Exploring Role of CSR in preventing Bankruptcy: Moderation Effect of Corporate Governance in Manufacturing Sector

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Abstract

The current study analyses the role of Corporate Governances (individual attributes) in relationship between corporate social responsibility (CSR) and bankruptcy for Pakistan and Australian manufacturing firms. Data of 200 manufacturing public limited companies is selected from the sample countries for the period 2005 to 2018. The preliminary diagnostic tests exhibits the presence of autocorrelation and heteroscedasticity in the data hence, the panel corrected standard error (PCSE) model is used for analysis. The empirical findings of the study reveal that CSR has a positive and significant impact on the Bankruptcy which means that more socially responsible firms reduces the chances of bankruptcy for the firms in Australia. Furthermore, ownership of top 10 investors, audit committee independence, CEO duality, and shareholder activism moderates the relationship between CSR and Bankruptcy for firms in Australia. However, Board ownership, institutional ownership and board independence have no moderating effect. It indicates that in general, better corporate governance leads to strengthen the impact of CSR in reducing the chances of bankruptcy. In case of Pakistan, the results have been found be contradicting that expenditures on CSR negatively affects the bankruptcy (Altman z-score) which means their chances of going bankruptcy increases if they increase spending on CSR. Meanwhile, this finding from the Pakistan can be related with the argument that CSR expenditures have less impact on the cost of companies that are operating in the developed countries. With regards to attributes of corporate governance in terms of moderating effect, ownership of top 10 investors and shareholders' activism positive and significantly moderates the impact of CSR on Bankruptcy that means reduces chances of bankruptcy but at the same time, audit committee independence and CEO duality negatively moderate the impact of CSR on bankruptcy. The findings of the study suggest that the managers of the companies operating in Australia and Pakistan should give attention to both CSR

activities and improving corporate governance attributes as these variables can reduce the chances of firm bankruptcy.

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CHAPTER ONE: INTRODUCTION

1.1. Introduction to Research

CSR can be defined as the efforts of a business towards achieving societal goals in numerous ways voluntarily (Cheng, Ioannou & Serafeim, 2014). It can be in form of philanthropy, charity and voluntary work and or to support the underprivileged segments of the society financially, provision of education and healthcare facilities. The emergence of CSR concept has led to companies exerting more efforts and resources into these activities in order to focus on the greater good and social good to fulfil their social and ethical responsibility towards society as whole (Tai & Chuang, 2014). Meanwhile, in contemporarily competitive marketplace, financial performance and financial position of the companies has been focus of the scholars to derive key drivers having critical role in survival and prosperity of the organizations. In this regards, Qiu, Shaukat and Tharyan (2016) and Asongu and De Moor (2017) have put concrete reasons as to why organizations have turned towards improving financial performance and position. The authors have discussed that emerged globalization has fuelled the competition and forced firms to standout in crowed and a stronger player into the market. It is because the stronger financial performance and financial position is not only prerequisite for the satisfied stakeholders but also critical for the survival for the firm from collapse which may lead to the bankruptcy.

In addition to this, there are several strategies those have been adopted by the companies in order to mitigate the effect of decreased performance of the company in the industry. The strategies that are associated with improving the organizational performance includes in development of better and reliable association among the employees, customers and shareholders. In addition to this, the steps that are undertaken by the organization for improving the performance is through improving access to finance, increasing the demand of customers, increasing customer productivity while also at the same time increasing the overall value of the firm in the xlong-term (Tasáryová and Pakšiová, 2021).This helps the company to stabilise the business and avoid issues like bankruptcy. In a research study put forward by El-Alaoui et al. (2018), it has been stated that for the purpose of minimising the effect of weakened performance and to mitigate the risk of bankruptcy, the companies often adopt several strategies for the stability in the performance. However, most of the time, these strategies do not work effectively. In this manner, this generates the need for the companies in order to adopt certain strategies that are effective in terms of stabilising the weakened performance of the company in the industry.

It has been specified in the research study of Kushwaha and Sharma (2016) that there is an issue of environmental sustainability in the manufacturing industry way more than that of other industries. This is due to the purpose that the manufacturing industry involves more waste and pollution as compared to other industries. In this regard, this industry faces more criticism in terms of sustainability of the environment which exerts a negative impact on the performance of the company in the industry. This is because of the reason that the criticism results in the negative image of the company in the industry which leads to the decreased sales of the business. Therefore, Cooper and Uzun (2019) have argued that an environmentally friendly firm with a defined and appropriate corporate social responsibility (CSR) involved into the social work voluntarily can put a positive effect on the firm's performance. The ideation behind this argument is that when a firm is involved into the CSR activities which is often altruism emerges into the firm and leaves a significant positive effect on firm's image, brand equity and respect before consumers.

1.2 Contextual Background

In accordance with the findings of Goss and Roberts (2011), CSR, in recent years, has emerged as one of the dominant themes among the businesses. The debate on the merits of

CSR is extensive enough. Many schools of thoughts have the viewpoint that CSR policies are an effective source of enhancing business values. Nonetheless, it has also been discussed that these CSR policies are also being linked with the value-destroying manifestation for the firm and stakeholders. In accordance to the study of Wanzenried (2018), the value-destroying manifestation is reflected to the agency problems in which the over investment on the CSR can affect the maximization of shareholders' wealth. Hence, this in return causes value-destroying manifestation where it can lead to financial constraints, slack resources or ownership characteristics. Additionally, the supporters for CSR also have the viewpoint that the investment made as a CSR can be better viewed from the risk management perspective. Specifically, from this scenario, a firm tends to follow CSR irresponsibly, then it can be stated that a firm is willing is externalize the portion of the cost of production.

Nonetheless, the study conducted by Brubaker (2012) contradicts with the statement of Bhabra (2011) and suggests it is the outcome which is driven through the series of decisions and policies that consequently put an organisation in the particular financial position. Moreover, the aforementioned research has also described the notion of bankruptcy as the one most unwanted financial position which is required to be avoided. It has also been discussed that bankruptcy avoidance has been considered as the primary goal for CFOs while making capital structure decisions. The argument presented by Noulas and Genimakis (2014) is convincing enough that the situation of financial distress and bankruptcy is also considered as the one of ideal situation for firms to examine their effectiveness of CSR policy and to test the authenticity of their corporate governance system

Moreover, it has also suggested that when a firm externalizes its cost, businesses ultimately bargain with the society that who will be bearing the cost whether it needs to be repaid by the society or it will be linked with the organisation. However, in majority of the cases especially the countries with weak legal structure, this cost is being paid by the society itself despite of the fact that an organisation had already generated significant amount of revenue while utilising resources and giving harm to the community as well and that can be of any form (Lee, 2013). One of the classical examples for irresponsible acts of managing CSR is the example of a plastic manufacturing firm which makes tons of plastic each day however, it also dumps huge amount of waste in an open environment. This is the cost which actually the society pays because of the absence of the CSR policy that was not followed by the company.

Lin and Dong (2018) has illustrated that the engagement of CSR leads towards the reduction of bankruptcy likelihood. The CSR initiatives influences on the two types of social capitals which includes the exchange capital and moral capital. The exchange capital is associated with the improvement of brand image and loyalty that mainly arises from the prevalence of trust between the firms and its stakeholders. The moral capital influences on the intangible assets which includes the legitimacy, leniency and social consent. Moreover, the study of Bhabra (2011), has also represented the outcome of such measure with the notion of bankruptcy. It is notable that the state of bankruptcy is certainly the one most unwanted and undesirable position for the firm and is usually perceived as an outcome which the organisation has no or less control.

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The reason behind is that, it is the situation where the shareholders of the company can force the executives or firms to avoid practices sustainable practices in order to focus merely on how to avoid the unwanted financial position of bankruptcy. However, there is also a considerable debate that whether businesses face challenging position when they are bound to pursue CSR practices and the company does not have enough liability to focus on the CSR activities. Also, another situation can be when the avoidance from the CSR policies may lead to the financial instability to the company leading to the bankruptcy issues. However, this particular case can be claimed unrealistic as the legislation pertaining to CSR are not considered strong enough that their avoidance may result in the significant financial loss to the firm leading the case of bankruptcy.

In the field of academics, there is a considerable debate regarding whether corporate social responsibility of a firm influences the financial performance of the firm and or it leads towards bankruptcy or not. Here, it becomes important to mention that the relationship between financial performance of firms and their CSR practices has been studied from different perspectives. In accordance with the study of Cooper and Uzun (2019), the relationship between CSR and financial performance has become the key focus area of recent researchers where researchers have been focused towards examining the relationship and its impact from various perspectives. It has been argued that this relationship is being constantly studied in the field of academics from the perspectives like management, finance and also from accounting perspective. Different school of thoughts have different perspectives which have discussed this challenging topic. Some of them have successfully established the positive relationship between the two notions while others have presented insignificant or no relationship. In the consequences, the debate in the academics pertaining to this particular concept is substantial. Moreover, in the contemporary market especially in the challenging contemporary market, it has become more important to investigate whether or to what do CSR has the tendency to effect the financial performance of firms with regards to the concern of bankruptcy.

The study conducted by Gupta and Krishnamurti (2018) has also shed light on the role of the company's CSR policies and its engagement to eradicate the distresses in the company. The researcher viewed CSR engagement as the potential and the major source behind risk mitigation. In the study of the aforementioned researchers, the main focus of researchers was towards the exploration that whether CSR engagement can benefit firms that are already in bankruptcy. The findings suggested that the CSR role and its prevention from bankruptcy can be viewed from two different dimensions. The first component is the moral capital while the other is exchange capital. It has been found that moral capital is associated with the probability of the firm being distressed.

It has been because of the reason that a moral capital which is usually driven through customers and other financial institutions play an essentially important role in preventing the bankruptcy and supporting the company to effectively deal and shorten the distressing period for the firm. Apart from this, it has also been discussed that exchange capital component of CSR is positively related to the probability of procuring debtor in possession in the bankruptcy of the firm. Conclusively, it has been suggested that both the moral support and exchange capital component of CSR plays a vitally important role in assisting organisations to effectively manage the bankruptcy and firms' distress.

Additionally, the study conducted by Nguyen, Pham and Nguyen (2020) was conducted to investigate the influence of CSR disclosures on the bankruptcy of Vietnamese firms where the data is collected from 2014 till 2018. The CSR has been measured from the items reported in the annual reports while the bankruptcy has been measured from the Z-score. In addition to this, there are several control variables are incorporated which comprises of company size (total assets), ROA, financial leverage, market value to book value and others. The results of the study revealed that the Vietnamese firms that have higher level of CSR disclosures are able to reduce the risk of bankruptcy. This phenomenon occurs in the current and future years which can bring the financial and non-financial benefits.

This raises a debating concern that how a company can follow effective CSR strategies if it is already experiencing the financial distress and there is a greater possibility that a firm may experience bankruptcy. In this scenario, the moral capital of the company can also be the one important driving force for the company which can eliminate the chances for bankruptcy and helps the company to effectively manage the financial distress of the company. Moreover, it has also been discussed that CSR is not the phenomenon that helps businesses to recover from bankruptcy. However, the phenomenon helps businesses along with its stakeholders to focus on such measures that enhance the likelihood of the emergence of businesses from bankruptcy.

There can be identified several factors that force shareholders to follow adequate CSR policies. It has been discussed in the study of Berk (2012), there are several benefits that a firm acquires while demonstrating strong CSR policies. Nonetheless, it has also been argued that the positive brand image in the market is considered as the main reason that emphasis shareholder to encourage CSR policies despite of the fact that the implementation of good CSR practices is usually followed by those businesses that have made themselves financially stable and have such alternatives that encourage such firms to pursue effective CSR policies. In this scenario, it can be predicted that firms following adequate CSR policies must have such resources or they can pretend to follow the CSR policies in for the purpose of acquiring greater CSR benefits.

In the continuation, it can also be stated that businesses also experience such circumstances where there is a greater possibility that a particular business might experience bankruptcy. The reason for the bankruptcy can be numerous however, there is a well-established thought that avoidance from CSR policies does not have the tendency to influence significantly on the financial distress of the company. This can also be validated from one of the findings suggested by Lins (2011). The probability of businesses to experience bankruptcy due to the avoidance from CSR policies is found very low. The reason behind this is that the CSR policies are also being linked to the optional strategies for businesses where the key focus area of CSR policies is to improve the business value and image in the operating market so as the particular set of long term financial and non-financial objectives. However, from the perspective bankruptcy prevention, it is justified to say that CSR policies help businesses to cash their moral capital which is provided to the concerned firm on the circumstances like severe financial distress where the possibility of bankruptcy becomes higher.

The notion of bankruptcy is referred to as the situation in which an individual or organisations fail to repay the debt and is imposed by the order of the court upon the request of creditor. The study of Goss and Roberts (2011) has suggested that CSR investment is often represented as the costly change in the unconventional resources. Moreover, if this diversion is encouraged on the behalf of shareholders then, it can be viewed as the philanthropic work. Nonetheless, it has also been discussed that the CSR policies of firms play a vitally important role in highlighting the positive aspects of the company. It is believed that majority of large size well-reputed organisations that strongly follow and implement CSR policies always expect returns from different perspectives. It is a known fact that shareholders have the primary focus or interest is to acquire greater return on each investment they make. It has been because of the reason that these are considered to be as the individuals who mainly invest in an organisation for the higher return on investment and to have greater authority in the decision-making process for the firm.

In the concerned study, besides investigating the role of CSR in preventing bankruptcy, the moderating effect of corporate governance in the relationship between CSR and bankruptcy has also been included. In this study, the researcher has intended to explain the relationship between CSR policies and bankruptcy. In addition, the moderating effect of corporate governance system was essential in a manner that the corporate governance of the particular organisation comprises of the involvement of different stakeholders including shareholders, auditor, board of directors to form a governance system for an organisation (Young & Thyil, 2013). However, it is also believed that shareholders are responsible to appoint board of director and guide them a particular businesses direction. With reference to the study of Gupta & Krishnamurti (2018), corporate governance is also considered as the important driving force that helps board of directors and businesses to effectively manage particular circumstance especially concerning with the financial distress.

In this sense, it can be stated that CSR policies that demand the extra and substantial amount of capital is often being encouraged from majority of stakeholders including the major shareholders. The reason behind this has already been discussed from majority of prior researchers where they researchers have suggested that businesses are now focused towards the integration of effective CSR policies that are responsible to provide businesses long term benefits especially in such circumstances where the prevention from bankruptcy become essential.

According to him Goss & Roberts (2011), the foremost objective for financially distress businesses is to achieve financial instability and to avoid bankruptcy. In realisation to this, several options are also being proposed in front of board of shareholders and other governing bodies in order to support an adequate solution regarding the prevention of bankruptcy, However, the role of auditors in malpresentation the company's CSR policies is also considered as one of the effective approaches that demonstrate company's good CSR policies and that eventually force different stakeholders of the society to provide moral capital and exchange capital to the business in order to prevent bankruptcy.

1.3. Problem Statement

Villarón-Peramato, García-Sánchez and Martínez-Ferrero (2018) have defined that the strategy of self-defence is being used by the managers after unsatisfactory performance of company when it is reported to stakeholders. In order to anticipate the dissatisfaction of the stakeholders, the strategy of self-defence is used and adopted by the managers in case weakened performance of the company. In this manner, the managers are able to maintain the reputation of the company and their own career with the help of self-defence strategies. In accordance to the study of Kushwaha and Sharma (2016), there is a major concern and issue for environmental sustainability among the manufacturing industry in contrast to other industries. The manufacturing process of the companies leads to higher waste and pollution which causes them to face more criticism in respect to sustainability that overall leads to negative influence on the performance of the company. This effect may lead the company towards the merger and acquisitions due to the shortage of capital in order to fulfil its capital expenditure needs and pursue an opportunity.

In respect to the following research, the manufacturing industry of both Pakistan and Australia is selected to be investigated. The rationale behind the selection of the industry can be referred to the study of of Kushwaha and Sharma (2016) where there is a major issue of environmental sustainability among the manufacturing industry in contrast to the other industries. This is due to the activities of the industry leads to higher wastage and pollution along with the higher resources consumption. Moreover, Schuler et al. (2017) has illustrated that the concept of CSR is emphasized with the preservation of the environment along with supporting the members of the society. Hence, this has been a concern for the manufacturing companies around the globe as the awareness regarding the sustainability of the environment can support in in their growth. Therefore, the following research can provide the importance of CSR among the manufacturing industries where it can aid in reducing the risk of bankruptcy while also providing the effectiveness of corporate governance

In this manner, the companies and managers adopt self-defence strategies for the purpose of mitigating the negative effect on the performance. Similarly, Corporate Social Responsibility (CSR) is the most effective one in order to stabilise the performance of the company. It has been specified in the research study of Grayson and Hodges (2017) that the corporate social responsibility adopted by the company is effective for the purpose of increasing the sales and generating the positive image of the company. The corporate social responsibility is the social promise of the company and its corporate responsibility towards the betterment of the environment and with intention to payback the society.

The moral and ethical issues regarding the behaviour and policies of the decision-makers are taken care of by strategy of corporate social responsibility. In a research study put forward by Schuler et al. (2017) have stated that the concept of corporate social responsibility is focused with purpose of preservation of the environment, supporting underprivileged members of society not at just national but also at transnational. This has been a concern for the manufacturing companies throughout the world as the awareness regarding the sustainability of the environment has been increased among the people. This has made people more concerned about the stability of the environment in foreseeable future. This has resulted in the increased use of products that are manufactured considering the sustainable practices as to ensure no negative effect is on environment and society at large and also put an ethical and social pressure on the firms to turned to social preferences rather than profit-centric preferences.

It has been specified in the research study of Ali and Ahmad (2016) that the increased awareness of the environmental sustainability among the consumers has resulted in the increased use of environmentally friendly products in the market. However, there is a negative impact on the sales of the products that have been manufactured by the organizations without considering the sustainable practices and taking care of environment. This is due to the purpose that people support companies that adopt the practices of corporate social responsibility. Considering the research study of Gallego-Álvarez and Quina-Custodio (2016), the disclosure of the information about the social responsibility of the company helps in order to maintain the positive image of the company in the minds of the stakeholders. With the help of this positive image, companies could establish community ties and build the reputation of the business in the capital market. This is due to the purpose that the ability of the company in order to negotiate with the governments and suppliers, setting premium prices of the goods and services is improved while reducing the cost of capital.

In addition to this, the adoption of corporate social responsibility by the manufacturing companies increases the sales of the organisation. This is due to the reason that people with increased awareness regarding the sustainability of the environment want to become a member in supporting the cause. This social cause is supported by the people with the purchase of products that are produced by the companies involved in CSR practices. In this regard, companies in around the world adopt the concept of CSR practices for the purpose of increasing their sales and building a positive image of the company in the industry. In another research study put forward by Saeidi et al. (2015) it has been stated that the practices of CSR are adopted by the manufacturing companies in order to minimise the effect that has been made due to the production of certain product.

Furthermore, considering the study of Barnett & Salomon (2012) the authors have discussed that involvement of the manufacturing firms into the CSR activities has led to a greater return for the company in short-term and long-term subject to its awareness into the public. The contemporary literature has also supported that engagement into the CSR tend to generate value for the firm that may be intangible in short-term but has a significant influence over the firm’s performance in foreseeable future. In this regards, various scholars attempted to test this hypothesis empirically; for instances Jones, Harrison and Felps (2018) and Boaventura et al., (2012) conducted study that does CSR influence firm’s performance and concluded that there is positive relation between the CSR and firm’s performance. Similarly, Arora and Dharwadkar, (2011) investigated the impact of CSR on the likelihood of going bankrupt and the study found that firm’s expenditures on the CSR are negatively correlated and affects the probability of bankruptcy. This provides a conceptual and theoretical framework for the present study that if the CSR is negatively correlated with the bankruptcy chances then if the firm engages into the CSR activities then its chances to go bankrupt also declines. However, this is phenomena is well studied and documented by the scholars which does not leave room for the researcher to further focus. In contrast, the studies those focusing on the CSR and bankruptcy of the manufacturing firms still lacks to explain what role corporate governance plays between the relation of CSR and bankruptcy. Hence, this is problem which is not being addressed by literature and needs to be researched empirically.

The rationale behind selecting Pakistan and Australia for the study is that comparison of developing country (Pakistan) and developed country (Australia) would enable in providing the results from different perspective as whether the CSR can influence on the reduction of bankruptcy as per the conditions of the developing and developed countries. In respect to the selection of Pakistan, the study of Batool and Javid (2014) illustrates that there are major corporate governance issues that are faced in the Pakistan where the manufacturing sector is still being faced issues in its corporate governance due to the lack of laws and regulation. On the other hand, Yarram and Dollery (2015) has professed that the corporate governance laws and regulation are applied effectively. Hence, this depicts as a major difference among the corporate governance that are used in Australia and Pakistan. Thus, the study can provide the importance in Pakistan for strengthening in corporate governance that can aid in improving its overall performance while reducing bankruptcy. In addition to this, the study of Rui (2017) has stated that the activities of CSR has not been fully reached its maximum potential as per its economic performance. Whereas the companies of Australia are emphasizing on the activities of CSR. Therefore, the difference between the activities and approaches of CSR between Pakistan and Australia can highlight the important aspects and limitation that can support in the prevention of bankruptcy.

1.4. Research Questions

The primary research question of the study is that what is impact of corporate social responsibility (CSR) on the bankruptcy and determine the role of corporate governance in case of Pakistan and Australian manufacturing companies; and sub-questions are as follows

- What is the importance of corporate social responsibility (CSR) for prevention of bankruptcy in the manufacturing firms in Pakistan and Australia?
- How to differentiate firms through Altman Z-score in case of Australia and Pakistan to determine which firms are at brink of bankruptcy?
- What is relationship between CSR and bankruptcy in context of manufacturing companies of Pakistan and Australia?
- What is impact of corporate social responsibility (CSR) on likelihood of bankruptcy of Pakistani and Australian manufacturing firms?
- What is the moderating effect of corporate governance's components on the impact of corporate social responsibility (CSR) on bankruptcy of manufacturing firms in Pakistan and Australia?
- What is applicability of the constructed model empirical model in case of Pakistan and Australia?
- What are recommendations and implications for manufacturing firms in Pakistan and Australia, exchange commissions, board of directors and also policy makers?

1.5. Aim and Objectives

The aim of the study is to explore the impact of corporate social responsibility (CSR) on the bankruptcy and determine the role of corporate governance in case of Pakistan and Australian manufacturing companies. To achieve this aim, following objectives have been developed which needs to be achieved to achieve the overall aim

- To understand importance of corporate social responsibility (CSR) for prevention of bankruptcy in the manufacturing firms in Pakistan and Australia.
- To differentiate firms through Altman Z-score in case of Australia and Pakistan to determine which firms are at brink of bankruptcy.
- To determine relationship between CSR and prevention of bankruptcy in context of manufacturing companies of Pakistan and Australia.
- To determine the impact of corporate social responsibility (CSR) on likelihood of bankruptcy of Pakistani and Australian manufacturing firms.
- To determine the moderating effect of corporate governance’s components on the impact of corporate social responsibility (CSR) on bankruptcy of manufacturing firms in Pakistan and Australia.
- To determine applicability of the constructed model empirical model in case of Pakistan and Australia
- To provide recommendations and implications for manufacturing firms in Pakistan and Australia, exchange commissions, board of directors and also policy makers based on the key findings from the study

1.6. Significance of the Study

As it has been discussed in the problem statement that the increase of customer awareness has resulted in the increased use of environmentally friendly products in the industry, this generates the need for the companies in order to adopt the practices of corporate social responsibility. In a research study put forward by Lee, Herold and Yu (2016), it has been stated that the companies must adopt or involve themselves in the practices of corporate social responsibility so as to sustain themselves in the long run. As it has been discussed in the prior section that the adoption of corporate social responsibility exerts positive impact on the sales of the company, therefore the companies need to focus more towards the sustainable practices of manufacturing the products. For this purpose, it is important in order to generate awareness regarding the adoption of corporate social responsibility in countries like Pakistan and Australia.

It has been specified in the research study of Joseph et al. (2016) that there are certain problems in the adoption of corporate social responsibility as the top management of the company considers the practices of CSR as an expense. In this regard, the generation of awareness is necessary for the company to be operative while having increased performance in the industry. The significance of the research can support the manufacturing companies of Pakistan and Australia to evaluate as whether the CSR can help in reducing bankruptcy of the firm. This helps the companies in order to mitigate the issue of decreased sales of the company while increasing the profitability of the company in the industry. Considering the research study of Kumar and Ghodeswar (2015), due to the awareness of environmental sustainability, consumers are more focused on environmentally friendly products. This helps the companies in order to increase sales in the industry.

In addition to this, the significance of corporate social responsibility is also necessary for the company in order to perform well in the industry. A study put forward by Birkinshaw, Zimmermann and Raisch (2016), it has been stated that the companies need to evolve themselves in order to adapt the changes made in the external environment. This is due to the purpose that the companies cannot control the external environment of the business. There is only an option left for the companies in order to adapt to the changes made in the external environment with the passage of time. It has been specified in the research study of Sjödin et al. (2018) that the companies might face failure and difficulty in their operations due to the traditional practices.

On the other hand, it is also important for the companies to identify the significance of financial performance in the industry. In a research study put forward by García-Sánchez and Martínez-Ferrero (2019), it has been stated that the financial performance ensures the survival of the company in the industry. This is due to the purpose that the operations of the company are dependent on the finance. The loss for the company in the industry will lead the company towards the bankruptcy. In addition to this, the negative performance of the company in term of the finance will also exert negative image of the company in the industry. In this manner, the company will not be able to generate the interest of the investors and shareholders. It has been specified in the research study of Benlemlih and Bitar (2018) that the negative image of the company results in the lack of funds in terms of investment. Moreover, this shortage of funds will not be only due to the lack of interest of the shareholders or investors, additionally it will also be due to the decreased sales of the company due to negative image of the company in the industry.

Considering all the issues and necessities for the manufacturing companies, this research study has focused on exploring the role of corporate social responsibility on preventing the bankruptcy and examining the role of corporate governance. Furthermore, the significance of the study can be further highlighted that contemporary literature already explains how CSR affects the bankruptcy empirically; but the corporate governance components have not been focused to determine how they moderate the effect of CSR on the bankruptcy. The findings of the study could be used to draw implications as if the corporate governance positively influence the effect of CSR on the bankruptcy then this implies that having a stronger corporate governance can help to reduce the probability of the bankruptcy while firm is also engaged into the CSR activities. In addition to this, there are numerous components of the corporate governance which includes; ownership structure, ownership concentration, institutional ownership, board size, board independence, audit committee independence, CEO duality, shareholder's activism. These components together develop a corporate governance structure that control and directs the organization. These all components separately have been discussed and developed to determine how each of the component moderates the effect of CSR on bankruptcy. This would help to develop appropriate strategies, rules and guidance for the board, stock exchange commissions and regulatory authorities.

