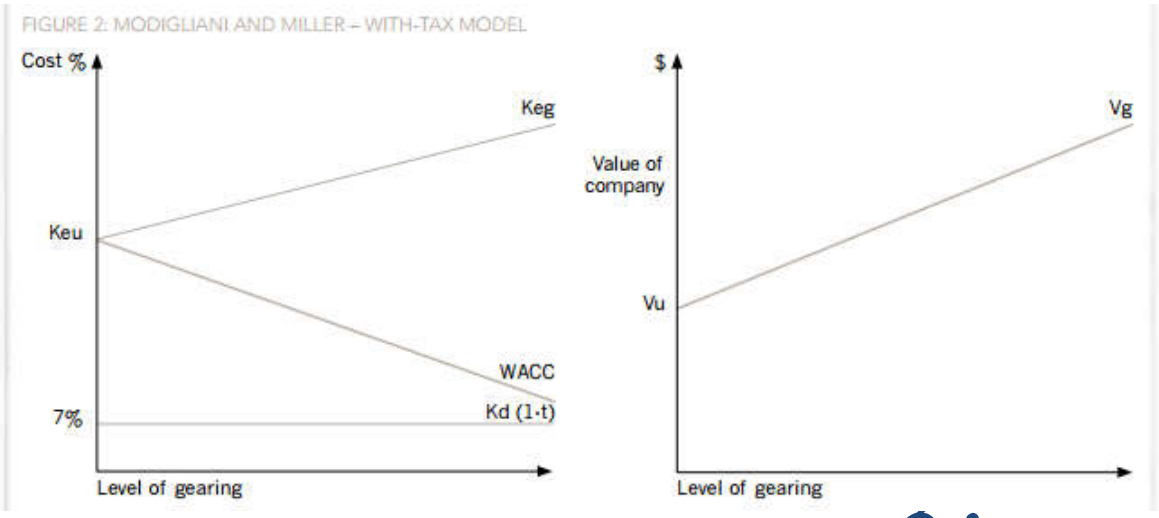


Figure 4: MM with Tax World

(Source: ACCA, 2009)

The graph on the left explains that as the gearing increases, the weighted average cost of capital moves down due to the tax effect in spite of increasing cost of equity (Keg). Additionally, the graph on the right shows a positive slope of value of company indicating a rise in the value of the company with increase in gearing.

Traditional Theory

The traditional theory takes an approach which balances both debt and equity in a way so as to reduce the weighted average cost of capital. According to the theory, when debt is initially increased it leads to lower cost of capital as the cheaper cost of debt more than overcomes the increase in cost of equity. However, there comes a point when increasing debt further leads to faster increase in cost of equity and any benefit from cheap debt is not enough to lower the weighted average cost of capital. Therefore, this increase in debt should be done till that point when the weighted average cost of capital is found to be the lowest. This is because where the cost of capital is the lowest the value of the company will be the highest (Viviani, 2008; Brav, 2009).

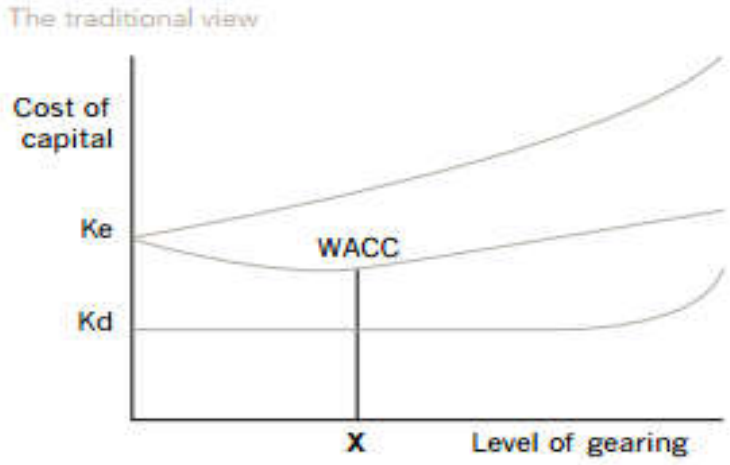


Figure 5: Traditional Theory

(Source: ACCA, 2009)

The graph above demonstrates that at initial levels of raising debt the cost of equity is less steep indicating a slow rise. After this, marked on the graph is a point (x) where weighted average cost is the lowest. After this point, the increase in debt leads to a faster rise in the cost of equity increasing the weighted average cost of capital.

Pecking order

As per ACCA (2009) the pecking order theory does not discuss the balancing of debt and equity; rather, it discusses the order in which sources of finance should be used. It states that when the company needs capital it should first raise it internally by using retained earnings; next it should raise debt and when that is not available either, equity should be raised (Frank and Goyal, 2009).There are three main reasons behind this sequence.The first reason relates to the minimisation of issue costs. In relation to this it can be seen that retained earnings have no issue costs since these are internal funds of the company, while debt incur little issue costs. However issue costs that pertain to equity are high and therefore equity should be used as a last resort. The second reason behind the sequence is that this helps in the minimisation of the cost and time that goes into convincing external investors to invest. In the case of retained earnings the company uses its own funds and, therefore, does not have to convince any external investors; also the effort and expense that goes into convincing the lenders is way lower than that which goes into convincing the potential equity holders. Lastly, the order that the theory suggests is because of

the existence of the asymmetrical information. The existence of asymmetric information is linked to the fact that managers of a company are more aware of a company's condition than an investor and, therefore, the investors use different signals in the market to understand the performance of the firm. Where the firm issues debt, the investors are assured of the ability of the firm to raise debt. However, where the company issues equity, the shareholders assume that the shares of the company are overvalued and may even decide to sell them. Hence, the company should begin by using retained earnings first after which debts should be raised instead of equity so that wrong signals are not sent to the market (Ferran and Ho, 2014; ACCA, 2009).