1.7. Rationale of the Study

The rationale of this study is classified into twofold: one is academic rationale and the other is industry rationale. The academic rationale of this research is associated with the importance of CSR identified in the existing body of knowledge and its significance for dealing with the issues of bankruptcy. The importance of CSR can be regarded by considering how Chan, Chou & Lo (2017) have considered as the way of negotiating settlement with the lenders at times when the firm is facing the issue of liquidity and financing of debtor-in-possession. In this way, the CSR of the firm serves as a protection policy that can mitigate adverse effects of bankruptcy from the firm. Considering this, the current study has aimed to compare strength of relationship between CSR and bankruptcy for Pakistan and Australia. Moreover, it has been identified by Godfrey (2005) that CSR activities particularly focused in the direction of capital and it acts as protector of the firm from relational wealth when firms have to face contrary consequences of its own actions. It is because stakeholders are the most important part of CSR and with CSR the firm can reduce the actions of those stakeholders that can lead towards higher possibility of bankruptcy (Godfrey, 2005). According to Mattingly & Berman (2006), the engagement of the firm in CSR has been associated with two kinds of capital such as moral capital and exchange capital. The study has confirmed that both the kinds of capitals have been playing a major role in reducing and alleviating the possibility of bankruptcy from the firm. Therefore, this research has considered the role of CSR in mitigating the risk of bankruptcy within the manufacturing sector of Pakistan and Australia and providing the comparison amid the manufacturing sectors of these three regions.

The study has identified how corporate governance can play a role of moderator between CSR and mitigation of bankruptcy. The rationale of model testing where corporate governance has played a role of moderator in a relationship between CSR and bankruptcy has been linked with the fact that this model has not been tested before in the previous studies conducted in the context of CSR (Baumann-Pauly et al., 2013; Galbreath, 2010; Lamond et al., 2010). Therefore, there has been a need to conduct the study which can test the model comprising of the relationship between CSR and bankruptcy with the moderating role of corporate governance. Moreover, the current study has also been conducted for offering cross border analysis where one developed and one developing country has been taken for analysing testing the model. This leads towards the industry or country rationale of the study which is related with the notion that all the countries are situated at different levels whereas their manufacturing sectors are operating with different models of corporate governance.

According to Batool & Javid (2014), corporate governance issues in Pakistan are much evident along with its relation with dividend payments; the study further professed that the degree to which corporate governance laws of Pakistan are being applied and effecting dividend stability of the manufacturing sector is still an unresolved issue. On the contrary, corporate governance laws in Australia are effectively applied and play a major role in dividend policies of the firm (Yarram & Dollery, 2015). This shows a major difference between the models of corporate governance used in Australia and Pakistan. Therefore, the rationale behind the use of all the countries as a case study is to offer comparisons regarding how corporate governance and its strength in Australia and Pakistan can moderate between CSR and the prevention of bankruptcy and this study has allowed more generalisations of data in the context of Pakistan and Australia. Furthermore, CSR approaches in all the three countries also differ to some extent.

The firms that have been incorporating CSR activities also face lesser probability of getting bankrupt. This argument is rather new and has not been fully developed in the previous studies. Hence, this current study has been conducted in order to support the argument which is based on the stakeholder theory of corporate governance. According to the study of Badshah, Mellemvik & Timoshenko (2013), every investor is prone to focus on operating profit and on investing in those businesses which are tended to grow in near future. Therefore, making investments in CSR can lead towards attracting the investor that can further allow the firms in dealing with the higher probability of getting bankrupt. In this way, the rationale of the research has been conducted for identifying the level of possibility of bankruptcy in the manufacturing sector of Pakistan and Australia and to test the model with the identification of the strength of corporate governance pertaining in both the sectors.

Another rationale behind this research has been to ensure that the right model is tested for identifying the role played by CSR in preventing the bankruptcy from the manufacturing sector of Pakistan and Australia. This rationale is also supported by Andersen (2008) who professed that knowing the likelihood of bankruptcy allows company to gain trust of stakeholder as they are apparent with their stakeholders and discussing prior to filing bankruptcy. This can further helps the firm in the reduction of direct and indirect cost that can further assist in retaining customers, employees and other stakeholders. The current study is the seminal work that has studied the influence that the socially responsible activities have on the probability of being bankrupt and while keeping in view that this kind of impact can be influenced by the strength of firm’s corporate governance. It further leads towards another rationale that is linked with the inclusion of corporate governance as a moderating construct.

It should further be noted that CSR in Australia is not regarded as a mandatory practice rather it is considered as additional efforts made by the organisations for improving global and local communities (Anderson & Landau, 2006). On the contrary, in Pakistan many companies are following the rules of CSR in order to have links with the firms operating in the developed countries. However, the concept of CSR is still regarded as vague because majority of individuals in the sector only incorporate CSR as a part of their strategy rather they consider as a typical view of following a number of philanthropic actions (Business Recorder, 2019). Moreover, the CSR activities in Pakistan have not been fully developed due to the major focus given to the economic performance. Rui (2017) stated that level of philanthropy in Pakistan is low due to the developing status of the economy. Considering the difference between the approaches of CSR between Pakistan and Australia, the current study has been conducted for considering the aspects and limitations in the CSR of the countries and identifying how such practices can lead towards the prevention of bankruptcy. Based on the above discussion, the rationale behind the study is to provide the benefits of CSR among the manufacturing firms as how it can support the Australian and Pakistani companies in reducing their bankruptcy along with incorporating effective corporate governance strategy.

1.8. Research Gap

The research contribution of this research has been divided into two levels: one is theoretical and the other is managerial level. The theoretical contribution of the study is associated with the overall gap identified in the body of knowledge which has been filled by the current research. The role of CSR in the prevention of bankruptcy has identified to be a unique area of the study that requires further contributions. The concept of CSR has been constantly discussed in the past researches but further research needs to be conducted in order to test the model indicating relationship amid CSR and prevention of bankruptcy. Bauer &

Krasodomska (2015) has conducted the research for identifying how the perceived bankruptcy and insolvency can be reduced by incorporating the activities of CSR. However, the research has not incorporated the use of corporate governance as a moderator between CSR and the prevention of bankruptcy. Similarly, a recent study conducted by Wu et al. (2020) has investigated the influence of CSR on bankruptcy and on the financial performance. The results of the study revealed that the CSR has a significant and positive effect on the Chinese firm performance while it also enhances the corporate stability. The research gap that can be reflected from the study on Wu et al. (2020) is that the moderating effect of corporate governance is missing while the study is mainly emphasized on Chinese firm. Therefore, the current research has provided a theoretical contribution by identifying the relationship between the two constructs while also emphasizing on Australia and Pakistan.

The research of Cooper & Uzun (2019) has been conducted for examining to what extent CSR can help the firm to detect its financial bankruptcy; the researchers have also extended the study by identifying that CSR is not only the aspect of financial aspect but it can also indicate a financial failure of the company. The current has further contributed by generalising the data in the context of CSR in manufacturing sector of Pakistan and Australia which also lacks evidence. Lin & Dong (2018) further professed that the firms which are highly engaged in CSR activities are likely to face less bankruptcy and financial distress. However, the research has not tested the strength of corporate governance moderating in between CSR and prevention of bankruptcy and this gap has been filled by the current study. Similarly, the study of Brooks (2016) has also answered the question if CSR reduces the propensity of bankruptcy in any firm but has not tested the model with the moderating role of corporate governance.

The corporate governance set of principles, rules, procedures and structure by which a company is managed and directed. The relation of corporate governance and bankruptcy is being studied by scholars that how it affects the bankruptcy probability of the firm. For instances, Kamsar (2014) investigated the relationship between the bankruptcy and corporate governance and found a negative relation. This finding of the study is also consistent with the study of Sharif and Rasheed (2014) those also found that stronger corporate governance structure reduces chances of bankruptcy. Meanwhile, these studies are directly related to phenomenon of corporate governance and bankruptcy, but literature lacks to explain how corporate governance affect the impact of CSR on bankruptcy and this remains a gap into the contemporary literature which needs to be fulfilled. Hence, based on this literature, following study was proposed to explore the impact of CSR on bankruptcy and determine what role corporate governance plays between CSR and bankruptcy.

Further gap has been identified in the context of how CSR has been incorporated and analysed in various researches but the relationship of CSR with bankruptcy has not been identified. For instance, Kim & Kim (2014) has stated that the activities of CSR can lead towards the alleviation of risk asymmetry that can help the investors to reduce the risks of bankruptcy; however, the researchers have empirically tested the relationship of CSR with prevention of bankruptcy but these studies lack focus on the incorporation of corporate governance in the study. rather focused on credit rating risk as the risk mitigated by the firm's CSR activities. In addition to this, the study of Echeverry Botero (2015) has professed that the company, with the adoption of CSR, can reduce reputational damage which can lead towards bankruptcy. However, the researcher has not tested the CSR model and its relationship with bankruptcy rather focused on reputational risks and damages associated with this. Therefore, the current research has contributed in the body of knowledge by providing the model of CSR and tested its association with the prevention of bankruptcy.

In the context of corporate governance, this research has tested the model that has shown the moderating effect of the strength of corporate governance on the relationship between CSR and the prevention of bankruptcy. The previous studies such as Mokarami & Motefares (2013) and Darrat et al. (2016) have identified the relationship between corporate governance and firm's bankruptcy; however, the researchers have not commenced about the role of CSR in the mitigation of bankruptcy from the firm. In the same vein, Chan et al. (2016) have conducted the research and identified that the overall influence of corporate governance on forecasting bankruptcy but has not include the notion of CSR in the model. The current research has filled this gap and contributed in the existing body of knowledge by testing the model that shows not only the role of CSR in preventing bankruptcy but also incorporated a moderating role played by corporate governance.

Another gap has also been identified in the context of model testing which in this research focused on the use of Altman's Z-score. Various previous researches have used this model for testing and forecasting possibilities of bankruptcy (Mohammed, 2016; Muminović, 2013). Mohammed (2016) has stated that the financial health of the firm can be measured by using the model of Z-score proposed by Altman; however, the researcher has not used the model for identifying the role of CSR in the prevention of bankruptcy. In addition, the research conducted by Muminović (2013) has used Altman's model of Z-score for analysing the elicitation of revaluation; however, gap has been identified in terms of how similar model can be used for analysing bankruptcy. The validity of Z-score model of Altman has also been identified in the study of Al Manaseer & Al Oshaibat (2018); however, the use of the model for testing the relationship between CSR and the prevention of bankruptcy has not been incorporated in the research. This gap has been filled by the contributions of this research where the Z-score of all companies of sample data has been computed to find out difference between working of firms having filed for bankruptcy and those performs far from bankruptcy.

1.9 Research Contribution

The major contribution of this research has been in the context of managerial and industry contribution. The prior researches have not provided a cross border analysis between Pakistan and Australia in the context of testing the model showing the relationship amid CSR and prevention of bankruptcy with the moderating role of corporate governance (Mokarami & Motefares, 2013; Darrat et al., 2016; Kim & Kim, 2014). This research has contributed by offering insights into how the managements and policy makers of the manufacturing sectors of both the countries have been using CSR in order to mitigate bankruptcy and how it can further be mitigated by strengthening corporate governance. According to Khan, Kaleem & Nazir (2012), Pakistan's manufacturing sector plays a massive role in the economy and this sector involves sugar industry, cement industry, pharmaceutical industry, light engineering industry and automotive industry. On the other hand, Australian manufacturing sector is one of the most renowned sectors in the world because it produces large number of products to keep the economy surviving. The most prominent sectors include manufacturing, mining, power and construction and hence play a major role in the development of the economy. In this way, the manufacturing sectors of Pakistan and Australia are important and also require understanding of the dynamics of bankruptcy. Therefore, this research has contributed by offering insights how the CSR and its related activities can help to reduce bankruptcy along with the level of the strength of corporate governance. This has further contributed by providing insight into how the z-score model of Altman can be used by the managements for forecasting the possibility of bankruptcy in the sector. In addition to this, there are different variants of Z-score that is applied on the basis of the company structure. For instance, there is a Z-score that is particularly developed for the manufacturing companies and comprises of five weighted factors. In addition to this, there is also a Z-score model for a non-manufacturing companies which consist of four weighted factors. Hence, the Z-score for the manufacturing companies is selected which evaluated the five weighted factors due to the relevancy with the research topic.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

Attaining good financial position was comparatively more important and significant than stressing on obtaining the results. Over the last decades, the increased number of crises like financial, economic, social, food and climate have revealed that the welfare of the firm cannot be detached from social and environmental concepts and, as a result more of the companies are deciding to incorporate principles of sustainable development known as corporate social responsibility (Nunes, Lee, and O'Riordan, 2016).

After the period of recession and having an economy which consists of difficulties in reforming it is the main objective of the corporations to ensure their long-term viability by preserving a sturdy access to financial, human and other resources. According to Caroll (2015), current society is making expectations although the expenditures that are incurred on corporate social responsibility are regarded as expenses incurred from operational profits which is negative in the eyes of the investor but, this fact cannot be denied that CSR is the only main source for reducing the chances of corporate bankruptcy (Lins, Servaes and Tamayo, 2016). It is the responsibility of the governance policies as practiced by the companies to strengthen companies to remain sustainable.

This section has also provided detailed insights about the concepts of corporate governance and how corporate governance and the researcher has also shed light on the significance of implementing CSR activities for the companies along with its effects on the performance of firms. Lastly, this section has provided various theories and frameworks regarding the role of CSR in preventing bankruptcy along with empirical reviews on CSR to gain detailed insights of the topic.

2.2 Corporate social responsibility

Managers continuously face demands from several stakeholders' groups in devoting resources to corporate social responsibility. These sort of demands usually come from the customers, employees, certain community groups, governments, some of the stockholders and most importantly the institutional stakeholders. Along with so many goals and objectives, the concept of CSR is not always clear. Generally, CSR is defined as the actions that arise for furthering some social goods outside the general interests of the companies which are also required by the law. However, the company which neglects differentiating between the women and the minorities is not undertaking a socially appropriate act rather is fulfilling the law.

Some of the examples of the CSR include performing outside the legal requirements for the adoption of advanced management programs of human resources, development of such testing methods that are non-animal, performing recycling, along with giving support to local businesses and developing those products that possess social elements and characteristics. Limiting the scope of CSR to the context of firms through creating product elements that are directly supporting social responsibility or that is reflecting the commitment of companies to environment friendly practices (Until, 2015).

Many managers have given responses to increased interest of stakeholders in CSR in a positive and good manner by allocating more and more resources for promoting CSR. One of the reasons behind the positive responses is the realization of the significance of multiple stakeholders. While other managers possess a less advanced view related to stakeholder relevancy, they avoid efforts that are being made to satisfy demands for the CSR because according to their belief such efforts are not in line with the maximization of the profits and the interests of the shareholders who they think to be the most important stakeholder (Chaudhri, 2016). On the other hand, the study conducted by Kumar (2019) has revealed several key challenges that are hindering on the CSR initiatives mainly among the developing countries.

For instance, it was revealed that there is lack of interest by the general public for participating and contributing to the activities of CSR while also being largely misunderstood by the business and stakeholders. Many of the businesses view themselves as socially responsible whereas as they clearly are not. Another major issue with the CSR is the lack of transparency where the companies does not make adequate efforts for the disclosed information that negatively influences on the process of trust building.

Various theoretical frameworks have been used for examining CSR. According to De los Angeles, et al. (2017), engagement in the CSR is indicative of a rising difficulty or it can be a conflict that may arise between the managers and the shareholders. According to him, managers make use of CSR for enhancing their own social, political and career related aims at the cost of the shareholders. According to this statement, the resources that would be devoted to CSR would be spent more sensibly and from a social point of view it means for the purpose of increasing organisational efficiency. This theory is supported by Bergh, et al. (2019), who revealed that prices of stock response negatively to announcements of divesting assets in South Africa, which they perceived as reliable with the theory of agency.

In an influential paper that is on stakeholder theory Andriof, et al. (2017), found that companies have relationships with so many groups and these stakeholders get influenced by the actions and steps taken by a firm.

Theory of stakeholder has evolved as one of the dominant examples in CSR has emerged in certain new and interesting ways. The three parts of this theory that are normative, descriptive and instrumental are collectively supportive.

2.2.2 Investing in CSR at firm level

According to a theory of firm it is perceived that management of publicly viewed companies tries for the maximization of profits (Horal and Prokopiv, 2015). Based on this view, CSR can be regarded as a form of investing in CSR as a means of differentiating products.

In this context there lies certain CSR resources and the outputs. A firm can develop a specific level of CSR by aligning its products with the CSR characteristics or by the usage of CSR related resources in the production procedures for instance naturally occurring insect inhibitors and use of organic fertilizers. On the contrary, the study conducted by Church et al. (2019) has depicted investment in CSR can result in higher capital allocation which can adversely influence on the resources and opportunity cost.

2.2.3 CSR and firm's financial position

In the literature review, the terms corporate social responsibility and corporate financial performance have been analysed extensively. Some of these supported a positive relationship between CSR and CFP while few of the studies have provided the neutral or somewhat negative relation between corporate social responsibility and corporate financial performance. According to Barnett & Salomon (2012) it can be taken as a source through which firms can manage and balance social, environmental and economic impression of the business activities. On the contrary, Freeman (2010) a hike in the CSR helps in improving relationship of companies with their stakeholders and due to this it decreases company's costs of transactions and in boosting market opportunities which ultimately results in high and improved financial performance.

Whereas, some of the studies have found uncertain relationship between the between CSR and Corporate financial performance such as one of the study that is being conducted by Jones, Harrison and Felps (2018). According to the meta-analysis study conducted by Wang, Dou and Jia (2016), it has been revealed that corporate social responsibility is positively related to CSR. It has been revealed that corporate social responsibility is positively related to CSR. And study conducted by Boaventura et al., (2012), has also confirmed this fact that 65.5% of the studies conducted displayed a positive relation between the two terms while only the 19% showed a negative relation and 31% reported a neutral relationship.

2.2.4 Benefits of CSR in terms of IC- Intellectual capital

Corporate social responsibility, according to Lim and Greenwood (2017) helps in human resources within the company. It helps in developing and maintaining a social justification for the company by appropriately responding to the expectations of the workforce but also by reflecting the ethical behaviour which displays the respect by the company for its values along with their interest in social issues and matters the theory of the CSR supporting IC has been proved by the research which reflects that the common points of interest lies between the CSR and IC (Stankevičienė et al. 2012). From a practical point social practices of a company are regarded as the intangible resources of the company which are helpful in developing the dimensions of IC. CSR helps in increasing intellectual capital as the companies take advantage from CSR because it helps in increasing loyalty and commitment or human resource at hand.

2.3 Corporate Governance

2.3.1 Need for Corporate Governance

Last decade witnessed major growth in terms of importance of management and various new concepts emerged but board of directors did not have much presence in organisations and their contribution was rarely recognized and even their role was not clear in the organisation however, lot of management theories were developed so in turn it was an era in which management was the focal point but 21st century marked the shift from management to recognizing the need of corporate governance with all advanced economies introducing new concepts and enacted company laws while the financial crises in 2007 gave further importance corporate governance (Tricker, 2015).

Governance is vital for all corporate entities whether it is sole proprietorship, partnership or public firm, whether for profit and not for profit organisation or governmental entities. In case of company, the body is termed as Board of directors while other entities may call this as council, committee, board of governors or in some cases Oxford Colleges. Precisely, corporate governance refers to exercising power over entities and it includes activities of board, relationship with stakeholders, with external auditors, with individual managing the company, regulators and other stakeholders. It's different from senior management who is responsible for daily activities while governing body are responsible for ensuring that the company is working in the right direction or not along with formulating policies and strategies. It also ensures accountability in the company and supervision of top management (Adams, 2010). On the other hand, the study conducted by da Costa (2017) has indicated that there are several fraud and scandal cases that has been revealed among few organizations where the major component was determined to be weak corporate governance. The big corporate scandals comprise of Enron, Worldcom, Tyco, Parmalat in which the role of corporate governance among the organization has been questioned. Therefore, poor corporate governance can adversely influence on the organization performance which can even lead towards its demise.

Corporation policies are often defined by board of governors, they are responsible for informing customs, policies, rules and regulations to employees from lowest to highest level. It protects the company from massive disaster as it keeps on overlooking each and every decision and if the need occurs, it can also held meeting with employees, shareholders and creditors, as well as external players like suppliers, customers and other influencers to convey information that they feel was important (Giroud, 2010).

2.3.2 Principle of Corporate Governance

Shareholder recognition: It is observed on the basis of the existing literature that some shareholders do not have a significant role in decision making whereas major stakeholders have a say in decision making so corporate governance makes sure that every shareholders gets the right to participate and contribute (Seidl, 2013).

Stakeholder interest: Recognition of stakeholder who does not possess shares can be pivotal for the company as it indicates that company aim to build a positive relationship with its contributors and community (Reddy, 2010).

Clarity among members: All the members should be on the same page and should have similar vision regarding the future of the company while all board responsibilities should be conveyed to shareholders (Martynova and Renneboog, 2011).

Ethical Problems: It is responsibility of board to establish a code of conduct regarding ethical decisions but often in pursuit of profit companies often neglect ethical issues and instances like abusing of labours, hiring unskilled workers for technical work, evasion of tax, reduction of cost at the expense of something indispensable often occur which result in loss of image for the company and major legal problems (Reddy, 2010).

Transparency: It is necessary for governing body to ensure that financial information, earning report and key performance measures are not exaggerated as falsified financials can result in loss of trust for shareholders and that can impact share price and market value of the company (Seidl, 2013).

2.3.3 Corporate Governance as Risk Mitigation

Corporate governance has equal importance as the primary business plan of the company. With proper execution, it can help to eradicate fraud and crimes while it can also prevent the company from facing scandals. With good governance policy, company can enhance its brand image in front of public and thus show that it cares about its investors and creditors. It also informs the potential investors about the philosophy and culture of the company, company without governance seems unreliable and doubtful to investors. Shared philosophy is so important that if this gets hurt, product can be defective, management may become corrupt, protection can be affected and eventually fall will occur. Problem can be further magnified as a result of audit, federal investigation and criminal inquiries this mishaps is known to public which will cause shareholders to pull back their investment as fear, distrust and hatred will flow in (Peters & Romi 2014). On the other hand, the study conducted by Schwarcz (2017) that the risk taking in organization is caused by poor corporate governance where the duties of the managers causes the firm to be risk-taking for maximizing the profitability of firm and its investors.

Corporate governance is vital for even smallest organisation, while non-governmental organisation has significance for corporate governance as they must be directed appropriately as decision of few individuals can affect large group and organisations that have no connection with the company. Limited companies also have a duty towards shareholders and other stakeholders while public companies, although their purpose is to serve the state but should treat its shareholders fairly as well. But the center of attention remains public limited entities whose shares are traded in capital markets, the reason behind the significance of these firms is to trade shares in the market and attract potential investors and a single decision could affect shareholders by increasing and decreasing their wealth as the result of rise and fall of share price. Investors take their decision to buy a particular stock based on subjective information and usually no or little research is done about what direction organisation is going to take in the future and hence, they end up trusting on those who take decisions to manage risk and return accordingly, to provide timely information, to ensure that organisation are running smoothly, and at act in an ethical manner all times (Cheffins, 2013). On the contrary, a principle based approach is adopted by corporate governance that entails set of best practices that listed companies should follow but in case any practice is not suitable for the company, then company might not follow it, but it should be disclosed to shareholders along with disclosing the reason so that shareholders can have trust although principle approach is not the only option but as a member of stock exchange condition entails that company follow this requirement. Some also prefer a rule-based approach in which standard are enshrined in law and are mandatory (Bottomley, 2016).

2.4 Bankruptcy

Businesses differ widely in terms of goods and services they deliver, but all businesses need to generate sales and income to survive. If businesses are not lucrative for prolonged periods, owners may be compelled to go bankrupt in order to leave the market or reorganise the company. While the main reason of bankruptcy is the absence of profitability, the capacity of a company to generate profit and lead to bankruptcy can be inhibited by many fundamental variables (JB Berk 2010). Bankruptcy is a legal procedure from which creditors can seek relief from their debt from individuals or other entities that cannot repay debts. Bankruptcy is enforced by a legal order in most jurisdictions, often launched by the debtor. Bankruptcy is not the only legal status an insolvent can have, and therefore the word bankruptcy is not synonymous with insolvency. Bankruptcy is restricted to people in some nations, such as the United Kingdom; other types of insolvency proceedings (such as liquidation and administration) are applied to businesses (R Stanton 2010).

In the United Kingdom, bankruptcy (in a rigorous legal context) concerns only people (including sole owners) and partnerships. Companies and other corporations have different legal processes for insolvency: liquidation and administration (administration order and administrative reception). However, when referring to media businesses and general discussion, the word ' bankruptcy ' is often used. The United Kingdom's bankruptcy is split into distinct local systems for England and Wales, Northern Ireland and Scotland. In Scotland, bankruptcy is referred to as sequestration. A person must have more than £ 1,500 of debt to apply for bankruptcy in Scotland. (Gov.uk 2018)

Bankruptcy comprises of several chapter kinds containing distinct processes for dealing with economic issues. A bankruptcy in Chapter 7, a debtor may withdraw or forgive any or all of its unsecured debt, this is also known as liquidation. Anyone, including a corporation, can file a Chapter 7 bankruptcy case, but only a person or person can obtain a debt discharge (C O'Neil 2015). A situation in Chapter 7 will also allow a debtor to return the guaranteed property to the creditor if the debtor can no longer afford to retain it. The debtors who have higher incomes and do not qualify for filing chapter7 bankruptcy can file chapter 13. However, chapter 13 of bankruptcy is also known as "Wage-Earners Plan". It enables guarding precious property by the debtor. In this chapter, a debtor suggests paying back over a period of time some or all of what he or she owes to creditors. The plan will be submitted for approval to a bankruptcy judge and will be administered by a Chapter 13 trustee upon approval. The trustee of Chapter 13 collects and distributes funds paid by the debtor to all its creditors on the basis of a plan approved by the Court of Bankruptcy. In addition to payment of the plan in Chapter 13, long-term debt payments (such as a mortgage on a house to be maintained) must proceed at their contract rate after filing (White, 2010).

According to Alabama State Bar (2011), chapter 13 bankruptcy has certain economic limitations and can only be filed by individuals with unsecured debt not exceeding $360,475 and income as well as secured debt not exceeding $1,081,400 (these figures are periodically adjusted). If a debtor exceeds these limits, then if this type of creditor protection is desired, he or she has to look at the situation of Chapter 11. Chapter 12 is similar to Chapter 13 in nature but is limited to people who make their living from agriculture or fishing.

The debtor seeks to create a plan for reorganising himself and repaying debts in a Chapter 11 bankruptcy case. This plan's expectation is to create a new, more streamlined business that will be able to fulfil its obligations in the future and operate more effectively. Creditors and the court of law must approve the Chapter 11 scheme of the debtor. Accordingly, businesses debtors usually confer with their primary creditors before filing to promote aation throughout the bankruptcy process (Markell & Bruce 2010).

The capacity to file for bankruptcy can theoretically benefit a general economy by offering people and companies a second opportunity to gain access to consumer credit and offering a measure of debt repayment to creditors. Management establishes corporate policy involving multiple elements, such as strategy and economic leadership. Since mistakes can lead to bankruptcy rapidly, all aspects must be taken into consideration. Unfortunately, a lack of abilities and personal features can precede unforeseen corporate policy issues (Markell & Bruce 2010).

2.4.1 Causes of bankruptcy

A comprehensive literature review was carried out in preparing this study, leading in a model of theoretical failure (Lukason, 2014). Figure 1 illustrates the various causes of failure and emphasises their mutual relationships. First, there are several external causes that cluster the overall atmosphere. In addition to the connection with stakeholders in their immediate setting, they influence the motivation of executives, the usefulness of their abilities and hence corporate strategy. Unfortunate circumstances are prevalent reasons of bankruptcy in the economy as a whole and the particular industry in which a company works.

The economy follows a growing and prosperous cycle followed by period of recession. Consumer confidence and expenditure tend to decrease during bust periods, which can result in low income. Companies engaged in particular niche marketplaces may also be prone to consumer preferences changes. For instance, if clients begin purchasing digital downloads instead of CDs, a small business owner who owns a music store may be compelled to close the shop. Competition from larger firms is another market factor that can reduce tiny firms ' income and lead to bankruptcy. According to Alexandrov and Jiménez (2017) financing is also one of the main problems facing tiny enterprises. Loans are taken out by many company owners to assist finance their activities. If a company struggles, its lender may not be prepared to provide extra financing, which could result in bankruptcy. Although an entrepreneur can obtain more funds to keep his company floating in the short appearance, heavy debt makes it more difficult for a company to make funds because it has to pay interest on debt.

Absence of planning can lead to hasty decisions and business failures. A company proprietor, for instance, it might spend time and money developing a product that it believes would be profitable without looking at the customers and studying the production costs. Even if the product is important, from a company point of view it may not be financially feasible. Lack of education and financial and management experience may improve the probability of bad choices, but no business is immune to errors (McGregor, 2020).

Inappropriate characteristics and abilities in leadership are a threat to company survival and are therefore often associated with start-up failure. When these executives are also unwilling to accept advice from other sides, the long-term chances of survival of the company are considerably reduced.

A host of other fundamental problems may lead in bankruptcy that inhibits profitability. Other variables that may lead to bankruptcy include company's poor location, loss of important staff, lawsuits against competitors and private problems such as illness or divorce. Unforeseen catastrophes and illegal activity such as storms, floods, fires, theft, and fraud can also lead to bankruptcy sufferings.

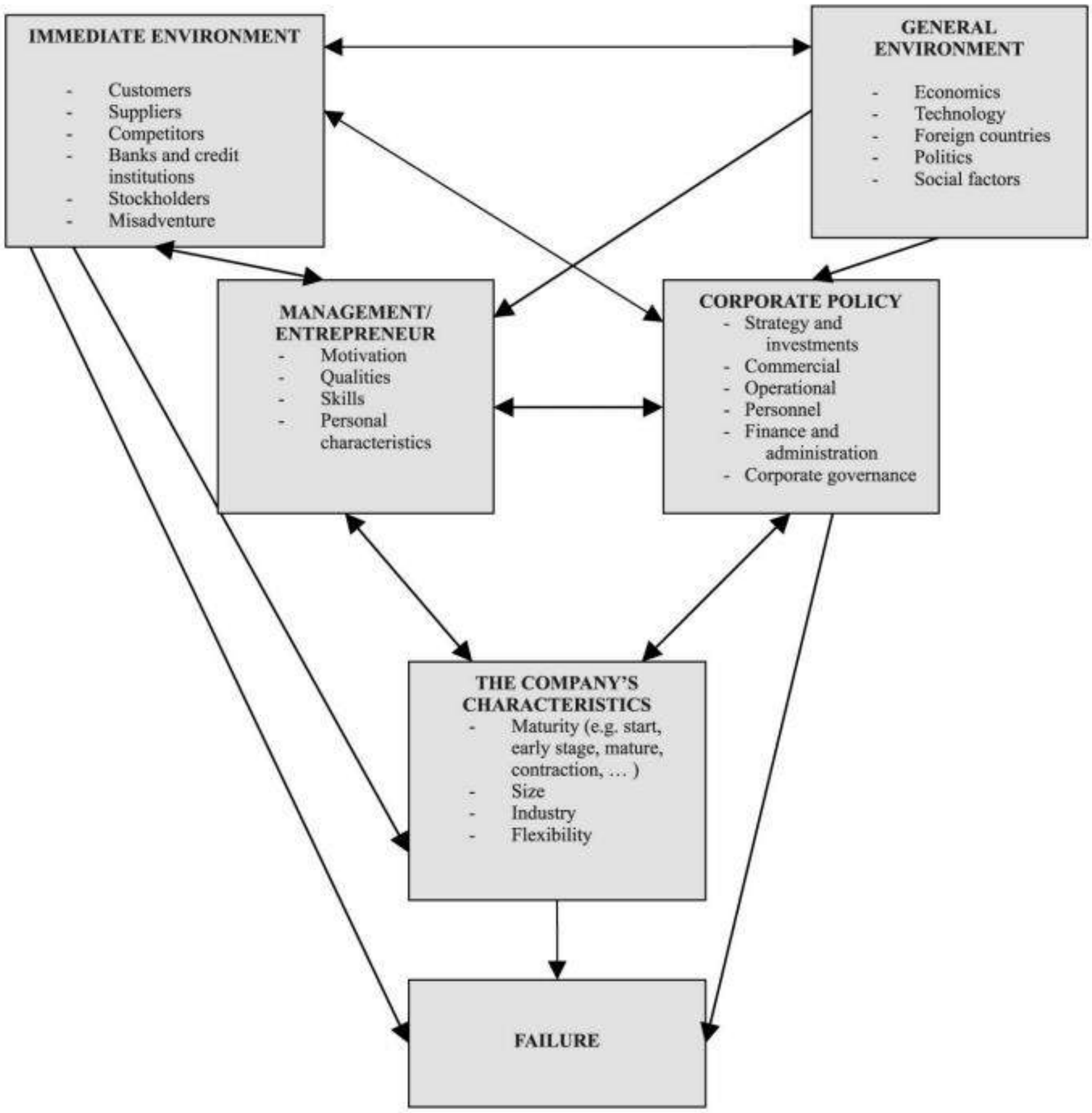

Figure 1: Causes of Bankruptcy

Source: Ooghe (2008)

2.5 Significance of CSR for firms

2.5.1 Brand recognition

Social responsibility has become important for the increase in the productivity and betterment of the firms. It is important to add social responsibility aspects into business strategy to determine the importance of corporate social responsibility in business. A company that follows the social responsibility in their activities and management can be successful in making company's name superior and helps in brand recognition. Furthermore, socially responsible company projects a positive image in business market as it shows that it is not only related to profit making but also conscious about social factors. McWilliams (2015) stated that social responsibility contributes in the welfare of the firms as well as society. Moreover, when firms are involved in the social responsibility, they build relationship with people and society. On the contradictory, Kumar (2019) has indicated that many companies do not make the adequate efforts as per the disclosed information in the annual reports in terms of CSR. Due to providing false disclosure on CSR, organization are faced with bad recognition by the investors.

2.5.2 Stand in business market competitive

Saeidi, et.al (2015), described that there is direct relationship of social responsibility and firm's performance. Because corporate social responsibility (CSR) identifies the obligations of firm towards the society and people. Social and ethical measures are important for the success and sustainability of a firm in a competitive business market. Also, consumers are more aware to the social responsibilities therefore it is significant for the firms to increase their corporate social activities in order to gain consumers universally. The firms that are operating with the ethical and social responsibilities have large number of consumers and improved public image. It is important for the firms to have improved brand's image as this is the crucial aspect of a firm. Additionally, to stand in the competitive business market it is important for the firms to inherit the strategies and policies of CSR activities to achieve competitive advantage in the business market. However, the study conducted by Sheikh (2019) has depicted that CSR plays less effect in improving the competitiveness of the brand in the market as the most important components are the products, pricing and other marketing factors.

2.5.3 Positive consumer behaviour

In addition to the above studies Du, Bhattacharya, and Sen (2010) quantified that corporate social responsibility (CSR) not only helps to produce positive consumer's behaviour and satisfactory shareholders attitudes. But also helps to maintain the firm's image, build the strong relationship between shareholders and a company and helps firm to stay and run in long-term. Furthermore, the studies of above-mentioned researchers identify that CSR activities helps a firm to increase their brand awareness. The firms that embrace the social and environmental responsibilities can establish a place in the competitive business market in order to compete with their competitors. In addition, CSR activities help firms to grow faster and to stand out in the competitive market. And also ensures that the company's aim is to conduct the activities that are ethical and of moral values. On the other hand, Ho, Ding and Lii (2017) that the major factors that increases positive behaviour of customers is through product's characteristics, service quality and marketing.

2.5.4 Customer's engagement

In continuation of the above-mentioned information, the studies of Bénabou, and Tirole (2010) describes that corporate social responsibilities (CSR) are important to be embraced by the firms because it increases the customer's engagement as well as employee's engagement. Moreover, CSR activities results in large number of employees and customers. As CSR activities shows people that firms are more focused towards human rights and social responsibilities than profit making hence, CSR activities are beneficial for the workers of the firm as it focusses on the increased positive relationship between firm and employees in order to increase the productivity and positivity. Involvement of CSR activities shows the competitiveness of the firm in growing business market. In this manner, the study conducted by Ali, Frynas and Mahmood (2017) has demonstrated that is important that CSR information be disclosed to the public which can enable in increasing the customer engagement.

2.5.5 Consumer's satisfaction

Galbreath (2010), specified that CSR activities in the firms due to its fair nature it decreases the employee turnover. It plays an important role in consumer's satisfaction as the activities focus on the social, environmental and ethical responsibilities towards the consumers and employees. Firms running the CSR activities are more likely to be successful because of the positive publicity and empowerment of social and ethical values of workers and consumers. Besides that, it helps to lift worker self-esteem and lead to better efficiency in the workforce. Additionally, more CSR activities in the firms contribute largely into the rise in sales and profits and help the firm to draw its positive image amongst the competitors in the competitive business market. On the contrary, Ding and Lii (2017) has demonstrated that the major components that contributes to customer's satisfaction are product's characteristics, service quality, marketing and others.

2.5.6 Brand's image

In addition to above studies Jo, and Harjoto (2011) defined that corporate social responsibilities effects the internal and external affairs of the firm. It enhances the value and brand image in the growing business market. Likewise, a firm's main goal is to achieve the positive impact on the society and consumers therefore, it is only possible when a firm enhances its CSR activities. Moreover, the studies exhibited that the companies involved in the CSR activities has an advanced level of worker- engagement. And it provides a prominently better standard of consumer service. CSR-oriented companies initiate more financial results then non-CSR oriented companies. It can be said that CSR is the essential part of the worldwide business landscape. On the other hand, Kumar (2019) has proven that often companies do not make the adequate efforts on its CSR as per the disclosed information. Due to providing false disclosure on CSR, organization are faced with bad recognition by the investors leading to adverse influence on brand's image.

2.5.7 Popularity and Status

According to the study conducted by Brînzea, Oancea, and Bãrbulescu (2014), corporate social responsibility is an important tool of the firm that allows them to concentrate more on environmental and social factors. It can be said through the studies, that CSR tool helps the firms in effective marketing and helps to gain the popularity and status in the business market. Furthermore, a CSR-oriented firm can highlight and address the apprehensions and satisfy the demands the shareholders. Corporate social responsibility activities play a huge role in consumer's positive behaviour and higher rate of customers worldwide. On the contrary, it is observed that the society reacts more positively towards the companies that are CSR-oriented. In addition, the researches proposed that the customers have countless prospects particularly concerning the moral and humanitarian magnitudes of corporate social responsibilities (Hwang, Kim, and Lee, 2020). It is also about using invention to find imaginative and value-added solutions to social and ecological experiments. Also, it is about engaging stakeholders and other shareholders and cooperating with them to more efficiently accomplish possible dangers and construct trustworthiness and faith in humanity.

2.5.8 Employee empowerment and expansion

In continuance, CSR-oriented companies help to maintain the employee expansion and empowerment. CSR is an administration's attitude that precedes into concern an incorporated set of pointers that draw the company's influence and shared effects within the territory of its financial, social and environmental presence. CSR is crucial for long-term stability of the firm as it helps in well-being of firm's employees and consumers. As per the studies of Marsat, and Williams (2011) CSR activities widely contribute in the monetary profits of the company and also increase the status of the firm in the growing business market. The corporate social responsibilities contribute in the higher moral and motivation of the employees within the firm.

Furthermore, it is a moral structure that proposes an entity, be it an association or individual, has a responsibility to entertain for the advantage of people at large.

2.5.9 Employee's wellness

Corporate social responsibility is the administrative responsibility to take actions that defend and advance both the well-being of people as a whole and the benefits of the firms. CSR activities also protect the firms from being bankrupt and insolvent. Employees are the firm's largest possessions. CSR provides the environment to the workers that they want to adopt it ensures the more productivity and expansion of the business. The more CSR activities contributes in the greater number of production and employee's well-being (Asemah, Okpanachi, and Edegoh 2013). Moreover, CSR is the ongoing obligation by organisations to act morally and donate to financial growth while refining the superiority of life of the employees and their families as well as of the local public and humanity at large. This aspect of firm can highly contribute in the success and achievement of the firm's aims and objectives effortlessly and smoothly.

2.6 Threats of bankruptcy

In accordance to the study that has been conducted by Beranova. M (2014), business failure is one of the main component of all economies. It has an effect on both a company and its environment. Therefore, forecasting the risk factors of business failure is essential. Risk is the illustration of the degree of uncertainty. The greater the risk, the more the actual outcome can differ in both favourable and adverse directions from the anticipated consequence (Beranova. M 2014). The risk can be articulated as a quantitative and qualitative threat, while it is defined by the likelihood of a risk scenario occurring that may culminate in a system crisis (M Juskova 2017)

Verwijmeren, and Derwall (2010), stated that insolvency or bankruptcy of an organisation can be risky for the employees as it increases the risk of loss. Horváthová, and

Mokrišová (2018), said that the organisation's bankruptcy plays a significant role in the failure and downfall of the company. Therefore, it is important for an organisation to maintain the risk factors to assess and analyse them accordingly. Bankruptcy or insolvency happens when liabilities of an organisation exceeds from the available assets of an organisation.

Companies use debt and equity to obtain an ideal structure of capital and fund their activities. Those organisations who finance themselves with debt are considered more valuable as they can use interest to lower their tax liabilities. But relying on too much debt can boost shareholder risk levels as well as the threat of bankruptcy. The bankruptcy cost, including legal charges, may erode the general capital structure of a company.

As the firm adds more debt to its capital structure, the WACC of the business rises beyond the optimum stage, increasing further the cost of bankruptcy. To prevent financial destruction, businesses should consider bankruptcy costs when determining how much debt they should take even if they should add to their debt concentrations at all. Bankruptcy costs can be calculated by multiplying the likelihood of bankruptcy by its general anticipated price.

Threat of bankruptcy occurs during all phases of the company's life cycle. The threat of bankruptcy is higher if the person or company has little or no cash flow or if its assets are poorly managed. Banks evaluate the risk of bankruptcy when considering whether a loan should be made (Campbell 2012).

For corporate governance, prediction of bankruptcy risk is of growing significance. Many distinct models were used to forecast the bankruptcy of corporations. These techniques all have their own strengths and weaknesses and it is not simple to choose between them for empirical implementation (Prusak, B 2018)

2.6.1 Forecasting bankruptcy

Research conducted in past dedicated to forecast of bankruptcy were directed at applying financial ratios. There are substantial gaps between financially sound and distressed companies (Misankova and Bartosova 2016; Vakaskova 2017). Traditional analysis of the threats of bankruptcy by applying discriminating models focuses on anticipating a threat of bankruptcy. Models are often criticized for relying exclusively on the past performance of a company as post-measures. Furthermore, the models concentrate on recognizing variables (ratios) that enable for the detection of viruses but not the causes of the risk of bankruptcy (Kumar, 2016).

In addition to above-mentioned statements, Altman's Z score model is a useful model that used for predicting an organisation approaching insolvency or bankruptcy. It is also a main multidimensional degree of planned performance of an organisation. This score is usually used to determine the chances of bankruptcy in an organisation. Altman's Z-score model is a model that is used to calculate the monetary fitness of an organisation and to forecast the possibility that an organisation can be insolvent or bankrupt in coming years (Sulub, 2014).

Threat of bankruptcy includes getting a mortgage or loan is difficult. A bankruptcy filing can render it hard for many years to obtain another loan or mortgage. There are chances of denial of tax refunds due to bankruptcy. A bankruptcy record will appear six years after release on your credit report. The company will also lose all their credit cards. If a business is in charge of money or trust funds, declaring bankruptcy can have an impact on employment. Being a company manager will also be prohibited during bankruptcy (Wieczorek-Kosmala 2018).

2.7 Factors affecting CSR that helps in preventing Bankruptcy

According to Cavaco & Crifo (2014), CSR is a firm's commitment to function economically, socially and politically in a sustainable manner while recognising the behavior of the investors. CSR performance affects firms financing decision in the most impactful way.

Companies that are socially responsible have got more advantages because of a lower equity and lower information asymmetry. Since profitability is the main goal of any business, therefore, there are several methods that can be used to avoid financial distress. Although there are mixed findings related to the comparison of CSR and bankruptcy, many scholars find a negative impact on CSR and financing decisions of the firm. Following are the factors that affect CSR activities and helps preventing firms from going all bankrupt.

2.7.1 Ethical labour

CSR has several ways to provide companies with all kinds of environmental, philanthropy and labor practices benefits. Companies make sure that they create products which are environment friendly which leads to the betterment of the society. This way the sales increases and can help prevent bankruptcy. Also, if the firms are donating money to the charities and conducting local community programs, people would be willing to provide them fund and invest on company's better productivity. One of the main points is to treat employees fairly, by providing best labor laws; this way the employees will be satisfied and will help company to progress better. (Zhao, 2017)

2.7.2 Leadership

Poor leadership is the most important cause of financial distress in the firms. Every organisation faces business failures but at the end of the day what matters is how you manage things effectively. A leader's attitude often leads to poor strategic decisions which are the root cause of any business failure. The erosion of discipline, lack of entrepreneurial spirit and complex structure of businesses may lead a firm to go into a financial depression (Gilbert, 2010) If the leadership is strong and the leaders of the firm know how to lead by staying in the provided budget, the firm's productivity and profitability will reach its heights

2.7.3 Effective stakeholder engagement

According to Bal et al. (2013), the process in which firms engage different parties from external sources to make decisions that may affect company's policies and decisions is called stakeholder engagement. It could also benefit the company by doubling its profitability or a company facing financial crisis. The constant communication at the start till the building up of a project, stakeholder's engagement plays an integral part. It helps reducing the financial risk level in the organisation by improving corporate governance. (Kamsar, 2014)

2.7.4 Legal practice

According to Donnelly (2014), companies face major financial distress if they do not abide the rules and regulations. The policies through which decisions are made in the corporate world are in the control of government. From 2001-2002, several companies breached their laws and as a result they faced a huge financial crisis in the world's economy.

2.7.5. Political stability

The weak governance structure increases the audit fees and risks. If the government is not stable, the firms will not be steady and thus there will be higher chances for those companies to go bankrupt.

2.7.6 Investment in environmental cause

If the manufacturing sector invest on building an economic friendly environment and taking a green initiative then it is eventually supporting for the betterment of the people living in the society. When the consumers see this, the profitability of a firm increases rapidly (Roeck, 2012)

2.7.7 Community participation

The involvement of people in activities for society programs is called community participation. They are not forced to participate in every project but given the opportunity which affects their lives.

2.7.8 Transparency

One of the major problems while conducting CSR activities are the issues faced in terms of transparency. If the corruption is prevented within the company and the finances are planned according to the strategies implemented while starting up with the plan there will hardly be a chance for the company to go bankrupt because the things would be according to the plan.

2.8 Moderating Role of Corporate Governance

The essential aspect for corporate governance is to ensure that all stakeholders are on the same page and they are satisfied and well informed with company policy. Sound corporate governance bring imperious growth in financial market as it gives a rise to shareholders confidence. While Parkhurst (2017) also hinted that good governance have greater payout ratio and that is better for protection of rights of shareholders. It’s not helpful for business only but also grateful for economic development with firm establishing a new concept of Corporate Social Responsibility (CSR) which has proven relationship with Corporate Governance. According to Sharif and Rasheed (2014) CSR has both positive and negative relationship with Corporate Governance element.

2.8.1 Corporate Governance & Financial Performance

According to Shahwan (2015) board is the key element of corporate governance and thus can influence management planning. Board size affects firm’s performance in a positive manner and have association with debt ratios positively. If the firm’s capital structure and board size is appropriate then that can lead to better financial decision. To make a decision about what capital structure a firm should use is tough. Financial Manager face many complications in choosing the optimal capital structure to minimize the cost and maximize organisational value and corporate governance overlooks the decision.

2.8.2 Corporate Governance & Ownership Structure

Investor look for a secure investment and they would only invest in a firm if they have trust that funds would be used competently and they will get adequate return. Their trust would be established through three key mechanism: by keeping high transparency and following proper principles, treatment of stakeholders in a proper manner, effective supervisory board. According to OECD, corporate governance help in directing and controlling the corporation. Its structure identifies the way in which right & responsibilities are distributed among various participants. It also give us the structure through which objective are established, and how can these objective be attained (Henry, 2010).

2.8.3 Types of Ownership Structure

Ownership structure is highly significant in corporate governance as it directly impacts the incentives of directors and efficiency of the enterprise. It is defined as allocation of equity on the basis of votes and capital and also by equity owner’s identity. Distinguishing of ownership structure can be done by either owner’s identity or level of concentration of ownership right. Ownership structure consist of both inside and outside owners. Mangers and employers are inside organisation while individuals, companies and state are organisation owners (Mang’Unyi, 2011). Structure of ownership can considerably impact the financial performance for example, on the decision making strategies, its incentive mechanism and performance monitoring system.

So, there are different types of ownership structure out of which Concentrated Ownership is one in which large investor have most of the ownership, disadvantage to this that they might expropriate small investors and stakeholders, secondly they have more rights to protect interest. They can prove to be effective in good monitoring of the management and contributing to firm’s performance in a positive manner but as they bear high risk and there is less opportunities for diversification so, they will lead to excessive monitoring which can hold managers to make investments that are better for firm and they would be inclined to make decision that would contribute to shareholders wealth (Aguilera & Crespi-Cladera, 2016).

Manager Ownership refers to equity ownership by the internals i.e Managers that contributes towards the benefit of both managers and owners and enhanced performance is achieved. But, on the other hand, it was argued that it may impact performance in a negative way as managers will make decision on their own because of large proportion of ownership and therefore interest of other shareholders would be compromised. It can also be costly to firm as they might be risk averse and tend to settle for lower risk therefore they won't take courageous decision (Li & Zhang, 2010).

Employee Ownership it indicates that employers are also made part of ownership so there are two viewpoints one indicates that giving them the ownership will stimulate them to work more efficiently as they would also be the beneficiary but from the other perspective it states that employee may get more power to influence their pay and they might extract short term gains from firm's activity but that may affect long term prospectus (Abdallah & Ismail, 2017).

Individual Ownership refers to granting ownership to individual that result in strong controlling and monitoring and is similar to concentrated ownership as their holding is also not diversified (Li & Zhang, 2010).

Organisation Ownership: It is hinted that organisation, firms and corporation enhances efficiency as they can better analyse decision and information, can recognize the need of technology and capital and create a more thoughtful governance system. But efficiency may be affected if organisation interest conflict with that of the firm they are investing in (Anum Mohd Ghazali, 2010).

State Ownership: Past studies have shown that state company's performance is below par and main reason that was identified is incentives to government employees that should have been given to employees as a result of reducing cost or bringing innovation but in most of the cases not given (Anum Mohd Ghazali, 2010).

Foreign & Domestic Ownership: It is usually seen that for domestic ownership, it is easy to protect their rights as they can access courts, investigation agencies and other shareholder but in the case of foreign investors, different tactics can be used to trick investor and they won't be able to do anything because it's difficult to access the resources until the market is highly and strictly regulated (Kang & Kim, 2010).

2.8.4 Corporate Governance & Board Structure

Although there is no specific formula for number of directors a company should keep but there are minimum and maximum numbers defined in company laws according to sector and structure of company. Tesco a well-known mighty supermarket has only 13 directors while Swire Pacific Limited, a Hong Kong multinational possess 18 directors. While smaller companies have been witnessed with fewer directors ranging from 6 to 8. The board usually comprises of Executive and Non-executive directors (Gillan, Hartzell & Starks, 2011)

Executive Directors are employees of the organisation and therefore have multiple set of duties. They are senior employees of the company and usually their function involves areas of strategic importance mostly from Finance, Marketing and IT. They are recruited by board of directors and their pay scale falls in highest earners of the company and remuneration package consist of fixed pay and other benefits. Chief Financial Officer and Chief Executive Officer also falls in the category of executive director (Uadiale, 2010).

Non-Executive Directors they are not employees and also not part of day to day activities of the company. They can be permanent employee to some other organisation or may be running their own business. They have a flat fee for service they provide and are under a contract for their service. Their role includes contribution to strategic plan, to review performance of executive directors, providing an outside perspective on risk management and deal with issues like conflict resolution and shaping future of board. Role of Non-executive directors is very important to the firm and therefore they should have high standards and should act ethically. They should also monitor behaviour of executive team and should possess the quality of solving problem in case of any conflict of interest between directors (Uadiale, 2010).

2.9 Effects of CSR on firm performance

In the words of Ahn and Park, (2018) Corporate Social Responsibility (CSR) has gained attention from business researchers over the past few years. However, the association between firm's performance and CSR has been a divisive matter among researchers as there has not been any consensus related to the impact that CSR would have on firm's performance.

According to the study conducted by Bai and Chang (2015), in the environment of competitive market, many organisations take Corporate Social Responsibility (CSR) as a strategic imperative. It was argued that the firm that acts sensibly in its social framework can obtain a competitive advantage and hence can enhance its financial performance. For instance, there exists an ideal level of CSR that managers can regulate, grounded on an economic assessment of benefits versus cost, and that CSR does not have a noteworthy level of effect on firm's financial performance. However, Andersen and Olsen (2011) made use of the operating income of a corporate and observed vigorous correlation between financial performance of a firm and its CSR level.

In the study conducted by Alshammari (2015), there has been observed a substantial and positive association between CSR and firm performance. Moreover, it is described that firm values and morals were found to be powerfully and positively correlated with book value of the firm, signifying that CSR activities could be strategically critical asset in improving the firm's value. It has also been argued that firms can attain a collective and robust participation of its workers, which in turn would enhance their obligation and efficiency and hence reflected positively on the performance of a firm.

In the research conducted by Bai and Chang (2015), the practices of business in economies of Western also demonstrates that firms can take advantage from CSR activities. For instance, Toyota, in reaction to concerns of public regarding to the auto productions, involved in CSR activities towards society and established the hybrid Prius, which expressively lessens toxins and also shields the natural environment and provides Toyota a leading status in hybrid technology.

In the words of Aksak, Ferguson, and Duman (2016) shareholders play critical role in the performance of a firm. It is essential for an integrative method through which our consideration of the impact of CSR on firm performance can be upgraded. Steadiness and social association are key factors for companies to take advantage from CSR activities. Also, when reputation of a firm is not at substantial level from the shareholders' insights, rating of CSR if high, would neither add a decent value, nor the contribution to the financial performance of the firm would be manifested. Though, if a company has already a robust and deep-rooted status, only then the firm can assume a tactically competitive advantage as it enhances its CSR activities and engagement.

According to Alshammari (2015), institutional bankers play an important part in reducing agency problems and thoroughly regulating behaviour of CEO. Also, the firms with advanced level of ownership by autonomous institutions show better monitoring role and lesser capital expenses that reflected on the firm performance. These institutions prioritise socially aligned organisations, and their verdicts after capitalizing whether to carry or trade their shares determined by some aspects, their consequences from interviewing numerous representatives of institutional financiers demonstrates that CSR is extremely well thought-out and is supposed as an instrument with the help of which risks are reduced through healthier associations with various shareholders, and increasing the corporate access to the capital and resources.