2.7 Other factors impacting capital structure decision

The capital structure decision is impacted by the risk attitude of the management and the shareholders. Where the management and the shareholders of the company are risk seekers, the gearing of the company is likely to be high. Additionally, where the shareholders and management is risk averse, the company is likely to issue less debt (Yun, Han, Kim and Ock, 2009). Furthermore, the capital structure is also determined by the tangibility of company's assets. Where the company has more tangible assets, it has more ability to provide assets as collateral and obtain debt (Rampini and Viswanathan, 2013). Moreover, the industry has an impact on the capital structure of the firm as where the industry is volatile in nature, the gearing of companies is likely to be low and where the industry is stable, the firms within the industry are likely to have relatively higher gearing. This is because high interest rates in an already volatile industry are likely to make the company's earnings even more volatile and the cost of equity expensive as the risk of the company increases (Ovtchinnikov, 2010).

2.8 Capital Structure Ratios

The decisions taken with regards to capital structure are reflected in the different capital structure ratios that derive their value from the financial statement of the company. These ratios are debt to equity ratios, financial leverage and interest cover ratio.

Debt to equity ratios

The debt to equity ratio is calculated by dividing total debt by total equity. This ratio reveals the balance between debt and equity of a company. A high debt to equity ratio implies that the

company is highly geared. This will especially be the case where the ratio is greater than 1 as this would mean that the company has more debt than equity and the company can potentially move towards higher levels of debt rendering the company risky to invest in (Herman, 2011).

Financial leverage

Financial leverage is measured by dividing debt with total assets of the company. This ratio reveals the percentage of assets that are financed by debt. Again a high ratio would mean that more assets are financed by loans and are at a risk of being lost to debt-holders. On the other hand, where this ratio is low it may mean that the assets are safe (Tracy, 2011).

Interest Cover

Interest cover measures the ability of the firm to meet its interest payments when these fall due. This is measured by dividing the net profit before tax by interest cost. This reveals how much profits the company is generating relative to interest cost. With regards to this a ratio of for instance 6 would mean that the company is able to cover the current interest cost six times with its current earnings. This also reveals the volatility of the earnings of the firm as where this ratio is low; there is a chance that a slight change in profits may lead to inability of interest payments (Damodaran, 2012).

2.9 Impact of credit scoring on capital structure decisions

Kisgen (2009) explains and develops on the credit rating capital structure hypothesis. Kisgen (2009) stated that when the credit rating of a company changes, there is a change in the leverage behaviour of firms. The behaviour relates to using equity as opposed to debt issuance when the credit rating goes down. Furthermore, Hovakimian, Kayhanand Titman (2009) studied the ways in which firms set targets for credit rating which in turn influences the decisions of the managers with regards to capital structure. In this study it was demonstrated that firms that were not able to achieve the desired scores or ratings tried reducing their gearing levels. On the other hand, where firms were able to go beyond their targets, companies preferred repurchasing equity and paying dividends as opposed to paying off debt. Another study in this area was conducted by Michelsen and Klein (2011) on an international sample of firms to find the impact of credit rating change on capital structure. The study found that those companies that were near to witnessing a change in their credit rating as compared to those who were not reduced their net debt issue by 1.8% as a percentage of assets as compared to net equity. Moreover, consistent to these findings Drobetz

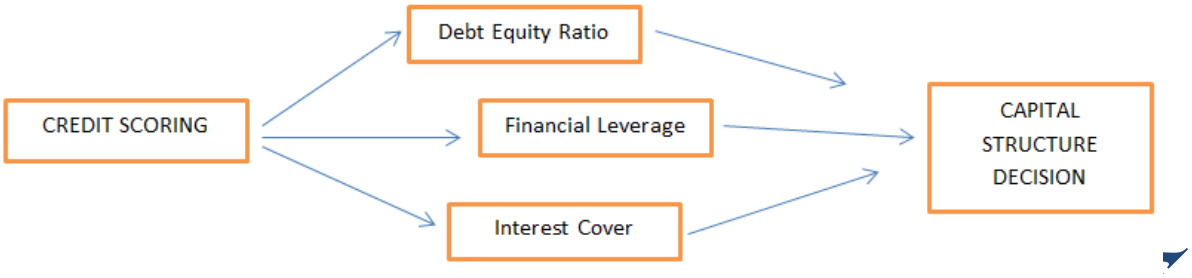
and Heller (2014) witnessed that when firms face down grading in credit rating they tend to make their capital structure strong. According to Baek and Cursio (2015) credit rating is a signal to the existing and potential shareholders of a company and helps them in the decision of whether to invest/retain the shares of the company. Where the credit rating goes down the company is punished and when it goes up the company is re warded. Therefore, when the credit scores or rating goes down, the companies mitigate the consequences by making decisions to change the capital structure of the firm. Baek and Cursio (2015) further stated that the magnitude of the effect of credit rating on capital structure varies for different companies and for different time periods.

2.10 Research gaps

The research revealed that there is an ample amount of material available on the individual variables mentioned in the study namely, credit scoring and capital structure. The concept of capital structure is well explained in many books and online articles. Also, there is a vast literature present on the theories of capital structure. On the other hand, the concept and models that relate to credit scoring were also found easily during the research. However, the relationship between the two variables of credit scoring and capital structure decisions are not found in abundance, nor is there an in-depth analysis on the topic and, therefore, this study is of great importance as it is a value addition to the existing literature.

2.11 Research Framework

The following research framework has been developed to identify the variables as dependent and independent.



The framework shows that the variable of credit scoring is the independent variable and its impact is checked on the dependent variable of capital structure decision. Also, the frame work shows that the variable of capital structure decision is further divided into debt equity ratio, financial leverage and interest cover.

2.12 Hypothesis

The hypothesis has been developed so that the relationship between the variables can be tested to validate or reject the hypothesis.