Bondy, Moon and Matten (2012) suggested that CSR focuses on maintaining growth, environmental defence and contribution to the whole society. CSR of a firm towards a society assists in shaping capability of a market, which results in enhancing business and in turn increasing performance of firm. The perspective of shareholders proposes that a firm would be better off when it knows its shareholders' demands, and attempt to meet them. Firms that gratify their shareholders are capable to produce tactically competitive advantage and the firms can profit from CSR improved status when they experience huge crisis or humiliations. It is suggested that protection part is the best attainable when CSR level is in height, and so, financial performance of the firm would not be intensely damaged. This suggestion can be prolonged to the time of crisis in the market, where shareholders will notice firms with better CSP less negatively.

In the study conducted by Alshammari (2015) the performance of CSR is greatly considered when institutions are evaluating their existing substitutes. For instance, it is suggested that institutional investors would prioritise firms having better ranking of CSR over those with lower rankings. The quantity of institutions holding shares of a corporate is greater only when the firm has healthier CSR performance indicators. The non-physical assets have been considered to be critical in producing and upholding a competitive advantage. The great significance for the loyalty and devotion of employees can be improved through active engagement of CSR. The ranking of CSR is taken into consideration in the relations of employees as a key indicator for CSR ranking of a firm. It is rational to assume that the firms with improved social performance would enjoy more cooperative work environment and employees' assurance which would results in enhancing firm's performance. CSR adds a strategic plus to the firm by appealing and retaining talented workers. Therefore, in highly competitive industry, staff's satisfaction is made mandatory which can be achieved by integrating their insights into the work, which in turn enhances their consistency and commitment to their firms that adds a value and sustains brilliant, hardworking, and talented employees. The performance of CSR has a robust effect on the financial performance of a firm at the time when the firm is at low level of differentiation and innovation. This method can also be used as a power in the long-term strategy of a firm to shape this benefit to progress its strategic area for the future prospects, such as taking further phases towards either geographical expansion or product line expansions until it has achieved an excellent stage of enjoying strategic advantages.

2.10 Empirical review of CSR and bankruptcy

The study conducted by Arora and Dharwadkar, (2011) subjected to the corporate governance and Corporate Social Responsibility (CSR) in which qualitative method has been used and the research question is about the association between corporate social responsibility (CSR) and corporate governance mechanisms subject to satisfaction with the performance of the company. The sample has drawn from KLD Domini 400 Universe and S&P 500 and the data fetched the final sample is about 1522 observations for 518 firms. The results proposed that although the corporate governance which works efficiently dejects both positive (positive shareholder relationship management) and negative (harm to principles and values) CSR, developed slack and positive accomplishment divergence results to higher positive and lower negative CSR, respectively.

More considerably, it is found that the relationship between both negative and positive CSR and effective corporate governance depends on approval with firm performance as shown by the slack levels and achievement of divergence. In simple words, the effect of corporate governance on positive CSR is more definite under negative attainment discrepancy circumstances/low slack, and that on negative CSR is more noticeable under positive attainment divergence circumstances/ high slack. It is revealed that the link between CSR and corporate governance dimensions subject to variances in decision-making latitude initiating from relative performance of a firm related to those of the peer firms. Future studies recommend that it isn't adequate to depend on the limit of the state to direct firm conduct in light of a legitimate concern for society, for example, averting ecological contamination or other morally flawed exercises not secured or upheld by neighbourhood laws, nor can firms be trusted to carry on totally morally all alone, in light of the fact that their financial reason (or focused weights) makes them concerned essentially with limiting expenses (or boosting benefits). Still the study contributes to an enhanced understanding of the key factors that can be used in promoting CSR.

The research conducted by Ahn and Park, (2018) subjected to Corporate Social Responsibility (CSR) and corporate longevity with primary research question of how firms survive long term. Why some companies survive in the industry and some liquidate due to bankruptcy. Qualitative method has been used for data collection. The study deeply argues that the survival of a company is not just determined by the economic aspects but also by the social aspects. It elucidates that viable corporate social responsibility (CSR) practices assist in long-term survival of the company. Therefore, the research analysed eight long-term firms in Korea and how the several CSR activities assisted these firms beat crises and exist long term.

The common actions of CSR experienced by all long-term corporations had a positive impact on establishing social capital with primary shareholders and acquiring legitimacy from secondary shareholders, which in turn had an important effect on upholding survival. This research offers noteworthy consequences for the significance of practices of CSR that have been divisive, by representing a prototype of how CSR actions assist corporate longevity. Future investigations proposed that, regardless of these impediments, history books are as yet the most valuable research material in exploring many long periods of CSR exercises and have been utilized as the fundamental origin of information in the past investigations about seemingly perpetual organisations. Gathering information that could measure the CSR standards determined in this examination will be a significant assignment, from now on, to test the recommendations in this paper. Next, as this investigation included just Korean organisations in the example, the outcomes may emphatically mirror the qualities of Korea's business condition.

Quantitative method is used to gather the data in the study conducted by Sun and Cui, (2014) to show the link of Corporate Social Responsibility (CSR) to default risk of firm. Corporate social responsibility (CSR) is getting higher responsiveness from both academic scholars and business administrators. Earlier researches propose that CSR, by its capability of structuring robust corporate status and reputation, efficiently enhances firms' performance. On the other hand, few studies have successfully discovered the association between risk factors of firms and CSR. Although the current financial crisis stimulates researchers to pursue innovative drivers that aid a firm in recovering its good fortune, an essential financial indicator of a company, default risk, has been ignored largely.

This study works to bridge this gap and empirically observes the association through which CSR aids firms in reducing the threats of dropping into default risk. Additionally, the paper frames the controlling effects between firm capability and CSR, environmental vitality/complication, and pronounces a more comprehensive pattern of CSR functions under diverse interior and exterior circumstances. The outcomes show that CSR has a strong impact in decrement of default risk, and this association is resilient on firms in high vigorous environments than in low vigorous environments. Future research may check the interaction of the specific abilities i.e., operation, marketing and R&D competencies with CSR because it will clarify of about how CSR can be substitute factor to these competencies. CSR communications with other firm assets or methodologies may likewise merit examining. The viability of CSR scattering might be subject to how well and how seriously a firm sends its promoting consumption. In future research, publicizing can be consolidated into the model.

The research paper written by Malik (2015) with quantitative method, to focus on the values that enhance the capabilities of CSR. The main objective of this research is to offer a detailed understanding of what has previously been examined and the results of those research about the value-enhancing abilities of CSR for public companies. The shove of the literatures in CSR admits the value-enhancing abilities of firms' environmental and social activities. On the other hand, the power of unpredictable theoretical grounds CSR-advantages related areas proposes that there is a sufficient area for research in future to underwrite to the existent literature.

Subjective evidence, the occurrence of academic arguments, and the accessibility of huge cross-sectional firm-level data propose that future exploration will enhance the literature by inspecting the real visions behind unreciprocated questions, by forming implied understandings related to the familiar outcomes and by emerging new concepts in this evolving field. Future studies can recognise significant and new concerns in these fields and may offer new practical and theoretical perceptions very well. Scholars can also examine whether specific criterion of a firm effects the value-enhancing abilities of CSR. Comparative industries analyses can be conducted to assist in determining whether CSR enhances value to the industries. The prospects of future research propose sufficient chances to enhance our knowledge of myriad CSR activities and their impacts on the value of firm.

The study on Stakeholder expectation of Corporate Social Responsibility (CSR) practices was conducted by Mahmood and Humphrey, (2013). Quantitative method has been used to examine the perceptions of shareholders regarding CSR activities. The research examined shareholders' prospects of different characteristics of corporate social responsibility (CSR) practices in Kazakhstan. Government and internal shareholders prefer more on economic and legal duties for consistency of a business. However, members of civil society and NGOs claim that a business need to emphasis more on moral values and ethical duties in Kazakhstan. The outcomes of the research assisted local business administrations and also multinational corporations (MNCs) to comprehend shareholders' prospects and to adapt CSR activities in the right course in the framework of developing economies. The policy inferences of the research have also been discussed in this paper. The findings would help in the foundation of research in future on CSR activities in Kazakhstan. The proposed policy procedures could aid the nation to head towards maintainable economic growth. Future research could examine the powers that outline CSR activities and the causes for variances in shareholders' opinion in Kazakhstan.

The impact of corporate social responsibility (CSR) on performance of a firm in established economies has broadly studied by Bai and Chang, (2015). Qualitative analysis has been used and the data was randomly selected by 800 firms based on qualitative research as the firms were interviewed via telephone. However, existing research offer mixed verdicts on the relationship between firm performance and CSR in emerging economies. Illustration on institutional theory and stakeholder theory, CSR activities in Australia are examined, considered a multi-dimensional opinion of CSR and presented marketing capability as an imperative midway between CSR and firm's performance. Contingent outlook has also been used to observe market environments role in controlling the influence of CSR on marketing skills. The results of the research conducted in Australia showed that marketing capability fully facilitates the impacts of the CSR activities on the performance of firm. Competitive strength declines the positive effect of CSR towards the personnel on marketing capability and it also reinforces the positive impacts of CSR towards society on marketing capability. The increasing relation between CSR towards capability of the market and customers is improved by market turbulence. The consequences of this research highlight the rank of CSR to marketing capability and performance of firms in Australia. The future studies are encouraged to examine the variances of the impacts of the three mentioned parameters of CSR in developing economies and already established economies. It is also recommended to study that how CSR towards other shareholder groups impacts firm's performance and discover the edge circumstances of other CSR parameters. Additionally, the multi-dimensional CSR context can be usefully applied to other situations. The performance measurement and CSR activities in our study is highly associated with objective performance so it is recommended to use both objective and perceptual to authorise the results.

The study "Corporate Social Responsibility (CSR) and firm performance" was conducted by Alshammari, (2015). Qualitative method has been used to shed the light on the connection between the social performance of a firm and the firm's financial performance. Research has also examined a controlling impact of both the institutional investors of the company and firm's status as a delegation for corporate social activities' advertising. The paper suggested that if there are positive effects of both status and institutional financiers on the association between CSR and performance of a firm then the firm can best take advantage from CSR activities when it has an excellent status among major shareholders.

The company ownership framework, as well as company steady status will have effects on the level to which a corporate may advantage from its activities of CSR which would open a new path for study on governance structure with respect to CSR and performance of firm. The research may act as a key factor for further exploring the association between structures of ownership, corporate governance, along with the practices of corporate social responsibility. The future research may intricate more in producing dynamic measure of the firm's social activities that would consider responses of actual shareholders, competitors and also other shareholders such as suppliers, consumers, government, and non-governmental organisations.

The demands of society for separate and corporate social responsibility as substitute responses to marketplace and distributive failures are gradually becoming more well-known nowadays. The study of Benabou and Tirole, (2010) subjected to “Individual and Corporate Social Responsibility (CSR)” focus on growths in the economics and the psychology of altruistic behaviour.

Qualitative method has been used to analyse the given approach, then individual concerns are linked to corporate social responsibility (CSR), opposing three possible identifications of the terms: firms’ acceptance of long-term perception, the vicarious exercise of prosocial performance on behalf of shareholders, and insider-initiated corporate compassion. The advantages, costs and restrictions of socially answerable can work as a means to further goals of society. Future investigations will be a correlation between different decisions, for example, retirement reserve funds, default choices (for example picking in or out) will be important, if simply because they pass on data with respect to what is normal by society. Another fascinating inquiry is whether prosocial conduct is, similar to exercise and great cleanliness, propensity framing. Apparently, a confidence in such upright propensity arrangement underlies 'obligatory volunteering' as an essential for most school affirmations in the USA. Research ought to clearly handle another crucial inquiry: who, among the state, partners and firms, is best put to address showcase disappointments and imbalance?

The research on maximizing business returns to Corporate Social Responsibility (CSR) was conducted by Bhattacharya and Sen, (2010). Qualitative method has been used for data collection. With the help of the activities of corporate social responsibility (CSR), firm cannot only produce favourable attitude of shareholders but also better support behaviours i.e., buying, looking for employment, capitalising in the firm, and for the long term, shape corporate reputation, reinforce firm and corporate relations, and improve advocacy of shareholders’ behaviours. However, less awareness of shareholders and unfavourable conducts towards CSR activities of the companies remain critical obstacles in the attempts of the firm to maximize benefits in business from their CSR activities, prominence of a need for corporations to interconnect CSR more efficiently to shareholders. In the research, a conceptual framework of CSR statement is presented and its various aspects have examined, from message and communication networks to a firm's and shareholders' specific features that impacts communication of CSR. The main factor for future research is to examine the arbitrating mechanisms that justifies for the efficiency (or inefficiency) of CSR communication and to examine different aspects for a company to best communicate its initiatives of CSR to corresponding target market.

The study on "How does corporate social responsibility benefit firms" was conducted by Galbreath, (2010). The research is quantitative since the data is collected through the survey of Chief Executive Officers (CEOs) of the companies of Australia. To outspread the growing body of the research and to go beyond the existing research in frameworks external of the USA and Europe, three potential advantages of indicating CSR have been examined i.e., less turnover of employees; increment of customer satisfaction; and improved status of the firm. The study identifies that the firms that are engaged in CSR can advantage in ways beyond the profits in the business. Primarily, because of revealed equality, socially receptive activities seem to be a method to decrease turnover of employees. Secondly, by meeting customers' needs impartiality, CSR is probable to enhance satisfaction of customers. Thirdly, CSR activities offer visible indications from which shareholders gather several positive features of firms hence, producing a path to raise overall firm's well-being and status. Future examinations demonstrate that the exploration did not evaluate how much representative turnover, consumer loyalty, or notoriety changed after some time; nor did it measure the degree to which variations in CSR influence these factors over the long run. Plainly, longitudinal research is expected to create more extravagant knowledge. Second, the majority of the information were self-detailed by taking an interest in firms. While CEOs were relied upon to be in a decent position to survey the factors utilized in this investigation, normal strategy predisposition is a worry. Nonetheless, Harman's ex post-one-factor test uncovered that a solitary factor arrangement did not rise, nor did any factor represent a lion's share of the difference.

2.11 Impact of CSR on preventing bankruptcy

Institutional investors have continuously focused on adopting social and environmental practice that are combined referred as CSR. Engagement of CSR have been examined from different perspective. One perspective proposes that moral practices of corporate are their duties and obligation that are based on right and justice and there is utilitarian concept while second perspective is based on utilitarian idea that CSR is implemented as it helps in achieving performance objective and impact directly on profitability, sales and investment. Finally one viewpoint is that companies adapt CSR practices due to pressurizing of stakeholders. Attig et al. (2013) proposes that CSR activities also help companies in mitigating risk and define three linkages between risk and CSR, first is as CSR is one of the requirement of stakeholders so it improves relationship with stakeholders and in turn long term sustainability, secondly CSR activities indicate that firm is using its resources in an efficient manner and lastly there is a less chance to incur cost linked with socially irresponsible behaviour (Mio & Fasan, 2012).

Kim et al. (2014) states that CSR reduces risk of stock price crash as there is high amount of transparency and investor trust the company because of its ethical behaviour. Researcher have identified that by engaging in CSR activities help company establish positive relationship with government and other non-governmental organisation that result in favourable outcomes when required. While Goss & Roberts (2011) found firms with low CSR activities has to pay around 8 – 17 basis points more when require bank loans. CSR shows to other organisations that particular firm is responsible and care about stakeholder involved with the firm (Shahab, Ntim, & Ullah, 2019).

CSR engagement is segmented into two constituents: exchange capital and moral capital. Activities that are targeting primary stakeholder (people directly involved with firm) are termed as exchange capital while moral capital refer to activities that benefit secondary stakeholders (communities, government, people etc) and past studies indicate that they both have contributed towards digging a firm out from bankruptcy (Lin and Dong, 2018). Further examination have stated that moral capital component has influenced or helped more in distressing firm from bankruptcy. CSR helps firm in pre-negotiating settlement with the lenders in case of liquidity crunch but more important it help firm in obtaining DIP financing. DIP is more related to exchange capital part of CSR as financier are usually who has direct relationship with firm (Chan, Chou, & Lo, 2017).

Firm's CSR engagement act like a shield or insurance policy so in adverse condition like bankruptcy it help companies to emerge successfully from it. Lin and Dong (2018) argues that CSR activities especially directed towards moral capital acts as shield protecting firm's relational wealth when firms have to face adverse consequences of bad actions. Corporate bankruptcy often indicates that during this time stakeholders of firm care about their personal interest and relational based asset of firm are affected but Godfrey explains that secondary stakeholders may help in reducing those stakeholder actions, it elaborate on the concept of bad mind of criminal law to explain the scenario. Under this law, for an offence to occur present of bad mind and bad act both are mandatory but with CSR activities it indicates the absence of bad mind. Building on the Godfrey framework, it shows that moral capital gives an indication of absence of bad mind and therefore positive moral capital help firm in protecting its relational wealth and sustaining stakeholder engagement enabling to get rid of bankruptcy in short time frame, continuous engagement increase the likelihood of survival (Lin & Dong, 2018).

2.11.1 Relationship between Moral Capital & Bankruptcy

Bankruptcy cost can be divided into two portions: direct cost that comprises of legal fees, filing and other professional charges and studies have indicated that it is usually 3% of market value of assets. While indirect cost reflects the loss of potential sales, cost of asset fire sales, and distortion cost to firm's financing and investment policy. Researcher suggest that indirect bankruptcy cost are extensive while direct cost are relatively small. CSR engagement has proved to be having inverse relationship with bankruptcy with high CSR resulting in low cost of bankruptcy. Time is also directly linked with the cost of Bankruptcy with as researchers found that each additional year, cost firm 2.2% of entire distribution and indirect cost will keep increasing with time (Altman & Hotchkiss, 2010). Singhal & Zhu (2013) states that negative effect on firm will keep on increasing in capital and product market with each year passing and he may lose value as company will face difficulty in raising capital, investing in new prospects and retention of customers.

2.11.2 Shorter Time Frame in Bankruptcy due to CSR Activities

According to Chapter 11, in case of worse situation for firm it files bankruptcy first and then form a reorganisation plan which is negotiated with stakeholders while pre-packaged bankruptcy concept, firm files both bankruptcy and reorganisation plan simultaneously, in this firm have already negotiated with lenders and now they are filing both together. This allow firm to get distressed from bankruptcy in shorter time frame and that's why this concept has emerged as a popular mean of restructuring in scenario of bankruptcy (Jory & Madura 2010). Pre-packaged bankruptcy allow company to gain trust of stakeholder as they are transparent with their stakeholders and negotiating prior to filing bankruptcy and this plan allow to reduce direct cost and indirect cost in form of reducing time that would help in losing less customers, suppliers and employers. Firm may face holdout problem in this whole scenario that means problem can occur if all the creditors are not on the same page and not satisfied with the deal propose so here impact of moral capital would be realized, company with good CSR practices would be having good reputation and thus stakeholders would trust that firm mangers were not having any bad intent and bankruptcy is not their fault and they would settle for something less than what they expected (Evans et al. 2014).

2.11.3 Linkage between Moral Capital and Pre-Packaged Plan

A critical element for a firm has been the ability to attain additional financing in the case of bankruptcy. In US financing is term as DIP financing but the condition is it should be approved from court. The prime objective of Debtor in possession financing is to provide facilitation to financially distressed companies helping them in overcoming bankruptcy. Although creditors are providing special security in these circumstances, they are able to overlook firm activities and monitor them from time to time. Affirmative agreement have certain condition that company must comply with and include in their financial reporting while negative agreements would even restrict some operating activities and can include investment in long term prospects. Initially it was stated that exchange capital helps in getting DIP financing as it comprises of primary stakeholders and their activities include governance, product relations and employee engagement and they have more power. So CSR activities like good corporate governance, healthy relationship with customers and successful employee engagement are vital for organisation and when activities like these possess in any company then it gets easier to obtain DIP financing (Li & Wang, 2016).

There has been argument on whether firm should invest more in exchange capital or moral capital with one side stating that distress firm should not spend on community and charity activities and they should rather invest in rewarding its primary stakeholder as they would help you in DIP financing as they see direct benefit while other argues that in order to firm to survive this period of distress it should have wide range of stakeholders and that social activities like promoting diversity, carrying out a proper CSR campaigns would help company build its reputation and thus it would assist company in financing through pre-package that is having a pre negotiation settlement with the creditors prior to the bankruptcy filing and reducing time of being bankrupt. Hence both have their own significance with one helping in DIP financing while other help in prepack, time reduction and increasing overall probability of surviving bankruptcy (Phelan, 2011).

2.11.4 CSR, Capital Structure & Bankruptcy

Pijourlet (2013) have termed CSR as socially responsible firms and have found that these firms prefer less leverage and consider equity financing rather than debt financing when attracting new stakeholders. One of the reason that higher employee well-being can result in lower cost required for equity financing and that indicates company is less likely to be getting bankrupt because company which are not highly leverage have sufficient capital to survive in rough times. However, it was noted to second argument is highly leveraged companies may have contract that avoids them to invest adequately in CSR activities as they don't bore any sort of financial gains and rather invest in project which have positive net present value (Verwijmeren & Derwall, 2010).

2.12 Theoretical framework

2.12.1 Stakeholder theory

According to Aksak, Ferguson, and Duman (2016), consumers decide to purchase products mbased on both social and economic reasons that is how the CSR efforts of a firm effects consumers as associates of a community. Therefore, many firms keep themselves busy in the efforts of the CSR as chunk of their strategy in public relations because several shareholders pressurise firms to be socially responsible; Customers are not only sensitive to the product's price but they also have environmental and social concerns that greatly impact their purchasing decisions.

2.12.2 Attribution theory

Another theory used to discuss CSR by Aksak, Ferguson, and Duman (2016) is attribution theory which states that attribution marks from a cognitive procedure that becomes a reason to allocate a description to observed events or to allot an underlying reason. The theory clarifies that why a consumer is doubtful about the firm's behaviour thought to be using activities of CSR for financial advantages however, other shareholders would view those activities as being in the best interest of the company and its stakeholders.

2.12.3 Legitimacy theory

According to the study conducted by Fernando and Lawrence (2014) legitimacy theory highlights that organisations relentlessly effort to make sure that they are supposed to be as working within the pledge and standards of the society in which they are working. The theory suggests that a "social contract" occurs between a corporate organisation and its corresponding. The social contract concerns with whether an organisation works within the overhead bounds and norms of the society or simply, the society's expectations. The terms of this contract might be partially obvious and partly understood. Explicit terms comprise of legal requirements while the expectations of the community establish implicit terms. An organisation must make sure that the terms are not neglected to uphold a decent state of legitimacy for the organisation through which the society permits the organisation to continue its existence.

2.12.4 Institutional theory

In the words of Fernando and Lawrence (2014), institutional theory inspects forms of an organisation and elucidates the causes for having similar features or systems in the organisations that are within the same "organisational field". An organisational field are the organisations that collectively, create a familiar zone of institutional life: resource, key suppliers, regulatory agencies and product consumers, and other organisations that produce alike products or services. The theory sights organisations as a functioning within a social context of values, norms ungrateful assumptions about what creates suitable or satisfactory economic behaviour. Organisations adapt within an organisational field, possibly, because of institutional burden for alteration, because they are pleased for performing so through improved legitimacy, capitals, and survival competences. When an organisational field is planned, several powerful services develop within society, which become reasons for organisations within the ground to become more parallel to one another.

2.12.5 Liquidity, Profitability and Wealth

This is the most famous theory in bankruptcy context that is mentioned in the study conducted by Lim et al., (2012). The theory is elucidated subtly from financial events in contrast to an economic perception being interpreted into a measure. This theory originates from the opinion of financial ratios as pointers of health of a firm. If the indicators of a firm are good it is supposed that the firm is healthy, but the firm is supposed as unhealthy and at bankruptcy risk if the firm has poor indicators. Three main classes of these indicators are liquidity, profitability and wealth. A high and positive value of these three factors indicate a low bankruptcy risk. The apparent flaw of this theory is generalization. On the other side, though, this weakness makes sure that the theory does not clash with, and is comprehensive of other theories. Though, entry or leaving of a company does not always refer to the physical entry or exit from the industry. Inclusion or exclusion can be perceived as increment or decrement in operations, capital elevation or scarcity, or variation in field of activity. In this situation, procedure of competition could be supposed to be the residual or entry of effective resources in the industry and exit of incompetent ones from the industry. For instance, reduction in demand of the various products can be the reason of reserved production resources switch into other production procedures or shutdown of a manufacturing facility. For firms operating on a large scale, exit procedure could be defined as reorganisation of provisions of production resources. In this situation, economies of the market and competition can be defined as a movement or flow from inefficient courses to efficient courses. Ideally, in highly competitive markets; bankruptcy, evasion, insolvency, mill shutdown so-called financial distress is hardly noticeable.

2.12.6 Cash flow theory

This theory is used in the study conducted by Lim et al., (2012). A firm is considered as a pool of liquid assets, which is being filled by inflows and emptied by outflows. The pool functions as a buffer against discrepancies in the flows. The bankruptcy of a firm can be well-defined in context of the possibility that the pool will be emptied at which point the firm will not be able to pay its debts as they get matured. It was stated that the firms having a positive cash flow are capable to borrow from the capital market and raise their capital, while firms with a negative cash inflow are not able to borrow and hence having risks of default. As per this argument, a firm is supposed to be bankrupt whenever the present year profit or less than the debt obligations or negative cash flow or whenever the summation of its existing year profit and the predictable equity value is negative.

2.12.7 Merton theory model

The Merton theory models the capital as a call option on the resources where the strike price is liabilities' values. In original formulation of Merton's, liability has a clear maturity and the selection value is calculated with this particular date. When the market value of resources decreases below a definite level, the firm will be considered as default. Also, the owners of equity retain the remaining value, just like an equity option. As per this model, the future asset value of the firm has a likelihood distribution characterized by its predictable value and standard deviation (SD). The numeral of standard deviations the future assets value is away from the default point is said to be the 'distance to default' and the more the value of the firm and the lesser its instability, the lower the possibility of default.

2.12.8 Theory of reasoned action

In according to the study of Mi et al. (2018), the theory of reason action (TRA) was initially proposed by the Fishbein and Azjen in 1975 where it emphasizes on two groups of variables. The first group is reflected to the attitudes of the individuals where it can have positive or negative feeling in respect to the achievement of the objective. The second group of variable is referred to the subjective norms of the individual’s perception in reaching to the goals. The TRA is applied in the field of social behaviour where it has been extensively utilized for evaluating the ethical behaviour. In this context, TRA is also often used for discussing the behavioural model for the CSR practices. Therefore, this theory mainly reflects to the moderating role of corporate government in respect to CSR and bankruptcy.

2.12.9 Theory of planned behaviour

The theory of planned behaviour is similar to the theory of reasoned actions; however, the only difference is that the theory of planned behaviour includes the behaviour as a control as additional determinant of intention. Ham et al. (2018) has conducted the study towards evaluating the applicability of the theory of planned behaviour on the CSR. The study has indicated that the theory of planned behaviour examines the strength and direction of the influence of attitudes, subjective norms, perceived behavioural control and representation on the CSR. Moreover, the theory is proven to be a good predictor towards evaluating the intention in the protection of the environment. Based on this, the theory applicability can be reflected to the corporate governance in respect to its role on CSR and bankruptcy.

2.13 Conceptual framework

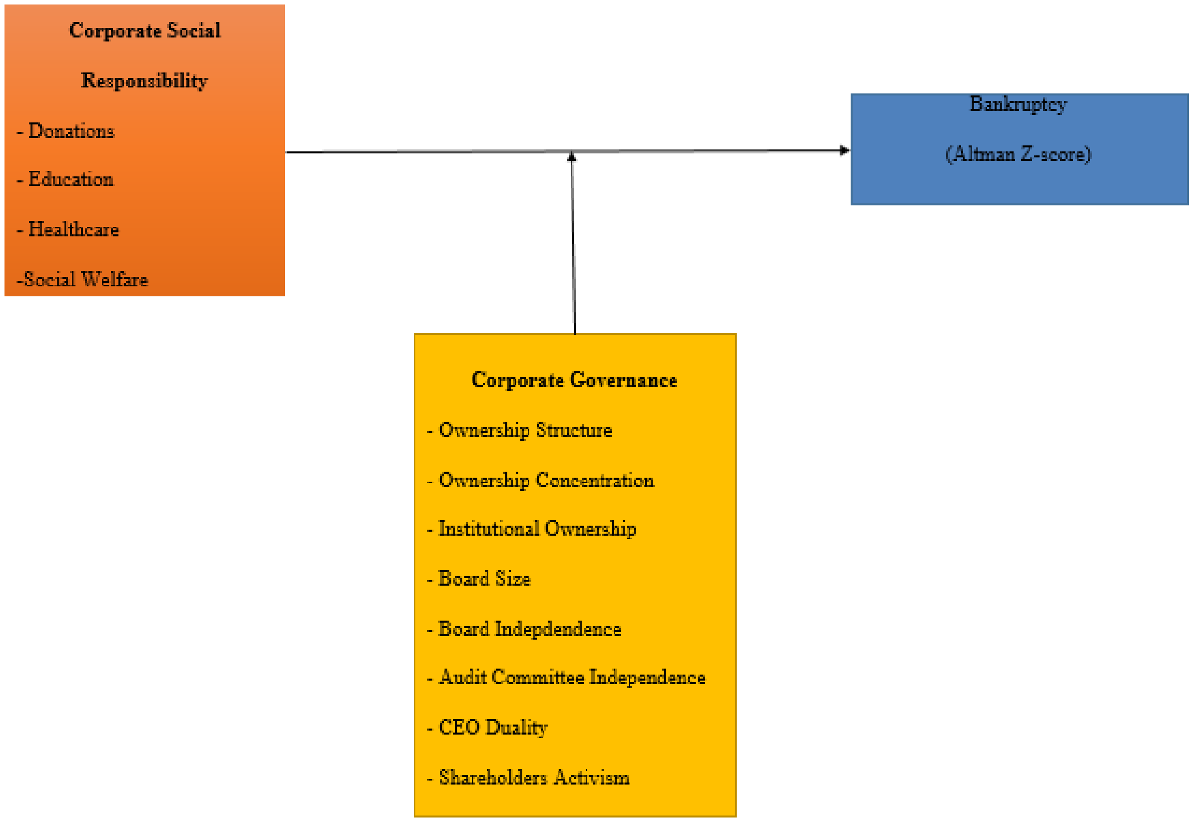

Figure 2: Conceptual Framework

In the conceptual framework, factors of the study have been identified that are posing impact on bankruptcy and among them the first factor is CSR that is corporate social responsibility and from the study, it has been concluded that corporate social responsibility is impacting the financial performances of the company in a way that practices of sustainability are the main sources for the survival of the company and if the company possess in their strategy the suitable actions then it would provide them the chance of gaining a competitive edge and prevent themselves from getting bankrupt. The connection between CSR and competitive advantage of companies is promising if the suitable actions, environmental limits and social needs are embedded in it and it is the right thing to do for the companies.

Moreover, companies can benefit from the implementing CSR activities in their business model so, that they can benefit themselves from the enhanced CSR reputation thus helping them to remain protected from acing crisis and scandals and if the CSR is high then the financial performance of the company will not be affected. It has also been viewed that consistent performance of the companies that are society friendly would help the companies realize synergies and better their financial performance hence companies are required to pay more attention to the CSR activities which is a good source of impacting their businesses positively along with improving their financial condition.

The second factor that is impacting the financial position of the firm or preventing it from getting bankrupt is the corporate governance which is defined as the concept of leading and regulation of the corporate conduct of the business along with balancing the interests of all the stakeholders of the business such as the government, local communities and other parties and these stakeholders can be impacted by the performance of the firm such that the main aim of the company is to carry out those practices that are in line with the interest of the public and the environment and are not posing threats to consumers and social environment with their production, manufacturing and other related business processes and if the company is not conducting practices that are environment friendly and are not keeping in consideration the CSR aspect would definitely impact the financial performance of the company thus reducing their profit margins and limiting the chances of gaining a competitive edge.

2.14 Theoretical Model

In respect to the conceptual framework, there are several theories that are supporting the conceptual framework of the study. The stakeholder theory as stated by Aksak, Ferguson, and Duman (2016) has depicted that the decision of consumers in purchasing the goods and services are associated with the social and economic reasons. Customers are not only concerned with the product quality but the environmental and social concerns. Hence, in this perspective, it can be indicated that the support of customers towards the companies that are engaged with CSR can support in the reduction of Bankruptcy. Therefore, the theory supports with the conceptual framework where CSR can have significant influence on reducing the financial stress of the firm. Another theory that is based on CSR and bankruptcy is the attribution theory where the theory explains that the customer is less doubtful among the behaviour of the organization that are engaged in the CSR (Aksak, Ferguson, and Duman, 2016). Therefore, the attribution theory also contributes towards the development of conceptual framework where the effects of CSR can reduce the influence of financial distress.

Furthermore, the legitimacy theory also reflects to the association of CSR and bankruptcy as according to Fernando and Lawrence (2014), the theory mainly depicts that the organizations are relentlessly are making efforts towards the improvement of society by following the contracts and legal requirements that permits the organization to contribute towards the society. Another theory that is concerned with the CSR and corporate governance on bankruptcy is the stewardship theory. The stewardship theory is concerned with the behavior of the managers where their good behavior can contribute towards the success of the organization. Hence, it can support the conceptual framework in which the corporate governance has significant and negative influence on bankruptcy. Therefore, this can be proven that there are several theories that are promoting corporate governance and CSR on bankruptcy such as stakeholder theory, stewardship theory, legitimacy theory and others.

2.14 Hypothesis

According to Pricope (2016), Pakistan is a developing country which lacks some essential resources to sustain in the world's economy but it has strived its way toward development ever since although slow many reforms and developments have marked the era with progress. One of the main points in the list is about its development is formulation of company ordinance act 1984. It provides clear cut guide lines over corporate governance laws of a state and a country.

Relationship between CSR and bankruptcy is a critical link that can be detailed for practical concerns of a corporation. Literature has talked about CSR and firm performance but rarely does anyone take the matter from this dimension. Study has taken the view that if companies exercise CSR than investor gets the notion that corporate ownership is more concerned for public good for image building purpose than making more money for investor wealth maximization purpose. Hence, losing fat investors making company share prices go low due to reduced demand of shares of company increasing a chance of getting bankrupt.

Hypothesis 2a (H 1)

There is a positive relationship between CSR and Bankruptcy of a firm in manufacturing industry of Pakistan. Although Australia is one of the big and developed economies still investor has same psychology when it comes to analysis of agency theory and investment. Investment on CSR might get investor get away with the idea of lack of interest of corporate leadership in shareholder wealth maximization.

Hypothesis 2b (H1)

There is a positive relationship between CSR and bankruptcy of a firm in manufacturing industry of Australia. Pivotal role in relationship between CSR and bankruptcy is assumed to be played by corporate governance practices of the country. As the approach taken by the study CSR is a controlled function of corporate governance practices of a corporation. Although not clear on few lines company ordinance act of Pakistan has clear implications over CSR

Hypothesis 3a (H2)

CG plays a moderating role between CSR and Bankruptcy of a firm in manufacturing industry of Pakistan. SEC of Australia regularly engages with stakeholders on corporate governance issues through articles in journals and books, speeches at events and the publications of reports, regulatory guides and information sheets. Hence, to make stakeholder happy creating CSR function is one practice of Australian corporations so on discretion of those part of governance of a company effect the relationship between CSR and bankruptcy providing room for CG to moderate relationship between CSR and bankruptcy of Australia.

Hypothesis 3b (H 2)

Corporate governance plays a significant moderating role between the corporate social responsibility and bankruptcy.

2.15 Chapter Summary

In this specific chapter researcher has focuses on the corporate social responsibilities of the firms. As it plays an important role in making any business successful and sustainable in the business market. Corporate social responsibilities play a significant role in the success and the expansion of a firm in the competitive business market. Furthermore, the researcher has highlighted the importance of the corporate social responsibilities (CSR) in the development of the firm's stability and constancy. In addition, researcher has drawn the definition and explanation of bankruptcy. And he also measured the role of CSR activities in preventing the bankruptcy.

Moreover, researcher has described the term corporate governance as it is the process by which firms are directed and controlled. This study has fulfilled the aim at measuring that living within the limitations of business supremacy a business must embrace the CSR strategies and policies that helped to shorten the chance of going insolvent. Additionally, researcher has specified the importance of corporate social responsibility activities for betterment and improvement of firms in the competitive business market. He further extracted the role of CSR activities in preventing bankruptcy. In furtherance, researcher has described the threats of bankruptcy that the firm faced throughout the running of the company. Researcher has also mentioned the factors of corporate social responsibilities that help in preventing the bankruptcy. In continuation of above mentioned topics researcher also shed light on the moderating role of corporate governance in the manufacturing sector and firm's production.

Furthermore, this chapter also explained the ownership structure and board structure in order to understand the importance of corporate social activities in the firm. This chapter further defined the impacts of the corporate social activities in preventing bankruptcy and long-term sustainability of the firms in the competitive business market. Researcher also identifies the importance and effects of the corporate social activities in the firm's performance and production. As corporate social activities contributes in the higher production and rise in profit. This chapter further highlighted the empirical review of the corporate social activities and bankruptcy.

In furtherance, researcher has also emphasis on attaining financial performances and consumer's trust through implementation of corporate social activities. But, bankruptcy is the element by which a firm not able to attain the above-mentioned aspects. This happens due to lack of ethical and government mismanagement. Therefore, for the development and success CSR activities are important to be embraced by the firms. As corporate social responsibilities contributes in the enlargement and sustainability of the firm's in the business market. This study has provided detailed visions about the ideas of corporate governance and how corporate related governance and CSR is related in preventing bankruptcy taking into account the factors that influence the CSR practices that are cooperative in stopping insolvency.

Moreover, this chapter has also highlighted the importance of applying CSR activities for the businesses along with its effects on the presentation of firms. Researcher has described that the corporate governance plays a role of moderator in between the corporate social activities and bankruptcy. In addition, this study has also determined the positive theories and frameworks concerning the role of corporate social activities for the deterrence of insolvency and experiential evaluations on corporate social activities and insolvency to advance comprehensive understandings of the chapter.

Researcher has also given the overview of the manufacturing sector of Pakistan and Australia. In addition, researcher has recognised the related theories of corporate social activities and bankruptcy in order to get clarify the importance of corporate social activities in the improvement and betterment of the firms. Researcher has also given the conceptual framework of the study in order to define the factors in detail that helps in preventing the bankruptcy. Besides, researcher has also underlined the hypothesis for the study to ensure the aims and objectives. And in the end, this chapter is followed by the chapter summary.

CHAPTER THREE: METHODOLOGY

3.1 Introduction

Methodology is a set of processes, procedures and techniques adopted to conduct a research on given phenomenon. There are two specific purposes of methodology; (1) how data about the phenomenon is collected or generated, and (2) how was it analysed (Bell, Bryman and Harley, 2018). These two purposes serve as major reasons to devote specific section in the thesis where explanations and justifications can be made to support the adopted processes and techniques. Meanwhile, it is also critical to state that the moment a wrong method is used for the data collection also tend to produce unreliable results (Page et al., 2015). As a consequence, the value of interpretations of findings is undermined, thus selection of a specific method on one hand has to address the research problem, and on another hand has to comply with the scholarly findings and empirical researches. Similarly, following chapter is designed with this intention to highlight the methods by which sample was drawn, data was collected, and analysis were conducted.

Following chapter presents the critical discussion on each of the methods, underlines strength, weaknesses and discusses its application in accordance with the aims and objectives of the study. Chapter consists five sections mainly; (1) research design, (2) research approach, (3) data and variables (4) sample size and sampling technique and (5) data analysis techniques. However, each of the section comprise of multiple sub-sections denoted with specific purpose represent and explain the methods and processes. Lastly, the chapter is concluded with a comprehensive summary providing a conclusion over the methodology of the thesis.

3.2 Research Philosophy

Research philosophy is a belief about the process of data collection, process of data analysis and interpretation. Mkansi and Acheampong (2012) discuss about three common research philosophies being adopted by the scholars, and academicians when conducting a research.

These research philosophies are interpretivism, positivism, and pragmatism philosophy; these philosophies hold different belief about how data should be collected, analysed and interpreted. The positivism philosophy states that true source of knowledge are factual information which can be gathered by means of observations, and measurements (Sekaran and Bougie, 2016; Page et al., 2015).

In following study positivism philosophy was adopted given that study was interested into empirical investigation of interrelation between the CSR and bankruptcy, and how this interrelation is moderated by corporate governance. Since, present study was interested into the quantifiable observations, hence positivism philosophy was only appropriate philosophy to choose. The rationale behind the adoption of the positivism philosophy is due to the aim and objectives are concerned with the investigation of CSR and bankruptcy along with the moderating role of corporate governance. The positivism philosophy is based on objective manner where it is concerned with the measurement and observation. Therefore, the measurement would be conducted among CSR and bankruptcy for determining their relationship. As indicated from Sekaran and Bougie, (2016); Page et al., (2015), the positivism philosophy allows in gaining true source of knowledge that are considered to be factual information and are derived from observation and measurement. Therefore, the use of positivism philosophy ignores the views of human opinion and insight while emphasizes mainly towards measuring the gathered data for revealing the factual results.

3.3 Research Approach

Research approach is a process which explains the about the nature of data, and types of analysis to be conducted to carry forward the study. Mainly, there are two types of the research approaches that are being used by scholars and researchers; the first approach is inductive approach, and second is deductive approach (Page et al., 2015). In first approach, the researcher has unknown phenomena which has not been studied, and the process of this approach involves to conduct research and problem is developed in form of theory or hypothesis on which further is conducted (Soiferman, 2010). In contrast, in deductive approach the researcher has already a well-defined problem, theory or hypothesis for which data is collected and empirical tests are conducted to test the theory or hypothesis.

In following study deductive approach is utilized for two specific reasons; (1) following study has already a theory and hypothesis which is to be used for analysis, (2) following study has quantifiable observations in form of companies' data that is used for the hypothesis testing and empirical tests. Thus, deductive approach was only appropriate approach to adopt for the purpose of present study. Other rationale behind the application of deduction approach is that there are several models that discussed the CSR and corporate governance on bankruptcy. These theories consist of stewardship theory, stakeholder's theory, legitimacy theory and others. Hence, the deductive approach enables the researcher in testing out the theories and supports in determining the influence of CSR and corporate governance on bankruptcy.

3.4 Research Design

Research design a complete plan that provides detailed approach to conduct research. It is a comprehensive framework which formally decides overall theme of research methods by which a specific research has to undergo (Patten and Newhart, 2017). Similarly, Page et al., (2015) defines it as theoretical basis or a philosophical assumption on which processes, procedures and techniques are specified and selected as per the objectives and research problem. Meanwhile, as reviewed the book of Sekaran and Bougie (2016) mainly three research designs are adopted to select specific methods for research purposes; these methods include qualitative, quantitative and mixed methods. The difference between these three designs is appropriateness of each design for a specific research problem, and choice of specific methods for research. Meanwhile, each of design is discussed is below

Quantitative research design is quantitative in nature and deals with the numeric data. In contrast to qualitative research purpose, the quantitative research is more conclusive that could empirically assist in verifying the insights and selecting a course of action. Unlike qualitative data, this method needs quantifiable data on which statistical tests can be conducted to confirm the theory or proposed hypothesis (Page et al., 2015). Meanwhile, quantitative data is collected by both means (1) primary sources and (2) secondary sources; both sources provides quantifiable data. However, in primary sources the researcher collects data through survey from sample of respondents since that type of data is not available that could be used for the purpose of research (Patten and Newhart, 2017). Secondly, secondary sources are data sources where data is already available that was either collected by another researcher for purpose of his own research or other company has produced data for financial disclosure purposes. Meanwhile, these two sources of data, from where quantitative data is gathered or collected for purpose of research. Therefore, it is evident that since quantitative research design has quantitative data, then its analyses are also conducted based on the statistical analysis.

In following research, quantitative research design is adopted on the basis of some specific reasons such as present study requires an empirical investigation, hypothesis testing, and do not require an explanatory research to also conduct investigation by means qualitative means. The present study deals with the numerical type of data which was collected from secondary sources, and statistical tests are performed to address the research problem. Thus, quantitative research design was only appropriate philosophical assumption, and mixed method was also not a choice. Because, present study does not require to conduct investigation by means of qualitative and neither of research objective required to do so, and also the phenomenon under investigation did not require explanatory insights since a great literature was available. Therefore, only quantitative research design was an appropriate research design.

3.5 Data and Variables

The aim of following study was to investigate and explore the role corporate social responsibility (CSR) in preventing bankruptcy, and moderation effect of corporate governance. The aim of the study required having three categories of the variables; these categories include corporate social responsibility, bankruptcy, and corporate governance variables. Each category has different variables, and in following study variables were selected based on their relevance to present study and that were required to achieve research objectives and address research questions. Meanwhile, variables of each category are discussed and presented below including their inclusion and selection criteria in accordance with the previous studies being conducted by the other authors and scholars.

3.5.1 Corporate social Responsibility

Corporate social responsibility (CSR) is a volunteer work performed by firm with no own interest rather public, society and environment are benefited. The corporate social responsibility (CSR) is further defined by Basuony, Elseidi and Mohamed (2014) as an act of engaging into the activities and practices that aims to be benefit others rather than firm, and this had been volunteer act, but contemporarily, however is required by law to engage in such activities which benefit society and this has also become an ethical and moral responsibility of firms. Meanwhile, the rising interest of stakeholders and shareholders in the CSR activities is due to the fact that engagement of company in the CSR activities reflects firm’s internal financial strength as studied by Godfrey, Merrill and Hansen, (2009); Porter and Kramer, (2006); Widiarto Sutantoputra (2009). Because, companies make different expenditures in different forms to contribute to CSR through various programs, and the point at which firm makes higher expanses in CSR activities indicates firm’s financial strength. Similarly, higher expenditure on the CSR enhances firms’ image and reputation in the market and this revive the trust of shareholders of the company.

Meanwhile, corporate social responsibility (CSR) has been measured through multiple ways; whereas Servaes and Tamayo (2013) have developed proxy of CSR through advertisement; the author has argued that CSR activity by fact can be considered a social act that does not affect the value of the firm until and unless the information is disclosed in the market. The act of disclosing information through annual reports, or through paid advertisement are undertaken to share information with the stakeholders including customers in the market. Therefore, annual reports and paid advertisement increases awareness of the consumers and other stakeholders in the market. The paper used the consumer awareness as measure of corporate social responsibility (CSR) proxied by advertisement expenses; since higher level of advertisement spending indicates firm's efforts to increase the consumer awareness, which is believed to be associated with increased firm value in multiple dimensions which is also studied by (Nielsen, 2013; Atrushi and Waldemarsson, 2016). These dimensions include; (1) Higher awareness among the stakeholder's highlights firm's efforts to make become socially and environmentally responsibility, and this emphasize on the consumers to become attached with the firm, its products and services. (2) The consumer attachment and loyalty can be then translated into the higher revenues, and word of mouth marketing and positively influence firm's future performance. (3) Improved operational and financial performance of the company is an indication of the strong future performance as well, and this must be reflected into the future value of the firm.

Based on these three beneficial dimensions for the firms being socially responsible is attributable to the disclosure of the CSR activities by various means. Therefore, the author used it as measure of CSR for each firm and conducted study. Similarly, another study conducted by Nadeem and Malik (2014) have used total expenditures as measure of the corporate social responsibility (CSR), and the author haves developed a proxy in which four types of expenditures forms CSR proxy; (1) donation, (2) education, (3) health, (4) social welfare. The author has used some of expenses as a measure of CSR; but it is also evident that proxy developed by authors comprehensively relay on the expenses made by banks for the benefit of the society. However, at some extent it substantially lacks in incorporating the elements of environment which is contemporary a most debated area of research.

Meanwhile, environment is a first most important indicator of the ESG criteria which consists of Environment, Social and Governance. Meanwhile, the factor of governance was already included in the following study thus emitting governance can reasonably be justified given that governance factor is to be used for moderation in the following study. Therefore, as per the standard criteria, now following study has left with two components of corporate social responsibility (CSR); (1) environment and (2) social. However, the concern for the study was to have measurement scale for the CSR activities of the companies; as previously discussed the study of Servaes and Tamayo (2013) have used consumer awareness as measure of CSR proxied by advertisement spending as an activity to disclose information about social and environment activities of the company to attain the objective of CSR. Similarly, the Nadeem and Malik (2014) in contrast have used the total spending on the CSR as a proxy for CSR.

Furthermore, main aim of following study was to determine interrelation between the CSR and bankruptcy, and how that relationship is moderated by the corporate governance of the firms. We have three important components in our study; CSR, Bankruptcy and corporate governance. The last two components would be discussed separately, but considering the first component, it is going to be main focus of following paper, hence measurement approach has to be justifiable and reliable by all means. Meanwhile, referring to objectives of the study again, we can realise that CSR need to compared with the Bankruptcy for which the variable must be a direct variable rather than an indirect variable as Wieser (2005) used the R&D as an indirect measure of social return, and Servaes and Tamayo (2013) have measured CSR with consumer awareness through expenditure on the market. On the other hand, same authors had used the index prepared by KLD Research and Analytics, Inc., presently known as MSCI, this company provides the strength and issues associated with the CSR elements and accordingly firms are assigned scores.

Meanwhile, most important issue for following study was to measure the CSR directly rather than indirectly as measured by other authors as discussed above. For this purpose, we had three considerations (1) the measure of CSR should be direct measure rather than indirect measure, (2) measure should be comparable to other variables, and (3) it should be conceptually and theoretically related to the other variables of the study. Therefore, based on this criterion, the methodology of the Nadeem and Malik (2014) was most appropriate and effective measure of CSR in accordance criteria above, and objectives of the study.Hence, expenditures on four categories were gathered; donations, education, health and social welfare, and these variables are measured as follows

Table 1: Dimensions of CSR

Variable	Code	Measurement
Donations	DE	Total amount of donations which may include cash, used or new goods, cloths, food, toys, or vehicle. This also includes emergency funds for medical purposes, and all other types of charities. (Nadeem and Malik, 2014)
Education	EE	Amount spent on supporting government, semi-government, and non-government education institutions. Any amount spent on facilitating the education is included in education expenses (Nadeem and Malik, 2014).
Healthcare	HC	Amount spent on supporting government, semi-government and non-government hospitals. Any

		amount spent on provision of healthcare services free to needy people, and or helping poor patients to undergo major surgeries which are beyond their affordability (Nadeem and Malik, 2014).
Social Welfare	SW	Amount spent on well-being or society, and its members directly or indirectly are considered social welfare expenditure (Nadeem and Malik, 2014).
Corporate Social Responsibility	CSR	CSR=DE+EE+HC+SW

3.5.2 Bankruptcy

Bankruptcy is a state of failure to meet with legal obligations and liabilities, and this is a legal proceeding against an individual person or organisation for being insolvent. A person or company becomes insolvent if it becomes incapable to pay the debts or meet obligations and liabilities due on it (Gupta and Krishnamurti, 2018). Meanwhile, bankruptcy is the second component of following study on which effect of CSR was determined. In order to predict the weather firm is near to bankruptcy or not, the model of Altman Z-score is widely used. The model of Altman Z-score was developed by Edward I. Altman, professor at New York University; he had started to focus on the model to predict the bankruptcy prior to 1968 due to the increased incidents of bankruptcy during the period. Meanwhile, many authors have used the Altman's model to predict failures of the company, these authors include Mohammed (2016); Sanesh (2016), Kumari (2013); Tyagi (2014) and Al-Rawi, Kiani and Vedd (2008). These authors found the Altman model well predicted the failure of the companies, and most importantly another study conducted by Gupta and Krishnamurti (2018) tried to explain relationship between CSR engagement of firm and Bankruptcy, but authors utilized previous database of those companies who had filed for bankruptcy and emerged from the bankruptcy, but did not predicted failure.

Comparing both methods of the measuring the bankruptcy, each methodical approach is distinctive in its application and implication, considering present study and its objectives, Altman model was more appropriate in assisting to achieve research objectives and address the research questions. Selection of the Altman model was based on specific reason that present study was aimed to explain relationship of the CSR engagement and bankruptcy and determining how corporate governance moderates this relationship, and in order to explain that relationship we were required to have z-score of all sample companies irrespective of those have filed for bankruptcy or not. It is because, the present study was not aimed to assess the reliability of the Altman model, but rather was focused on to assess if the CSR engagement reduces the probability of the company to become insolvent and file for bankruptcy. This methodical approach is consistent with the studies reviewed in Mohammed (2017), and considering the methodical approach used by Gupta and Krishnamurti (2018) it was not appropriate and effective given that this study has tried to explain that did CSR engagement helped firm to emerge from bankruptcy for which they were under legal proceeding means had filed. Furthermore, the model of Altman can be further classified into three categories the first ratio developed and presented in the Altman (1968) was based on the private companies rather than public companies, and later Altman Z-score model was revised to fit to predict probability of public companies from manufacturing sectors and model was published in Altman (2000) eq.1, and third model was model based on predicting bankruptcy of general companies also published in same study

Z-score = 1.2*WC/TA+1.4*RE/TA+3.3*EBIT/TA+0.6*E/TA+0.999*S/TA (eq.1)

1. WC/TA: This represents the working capital of the company computed as current assets minus current liabilities; divided by the total assets of the company. This ratio

determines liquidity position of the company which is used to assess how well company has maintained a liquid position to meet with current liabilities obligations, dues and working capital requirement.

2. RE/TA: This represents the retained earnings divided by the total assets of the company. Retained earnings is residual earnings after paying for dividend, this amount is retained by the company with intention to achieve future growth opportunities, and for the purpose of expansion. Meanwhile, the ratio provides proportion held as retained earnings as compared to the total assets of the company.
3. EBIT/TA: This represents the earning before interest divided by the total assets. Theoretically, EBIT is operating profit of the company which is achieved when all operating expenses are paid off, and practically it is said a profit before the interest payment and taxes obligations are met. Therefore, the ratio represents the proportion of EBIT as of total assets of the company.
4. E/TL: This represents market value of equity divided by total liabilities of the companies, where market value of the equity refers to market value of the common outstanding shares and preferred outstanding shares. Meanwhile, the total liabilities refer to the current and long-term liabilities of the company; and this ratio provides the market value of equity as proportion of total liabilities of the company.
5. S/TA: This represents the sales divided by total assets of the company; total sales is an amount of revenues earned in a fiscal period. This ratio provides sales of company as proportion of total assets.

Based on the interpretations made by Altman (1968) and Altman (2000); it is determined that a ratio can fall under three categories as follows

Safe Zone: A company with Z-score 2.99 or greater than this is said to be in the safe zone. This means company is under a negligible probability of filing for bankruptcy, and it is less likely that company will not be able to meet with its short-term and long-term liabilities obligations and dues.

Grey Zone: A company with Z-score ranging between 2.99 and 1.81 is said to be under the grey zone, in which firm has moderate probability to become insolvent and file for the bankruptcy.

Distress Zone: A company with Z-score 1.81 or below is said to be under a distress zone, and it is more likely that and there is higher probability that company will become insolvent and for bankruptcy.