H_{01}: There is no impact of credit rating on interest cover

H_1: There is an impact of credit rating on interest cover

H_{02}: There is no impact of credit rating on financial leverage

H_2: There is an impact of credit rating on financial leverage

H_{03}: There is no impact of credit rating on debt equity ratio

H_3: There is an impact of credit rating on debt equity ratio

2.13 Chapter summary

The chapter includes the concept of credit scoring which is based on factors such as the payment history, amounts owed, length of credit history and types of credit in use. Furthermore where the score of a company is low it is likely to face financing problems. Credit scoring is important for both the company being assigned the score and the lenders of the company. This is because lenders are able to decide whether to lend or not and if the lender should lend, at what terms this should be done. On the other hand, the credit scoring helps the company in making various

decisions to mitigate the effect of downward credit scoring and to plan ahead. One of these decisions that the company makes in the light of credit scoring is that of capital structure. The capital structure is made up by combining debt and equity. Debt is cheaper but riskier for the company, while equity is riskier for the investor and expensive for the company. The theories that relate to capital structure include the traditional theory, the theories of Modigliani and Miller and pecking order theory.

The theories mainly attempt to reduce the cost of capital of the firm to increase its value. Additionally, the capital structure decision is affected by tangibility of company's assets, risk attitude of company's stakeholders and industry volatility. These capital structure decisions are reflected in the gearing ratios of debt-equity ratio, financial leverage and interest coverage ratio. The relationship as explained by literature on the impact of credit scoring on capital structure is a positive one where poor credit scoring discourages firms to raise debt capital. The chapter than includes the development of framework and hypothesis where the impact of the independent variable of credit scoring is checked on the dependent variables of debt equity ratio, financial leverage and interest cover representing capital structure decisions. Following from this, the next chapter explains the research methodology used for the study.

Chapter 3: Research Methodology

3.1 Chapter Introduction

The chapter under analysis is comprised of the procedures and techniques used to conduct the entire research. The aspects covered in this section include research strategy, research approach, research philosophy and design of the entire research. Moreover, the section also highlights the sources for gathering the relevant data along with the sample size and technique used to select the appropriate sample, group. The chapter also highlights the technique used by the researcher to analyze the gathered data for the purpose of research findings. The information about selected software has been included in the part of data analysis. At last, the ethical considerations of the research have been studied by the ethical standard of this specific research.

3.2 Research Methodology

In the view of Saunders and Lewis (2012), the research methodology refers to the process used to gather data and relevant information for the purpose of business decisions. The research methods and tools used in the current research have been studied as:

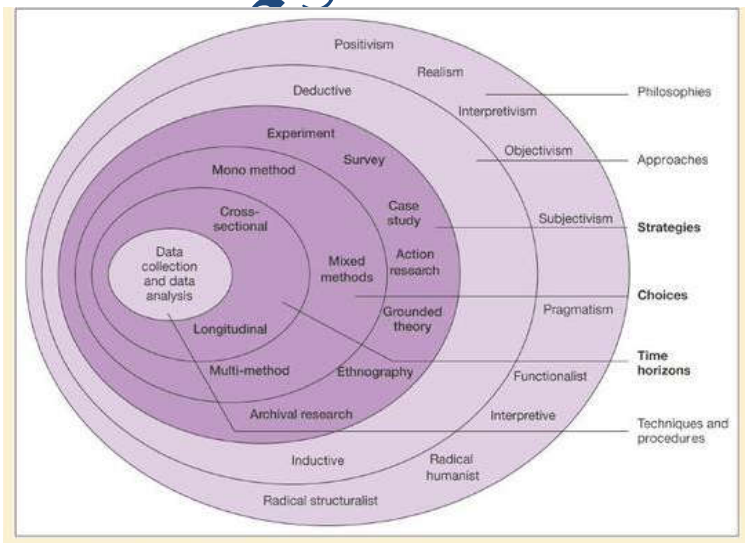


Figure 6: Research Onion

(Source: Saunders, Saunders, Lewis and Thornhill, 2011).

The figure highlighted above illustrates the tools and technology that can be used by the researcher in the form of research onion. The techniques and methods used in this specific research along with the description of the methodology have been sited below:

3.2.1 Research Strategy

The research strategy is known as the research methodology that intends to investigate the particular research issue. Moreover, the research strategy is a procedure for generating the plan and actions to conduct the study in a systematic manner (Romans, Gerritsen, Van der Heijden, Bosma and Kolen, 2009). In evidence to the above figure, the different types of research strategies include experiment, survey, case study, ground theory, ethnography and the archival research method. In the current research, the survey strategy and the archival research has been adopted by the researcher as the interviews have been conducted with the executive level managers of the companies of the retail industry. The archival research strategy has been used to gather the quantitative data on the stocks.

3.2.2 Research Approach

In perspective to the above figure, there are two main research approaches including the inductive and deductive type of research approach. According to Swinglehurst, Russell and Greenhalgh (2008), the deductive research approach is concerned with testing the hypothesis while developing research hypothesis based on the existing theory. On the other hand, the inductive research approach is concerned with the observations and creating new theories based on the result of observations. In the current study, the deductive research approach has been adopted as the researcher has assessed multiple journal articles to generate the research hypothesis that has been tested by the investigator.

3.2.3 Research Philosophy

The research philosophy is the major part of the research that illustrates the nature and knowledge of research (Saunders and Lewis, 2012). The main research philosophies are Positivism, interpretivism, and realism, however, the other research philosophies includes objectivism and subjectivism, etc. as highlighted in the above figure. In the current research, the

interpretivism and positivism research philosophies are adopted. The reason for adopting the interpretivism research philosophies is that the relevant data has been gathered through interview from the five executive level managers of the selected firms in The UK. Whereas, the rationale behind the Positivism research philosophy is that the study intend to determine the impact of one variable on another variable.

3.2.4 Research Design

According to Creswell (2013), research design is a detailed outline of the research that depicts how an investigation will take place. The research design involves how data is to be gathered, what instruments can be employed and what technique intend to use to analyze the gather data. The research design plays an essential role in describing the overall role of the research. The three main types of research designs are; explanatory, exploratory and descriptive as highlighted in the above figure. In the current research, the explanatory research design has been selected that intend to connect ideas to comprehend the cause and effect that research intends to explain.