3.5.3 Corporate Governance

Corporate governance is a system of processes, practices and rules by which firms are directed and controlled (Khan, 2013). Meanwhile, it is also defined by Mokarami and Motefares (2013) that corporate governance is a complex of existing relationships between the stakeholders of the company which include foremost shareholders of the company also known as principals, secondly the managers of the company also known as agents of the principals, and thirdly auditors that are in charge of ensuring to establish the control system in order to protect the interest of shareholders and ensure fair and true representation of firm’s value. Meanwhile, it has been previously by Abdullah (2006) that corporate governance failures have greatly affected the firms and even led to fall of USs’ one of largest companies, Enron overnight, which was not even imagined by investors and Auditors. Meanwhile, in following study Corporate governance was a third component of the study which is used as moderating variable, and following variables consist of corporate governance adapted from Ali Shah and Butt (2009)

Table 2: Dimensions of Corporate Governance

Variable	Code	Measurement

Ownership Structure	OS	% of Shares owned by board of directors
Ownership concentration	OC	% of Shares owned by top 10 shareholders
Institutional Ownership	IO	% of Shares held by institutional owners
Board Size	BS	Natural log of board of size
Board Independence	BI	Total number of non-executive (Independent) board of directors.
Audit Committee Independence	ACI	Number of non-executive (Independent) directors in the audit committee divided by total number of directors
CEO Duality	CEOD	Dummy variable 1=CEOD and 0=NO CEOD
Share Holders Activism	SHA	Number of meetings attended by more than 70% directors divided by total no. of meetings (Lin Chen, 2008)

These variables are standalone factors that made the corporate governance structure of the organisation; and these variables are used moderating variables to determine if the corporate governance structure of the companies affects the relationship between CSR engagement and Bankruptcy.

3.5.4 Control Variables

Control variables are used in the experiments and empirical investigations to control the variables as constant in the model that can have influence over the dependent variable and phenomenon under investigation. There are five considerations in this regard as discussed by Bernerth and Aguinis (2016) (1) controlling related variables is critical to generalise the research from which targeted audiences can benefit (Becker, 2005), (2) it is practically possible to remove the variances associated with the non-focal variables (Carlson and Wu, 2012), (3) using control variables in the study can increase robustness and enable to overcome on the weaknesses of data collection (Breaugh, 2008; Carlson and Wu, 2012), (4) the true results of the study cannot be achieved until and unless the controlled variables are not included in the model since without control variables the relationship between the independent and dependent variables are supposed to be contaminated (Atinc et al., 2012; Carlson and Wu, 2012; Spector and Brannick, 2011), (5) inclusion of the control variables in the study is a conservative approach which is believed to be safer approach (Spector Brannick, 2011).

Based on the above reasons, the inclusion of control variables was most important, but the issue was which variables should be included in the study as control variables. Meanwhile, considering the purpose of control variable to correct the model, reduce variance and improve model's predictability, then it can be determined that variables which are relevant to the dependent variable or have influence on dependent variable must be include as control variable, and this can be theoretically understood as when it is measured the effect of temperature on crop yield, then having two variables in the model would not provide true results as previously stated that results of the study would be contaminated since no control variables are included. Because, crop yield is not independent from the water, amount of fertilizer and water given to crop during the period. Therefore, the study must control these variables to have uncovered true results and phenomenon.

Furthermore, the purpose of the following study was to be explaining relationship between the CSR and bankruptcy and assess role of corporate governance in moderating this relationship. In case of present study, we had controlled the variables were relevant to the study, and have influence over the dependent variable, and since bankruptcy was dependent variable. The foremost control variable is total assets and was transformed into the natural log of the total assets of the company, and this control variable was also used by Basuony, Elseidi and Mohamed (2014) in their study when they used to determine impact of CSR on firm performance, and total assets does make a difference when it comes to the firm size. Furthermore, Shah (2016) has also used the total assets as control variable though it was already part of Altman Z-score and the core reason behind use of total assets was to determine what role does size of firm play and how does it influence the bankruptcy and also control for the size in empirical model. Similarly, another study conducted by Rouf (2015) on corporate structure and firm performance, then author used debt to equity and current ratio as controlled variables for the study. Similarly, present study has bankruptcy as dependent variable, debt to equity and current ratio are important variables that can be effect bankruptcy of the company.

Because, the bankruptcy is a failure of the firms to meet with obligations and liabilities; and among many causes of bankruptcy, Likason and Hoffman (2014) have identified some of causes such as higher debt burden, unable to collect payments, unable to act according to economic conditions, high fixed costs and lack of working capital means ineffective working capital management. Meanwhile, Gupta and Krishnamurti (2018) defines that bankruptcy is a state of insolvency which does not emerges in a short period of time, but is a lengthy process that lead to corporate failure. However, Likason and Hoffman (2014) found small companies can go bankrupt quickly due to incapable of absorbing the external conditions such as unexpected rise in expenses or increased competition in the market and same is discussed by (Levratto, 2013). Therefore, bankruptcy of the firm also depends on the size of the firm. Hence, based on above arguments following study has chosen three control variables as follows

Table 3: Definition of Control Variable

Control Variables	Measurement	Reference
Total Assets	Natural log of total assets	Basuony, Elseidi and Mohamed (2014)

Current Ratio	=Current Assets/Current Liabilities	Rouf (2015)
Debt to Equity Ratio	=Total debt/Shareholders' Equity	Rouf (2015)

3.6 Sample size

The sample size of the study was Australia and Pakistan; where the data was collected for the period of 2005 to 2018. There were two specific sources through which data was collected. The first source was the Thomson Reuters and second source was annual reports of the company. The table below shows list

Table 4 Sources Variables

Variables	Pakistan	Australia
CSR		
Donations	Annual Reports	Annual Reports
Education	Annual Reports	Annual Reports
Healthcare	Annual Reports	Annual Reports
Social Welfare	Annual Reports	Annual Reports
Corporate Governance		
Ownership Structure	Annual Reports	Thomson Reuters
Ownership concentration	Annual Reports	Thomson Reuters
Institutional Ownership	Annual Reports	Thomson Reuters
Board Size	Annual Reports	Annual Reports
Board Independence	Annual Reports	Annual Reports
Audit Committee Independence	Annual Reports	Annual Reports
CEO Duality	Annual Reports	Annual Reports
Share Holders Activism	Annual Reports	Annual Reports
Control Variables		
Total Assets	Annual Reports	Thomson Reuters
Current Ratio	Annual Reports	Thomson Reuters
Debt to Equity Ratio	Annual Reports	Thomson Reuters

Furthermore, the sample size of the study was 100 publicly listed companies from each of the country, Pakistan and Australia. Appendix 1 provides the names of selected companies from Pakistan and Australia. Since, there are total 100 companies for each of the country, hence the number of observations for each of the variable is 1400.

3.7 Data Analysis Technique

Data analysis techniques are methods by which analysis are conducted; and based on two different research designs, there are also two types of data analysis techniques categorically; qualitative and quantitative. In quantitative analysis techniques different statistical methods dominates the category that can range from simple descriptive statistics to multiple types of regressions. Similarly, in qualitative data analysis; content analysis technique and thematic analysis techniques are adopted. However, each type of research analysis technique has specific purpose to serve, and are used on the basis of nature of research problem and objectives. Since, is explicitly defined previously that following study has adopted positivism philosophy, deductive approach and quantitative research design, hence present study has undertaken quantitative data analysis technique that include statistical analysis methods. Meanwhile, each of statistical technique undertaken in following study is discussed below

3.7.1 Pearson's Correlation

Pearson's correlation or simply correlation is an important quantitative data analysis technique which assist in determining the interconnection between the variables of the study. This technique allows researchers to investigate the interrelation from different perspectives, since as discussed by Gogtay and Thatte (2017) an interrelation could have multiple types thus has different interpretations. It is further explored by the author that an interrelation between factors of study could have four types of correlation (1) strong positive, (2) weak positive, (3) strong negative, (4) weak negative. Meanwhile, in order to identify and examine the interrelation between variables; Pearson's correlation technique is a widely used statistical method. Therefore, this statistical technique was also adopted in present study on the basis of objectives of the study which required to investigate interrelation between the bankruptcy and corporate social responsibility.

3.7.2 Regression

Regression is a statistical process to estimate interrelation between variables; and it is also used to assess how one variable is affected by other variables. It is a statistical modelling in which multiple variables are included in the model, and a simple regression can only have one regressand i.e. dependent variable, and can have more than one regressors or predictors (Darlington and Hayes, 2016). Multiple types of regressions were found across the academic literature, among which linear regression and logistic regression are most commonly used. A linear regression also known as simple regression or ordinary least square (OLS) regression, and it also has simple linear regression and multiple linear regression (Hoffmann and Shafer, 2015). In simple linear regression, there is one usual dependent variable, and only single predictor; in contrast, a multiple regression also has usual one dependent variable and can have more than one predictor in the model.

Logistics regression is another type of regression being used across academic discipline and in journal publications. Logistics regression also has two types; ordinal regression and multinomial regression. Ordinal regression is adopted for regression modelling when dependent variable of the study is categorical variable or ordinal variable, but dependent variable has only two categories or options such as yes or no (Johnson, 2016). Unlike ordinal regression, multinomial regression is also adopted of estimation, but it is only adopted when dependent variable has more than two categories such as smoker, non-smoker and past smoker data coded with discrete data (Rezapour and Ksaibati, 2018). Meanwhile, selection of regression type mainly depends on type of data and type of variables in the data. Since, present study did not have an ordinal variable, hence logistics regression was not a choice for statistical modelling. Hence, linear regression was most appropriate for study to be adopted. However, type of data involved in the study did not support to adopt ordinary least square (OLS) method.

An ordinary least square (OLS) regression is generally used when pooled data or cross-sectional data is involved as many scholars have used it for purpose of their studies such as Bai (2014) used it to investigate impact of inflation on stock market. However, when it comes to longitudinal data which consists time series data for each cross-sectional member in the data. This means the data has cross-sections over time, and this makes data combination of cross-sectional and time series, and this type of data is also known as panel data (Bell and Jones, 2015). Since, present study has data of 200 companies from different countries and industries over a period of 19 years, hence this makes our data longitudinal data which consists of cross-sections over time, and this repeats over each company until last one. This type of data cannot be processed through ordinary least square (OLS) regression; but panel regression was used instead (Park, 2015).

A panel regression is type of regression that processes cross-sectional time series data, and enables to control variables which cannot be observed such as national policies and other federal regulations. In panel regression, two types of models are employed; fixed-effect model (FE model), and random effect model (RE model). Fixed effect model assumes that something has effect or can bias the dependent variable, this means relation between the term error and predictor exists which need to be controlled to have net effect of predictors in regression (Liu et al., 2016). In contrast, random effect regression, it is assumed that variation across entities is random and error term is not correlated to predictor; hence there is no need to control time-variant characteristics because it is random variation.

In order to select an appropriate model for the regression, Hausman test was used. Hausman test is also known as test for endogeneity which violates one ordinary least square (OLS) regression that there is no correlation between error term and predictor. To overcome model misspecification, Hausman test was used to select fixed effect model or random effects model (Clark and Linzer, 2015). Hausman test indicated that random effect model is appropriate, and for present study to estimate interrelation of CSR with bankruptcy random effects model was used. See model for interrelation

$$Y = \alpha + \beta_1 + \epsilon$$

Y= This is dependent variable which is to be predicted or estimated

α= This is intercept which is constant value of regression model, and this is also known as alpha since it is denoted with Greek letter alpha

β_1= This is slope of first independent, this is also known as beta that represents the expected variation can be brought into the dependent variable if the independent variable changes by one unit.

ϵ= This is error term which represents the variance could not be explained by the model and this value if automatically adjusted by regression model in background processes.

Meanwhile, based on the above regression equation, present study had data of two different countries for which separate equation for each country is developed as follows, and an equation combined for all countries.

$$Bkrcy_{Pak} = \alpha + CSR_{Pak} + \epsilon_{Pak}$$

$$Bkrcy_{Aus} = \alpha + CSR_{Aus} + \epsilon_{Aus}$$

However, for purpose of determining the moderating effect of corporate governance on interrelation between CSR and bankruptcy, interaction variable was created and into the model and this method was also used by (Safari and TahmooresPour, 2013). An interaction variable is created through multiplying the independent variable with moderating variable as follows

$$Bkrcy_{Pak} = \alpha + \beta CSR_{Pak} + \beta CG_{Pak} * CSR_{Pak} + +\epsilon_{Pak}$$

$$Bkrcy_{Aus} = \alpha + \beta CSR_{Aus} + \beta CG_{Aus} * CSR_{Aus} + \epsilon_{Aus}$$

CHAPTER FOUR: DATA ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter is intended to provide an overview regarding how the study was carried out and components and elements related to data analysis and discussion are presented in this chapter. Following study was a comparative study of Pakistan and Australia; for this purpose, this study is mainly divided into the three major sections; one section discusses results and empirical tests conducted on the Australian data, second section discusses the results and empirical tests conducted on the Pakistani companies. The third section is specifically designed to compare the results of both countries and discuss it along with the empirical review being carried out in second chapter of dissertation. Lastly, the chapter presents discussion of the results objective wise; in which discussion is carried out on three main pillars; empirical findings of present study, empirical findings of previous studies, and implications of those findings. Conclusively, the chapter is summed with a summary to enable provide a quick review of the overall chapter, findings and implications.

4.2 Overview

The aim of the following research is to explore the role of CSR in preventing bankruptcy and determining the moderating effect of corporate governance specifically in manufacturing sector of Australia and Pakistan. There are three important considerations in the following research; one that this study is based on the existing literature gap, second it is a comparative study, and third it is based on two different types of societies, market, economy and status. Firstly, the gap of the research is to determine if the corporate governance has role in influencing the effect of CSR expenditure on the bankruptcy of the manufacturing companies. It is important to state that CSR expenditure is a proxy for the corporate social responsibility (CSR) based on the fact that companies that engage into the CSR activities are more likely to have stronger financial position and performance internally. It is because companies can be perceived as stronger based on their financial reports; but the fact is that these reports could be manipulated at time of publishing due to the agency problem.

The companies with stronger internal performance are more likely to engage into the social work to enhance their reputation and image in the market. Investment into the social work has been found to be positively associated with brand recognition and customer loyalty (Brînzea, Oancea, and Bãrbulescu, 2014). Meanwhile, there are two appropriate and feasible options for the managers; either to enhance shareholders value or work for their own interest. In former option, the manager is inclined to work for the shareholders' value and this makes them to work as per the organisational objectives and board's directions without any personal interruption. However, in the second option, the manager is inclined towards working on own agenda which makes him to turn to earnings management process (Bokpin & Arko, 2009). The process of earnings management starts when a manager is inclined towards his own interest, and this leaves shareholders interest behind. In this situation when a manager works on his own interest then it is less likely that he will involve into a social work and capitalize the investment (Henry, 2010). Thus, a manager working on the value creation for shareholders, will also work on the all possible options that could enhance shareholders value, and one of the ways is CSR which is directly associated with the firm's growth, market recognition, and customer retention.

The core idea behind this overview is to provide a clear distinction and roadmap to which this study has been following. In addition to this, bankruptcy is a state of being default on meeting with the all liabilities and obligations in form of dues which remains unpaid and company is also not in position to repay the loan since it has been under economic uncertainty (Misankova and Bartosova 2016; Vakaskova 2017). It is a state of declaration when company files for the bankruptcy in under given jurisdiction to be liquidated to meet obligations. The bankruptcy is a long-term process which cannot emerge within years rather multiple factors, reasons, situations, practices and policies of the companies are responsible to lead towards bankruptcy (Kumar, 2016). Hence, it is a long-term process which starts many years before and carries some of indicators for the managers, shareholders and analysts.

In following study, bankruptcy has been measured through Altman Z-score which combines and formulate a score from which if a company's score varies then it shows that company will go bankrupt within next two years. These are components of the first consideration of thesis, and referring to the second considering of the thesis; the following study is a comparative study. The study is mainly intended to compare two different countries' companies to conclude how results differ by company specifically in terms of developing country and developing country. For this purpose, following study has selected 100 companies from each country and companies are many diverse manufacturing companies including companies that have been providing financial services. Meanwhile, difference in geographic location, industry, culture and environment is third important consideration of the following study. Since, Australia is well developed country a Pakistan is not a well-developed country, but is considered a developing country; hence the difference between the empirical tests of both countries is expected.

In addition to this, second most critical part of the thesis is the moderating effect of corporate governance on the CSR and bankruptcy. The effect of CSR on bankruptcy has to be empirically present when examining moderating effect of corporate governance. However, in absence of CSR's effect on the bankruptcy, the corporate governance variables must show a positive and significance effect on the interrelation of CSR and bankruptcy to conclude that effect of CSR on the bankruptcy is being moderated by the corporate governance. The core concept behind the corporate governance's moderation is that strong governance and owner under few hands, and independent board put more pressure on the managers to perform in a direction that lead to shareholders value rather than their own agenda. It has been empirically studied by many scholars, and has been found that ownership concentration has positive and significant effect on the shareholder's value and also positively influences the firm's performance.

Based on this core concept and core idea, following study is to be completed; where effect of CSR on the bankruptcy is to be checked, and then moderation effect of corporate governance is to be examined in case of Australia and Pakistan. Therefore, in following sections; empirical results for the Australia and Pakistan are presented and interpreted separately.

4.3 Australia

4.4 Descriptive Analysis

Table 1 illustrates the descriptive statistics of the Australia for each variable. The mean bankruptcy of Australia firms is 3.58 whereas the Altman z-score greater than 2.99 is perceived to be safer which implies that firms are in safe zone and there is no probability that firm will go bankrupt in next two years. However, standard deviation of the Australia firm is 17.75 by which z-score may increase to 21.33 and may decline to 21.36. This fluctuation is expected in the data and this is attributed to some of companies that have z-score less than 1.81 that fall under the distress zone. Meanwhile, based on the average z-score of the companies, it can be determined that on average a given company of Australia has z-score 3.58 which is greater than Altman z-score 2.99 hence it is enough to state that on average a given company is out of distress zone. Therefore, there are low or no probability that company will go bankrupt; although there are some companies that have maximum score 393.27 and minimum score -48.18; this means there are certain companies that have score less than Altman z-score and implies that some of companies in data are about to go bankrupt in next two years.

Table 5: Descriptive Statistics of Australian Manufacturing Companies

Descriptive Statistics	Mean	Median	Max	Min	Std. Dev.
BANKRUPTCY	3.58	1.87	393.27	(48.18)	17.75

CSR	4,262,825	600,530	318,000,000	0	13,965,814.00
Board Ownership	0.18	0.02	15.38	0	0.79
Top 10 Shareholders	0.33	0.27	3.13	0	0.29
Institutional Ownership	0.26	0.22	1.78	0	0.19
Board Independence	0.72	0.75	1.00	0	0.19
CEO Duality	0.33	0	1.00	0	0.47
Audit Committee Independence	0.77	1.00	1.00	-	0.42
Shareholder's Activism	0.95	1.00	1.83	0.11	0.12

Furthermore, the mean CSR of the Australia companies is $4,262,825 with standard deviation of 13,965,814; this implies that mean CSR expenditure of the companies can increase or decrease by 13,965,814. Higher standard deviation indicates that there are certain companies that have been making significantly higher expenditure on the CSR activities. Meanwhile, based on the mean and standard deviation, it can be determined that on average a given company has been expending $4,262,825 on the CSR expenditures in social work, but this mean expenditure can also increase by around 13.9 million. Similarly, the data also reveals that maximum CSR expenditures are 318 million and minimum expenditure are 0. This shows that there are certain companies that have spent around 318 million on the social work. Furthermore, mean board ownership is 0.18 or 18% with standard deviation of 0.79 or 79%; this implies that on average in Australia a given company has 18% ownership of the board of directors, and this ownership concentration is also subject change by 79% due to standard deviation. Meanwhile, higher standard deviation is also due to the fact that there are certain companies that are wholly or partially owned by board of directors.

Furthermore, the mean top 10 shareholders of the Australian firms are 33% with standard deviation 29% by which the mean value might increase or decrease. Therefore, it can be determined that on average in Australia a given firm’s 33% ownership is held by top 10 shareholders of the company and remaining ownership lies with others. Similarly, mean institutional ownership of Australian firms is 26% and it has standard deviation 19% which implies that on average in Australia a given firm’s 26% ownership is held by institutional owners. Institutional owners are those owners who are banks, brokerage house and other companies. A company with higher institutional ownership is perceived to be under greater influence of these owners based on the fact that they can easily put pressure on the management through board to perform in accordance with the organisational objectives.

The mean board independence of Australian companies is 0.72 with standard deviation 0.19; this implies that on average 0.72% directors of the companies are independent non-executive and remaining 28% directors are not independent and are executive directors. Therefore, it can be stated that all companies selected in the sample have independent board since majority of directors are independent and this makes whole board independent. On the other hand, mean CEO duality is 0.33; it was a dummy variable with 1 means yes and 0 means no. Hence, considering the mean value, it can be stated that majority of the companies in sample have no CEO duality, but there are some companies with CEO duality. Similar to the CEO duality, audit committee independence was also measured through dummy variable; in which the mean value is 0.77 which implies that on average a given company's audit company is 77% independent. Since, majority of committee members are independent directors hence it can be determined majority of the company have independent audit committee.

Furthermore, mean shareholder's activism is 0.95 which indicates that 95% of meetings were attended by more than 70% directors of the companies. Meanwhile, standard deviation of the shareholder's activism is 12% by which mean value might increase or decrease. Therefore, it can be determined that majority of meetings held by board were attended by more than 70% of board of directors of the companies.

4.5 Diagnostic Tests

4.5.1 Pooled and Random-Fixed Effect Models

Pooled regression is also known as ordinary least square (OLS) regression or simply a linear regression. The function of linear regression is to estimate interconnection between the variables and estimate extent to which a variable change due to the influence of other associated variables (Zulfikar, 2019). In linear regression, there is always one dependent variable, and there can be multiple independent variables. Since, dependent is a variable which is being predicted or estimated, hence there can be estimation of one variable at one time. However, multiple independent variables can be included in the model to predict the dependent variable; and independent variable is also coined as regressor or predictor, and dependent variable is coined as regressand (Schroeder, Sjoquist and Stephan, 2016). On the other hand, fixed effect and random effect model are also regression models being used for the estimation; but in case of these two models, nature of data differs. In pooled regression, there is pooled data about a single entity, person, or thing; but in case of random effect and fixed effect model, the data turns panel data in which there is data of multiple entities, persons, or things (Galwey, 2014). Meanwhile, pooled regression is conducted based on the fact that the data is pooled data; but when there is panel data then fixed effect and random effect model are used for estimation.

In addition to this, a distinction between the models is made based on the nature of the panel data; where if the characteristics of each panel are random over time and different then random effect model is selected. Similarly, if the characteristics of panel do not differ and are not random then fixed effect model is used for estimation (Bell and Jones, 2015). Meanwhile, in following study, it is necessary to make distinction between the pooled regression and panel regression that either pooled regression is applicable or panel regression is more effective as per the nature of data. In this regard, following section of the study discusses this matter and how it was dealt and which model was selected.

4.5.2 Breusch-Pagan LM Test

Breusch-Pagan Lagrangian multiplier (LM) is a model selection test; it is mainly used to determine if there are panel effects in the data panel. Since following study has used panel data, hence it was critical to examine whether panel effects are present in the data or not. In presence of the panel data effects, application of pooled regression becomes meaningless. Therefore, Breusch-Pagan LM test is being used to either pooled regression is applicable or panel regression is appropriate (Samil et al., 2018). Meanwhile, test was conducted for the Australia and Pakistan separately, and result of tests is as follows

Table 6: Breusch-Pagan LM Test

Breusch-Pagan Lagrangian multiplier (LM)		
	Australia	Pakistan
Chi^2	1888.09	6606.65
Prob.	0.00	0.00

The value of Chi square of Australia is 1888.9 (p=0.00) suggesting to reject null hypothesis that there is no panel effect in the data; hence alternate hypothesis is accepted which states that there is panel effect in the data. Therefore, pooled regression cannot be used in case of Australia; hence, panel regression is to be used (Samil et al., 2018). In contrast, the chi square of Pakistan is 6606.65 (p=0.00) suggests to reject null hypothesis that states that data has panel effects. Therefore, in case of Pakistan and Australia, panel regression is appropriate based rather than pooled regression.

4.5.3 Hausman Test

Hausman test is a model misspecification test that assists in choosing appropriate model when study deals with the panel data. It helps in choosing random effect model or fixed effect model, and core function of the Hausman test is to examine interrelation between the unique errors and the predictors in the regression model; whereas if the interrelation among the unique errors and predictors is present then Hausman test suggests to choose random effect model. However, in other case fixed effect model is suggested by the Hausman test (Sheytanova, 2015). In following study, Hausman test is conducted for the Australian data and Pakistani data since Breusch Pagan test has suggested presence of panel effects in data of both companies. The results of Hausman test for Australia are given below

Table 7: Hausman Test

Hausman Test		
	Australia	Pakistan
Chi^2	40.33	2.58
Prob.	0.00	0.46

The null hypothesis of the Hausman test is that random effect model is appropriate, and alternate hypothesis is that fixed effect model is appropriate. Meanwhile, the results Australian data provides Chi square is 40.33 (p=0.00), and Pakistani data chi square 2.58 (p=0.46). This indicates that in case of Australia null hypothesis is rejected in favour of alternate hypothesis which states that fixed effect model is appropriate; but in case of Pakistani data the null hypothesis is accepted which states that random effect model is appropriate (Sheytanova, 2015). Therefore, it is determined that two different models would be used in the following study; where for empirical analysis of Australian data, fixed effect model would be used, and in case of Pakistani data, random effect model would be used.

4.5.4 Autocorrelation

Autocorrelation is similarity in the value of variables over different observations in data. This means when there is correlation between the values of variables across different time then problem of autocorrelation emerges. It is further defined by King 92018) that autocorrelation is a relational value of a variable with its own lagged values. Meanwhile, the presence autocorrelation in the data is a major problem when linear regression test is conducted. Linear regression cannot diagnose and treat presence of autocorrelation in the data and core assumption of ordinary least square (OLS) is also violated which require independence of observations (Vogelsang, 2012). Therefore, if the data is analysed with simple linear regression then it is highly expected that results of the regression would be biased based on the fact that there is autocorrelation problem in the data. Hence, true effect of the independent variables over dependent variable cannot be captured. Consequently, in order to diagnose autocorrelation in the data, Woolridge test for autocorrelation in panel data was used and tests on Australian Companies and Pakistani companies was separately conducted; results of the tests are provided below

Table 8: Wooldridge Test

	Wooldridge Test	
	Australia	Pakistan
F (1,99)	1.07	71.28
Prob > F	0.30	0.00

The null hypothesis of Wooldridge test is that there is no first-order autocorrelation, and alternate hypothesis is that there is first-order autocorrelation. The test result of the Australian companies shows that F (1, 99) 1.07; Prob>F = 0.30, since p-value is greater than alpha 0.05, hence there is enough evidence to not reject null hypothesis which states that there is no first-order autocorrelation (Born and Breitung, 2016). In contrast, Wooldridge test result of Pakistani companies is F (1, 99) 71.28; Prob>F = 0.00, since p-value is less than alpha 0.05, hence there is enough evidence to reject null hypothesis in favour of alternate hypothesis which states that there is autocorrelation in the panel data. Therefore, based on the results of Australia and Pakistan, it is diagnosed that there is no autocorrelation in the Australian data, but there is autocorrelation in Pakistani data. Consequently, ordinary least square (OLS) regression cannot be used in case of Pakistan, but may be used in case of Australian data.

4.5.5 Heterosecadacity

Heterosecadacity refers to presence of outliers in the data and in statistical terms standard errors of a variable over a period time are not constant. This means standard errors varies over time, and this creates problem in conducting ordinary least square (OLS) regression tests. The major reason behind the Heterosecadacity is presence of outliers in the data that indicates presence of very small or large values as compared to other observations in data (Rosopa, Schaffer and Schroeder, 2013). Meanwhile, if the Heterosecadacity is present in the data then it is more likely to affect the accuracy of the coefficient estimates and predictions would not be as accurate as they should (Sun, 2013). This implies that true effect of independent variables over dependent variable cannot be captured in presence of Heterosecadacity. In order to diagnose the Heterosecadacity, Modified Wald test for Heterosecadacity was used in following study and tests were conducted separately for Australian and Pakistani data; results of the tests are presented below

Table 9: Modified Wald test for heteroskedasticity

Modified Wald test for heteroskedasticity		
	Australia	Pakistan
chi2 (100)	22000000	22000000
Prob>chi2	0.000	0.000

The null hypothesis of the Wald test is that data is homoscedastic, and alternate hypothesis is that data is heterosedastic. Since, result of the Australian data and Pakistani data is Chi2 (100) = 22000000; Prob>Chi2 = 0.00 and Chi2 (100) = 22000000; Prob>Chi2 = 0.00 respectively, hence null hypothesis of the Wald Test can be rejected (Sun, 2013). Therefore, it can be evidently stated that there is heteroscedasticity problem in the data of Australian and Pakistanis firms. Consequently, use of ordinary least square (OLS) in the following study would provide biased results that one of assumption of regression is already violated.

4.5.6 Panels corrected standard errors (PCSEs)

There are two important considerations with regard to the data being used in following study. First data used in following study is time series data of different companies, and second not just time series since there are different companies hence it makes data cross-sectional data. Therefore, it is not typical only cross-sectional (panel) or time-series data; but is rather time-series cross-sectional (TSCS) data (Kakanda, Salim and Chandren, 2017). Consequently, with respect to the type of data, different tests were to be applied in order to reach a conclusion that which tests must be used in study to better handle the problems of autocorrelation and heteroscedasticity. Despite the data is stationary data which allows to conduct simple linear regression or fixed/random effect but due to the autocorrelation and heteroscedasticity problem, it is has become a complication to turn to simple linear regression (Kumar, Sharma and Joshi, 2016). Therefore, there was only one way out of this complication which was running robust models to handle the autocorrelation issue and heteroscedasticity.

In response to the autocorrelation and heteroscedasticity in the data, VCE (robust) and VCE (cluster) were used to handle the autocorrelation and heteroscedasticity in the data (Correia, 2015). However, both robust functions did not perform as expected and provided unfavourable and inconsistent results. Therefore, despite the use of these robust models the problem of autocorrelation and heteroscedasticity still remained in the data. However, to address these problems, panels corrected standard error (PCSEs) model and feasible generalized least square (FGLS) were two models that could be used to address problems in data (Gargouri and Keantini, 2016). However, properties of the data could not fit with the FGLS model; hence PCSE model was choice in following study. Therefore, PCSE model was used which address autocorrelation and heteroscedasticity problem together, and provides robust results. This model is being suggested by many scholars and statisticians that use of PCSE is more effective than using FGLS (Reed and Webb, 2010). Therefore, in following PCSE models were used instead of only simple linear regression or fixed/random effect.

4.6 Pearson's Correlation (Australia)

Pearson's correlation is a statistical technique being used for examination of interrelation or interconnection of variables. This technique is applied over the quantitative type of data and it helps to determine how much certain variables associated with each other. Meanwhile, it analyses the movement one variable with another variable, and there are three core properties of the correlation that interpret the interconnection between variables (Mukaka, 2012). The first property of the Pearson's correlation is strength of interrelation, the strength of interrelation refers to either interconnection between the variables is strong, medium or weak. If the strength of the variables varies as per strength levels then interconnection between the variable also considered at same level including influence of variable over each other.

Meanwhile, these three levels have been discussed and analysed by Gogtay and Thatte (2017) in details; where author provides three thresholds by which strength of interrelation can be determined strong ($c>0.5$), medium ($c=0.5$) and weak ($c<0.5$). Similarly, if coefficient is less than 0.5 then this is an indication of weak interrelation, and if the coefficient is greater than 0.5 then this is an indication of strong interrelation between the variables. Lastly, if the interrelation is near to 0.5 then this is an indication of medium interrelation between the variables. Therefore, strength of interrelation between the variables indicates same level of influence of variables over each other in same direction (Akoglu, 2018). On the hand, second property of interrelation is direction, where direction of correlation refers to either relationship is positive or negative. Therefore, if the variables have negative interconnection then it is interpreted that if one variable moves in positive direction, then another variable will change in negative direction.

This interrelation is also termed as inverse relationship between the variables; but if the interrelation is positive then change is expected to incur in same direction such as if one variable increase then other will also increase and vice-versa. Meanwhile, an important consideration is identification of positive and negative interrelation among the variables, and this is illustrated by Gogtay and Thatte (2017) that value of coefficient having a positive sign or no sign indicates that interconnection of one variable with another is positive means in same direction. In contrast, if the negative sign (-) is associated value of coefficient then it is interpreted as negative interrelation between the variables.

In addition to this, third important property of the interrelation is significance of interrelation between the variables. The significance of the interconnection refers to either relation can be trusted or not; since if the interrelation is not significance then this is an indication that relation between the variable is not important. It is because, no significance relation implies that presence of relation between the variables was exposed to the standard errors and that relation may be due to sampling error. Meanwhile, results of Pearson's correlation are as follows

Table 10: Correlation Analysis on Australian Companies

Variables	Coeff.	P	Strength	Direction	Significance
Bankruptcy -> Board Ownership	-0.07	0.01	Weak	Negative	Significant
Bankruptcy ->Top 10 Investors	-0.10	0.00	Weak	Negative	Significant
Bankruptcy ->Institutional Owners	0.02	0.45	Weak	Positive	Not Significant
Bankruptcy ->Board Independence	0.02	0.52	Weak	Positive	Not Significant
Bankruptcy ->Ad. Committee Independence	-0.18	0.00	Weak	Negative	Significant
Bankruptcy ->CEO Duality	-0.04	0.18	Weak	Negative	Not Significant
Bankruptcy ->Shareholder Activism	-0.06	0.02	Weak	Negative	Significant
Bankruptcy ->CSR Expenditure	0.04	0.10	Weak	Positive	Not Significant
Bankruptcy ->Total Assets	0.63	0.00	Strong	Positive	Significant

The correlation coefficient of board ownership and z-score is -0.07 (p=0.01) indicating that there is weak and negative interrelation between the variables since coefficient is negative and relation is significant at 0.05. Thus, this implies that board ownership negatively influences z-score to decline and this tends to increase probability of bankruptcy of the company. Therefore, it can be interpreted as that if the companies' directors of board owns portion of shares then it will not save company but will increase the chances of going bankrupt. Hence, companies in Australia with higher proportion of board ownership are exposed to more risk of bankruptcy then company those have smaller or no board ownership.

On the other hand, referring to the coefficient between the top 10 investors and z-score then it is -0.10 (p=0.00) which indicates that there is very weak negative interrelation of top 10 investors with bankruptcy but since p-value is less than alpha, hence the interrelation is said to be statistically significant. Therefore, it can be evidently stated that if the top 10 investor's ownership increases then it will decrease the z-score means increasing company's chances to go bankrupt. Meanwhile, this relation is also statistically significant which means the effect also tend to be material and may lead company to bankrupt if its ownership of top 10 investors increases in case of Australia.

Furthermore, the coefficient between the institutional ownership and z-score is 0.02 (p=0.45) indicating that there is very weak positive interrelation of institutional ownership with bankruptcy but since p-value is greater than alpha, hence the interrelation is said to be statistically insignificant. Thus, it can be stated that if the institutional ownership increases then then it also tend to positively influence the z-score means reducing company's chances to go bankrupt. However, this also subject to the significance hence the influence may not be material since relation is not significant.

Meanwhile, the coefficient between the board independence and z-score is 0.02 (p=0.52) indicating that there is very weak but positive interrelation of board independence with the z-score. However, the p-value of the relation is greater than alpha 0.05 hence it is evident that relation is not significant between the variables. Hence, it can be interpreted as that if the board independence of the company increases then this could also have a positive influence over the z-score means may reduce chances of companies to go bankrupt. However, the relation is not significant hence this relation may not be material and might not materially influence the z-score of the companies. Therefore, it is clear in case of Australian companies that having majority of board of directors independent also does not increase the z-score or improves firm's financial position and reduces its chances to go bankrupt.

Furthermore, the coefficient between the audit committee independence and z-score is -0.18 (p=0.00) indicating that there is very weak but negative interrelation of audit committee independence with the z-score. Meanwhile, the p-value of the relation is less than alpha 0.05 hence relation is said to be significant between the variables. Consequently, it can be interpreted as that if the audit committee independence of the company increases then this could have a negative influence over the z-score means may increase chances of companies to go bankrupt. Since, the relation is also significant hence this relation would also be material and would influence the z-score of the companies negatively. Therefore, it can be stated in case of Australian companies that having independent audit committee also could increase the z-score, negatively affect firm's financial position and increase its chances to go bankrupt.

On the other hand, correlation coefficient between the CEO duality and z-score is -0.04 (p=0.18) indicating that there is very weak and negative interrelation between the variables. Meanwhile, the p-value of the relation is greater than alpha 0.05 implying that interrelation between the CEO duality and z-score is not statistically significant. Therefore, it can be interpreted as that if a company's role is dual in terms of being CEO and chairman of the board then it would not significantly influence the z-score of the company. This means CEO duality cannot reduce or increase chances of the company to go bankrupt because the interrelation is not significant. Hence, in case of Australia the CEO duality does not play any role in influencing z-score in either way.

Furthermore, the coefficient between the shareholder activism and z-score is -0.06 (p=0.02) indicating that there is very weak negative interrelation of shareholder activism with the z-score. Meanwhile, the p-value of the relation is less than alpha 0.05 hence relation is significant between the variables. Thus, it can be interpreted as that if the shareholder activism of the company increases then this could also have a negative influence over the z-score means may increase chances of companies to go bankrupt. Since, the relation is significant hence this relation would be material and would influence the z-score of the companies negatively. Therefore, it can be stated in case of Australian companies that having greater shareholder activism may reduce the z-score and make company to go bankrupt.

In addition to this, correlation coefficient between the CSR expenditure and z-score is 0.05 (p=0.10) indicating that there is very weak but positive interrelation between the variables. Meanwhile, the p-value of the relation is greater than alpha 0.05 implying that interrelation between the CSR expenditure and z-score is not statistically significant. Therefore, it can be interpreted as that if a company spends more on the CSR activities then it may and may not be materially improve z-score of the company since relation is not significant. This also can be analysed in another way as that spending higher on CSR activities cannot reduce chances of the company to go bankrupt in case of Australian firms.

Lastly, the coefficient between the total assets and z-score is 0.63 (p=0.00) indicating that there is very strong and positive interrelation between the variables. However, the p-value of the relation is less than alpha 0.05 hence relation is said to be significant between the variables. Consequently, it can be interpreted as that if the total assets of the company increase then this could also reduce the chances of company to go bankrupt significantly. It is because the if total assets increases then this will increase the z-score and increasing z-score means reducing chances of bankruptcy in which company's position shifts safe zone. Therefore, rising level of assets could also be a contributing factor to lower chances of bankruptcy for the companies in Australia.

4.7 Panels Corrected Standard Errors (PCSEs)

4.7.1 Effect of CSR on Bankruptcy; moderating effect of board ownership

The first model of PCSE is to determine effect of CSR on the bankruptcy and moderating effect of the board ownership. For this purpose, following regression model was used to check only effect of CSR on bankruptcy, and results of the model are interpreted as follows

Table 11: Effect of CSR and board ownership on Bankruptcy (Australia)

	Panel-Corrected		
Variable	Coef.	Std. Error	P>|z|
CSR	0.93710	0.2861	0.001
Total Assets	-2.355	0.4695	0.000
Board Ownership	-1.267	0.1806	0.000
Cons	14.23	2.9212	0.000
R^2 = 0.0341			
P-value = 0.000			

The coefficient of determination represented by R-squared is 0.0341 implying that 3.41% variation in the bankruptcy of the Australian companies can be estimated by the variation by the regressors of the study which includes total assets and board ownership. The r-square of the model is very low and this shows that remaining variance of the bankruptcy is residual which can only be estimated by the variables that are not in the model. Hence, residual of the model 0.9659 or 96.59% variance of the bankruptcy could be estimated by the other variables that are not in model. In addition to this, the prob>Chi2 (p-value) is 0.000 and it is less than alpha 0.05 suggesting to assume that model is significant. The significance of model is a critical for the interpretation given that a significant model implies that estimates provided by the model are free from sampling error and from any other statistical error including margin of error.

Therefore, the estimates of the model could be trusted and the predictability of the model is very low, and predictability of the model depends on the regressors of the study which cannot strongly estimate the regressand and this led to lower r-squared. Furthermore, the panel corrected coefficients shows that if there is one unit of change in CSR, total assets and board ownership then bankruptcy tend to change by 0.93 (p>|z|=0.00), -2.35 (p>|z|=0.00) and -1.267 (p>|z|=0.00) respectively. This implies that effect of CSR, total assets and board ownership is significant on the bankruptcy but effect of total assets and board ownership is negative. Therefore, it can be evidently stated that CSR positively influence the Altman z-score but board ownership negatively. However, for moderation effect of board ownership, following model was tested with moderating variable

Table 12: Effect of CSR on Bankruptcy; moderating effect of board ownership (Australia)

Variable	Coef.	Panel-corrected Std. Error	P>|z|
CSR	0.957	0.2919	0.001
Total Assets	-2.355	0.4722	0.000
Board Ownership*CSR	0.2348	0.1622	0.148
Board Ownership	0.6248	0.1.28	0.627
Cons	14.18	2.9051	0.000
R^2 = 0.0344			
P-value= 0.000			

The r-squared of this model is 0.0344 which means 3.44% variation in the bankruptcy can be predicted by CSR, total assets, board ownership and moderating variable. The model is also significant at Prob>Chi2 = 0.00 indicating that estimates of the model are true and significant enough to draw implications. Meanwhile, the coefficients of the model shows that one unit of change in the CSR, total assets, moderating variable, and board ownership will influence a change of 0.957 (p>|z|=0.00), -2.36 (p>|z|=0.00), -0.234 (p>|z|=0.00) and 0.624 (p>|z|=0.00) respectively. Therefore, it can be interpreted as that the effect of CSR on the Altman Z-score is also positive and significant, and total assets also has same negative and significant effect, but effect of moderating variable and board ownership is not significant.

However, the referring to moderation effect then R-square tells a different story, where the r-square of the simple model and moderating model is different. The simple model r-square is 3.41 (0.0341) and moderating model's r-squared is 3.44 (0.0344) this implies that model has improved after inclusion of the moderating variable. However, change is not significant, but still model has improved. Therefore, it can be stated that board ownership moderates the effect of CSR on the bankruptcy.

4.7.2 Effect of CSR on Bankruptcy; moderating effect of Top 10 Shareholders

The second model of the study is to determine effect of CSR on bankruptcy and moderating effect of top 10 investors for which following models are tested and are interpreted

Table 13: Effect of CSR and Top 10 shareholders on Bankruptcy (Australia)

Variable	Coef.	Panel-corrected Std. Error	P>|z|
CSR	0.9643	0.2915	0.001
Total Assets	-2.2790	0.4520	0.000
Top 10 Investors	-5.5364	2.2158	0.012
Cons	14.70	3.0031	0.000
R^2 = 0.0375			
P-value= 0.000			

The significance of the model is Prob>Chi2 = 0.00 implying that estimates provided by the mode could be trusted and can be used for interpretation of real-world problems. This is also evidence for using the results based on the fact that estimates by the model are not due to the statistical error and is also far behind the margin of error. Hence, considering the value of r-squared, it is 0.0375 or can be coined as 3.75%; and this means that 3.75% of the bankruptcy can be estimated by the independent variables of the model which includes CSR, total assets and top 10 investors. Based on the r-squared of the model, it can be interpreted that remaining portion of bankruptcy can be estimated by the other variables which are not in the model, and the residual of the model is equal to 96.29% (0.9629).

On the other hand, coefficients of the model shows that if there is one unit of variation in the CSR, total assets and top 10 investors' ownership then regressand bankruptcy tend to vary by 0.96 (p>|z|=0.00), -2.27 (p>|z|=0.00) and -5.53 (p>|z|=0.00) respectively. This shows that Altman Z-score is positively and significantly affected by the CSR; however, it is negatively and significantly affected by total assets and also negatively and significantly affected by top 10 investors' ownership. Therefore, if the Australian companies spend greater amount on the CSR activities then this could improve firm's financial position and lower its chances to go bankrupt. On the other hand, the moderating variable was included in the model to determine moderation effect and following input was achieved

Table 14: Effect of CSR on Bankruptcy; moderating effect of Top 10 shareholders (Australia)

Variable	Coef.	Panel-corrected Std. Error	P>|z|
CSR	0.5856	0.3156	0.064
Total Assets	-2.3671	0.4675	0.000
Top 10 Investors	-23.2579	6.2920	0.001
Top 10 Investors*CSR	1.3652	0.4328	0.002
Cons	20.4548	4.3277	0.000
R^2 = 0.0408			
P-value= 0.000			

The model with moderating variable also has Prob>Chi2 = 0.00 infers that this model is also statistically significant at 0.05; thus estimates of model are true and are free from statistical error. Therefore, the estimates of the model could be used to draw conclusion to provide recommendations for corporations in Australia. Meanwhile, the r-squared of the model is 0.0408 that infers that 4.08% variation in the bankruptcy can be estimated by the CSR, total assets, top 10 investors and moderating variable. In addition to this, the effect of moderating variable is positive and significant but effect of total assets and top 10 investors is negative and significant. In contrast, the model shows that effect of CSR is positive but statistically insignificant. Meanwhile, comparing the R-squared of the models then r-square of simple model is 3.75% (0.0375) and r-squared of moderating model is 4.08% (0.0408); since model's predictability power has improved hence it can be stated that top 10 investors' ownership moderates effect of CSR on the bankruptcy. In simple model CSR has positive and significant effect but in following model it turned insignificant whilst being positive. Thus, this infers that inclusion of moderating variable affected the CSR effect on the bankruptcy.

4.7.3 Effect of CSR on Bankruptcy; moderating effect of Institutional Ownership

The third model of the study intended to the examine effect of CSR spending on the bankruptcy and determine moderating effect of institutional ownership. For this purpose, simple model and model with moderating variable were used and results of these models are presented and interpreted as follows

Table 15: Effect of CSR and Institutional Ownership on Bankruptcy (Australia)

Variable	Coef.	Panel-corrected Std. Error	P>|z|
CSR	1.0025	0.2914	0.001
Total Assets	-2.4094	0.5021	0.000
Institutional Ownership	1.4837	3.9724	0.709
Cons	13.31	3.5033	0.000
R^2 = 0.0312			
P-value= 0.000			

The R-squared of the model is 0.0312 implying that 3.12% variation in the bankruptcy of the Australian companies can be estimated by CSR, total assets and institutional ownership. The r-square of the model is low and this means that remaining variance of the bankruptcy is residual which can only be estimated by the predictors (variables) that are not in the model. Hence, residual of the model is 0.9688 or 96.88% variance of the bankruptcy could be estimated by the other variables that are not in model. Meanwhile, the prob>Chi2 (p-value) is 0.000 which is less than alpha 0.05 advising that model is significant. Since, model is significant thus interpretations of the estimates can be made given that a significant model implies that estimates provided of the model are not due to the any statistical error. Based on this fact, estimates of the model could be trusted despite the estimation power of the model is low which is due to variables in the model could not predict bankruptcy strongly. On the other hand, coefficients indicates that one unit of variation in CSR, total assets and institutional ownership will influence a variation of 1.00 (p>|z|=0.00), -2.40 (p>|z|=0.00) and 1.48 (p>|z|=0.709) in the Altman (z-score) respectively. Therefore, it can be concluded that effect of CSR and total assets is significant on the bankruptcy but effect of total assets is negative and effect of institutional ownership is positive but insignificant. Thus, it can be evidently stated that CSR positively influence the Altman Z-score but institutional ownership affects positively but not significant.

Hence, having higher institutional ownership in the company also cannot improve z-score of the company to make it stronger financially and operationally; but it may have a role at some extent but effect is not significant.

Table 16: Effect of CSR on Bankruptcy; moderating effect of Institutional Ownership (Australia)

Variable	Coef.	Panel-corrected Std. Error	P>|z|
CSR	1.6058	0.1759	0.000
Total Assets	-2.4889	0.4939	0.000
Institutional Ownership	27.1878	14.0367	0.053
Institutional Ownership*CSR	-2.0805	0.8832	0.19
Cons	6.0833	4.87371	0.212
R^2 = 0.0360			
P-value= 0.000			

The r-squared of this model is 0.0360 which means 3.60% variation in the bankruptcy can be predicted by CSR, total assets, institutional ownership and moderating variable. The model is also significant at Prob>Chi2 = 0.00 indicating that estimates of the model are true and significant enough to draw implications. Meanwhile, the coefficients of the model shows that one unit of change in the CSR, total assets, institutional ownership and moderating variable will influence a change of 1.60 (p>|z|=0.00), -2.43 (p>|z|=0.00), -2.08 (p>|z|=0.053) and -2.08 (p>|z|=0.01) respectively. Therefore, it can be interpreted as that the effect of CSR on the Altman z-score is also positive and significant, and total assets also has same negative and significant effect, but institutional ownership is positive but insignificant and effect of moderating variable is negative and significant. Meanwhile, the referring to moderation effect then R-square of simple model is 3.12 (0.0312) and moderating model's r-squared is 3.60 (0.0360) this implies that model has improved after inclusion of the moderating variable. Therefore, it can be determined that institutional ownership moderates' effect of CSR on the Altman Z-score. Meanwhile, results of this model suggest that if the institutional ownership of the companies in Australia increases then this tend to lower z-score and lead companies to towards bankruptcy.

4.7.4 Effect of CSR on Bankruptcy; moderating effect of Board Independence

The fourth model of to determine effect of CSR on the bankruptcy and moderating effect of the board independence. For this purpose, following regression models was used to examine effect and moderating effect

Table 17: Effect of CSR and Board Independence on Bankruptcy (Australia)

Variable	Coef.	Panel-corrected Std. Error	P>|z|
CSR	0.9876	0.3048	0.001
Total Assets	-2.4506	0.4547	0.000
Board Independence	2.462	2.5541	0.335
Cons	12.49	3.5729	0.000
R^2 = 0.0316			
P-value= 0.000			

The significance of the model is Prob>Chi2 = 0.00 that infers that estimates by the mode can be trusted and estimates can be used to draw implications. This is also evidence for using the results based on the fact that estimates by the model are not due to the statistical error and margin of error. Hence, considering the value of r-squared, it is 0.0316 or 3.16%; and this means that 3.16% of the bankruptcy can be estimated by the independent variables of the model which includes CSR, total assets and board independence. Meanwhile, based on the r-squared of the model, it can be interpreted that residual of bankruptcy can be estimated by the other variables which are not included the model, and the residual of the model is equal to 96.84% (0.9684).

In addition to this, coefficients of the model show that if there is one unit of variation in the CSR, total assets and board independence then bankruptcy tend to vary by 0.98 (p>|z|=0.00), -2.45 (p>|z|=0.00) and 2.46 (p>|z|=0.33) respectively. This shows that Altman Z-score is positively and significantly affected by the CSR, negatively and significantly affected by total assets and positively but insignificantly affected by board independence. Therefore, if the Australian companies spend greater amount on the CSR activities then this can improve its z-score and lower its chances to go bankrupt. Meanwhile, following model was used in which moderating variable was included and following result was achieved

Table 18: Effect of CSR on Bankruptcy; moderating effect of Board Independence (Australia)

Variable	Coef.	Panel-corrected Std. Error	P>|z|
CSR	1.0327	0.6501	0.112
Total Assets	-2.4504	0.4546	0.000
Board Independence	3.2311	9.9412	0.745
Board Independence*CSR	-0.6130	0.7514	0.935
Cons	11.93	7.6826	0.120
R^2 = 0.0316			
P-value= 0.000			

The model with moderating variable has Prob>Chi2 = 0.00 which means this model is also statistically significant at 0.05; thus, estimates of model are true and are free from statistical error. Therefore, the estimates of the model could be used to draw implications for the organisations in Australia. Meanwhile, the r-squared of the model is 0.0316 that mean 3.16% variation in the bankruptcy can be estimated by the CSR, total assets, board independence and moderating variable. However, the effect of moderating variable is negative and insignificant but effect of total assets is negative and significant. Meanwhile, effect of moderating variable and board independence is statistically insignificant and this can be interpreted through comparing R-squared of the models then r-square of simple model is 3.16% (0.0316) and r-squared of moderating model is 3.16% (0.0316); since model's estimation power has not improved hence it can be stated that board independence does not moderates effect of CSR on the Altman Z-score. In simple model CSR has positive and significant effect but in following model this effect became insignificant despite effect remained positive. Hence, it can be stated that moderating variable has significantly moderated that effect of CSR on the bankruptcy. Thus, it is evident that if the board independence increases in the company then this also can improve the z-score and cannot reduce chances of the company to bankrupt.

4.7.5 Effect of CSR on Bankruptcy; moderating effect of Audit Committee Independence

Fourth model of regression is formulated to examine effect of CSR on the bankruptcy of the manufacturing companies Australia, and to determine how audit committee's independence affects relation of CSR and bankruptcy. For this purpose, regression model is tested twice; once with only audit independence and second time as interaction with CRS and results of both models are presented and analysed below

Table 19: Effect of CSR and Audit Committee Independence on Bankruptcy (Australia)

Variable	Coef.	Panel-corrected Std. Error	P>|z|
CSR	1.0104	0.2662	0.001
Total Assets	-2.1649	0.3311	0.000
Audit Independence	-3.2465	2.3530	0.168
Cons	13.7753	2.9195	0.000
R^2 = 0.0364			
P-value= 0.000			

The significance of the model is Prob>Chi2 = 0.00 that means model is significance and that estimates provided by the model can be trusted and can be used for interpretation. Meanwhile, it is also evidence for using the results since estimates by the model are not due to the statistical error and also does not fall within the margin of error. On the other hand, referring to the value of r-squared, it is 0.0364 or 3.64%; and this means that 3.64% of the bankruptcy can be estimated by the independent variables of the model which includes CSR, total assets and audit committee's independence. Based on the r-squared of the model, it can be interpreted that remaining portion of bankruptcy can be estimated by the other variables which are not in the model, and the residual of the model is equal to 96.36% (0.9636).