3.3 Data Collection Sources

Data collection sources refer to the methods used to gather relevant data for the current research. The two main sources of data collection include primary sources of the data and secondary sources of the data collection. The primary data can be gathered through interview and questionnaire from the selected sample while the secondary data can be gathered from the past researches and articles (Barlow, Hersen, Barlow, Nock and Hersen, 2009).

In the current research, the relevant information has been gathered by interviews with the five executive level managers of the selected firms in the UK. Moreover, the data that has been gathered is quantitative as well as qualitative in nature. The qualitative data has been gathered through interview whereas; the quantitative data has been gathered from the stock exchange and other indexes. To measure the capital structure decision of the firm the debt equity ratio, financial leverage and interest cover ratio has been considered for the period of five years i.e. 2010 to 2014.

3.4 Sampling Technique and Sample Size

In the view of Westland (2010), the primary concern of the researcher is of the statistical sampling that is obtained from the entire population and must be representative of the same population. The two main types of sampling techniques include probability sampling and non-probability sampling technique of the research. The probability sampling method is a method of sampling that provides an equal chance of being selected for all individuals. The methods involved in the probability sampling include simple random sampling, stratified random sampling, systematic random sampling, and cluster random sampling. On the other hand, the non-probability sampling is a technique in which the samples are gathered in a process regardless of providing an equal chance of being selected to the individuals. The methods involved in the non-probability sampling include convenience sampling, snowball sampling, and purposive sampling, etc. (Creswell, 2013).

In the current research, the five executive level managers of the firms in UK has been selected through snowball non-probability sampling technique that begin by identifying an individual who meets the criteria for the study and recommended other also that might also meet the study criteria. The sample size of the current study revolves around the five executive level managers of the firms operating in the retail sector of UK. The companies operating in the retail sector that has been selected for the study includes Tesco, Morrison, Booker Plc, Greggs Plc and last Sainsbury operating in the UK. The data for last 5 years have been taken to study this research.

3.5 Data Analysis

In the view of Bendat and Piersol (2011), the data analysis is the procedure of assessing the collected data from respondents to find the research findings. The collected data can be analyzed by different mathematical and statistical software such as MS Excel and SPSS Software. In this study, the information has been gathered from the executive managers in term of qualitative data has been analyzed through the technique of ethnographic content analysis however; the quantitative data has been analyzed through Excel software.

3.6 Ethical Considerations

In the view of Ritchie, Lewis, Nicholls and Ormston (2013), ethics in the study refers to the rules and spirits for distinguishing the right and wrong action throughout the research process. Moreover, it is vital for the researcher to adhere ethical consideration such as to promote the aim of the research, supports key values that are essential to the collaborative work and the researcher must ensure to held accountable to the public. The three major ethical aspects of the study include autonomy, anonymity and confidentiality throughout the research.

In perspective to the confidentiality, it refers to the act of privacy offered to the respondents and represent that the data that has been collected in the present study has kept private and is not shared with any irrelevant person throughout the study. Autonomy refers to the approval of the respondents related to the data that has been collected with the full permission of the respondents. Furthermore, the researcher has informed the respondents regarding the purpose of conducting the current study. Lastly, anonymity is the concept of ethical consideration that reflects that the individual information of the respondents is not shared publically, and the responses are quoted anonymously throughout the research process.

3.7 Chapter Summary

The section highlights the tools and techniques used by the researcher throughout the study. The discussion reveals that the current study follows explanatory research design to determine the cause and effect of the research variables. In this study, the survey strategy has been adopted by the researcher, where the approach adopted by the research is deductive research approach. The study follows interpretivism and positivism research philosophies where the quantitative, as well as qualitative data, has been gathered from the research. The qualitative data has been gathered through interview whereas; the quantitative data has been gathered from the stock exchange and other indexes. The variable that has been considered to measure the capital structure decisions of the selected firm includes debt to equity ratio, financial leverage and interest coverage for the period of five years.

Chapter 04: Data Analysis

4.1 Introduction

Data Analysis is the fourth chapter of research and deals with the examination, investigation, evaluation and assessing the collected data (Romans et al. 2009). In the context of this research primary as well as secondary data has been gathered, on one hand primary data has been gathered in the form of interviews with the top managers of the company. On the other hand, secondary data related to capital structure in the form of interest coverage ratio, debt to equity ratio and leverage ratio and credit rating has been gathered from the financial reports of the company and authentic website like Morning Star. To interpret the results, the raw data has been converted into meaning full forms by performing various statistical tests. The main tests that have been performed on the data are descriptive statistics, correlation analysis and regression analysis.

4.2 Data Analysis

The data analysis has been divided into two main parts i.e. interview analysis that is a Qualitative analysis of the interviews with five top managers in total i.e. a manager from each company has been interviewed and quantitative analysis. Quantitative data involves separate discussion of the collected data related to all the five retail companies for two main variables and then a discussion on the results of the tests has been presented.

4.2.1 Interview Analysis

Following is the interview analysis, comprising of the responses of five managers from selected five companies:

Question 1: Do credit agencies provide independent and reliable measures of firms' creditworthiness?

In response to the question presented above interview number 1 mentioned that "Yes, I believe that credit rating is the representative of companies credit worthiness because it is based on the

company's performance rather than the personal responses of the authorities". Respondent number 2 replied that "credit rating authorities provide independent ratings based on the predetermined criteria, hence they such ratings are trustworthy and help in making investment decisions". On the contrary, respondent number 3 responded that "credit rating of the companies may not reflect the true position of the creditworthiness because they only represent the willingness and ability of the issuer to pay the liabilities. Moreover, the credit rating may also change with the change in the quality of issuer that is the reason it is not always reliable".

The interview analysis reveals that most of the managers believe that credit ratings are useful for making important decisions and are not biased. On the other hand, Kaumann (2009) mentioned that credit ratings are not viewed as the exact measures of the likelihood of the defaults. Instead, they are only the opinions of the authority on the credit risk.

Question 2: Do you think that firms near a credit rating upgrade or downgrade are likely to decrease their debt level?

Respondent number 1 replied that "we make sure that the decision to take more debt is made when the company can pay back it". Similarly, interviewee number 4 replied that "many stakeholders are concerned about the credit rating of the company and, therefore, the company frequently changes the capital structure as the rating changes". Moreover, interviewee number 5 mentioned that "it is not necessary that companies decrease the debt level, in fact, they increase the debt level as the rating becomes positive".

From the above replies of the top managers, it is clear that debt amount in the capital structure depends on the credit rating of the company i.e. the company alters the debt amount on a regular interval. In this context, Baker and Powell (2009) asserted that a company tends to decline the amount of credit in its company if the credit scores decline.

Question 3: What are the long term strategies your company follows to maintain the good credit score?

When interviewees were asked the question presented above, respondent number 2 replied that "our company makes sure that credit has been taken from reliable sources, and only that amount

has been borrowed which can be repaid". Further respondent number 3 replied that "we make sure that loan at lowest possible interest rate has been taken so that the cost of capital may remain small while attaining the full advantage of the tax shield". In addition, respondent number 5 also asserted that "our main long term strategy is only to take that much loan that can be returned to the creditors; however, if is necessary to borrow more money than we choose those creditors who are cooperative and grant us finance on easy terms".

It is evident from the interview analysis that retail companies make proper strategies so as to maintain the credit scoring of the company. Villamil (2008) provided the view that companies prefer to deal with the creditors who offer credit on easy terms. Moreover, the companies are recommended to keep an eye on the market happenings so as to maintain the attractive capital structure.

Question 4: In your opinion, does credit rating affect the cost of capital?

In response to the above question interviewee number 1 responded that "yes, as the amount of debt in the capital structure increases, the cost of capital increases putting and as a consequence company has to pay more to the creditors and borrowers". Respondent number 2 mentioned that "credit rating does not have direct impact on the cost of capital of the company; it affects the debt level within the company that then affects the cost of capital of the company". Moreover, respondent number 3 answered that "credit rating is the qualitative aspect; however, cost of capital is the quantitative measure of the rate that the company has to pay to the investors and creditors and hence, there is no linkage between the two".

It is clear from the interview analysis that cost of capital is not directly linked to the credit rating; in fact, the two variables have an indirect relationship. Forbes (2009) depicted that positive credit rating make it easy for the company to take more debt into the company.

Question 5: What kind of capital structure do you think is most suitable?

According to respondent number 3 "the most suitable capital structure is the one that includes both the debt and equity". Similarly, respondent number 2 replied that "the best capital structure depends on the nature of the business; in case of our company a combination of debt and equity

is most suitable". In the opinion of respondent number 3, "more amount of debt in the capital structure is preferable as it provides a tax benefit to the company while not causing a change in the value of company".

The data reveals that most of the managers in the retail sector prefer to have a blend of debt and equity in the company. Pratt and Salimi (2010) stated that companies make capital structure decision depending on the requirements of the finance; moreover, both types of financing have their advantages Nevertheless, the mix of various sources is the best option.

Question 6: What are the factors that are taken into consideration when capital structure decisions are taken?

In the view of respondent number 3 "the major factor that our company considers while deciding on the capital structure is the cash flow; nevertheless, the flexibility of the company is also considered". Interviewee number 4 responded that "the management of our company relies on the marketability factor while making a decision of how much debt is to be made a part of the company's finance". Furthermore, respondent number 5 mentioned that "control over the activities of the company, flotation costs, size of the company and cost of capital are various factors that are considered while making the decision of capital structure".

From the analysis, it is clear that managers in the retail sector consider some factors while deciding on the capital structure of their respective companies. In this perspective, Kisgen and Strahan (2010) mentioned that market conditions, flexibility and cost of capital must be considered by the company for making the capital structure decision.

Question 7: On which factors does your company's credit scoring have been assessed? Does the management of your company pay attention to improve those criteria?

According to interviewee number 2 "the credit scoring of the company is primarily based on the payment history of the company, and this the only factor that is more dominating the credit scoring. That is the reason we make sure that payment is made on time to the creditors". In similar pattern, respondent number 3 replied that "in case of my company I believe that the

amount owed by the company is considered when credit rating was decided Hence, the upper management only takes that much loan that is easy to be paid back".

Therefore, it can be stated that most of the times credit scoring of the companies depend on the amount of money owed, sources of finance and history of payment. Rhodes (2014) provided the view that credit scoring is mainly based on the length of the credit history, type of credit and payment history.

4.2.2 Quantitative Analysis

To provide quantitative analysis of completion of this research, the data related to two major variables has been collected. The data linked to credit rating has been gathered from the annual report of respective companies while data related to the capital structure has been gathered from the authentic websites like Morning Star.

4.2.2.1 Credit Rating

Tesco

It has been found from the annual report of Tesco (2014), that credit rating has been BBB+ implying that the percentage of default for Tesco is 6.64 as per the credit rating. It can also be stated that the company has defaulted 6.64 % in the past fifteen years. Moreover, the annual reports highlight that in 2013 also the credit rating was BBB illustrating the same percentage with which the company can default. It has also come to the light that in the years 2010, 2011 and 2012 the credit scoring of Tesco was AAA, which is positive and reveals that in past 15 years the default rate of the company was only 0.52 %.

Debenhams PLC

It has been found from the annual report of Debenhams Plc (2014) that the credit rating of the company has been AAA since 2010. It can, therefore, be mentioned that in the past 15 years the company defaulted very few times i.e. the default rate was only 0.52 %. It has, therefore, been interpreted that the company has the tendency to rely on the debt, and the creditors can lend the

money to the company with lesser risk. The data reveals that the credit rating for Debenhams Plc is better as compared to Tesco especially in the year 2014.

Morrison

The annual reports of Morrison (2014) imply that credit rating of the company has been AAA since 2010. It can, therefore, be mentioned that the company has default risk of 0.52 %, so the creditors are also willing to grant debt to the company.

Booker Plc

It has come to the light from the annual report of Booker Plc (2014) that the company has been scored with AA in terms of credit worthiness. It is, therefore, interpreted that the company has lesser default rate i.e. in the period of last fifteen years the company defaulted only with 13.31 %. The rating of this retail store is less attractive than Tesco and Debenhams plc because both the companies have better rating of AAA in the majority of the years.

Sainsbury

From the annual reports of J. Sainsbury (2014) it has been found that the company had credit rating of A from 2010 till 2013, implying that the company's default rate had been 2.32 % in the last fifteen years. Moreover, the annual reports reveal that credit scoring in the year 2014 had been BBB exhibiting that the company's default risk had been 6.64 % in last fifteen years. The rating is not better than Tesco, Morrison, and Debenhams.

4.2.2.2 Capital Structure Ratios

Tesco

From the data analysis, it has been found that interest coverage ratio of Tesco plc had been 6.98 in 2010, 8.83 in 2011, 10.2 in 2012, 5.4 in 2013 and 6.05 2014. It is clear that the ability of the company to pay off its interest declined in the year 2014 as compared to 2010 and 2011. It has been found that financial leverage in the year 2013 was 3.01 and 3.41 in 2014 implying that the

total assets of the company rose in 2014. In a similar pattern, the data reveals that debt to equity rose in 2014 implying that the amount of debt in the capital structure rose in 2014.

Morrison

It can be seen from the data analysis that the interest coverage ratio for Morrison declined significantly in the year 2014 to -1.17 indicating that the ability of the company to pay off its interest rate is lesser. Financial leverage of Morrison rose in the year 2.29 and so do the debt to equity to 0.53, it can, therefore, be stated that the company increased its dependency on debt.

Booker Plc

It has come to the light that the interest coverage ratio of Booker Plc decreased from 204.5 in 2013 to 109.442 in 2014; conversely, financial leverage and debt to equity also increased to 2.458 and 0.095 respectively. In this consideration, it can be stated that the proportion of debt rose in the company.

Debenhams Plc

From the financial status of this retail company it is clear that the company cannot pay its interest easily in 2014 as compared to 2013; similarly, the financial leverage of the company declined to 2.8 implying that the company's dependency on debt declined bit in the year 2014. On the other hand, debt to equity also declined in the year 2014 to 0.29.

Sainsbury

From the data analysis, it has been found that interest coverage ratio of the company increased to 7.86 implying that the company has the ability to pay interest to the creditors. In similar fashion, the financial leverage also increased; while the debt to equity decreased in 2014 to 0.37.

4.2.2.3 Descriptive Statistics

The data analysis reveals that (Refer to Appendix, Table 1) minimum figure for interest coverage ratio id -1.17 while the maximum is 204.50 while the mean is 30.447, and the standard deviation

is 56.55. Moreover, the minimum value for financial leverage is 1.69 and maximum value is 4.15 with means and standard deviation of 2.586 and 0.5886 respectively; while, the debt to equity's minimum figure is 0.00 and maximum is 0.80 with mean of 0.3476 and 0.2199 standard deviation,. Moreover, the minimum value for credit rating is 0.52 while the maximum is 6.64 with the mean value of 1.7004 and standard deviation of 1.7004. The data analysis further reveals that skewness for interest coverage, financial leverage, and credit scoring is more than 0; hence, the distribution is positively skewed whereas, the skewness for debt to equity is -0.078 implying that the distribution is negatively skewed. The table for descriptive also reveals that the interest coverage ratio has the kurtosis of 6.39 illustrating that the distribution is Leptokurtic because the figure is more than 3. Moreover, the kurtosis for financial leverage, debt to equity and credit scoring is less than 3, so the distribution is Platykurtic.

4.2.2.4 Correlation Analysis

Following are the results of correlation analysis, which has been performed to find out the relationship between variables:

Correlations

		Interest Coverage	Financial Leverage	Debttoequity	CreditScoring
InterestCoverage	Pearson Correlation	1	-.305	-.610**	-.109
	Sig. (2-tailed)		.139	.001	.603
	N	25	25	25	25
FinancialLeverage	Pearson Correlation	-.305	1	.188	.187
	Sig. (2-tailed)	.139		.369	.371
	N	25	25	25	25
Debttoequity	Pearson Correlation	-.610**	.188	1	.284
	Sig. (2-tailed)	.001	.369		.169
	N	25	25	25	25
CreditScoring	Pearson Correlation	-.109	.187	.284	1
	Sig. (2-tailed)	.603	.371	.169	
	N	25	25	25	25

**. Correlation is significant at the 0.01 level (2-tailed).

Table 1: Correlation Analysis

It is evident from the table presented above that there is no relationship between credit scoring and interest coverage ratio as the sig value is less than 0.05. Moreover, there exists no

relationship between financial leverage and credit scoring because sig value is more than 0.05 illustrating non – existence of the relationship. Furthermore, the sig value of 0.169 is also more than 0.05 indicating that there is no association between credit scoring and debt to equity. It has been found by Yu (2005) that there is no impact of credit rating on the ability of companies to borrow money; despite of the good or bad rating companies continue to borrow as per their needs. On the other hand, Hutchinson et al. (2015) depicted that companies become able to borrow more money from the institutions when they have been rated highly by the authorities as the institutions are easily convinced to grant money.

4.2.2.5 Regression Analysis

Regression is a statistical test performed to find out the impact of one variable on another (Romans et al. 2009). Following are the results of regression analysis performed for each dependent variable:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.109[a]	.012	-.031	57.42919

a. Predictors: (Constant), CreditScoring

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	917.039	1	917.039	.278	.603[a]
	Residual	75856.577	23	3298.112		
	Total	76773.616	24			

a. Predictors: (Constant), CreditScoring

b. Dependent Variable: InterestCoverage

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	35.770	15.290		2.339	.028
	CreditScoring	-3.130	5.936	-.109	-.527	.603

a. Dependent Variable: InterestCoverage

Table 2: Regression Analysis - Interest Coverage ratio

It has been interpreted from the table presented above that value of R is 0.109 implying that there exists weak relationship with only 10.9 % between credit scoring (independent variable) and interest coverage ratio. Moreover, the value of Adjusted R Square is -0.031 illustrating that adequacy level is -3.1 %. From the table of ANOVA, it is evident that sig value is 0.603 implying that the regression model is unfitted. The regression mode l has been presented below:

General Equation: $Y = \alpha + \beta *(X1) + \mu$

Specific Equation: Interest Coverage Ratio = $\alpha + \beta*$ (Credit Scoring) + μ

Expected Equation: Interest Coverage Ratio = 35.770 + (-3.130) *(Credit Scoring)

Finalised Equation: Interest Coverage Ratio = 35.770

The value of credit scoring has not been made a part of the equation because the sig value is more than 0.05. Thus, if nothing exists the value interest coverage ratio is 35.770.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.187[a]	.035	-.007	.59068

a. Predictors: (Constant), CreditScoring

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.291	1	.291	.834	.371[a]
	Residual	8.025	23	.349		
	Total	8.316	24			

a. Predictors: (Constant), CreditScoring

b. Dependent Variable: FinancialLeverage

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.491	.157		15.841	.000
	CreditScoring	.056	.061	.187	.913	.371

a. Dependent Variable: FinancialLeverage

Table 3: Regression Analysis - Financial Leverage

It has been found that the value of R is 0.187 indicating that there exists weak relationship with 18.7 % between credit scoring (independent variable) and financial leverage. Moreover, the value of Adjusted R Square is -0.007 revealing that adequacy level is -0.7 %. Furthermore, the table of ANOVA highlights that sig value is 0.371 illustrating that the regression model is unfitted. The regression model can be designed as:

General Equation: $Y = \alpha + \beta *(X1) + \mu$

Specific Equation: Financial Leverage = $\alpha + \beta*$ (Credit Scoring) + μ

Expected Equation: Financial Leverage = 2.491 + (0.056) *(Credit Scoring)

Finalised Equation: Financial Leverage = 2.491

The value of credit scoring has not been made a part of the equation because the sig value is more than 0.05. Thus, if nothing exists the value Financial Leverage is 2.491.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.284[a]	.081	.041	.21545

a. Predictors: (Constant), CreditScoring

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.094	1	.094	2.017	.169[a]
	Residual	1.068	23	.046		
	Total	1.161	24			

a. Predictors: (Constant), CreditScoring

b. Dependent Variable: Debttoequity

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.294	.057		5.122	.000
	CreditScoring	.032	.022	.284	1.420	.169

a. Dependent Variable: Debttoequity

Table 4: Regression Analysis - Debt to Equity

It has been interpreted from the table presented above that the value of R is 0.284 exhibiting that there is weak relationship between credit scoring and debt to equity while the value of adjusted R Square is 0.041 illustrating that the regression model is 4.1 % adequate. Furthermore, the sig value in the table of ANOVA is 0.169, which is more than 0.05 hence it can be interpreted that the regression model is not fit. The regression model has been drafted as:

General Equation: $Y = \alpha + \beta *(X1) + \mu$

Specific Equation: Debt to Equity = $\alpha + \beta*$ (Credit Scoring) + μ

Expected Equation: Debt to Equity = 2.294 + (0.032) *(Credit Scoring)

Finalised Equation: Debt to Equity = 2.294

The credit scoring is not included in the finalised model of regression because the sig value is 0.169 therefore, the value of debt to equity in absence of any independent variable is found to be 2.294.

4.3 Hypotheses Assessment

S. No.	Hypotheses	Sig Value	Decision
1	H_1: There is an impact of credit rating on interest cover	0.603	Reject
2	H_2: There is an impact of credit rating on financial leverage	0.371	Reject
3	H_3: There is an impact of credit rating on debt equity ratio	0.169	Reject

Table 5: Hypotheses Assessment Table

4.4 Summarised Findings

To conclude the findings, it can be stated that the credit rating for Morrison and Debenhams plc are highest with AAA implying that the companies have a positive image in the market with respect to creditworthiness. With the positive rating, Morrison's debt level in 2014 rose while the debt level for Debenhams Plc declined. Moreover the data analysis reveals that with the decline in the credit rating of Tesco in 2013 and 2014, the debt level increased slightly in these years hence, it can be stated that in case of these companies there is no impact of credit rating on the debt level within the company. In a similar pattern, the results of correlation and regression analysis highlight that there is no relationship between credit scoring and capital structure decisions of the company. Despite of small changes in the credit scoring of the company it keeps on perusing the same policy of debt, the situation is clear in case of Booker Plc as the company debt declined in 2013 and 2014 even when the credit rating was favourable. Moreover, in case of Debenhams Plc the credit rating remained same for last five years at AAA; however, the debt to equity ratio declined in 2014 implying that regardless of high rating the company reduced its dependency on debt. The results of correlation and regression analysis reveal that there is no relationship between credit scoring and capital structure decisions of the company; the results are supported by the raw data collected for each of the five companies since many times the decisions are made in opposition of the credit scoring.

4.5 Chapter Summary

To summarise the chapter, it can be mentioned that the results of the study are insignificant and imply that there is no relationship between credit scoring and capital structure decisions taken by the companies in the retail sector of the UK. The credit rating of Morrison and Debenhams Plc are attractive as compared to other retail companies; however, Tesco's credit score declined in 2013 and 2014. Moreover, the data reveals that decisions related to debt are taken regardless of the credit score of the companies; nevertheless, credit score provides the creditor with an idea of lending money to the specific company.

Chapter 05: Conclusion and Recommendations

5.1 Introduction

Chapter five is the conclusion and recommendations and deals with concluding the findings of the research along with the provision of recommendations to the companies in the retail sector so as to improve the credit rating. The chapter includes objective wise discussion so as to provide the evidence that all the research objectives have been met with, and personal reflections have also been presented highlighting the learning of the researcher. Also, the research includes limitations of this particular research, areas for future research and practical implications of the research.

5.2 Discussion

Following is the objective wise discussion for this research.

- ***To comprehend the concept of credit scoring***

It has been found from the analysis that credit rating is the score that represents the credit worthiness of a particular company that is then used by the creditors on the basis of which the decision to lend money is taken. Siddiqi (2012) provided the view that credit rating is based on the credit history of an individual or a company. The favourable credit rating is essential for the success of a company because through this measure creditors, or lenders decided on whether credit should be given to the company or not. Also, Levich et al. (2012) mentioned that positive rating helps the company in borrowing the money at attractive interest rates and time duration. Determination of credit rating helps in predicting the future behaviour of the company while making the lenders know about the company and its ability.

- ***To analyze the impact of credit scoring on the capital structure decisions of the firms***

Empirical studies reveal that there is a moderate relationship between credit rating and the decision-making the ability of the company with respect to capital structure. Companies tend to take full advantage of their positive credit rating and borrow more money as in this scenario they

become able to fetch finance on easy payment terms. Bellotti and Crook (2009) provided the view that positive credit rating enables the company to consider more amount of debt in the capital structure. However, the data analysis illustrate that there is no impact of credit rating on the capital structure. In this consideration, Halim and Humira (2014) mentioned that credit rating provides an idea of the credit worthiness of the company and hence it is not necessary that with the increase in rating the debt also increases.

- ***To critically evaluate the effect of credit scoring on the decisions of capital structure of the retail industry in The UK***

From the data analysis, it has been found that in case of retails sector there is no impact of credit rating on the capital structure. Retail companies make decisions to borrow finance irrespective of the credit rating. In case of Tesco, the credit rating declined in 2013 and 2014, but the company borrowed more money; similarly, Booker Plc reduced its dependency on debt despite declining credit rating. It has also been found from the data analysis that Debenhams Plc had credit rating of AAA since 2010, but the company did not avail the positive credit rating in fact debt proportion in the company declined.

5.3 Personal Reflections

In my view, the research understudy has been conducted on the comprehensive topic as credit scoring is an important factor from the point of view of stakeholders as they can make important decisions on the basis of credit scoring. I also believe that companies in the retail sector are not bound by their credit scoring for making capital structure decisions; however, they still try to keep the credit rating high so as to maintain positive image in the market. Furthermore, I came to know that the largest company by revenues i.e. Tesco does not have attractive credit rating in 2013 and 2014 but still it increased its dependency on the debt.

In my view, the two main variables of the research i.e. credit scoring and capital structures have a very weak relationship with each other especially in case of retail sector. During the research, I learnt about different research methods that can be sued by the researcher to complete the research along with the procedure to write a literature review and collect data. Moreover, I learnt

the use of MS Excel and SPSS in the present research as I had to perform various statistical tests like descriptive statistics, correlation analysis and regression analysis.

5.4 Areas of Future Study

The research under study is based on the credit rating and checking its impact on the decision of capital structure. However, various other topics on which research can be conducted are listed below:

- Impact of management styles on credit scoring
- To determine the relationship between credit scoring and the reputation in the market
- Relationship between capital structure and profitability
- Impact of capital structure on market performance of the company
- Investigating the impact of capital structure on weighted average cost of capital
- To explore the relationship between stock market performance of the company and credit scoring

5.5 Practical Implications

The research under study is essential to be carried out because it is important for many stakeholders like academic learners, policy makers, company managers, customers, investor, creditors and marketers. The research is helpful for academic learners as by studying the research they will be able to understand the technical concepts like credit scoring and its ultimate impact on the capital structure. Moreover, the research is beneficial for investors and creditors as they can understand different criteria on the basis of which decision to grant money to the company can be taken. Also, the research is useful for policy makers and managers of the companies in the retail sector as after going through the research they can make better policies to attract the investors. Further, they can learn to draft various strategies via which the credit score can be increased.

5.6 Limitations of the Study

The current study conducted on finding out the impact of credit rating on capital structure is comprehensive and includes qualitative as well as quantitative data analysis. However, various limitations of the study are:

- The sample size in case of qualitative data analysis is very small i.e. interviews from only five managers of the retail sector have been collected. The small sample size may reduce the authenticity of the collected data and the findings from very small sample can also not be generalised on the rest of population
- The research has been prepared specifically on the retail sector of the UK i.e. five companies from retail sector have been chosen. The findings therefore cannot be generalised on other sectors; moreover, the comparison could have been performed between two sectors.
- The current study is based on only two main variables i.e. credit scoring and capital structure; however, other factors may also have been studied to conduct the research in detail.
- The time constraint was there that is the reason more variables, sectors and sample size have not been selected.

5.7 Recommendations to Retail Sector

The data analysis reveals that the credit rating of all the five chosen companies from retail sector is attractive and positive; however, various efforts can be made to improve the rating. Some of the recommendations for companies in retail sector to improve the credit rating are below:

- The companies have been recommended to make payment to the creditors on time
- Make the contract to borrow money from the creditor who grants finance on easy terms of credit so that the company can take the benefit from debt
- The companies are suggested to track constantly the credit report of the company so as to make the effective decisions timely while repairing the credit scores.

- The companies have been advised to keep the amount taken as loan to minimum level as it helps the company in making the payment easily.

5.8 Chapter Summary

To conclude the current chapter it can be stated that all the objectives of the research have been met, and it has come to the light that credit rating is the creditworthiness of a particular company determined by the authorities. Furthermore, the retail stores in the UK have altogether positive credit scores and so they can avail the chance to borrow more finance on easy terms. On the other hand, the data analysis reveals that retail companies in the UK are not dependent on the credit rating for making capital structure decisions. The companies in the retail sector are advised to make regular payments of loans and choose the creditor who offers attractive credit terms.

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Appendix

Interview Questions

Question 1: Do credit agencies provide independent and reliable measures of firms' creditworthiness?

Question 2: Do you think that firms near a credit rating upgrade or downgrade are likely to decrease their debt level?

Question 3: What are the long term strategies your company follows to maintain the good credit score?

Question 4: In your opinion, does credit rating affect the cost of capital?

Question 5: What kind of capital structure do you think is most suitable?

Question 6: What are the factors that are taken into consideration when capital structure decisions are taken?

Question 7: On which factors does your company's credit scoring have been assessed? Does the management of your company pay attention to improve those criteria?