In addition to this, coefficients of the model shows that if there is one unit of variation in the CSR, total assets and audit committee's independence then regressand bankruptcy tend to vary by 1.01 (p>|z|=0.00), -2.16 (p>|z|=0.00) and -3.24 (p>|z|=0.168) respectively. This shows that Altman Z-score is positively and significantly affected by the CSR, negatively and significantly affected by total assets and also negatively and insignificantly affected by audit committee's independence. Therefore, if the Australian companies spend greater amount on the CSR activities then this could improve firm's financial position and lower its chances to go bankrupt. However, total assets shows a negative effect implying that having greater assets could contribute to the lowering the z-score means increasing chances for the company bankruptcy. In contrast, the audit committee's independence has negative effect but is not significant means its effect is not important. However, to better comprehend and analyse the moderating effect, in regression model was again tested after inclusion of interaction and results of the model are presented as follows

Table 20: Effect of CSR on Bankruptcy; moderating effect of Audit Committee Independence (Australia)

Variable	Coef.	Panel-corrected Std. Error	P>|z|
CSR	1.7799	0.3543	0.000
Total Assets	-1.8440	0.3697	0.000
Audit Independence	9.7473	4.6996	0.038
Audit Independence*CSR	-1.1226	0.3906	0.004
Cons	2.2437	4.5926	0.625
R^2 = 0.0428			
P-value= 0.000			

The model with moderating variable also has Prob>Chi2 = 0.00 infers that this model is also statistically significant at 0.05; thus, estimates of model are true and are free from statistical error. Therefore, the estimates of the model could be used to draw conclusion to provide recommendations for corporations in Australia. Meanwhile, the r-squared of the model is 0.0428 that infers that 4.28% variation in the bankruptcy can be estimated by the CSR, total assets, audit committee's independence and moderating variable. In addition to this, the effect of moderating variable is negative and significant, effect of total assets is negative significant and effect of audit committee's independence is positive and significant. This shows that audit committee's independence is negatively moderating the effect of CSR on the Altman Z-score. However, comparing the R-squared of the models then r-square of simple model is 3.64% (0.0364) and r-squared of moderating model is 4.28% (0.0428); since model's predictability power has improved hence it can be stated that audit committee's independence moderates effect of CSR on the bankruptcy. Therefore, it can be interpreted as that audit committee's independence can moderate the effect of CSR on the Altman Z-score negatively and effect is also significant. Thus, manufacturing companies with the independent audit committee could lead to higher chances of bankruptcy.

4.7.6 Effect of CSR on Bankruptcy; moderating effect of CEO duality

The sixth model of PCSE is to determine effect of CSR on the bankruptcy and moderating effect of the CEO duality. For this purpose, following regression model was used to check only effect of CSR on bankruptcy and to determine moderating effect of CEO duality an interaction variable was constructed and included in the model where results of the models are interpreted as follows

Table 21: Effect of CSR and CEO duality on Bankruptcy (Australia)

Variable	Coef.	Panel-corrected Std. Error	P>|z|
CSR	0.9337	0.2509	0.000
Total Assets	-2.5577	0.5729	0.000
CEO Duality	-2.1878	1.4818	0.140
Cons	16.6823	4.0233	0.000
R^2 = 0.0338			
P-value= 0.000			

The R-squared of the model is 0.0338 implying that 3.41% variation in the bankruptcy of the Australian companies can be estimated by the variation by the regressors of the study

CSR, total assets and CEO duality. The r-square of the model is very low and this shows that remaining variance of the bankruptcy is residual which can only be estimated by the variables that are not in the model. Hence, residual of the model 0.9662 or 96.62% variance of the bankruptcy could be estimated by the other variables that are not in model. In addition to this, the prob>Chi2 (p-value) is 0.000 and it is less than alpha 0.05 suggesting that model is significant. The significance of the model allows to provide interpretation of results since estimates of the model are not due to any statistical error. Furthermore, the panel corrected coefficients shows that if there is one unit of change in CSR, total assets and CEO duality then bankruptcy is supposed to change by 0.93 (p>|z|=0.00), -2.55 (p>|z|=0.00) and -2.18 (p>|z|=0.140) respectively. This implies that effect of CSR significant positive on the Altman Z-score but effect of total assets is negative and significant; conversely CEO duality also has negative but insignificant effect on the Altman Z-score. Therefore, it is evident that CEO duality is not an important factor that could improve the firm's position, and reduce its chances to go bankrupt. However, following results were extracted when interaction variable was included in the model

Table 22: Effect of CSR on Bankruptcy; moderating effect of CEO duality (Australia)

Variable	Coef.	Panel-corrected Std. Error	P>|z|
CSR	1.7150	0.1409	0.000
Total Assets	-2.9497	0.5353	0.000
CEO Duality	12.5471	4.6197	0.007
CEO Duality *CSR	-1.2131	0.2902	0.000
Cons	10.0736	4.4738	0.024
R^2 = 0.0428			
P-value= 0.000			

The r-squared of this model is 0.0334 which means 3.34% variation in the bankruptcy can be predicted by CSR, total assets, CEO duality and moderating variable. The model is also significant at Prob>Chi2 = 0.00 indicating that estimates of the model are true and significant enough to draw implications. Meanwhile, the coefficients of the model shows that one unit of change in the CSR, total assets, CEO duality and moderating variable will influence a change of 1.71 (p>|z|=0.00), -2.94 (p>|z|=0.00), 12.54 (p>|z|=0.00) and -1.21 (p>|z|=0.00) respectively. Therefore, it can be interpreted as that the effect of CSR on the Altman Z-score is positive and significant, total assets has negative significant, CEO duality has positive and significant and interaction variable has negative and significant effect on the Altman Z-score. Meanwhile, R-square of the first model was 0.0338 or 33.8% and r-square of this model is 0.0434, and since the r-square of the model has improved hence it is evident that model has improved and the interaction variable has significant effect. Therefore, it can be determined that if a company has CEO duality status then this could negatively affect its financial position. Therefore, it would lead to negative effect on the Altman Z-score and firm's chances to go bankrupt still remains higher. However, overall findings suggests that CEO duality moderates effect of CSR on the bankruptcy but negatively. Hence, manufacturing firms with the CEO duality status are more exposed to the risk of bankruptcy and also it increase chances of the companies to go bankrupt.

4.7.7 Effect of CSR on Bankruptcy; moderating effect of Shareholder's Activism

The last model of the study intended to the examine effect of CSR spending on the bankruptcy and determine moderating effect of shareholder's activism. For this purpose, simple model and model with moderating variable were used and results of these models are presented and interpreted as follows

Table 23: Effect of CSR and Shareholder's Activism on Bankruptcy (Australia)

Variable	Coef.	Panel-corrected Std. Error	P>|z|
CSR	0.9896	0.3023	0.001
Total Assets	-2.3275	0.5567	0.000
Shareholder's Activism	-4.5857	4.9751	0.357
Cons	17.43	4.4393	0.000
R^2 = 0.0319			
P-value= 0.000			

The R-squared of the model is 0.0319 implying that 3.19% variation in the bankruptcy of the Australian companies can be estimated by CSR, total assets and shareholder's activism. The r-square of the model is low and this means that remaining variance of the bankruptcy is residual which can only be estimated by the predictors (variables) that are not in the model. Hence, residual of the model is 0.9681 or 96.81% variance of the bankruptcy could be estimated by the other variables that are not in model. Meanwhile, the prob>Chi2 (p-value) is 0.000 which is less than alpha 0.05 advising that model is significant. Since, model is significant thus interpretations of the estimates can be made given that a significant model implies that estimates provided of the model are not due to the any statistical error. Based on this fact, estimates of the model could be trusted despite the estimation power of the model is low which is due to variables in the model could not predict bankruptcy strongly. On the other hand, coefficients indicates that one unit of variation in CSR, total assets and shareholder's activism will influence a variation of 0.98 (p>|z|=0.00), -2.32 (p>|z|=0.00) and -4.5 (p>|z|=0.357) in the bankruptcy (z-score) respectively. Therefore, it can be concluded that effect of CSR and total assets is significant on the Altman Z-score but effect of total assets is negative and effect of shareholder's activism is negative but insignificant. Thus, it can be evidently stated that CSR positively influence the Altman Z-score but shareholder's activism affects positively but not significant. Hence, having higher shareholder's activism in the company also cannot improve z-score of the company to make it stronger financially and operationally; but it may have a role at some extent but effect is not significant.

Table 24: Effect of CSR on Bankruptcy; moderating effect of Shareholder's Activism (Australia)

Variable	Coef.	Panel-corrected Std. Error	P>|z|
CSR	-6.1754	1.2340	0.000
Total Assets	-2.5965	0.5491	0.000
Shareholder Activism	-94.7475	17.5103	0.000
Shareholder Activism *CSR	7.6986	1.3613	0.000
Cons	103.4985	16.5105	0.000

R^2 = 0.0656 *P-value= 0.000*

The r-squared of this model is 0.0656 which means 6.56% variation in the bankruptcy can be predicted by CSR, total assets, shareholder's activism and moderating variable. The model is also significant at Prob>Chi2 = 0.00 indicating that estimates of the model are true and significant enough to draw implications. Meanwhile, the coefficients of the model shows that one unit of change in the CSR, total assets, shareholder's activism and moderating variable will influence a change of -6.17 (p>|z|=0.00), -2.59 (p>|z|=0.00), -94.74 (p>|z|=0.053) and 7.6 (p>|z|=0.00) respectively. Therefore, it can be interpreted as that the effect of CSR on the Altman Z-score is negative and significant, and total assets also has same negative and significant effect, shareholder's activism is also negative and significant and effect of moderating variable is positive and significant on Altman Z-score. Meanwhile, the referring to moderation effect then R-square of simple model is 3.12 (0.0312) and moderating model's r-squared is 3.60 (0.0360) this implies that model has improved after inclusion of the moderating variable. Therefore, it can be determined that shareholder's activism moderates' effect of CSR on the Altman Z-score. Meanwhile, results of this model suggests that if the shareholder's activism of the companies in Australia increases then this tend to lower z-score and lead companies to towards bankruptcy.

4.8 Pakistan

4.9 Descriptive

Table below illustrates the descriptive statistics of the Pakistan's variables; the mean bankruptcy score in Pakistan is 3.24 with standard deviation 7.49; this implies that on average a given company in Pakistan has Altman z-score 3.24 but this value might increase or decrease by the standard deviation 7.49 reach to 10 or may also turn negative. This indicates that there are some other companies that have z-score in negative implying that these companies at bank of bankruptcy. On the other hand, mean CSR of the Pakistan companies is 4,107,654 with standard deviation 10,189,396 by which the mean CSR can deviate. Based on the mean value of CSR, it can be evidently stated that on average each company has been spending more than Rs. 4 million, and maximum recorded spending of one of the companies is greater than Rs. 88 million which is a huge amount for the social work in Pakistan. This is an indication of how importance CSR is being perceived by Pakistani organisations; since CSR alone might be important for the company to become social responsible, but it also has an indirect positive effect on the firm's performance as the worth and value of the company increases in the society.

Table 25: Descriptive Statistics of Pakistani Manufacturing Companies

Descriptive Statistics	Mean	Median	Max	Min	Std. Dev.
BANKRUPTCY	3.24	1.87	109.10	(3.52)	7.49
CSR	4,107,654	231,070	88,035,524	-	10,189,396
Board Ownership	0.20	0.08	1.00	-	0.25
Top 10 Shareholders	0.58	0.63	1.00	-	0.30
Institutional Ownership	0.35	0.28	2.35	-	0.32
Board Independence	0.924485	0.75	10.9375	0	1.235724
CEO Duality	0.07148	0	1	0	0.257716
Audit Committee Independence	0.792709	1	1	0	0.405511
Shareholder's Activism	0.837937	0.82	9	0	0.44271

Meanwhile, mean board ownership of Pakistani firms is 20% with standard deviation 25% which indicates that on average a company's 20% ownership is held by board of members; but this ownership concentration might increase or decrease by 25%. Therefore, it is evident that in Pakistan the board of directors also holds ownership in the companies, but there are also some companies in which board members have no ownership since minimum ownership is zero. Furthermore, mean top 10 shareholders of Pakistani companies are 58% with standard deviation 30%, and this indicates in Pakistan on average 58% ownership is held by top 10 shareholders. On the other hand, mean institutional ownership is 35% with standard deviation 32% which is significantly greater than expected. This implies that on average a Pakistani company's 35% ownership is held by institutional owners, and this means owners includes banks, brokerage firms, equity management companies, and also government organisations.

In addition to this, board independence of Pakistani companies is 0.92 which indicates that on average 92% company's directors are independent, and only 8% directors are executive directors. Hence, it is evident that Pakistan has on average has majority of board as independent members, and this increases credibility of the board makes the board more transparent and value oriented. Similarly, the mean value of the CEO duality is 7% which implies that only 7% of the company's CEO have dual role; thus, implications and transparency of the board may be undermined in those organisations. Since, CEO is a single role but when CEO also assumes role of chairman of the board then it has significant influence over the board which affects the transparency of the board. However, majority of firms do not have dual role; thus, this also makes Pakistani companies to be more transparent and value oriented.

Furthermore, the mean value of the audit committee independence is 79% which indicates that majority of the companies have independent audit committee, and also shareholder's activism mean value is 83% that shows that more than 70% of directors had attended almost all board meetings. Meanwhile, if the shareholder activism, and audit committee of the organisation is high then it is affects how firm operates towards value creation. In presence of independent audit committee, the financial statements are under scrutiny, and final prepared statements would have low probability of the fraud or material misstatement. In addition to this, higher shareholder activism is indication of the activeness of the board members and their focus on representation of shareholders' interest and value creation.

4.10 Pearson's Correlation (Pakistan)

Table 26: Correlation Analysis on Pakistani Companies

Bankruptcy Score	Coeff.	P-Value	Strength	Direction	Significance
Board Ownership	0.00	0.96	Weak	Positive	Not Significant
Top 10 Investors	0.03	0.19	Weak	Positive	Not Significant
Institutional Owners	0.02	0.52	Weak	Positive	Not Significant
Board Independence	0.04	0.11	Weak	Positive	Not Significant
Ad. Committee Independence	0.01	0.74	Weak	Positive	Not Significant
CEO Duality	**-0.06**	**0.04**	**Weak**	**Negative**	**Significant**
Shareholder Activism	0.04	0.19	Weak	Positive	Not Significant
CSR Expenditure	-0.05	0.07	Weak	Negative	Not Significant
Total Assets	**-0.13**	**0.00**	**Weak**	**Negative**	**Significant**

The correlation coefficient of board ownership and z-score is 0.00 (p=0.96) indicating that there is no interrelation between the variables since coefficient is zero and relation is also not significant. Thus, this implies that board ownership does not influence z-score to increase in order to remain in safe zone where probability of bankruptcy is almost zero. It can be further interpreted as that if the companies' directors of board own portion of shares then it also cannot save company by reducing its chances to go bankrupt.

On the other hand, referring to the coefficient between the top 10 investors and z-score then it is 0.03 (p=0.19) which indicates that there is very weak positive interrelation of top 10 investors with bankruptcy but since p-value is greater than alpha, hence the interrelation is said to be statistically insignificant. Therefore, it can be evidently stated that if the top 10 investor's ownership increases then it also tends to positively influence the z-score means reducing company's chances to go bankrupt. However, this relation may also not be material based on the fact that relation is not statistically significant; thus, it may and may not truly influence the z-score.

Furthermore, the coefficient between the institutional ownership and z-score is 0.02 (p=0.52) indicating that there is very weak positive interrelation of institutional ownership with bankruptcy but since p-value is greater than alpha, hence the interrelation is said to be statistically insignificant. Thus, it can be stated that if the institutional ownership increases then

then it also tends to positively influence the z-score means reducing company's chances to go bankrupt. However, this also subject to the significance hence the influence may not be material since relation is not significant.

Meanwhile, the coefficient between the board independence and z-score is 0.04 (p=0.11) indicating that there is very weak but positive interrelation of board independence with the z-score. However, the p-value of the relation is greater than alpha 0.05 hence it is evident that relation is not significant between the variables. Hence, it can be interpreted as that if the board independence of the company increases then this could also have a positive influence over the z-score means may reduce chances of companies to go bankrupt. Since, the relation is not significant hence this relation may not be material and might influence the z-score of the companies. Therefore, it is clear in case of Pakistani companies that having majority of board of directors independent also does not increase the z-score or improves firm's financial position and reduces its chances to go bankrupt.

Furthermore, the coefficient between the audit committee independence and z-score is 0.01 (p=0.74) indicating that there is very weak but positive interrelation of audit committee independence with the z-score. However, the p-value of the relation is greater than alpha 0.05 hence relation is not significant between the variables. Consequently, it can be interpreted as that if the audit committee independence of the company increases then this could also have a positive influence over the z-score means may reduce chances of companies to go bankrupt. Since, the relation is not significant hence this relation may not be material and might not influence the z-score of the companies. Therefore, it can be stated in case of Pakistani companies that having independent audit committee also does not increase the z-score, improves firm's financial position and reduces its chances to go bankrupt.

On the other hand, correlation coefficient between the CEO duality and z-score is -0.06 (p=0.04) indicating that there is very weak and negative interrelation between the variables.

Meanwhile, the p-value of the relation is less than alpha 0.05 implying that interrelation between the CEO duality and z-score is statistically significant. Therefore, it can be interpreted as that if a company's role is dual in terms of being CEO and chairman of the board then it significant influence the z-score of the company. This means CEO duality can reduce chances of the company to go bankrupt and the interrelation is also significant which means that if the influence of the CEO duality on the z-score is positive and material.

Furthermore, the coefficient between the shareholder activism and z-score is 0.04 (p=0.19) indicating that there is very weak but positive interrelation of shareholder activism with the z-score. However, the p-value of the relation is greater than alpha 0.05 hence relation is not significant between the variables. Thus, it can be interpreted as that if the shareholder activism of the company increases then this could also have a positive influence over the z-score means may reduce chances of companies to go bankrupt. Since, the relation is not significant hence this relation may not be material and might not influence the z-score of the companies. Therefore, it can be stated in case of Pakistani companies that having greater shareholder activism also may not increase the z-score and save company from going bankrupt.

In addition to this, correlation coefficient between the CSR expenditure and z-score is -0.05 (p=0.07) indicating that there is very weak and negative interrelation between the variables. Meanwhile, the p-value of the relation is greater than alpha 0.05 implying that interrelation between the CSR expenditure and z-score is not statistically significant. Therefore, it can be interpreted as that if a company spends more on the CSR activities then it may and may not be materially improve z-score of the company since relation is not significant. This also can be analysed in another way as that spending higher on CSR activities cannot reduce chances of the company to go bankrupt.

Lastly, the coefficient between the total assets and z-score is -0.13 (p=0.00) indicating that there is very weak negative interrelation between the variables. However, the p-value of the relation is less than alpha 0.05 hence relation is said to be significant between the variables. Consequently, it can be interpreted as that if the total assets of the company increase then this could also increase the chances of company to go bankrupt. It is because if total assets increase then this will reduce the z-score and reducing z-score means increasing chances of bankruptcy in which company's position may shift from safe zone to distress zone. Therefore, rising level of assets could also be a contributing factor to bankruptcy for the companies in Pakistani.

4.11 Panels Corrected Standard Errors (PCSEs)

Panel corrected standard errors (PCSEs) is robust technique used in replacement of simple linear regression in which the model handles autocorrelation and heteroscedasticity problem. Meanwhile, in following study there were seven moderating variables for each of the countries' companies; hence to determine moderating effect of variable, two models are developed and analysed.

4.11.1 Effect of CSR on Bankruptcy; moderating effect of board ownership

The first model of PCSE (Panels Corrected Standard Errors) is used to find out the relation of the effect of the bankruptcy and moderating effect of the board ownership. Regression model has been applied for this purpose and in this way effect of CSR on the bankruptcy have evaluated from the results as follows.

Table 27: Effect of CSR and board ownership on Bankruptcy (Pakistan)

	Panel-Corrected		
Variable	Coef.	Std. Error	P>|z|
CSR	-0.2427	0.0686	0.000
Total Assets	-0.4157	0.0320	0.000
Board Ownership	0.4124	0.9353	0.659
Cons	7.3971	0.3435	0.000
R^2 = 0.0208			
P-value= 0.000			

The R-squared from this model comes up with 0.0208, which is 2.08% in terms of percentage. This means that 2.08% in the bankruptcy of the Pakistan companies can be estimated by the variation by the repressors of the study including total assets and board ownership. The calculated r-square is very low and this shows that remaining variance of the bankruptcy is residual which can only be estimated by the variables that are not in the model. Regarding the residual of the model that is 0.9792 which is 97.92% variance of the bankruptcy could be estimated by the other variables. Furthermore, the prob>Chi2 (p-value) is 0.000 that is again less than alpha value 0.05 means that model is significant.

The significance of the model implies that estimates provided by the model are free from sampling error and from any other statistical error including margin of error As the predictability of the model depends on the regressors of the study that is difficult to estimate. If there is one unit of change in CSR, total assets and board ownership then bankruptcy tend to decrease by –0.24 (p>|z|=0.00), -0.41 (p>|z|=0.00) and 0.412 (p>|z|=0.659) respectively. In respect to that effect of CSR and board ownership is significant on Altman Z-score and total assets is negative whereas board ownership is positive. However, for moderation effect of board ownership, following model was tested with moderating variable.

Table 28: Effect of CSR on Bankruptcy; moderating effect of board ownership (Pakistan)

Variable	Coef.	Panel-corrected Std. Error	P>|z|
CSR	-0.1883	0.0645	0.004
Total Assets	-0.4138	0.0324	0.000
Board Ownership*CSR	2.1211	1.6207	0.191
Board Ownership	-0.3021	0.1583	0.056
Cons	7.0860	0.3548	0.000
R^2 = 0.0210			
P-value= 0.000			

In this model, the r-square of this model is calculated as 0.0210 which is equal to 2.1% variation in the bankruptcy can be predicted by CSR. The value of Prob>Chi2 = 0.00 indicates that model is significant and can be estimated whereas the overall change in the unit of CSR, total assets, moderating variable and board ownership will influence of -0.188 (p>|z|=0.004), -

0.413 (p>|z|=0.00), 2.12 (p>|z|=0.191) and -0.302 (p>|z|=0.056) respectively. For the interpretations of the effect of CSR on the Altman Z-score is negative and significant while effect of moderating variable and board ownership is not significant. Overall change is significant therefore it can be stated that effect of the CSR is negative effect on the Altman Z-score.

4.11.2 Effect of CSR on Bankruptcy; moderating effect of Top 10 Shareholders

The model under this discussion is to determine the effect of CSR on bankruptcy and moderating effect of top 10 investors for which the following models have been tested and interpreted accordingly.

Table 29: Effect of CSR and Top 10 shareholders on Bankruptcy (Pakistan)

Variable	Coef.	Panel-corrected Std. Error	P>|z|
CSR	-0.1939	0.0597	0.000
Total Assets	-0.4532	0.0330	0.000
Top 10 Investors	1.4783	0.2276	0.000
Cons	6.6206	0.3958	0.000
R^2 = 0.0239			
P-value= 0.000			

The value of the prob>Chi2 = 0.00 implies that model is significant overall and it can be interpreted accordingly. Furthermore, the r-squared of the model is calculated as 2.39% means that 2.39% of the bankruptcy can be estimated from this model whereas value of the residual is calculated as 0.9976. Regarding the coefficients in the models which are calculated as -0.193 (p>|z =0.00), -0.45 (p>|z|=0.00) and 1.47 (p>|z|=0.00) respectively. If there is one unit of change in the CSR, total assets and top 10 investors will vary according to these figures. Altman Z-score would be negative influenced by CSR and total assets but it will be positively affected by top 10 investors' ownership. Overall if the company will go for the CSR activities then the financials of the company will decrease. For the moderation effect of the top 10 investors of the company, following model has been implemented.

Table 30: Effect of CSR on Bankruptcy; moderating effect of Top 10 shareholders (Pakistan)

Variable	Coef.	Panel-corrected Std. Error	P>|z|
CSR	0.1661	0.1426	0.000
Total Assets	-0.4613	0.0314	0.000
Top 10 Investors	4.9434	0.9924	0.000
Top 10 Investors*CSR	0.6223	0.1857	0.001
Cons	4.6561	0.7909	0.000
R^2 = 0.0247			
P-value= 0.000			

This r-squared of this model is calculated as 0.0247 which 2.47% in terms of percentage, means that it infers the variation in the bankruptcy can be estimated by the CSR, total assets, top 10 investors and moderate variable. The prob>Chi2 = 0.000 is less than the value of the alpha (i.e. 0.005) which means overall model is significance and it can be trusted. Regarding the change in one unit of CSR, total assets, moderating variable and board ownership will be influenced by 0.166 (p>|z|=0.244), -0.461 (p>|z|=0.00), 4.94 (p>|z|=0.00) and -0.622 (p>|z|=0.001) respectively. For the interpretations of the effect of the CSR on top 10 investors. In simple model CSR has positive and significant effect. Thus, this infers that inclusion of moderating variable top 10 investment would lead to positive effect on the Altman Z-score; thus, reducing the level of bankruptcy.

4.11.3 Effect of CSR on Bankruptcy; moderating effect of Institutional Ownership

The third model of the study intended to the examiner effect of CSR spending on the bankruptcy and determine moderating effect of institutional ownership. For this purpose, simple model and model with moderating variable were used and results of these models are presented and interpreted as follows

Table 31: Effect of CSR and Institutional Ownership on Bankruptcy (Pakistan)

Variable	Coef.	Panel-corrected Std. Error	P>|z|
CSR	-0.2354	0.0524	0.000
Total Assets	-0.4217	0.0332	0.000
Institutional Ownership	0.6094	0.4739	0.199
Cons	7.2657	0.3663	0.000
R^2 = 0.0213			
P-value= 0.000			

The R-squared of the model is calculated as 0.0213 which is 2.13% in terms of percentage. This percentage indicates the variation in the bankruptcy of the Pakistani companies can be estimated by the CSR, total asset and the last is institutional ownership. The residual value of this model is 97.87% which means that bankruptcy of the model can be estimated by other variables that are not in the model while the prob>Chi2 =0.000 which is less than the value of the alpha that's reflects the significance of the model overall. So, interpretations of the model can be estimated. On the other hand, coefficients of the model indicates that one unit of the variation in the CSR, total assets and institutional ownership will influence a variation of -0.235 (p>|z|=0.00), -0.421 (p>|z|=0.00) and 0.609 (p>|z|=0.199) in the bankruptcy respectively. Therefore, it can be concluded that CSR and the total assets has negative effect on the Altman Z-score and effect of institutional ownership is positive but insignificant.

Table 32: Effect of CSR on Bankruptcy; moderating effect of Institutional Ownership (Pakistan)

Variable	Coef.	Panel-corrected Std. Error	P>|z|
CSR	-0.4152	0.0861	0.000
Total Assets	-0.4249	0.0327	0.000
Institutional Ownership	-2.1877	1.1643	0.060
Institutional Ownership*CSR	0.5194	0.1736	0.003
Cons	8.2502	0.6082	0.000
R^2 = 0.0219			
P-value= 0.000			

The r-squared calculated in this model is 0.0219 which is 2.19% in terms of percentage which means that variation can be predicted by the CSR, total asset, institutional ownership of the company and last moderate variable. The significance of the model can be checked by the value of the prob>Chi2 = 0.00 that is less than the value of the alpha value. This implies that implications can be drawn from the model. In terms of interpretations of the model, one unit of change in the CSR, total assets, institutional ownership and moderating effect variable will influence a change of -0.415 (p>|z|=0.00), -0.424 (p>|z|=0.00), -2.18 (p>|z|=0.060) and 0.519 (p>|z|=0.03) respectively. The effect of CSR on the Altman Z-score is negative and significant whereas total assets and institutional ownership is negatively influencing on Altman Z-score. In the last the effect of the moderating effect is positive and significant. Therefore, it can be determined that institutional ownership moderates' effects negatively towards CSR on the bankruptcy.

4.11.4 Effect of CSR on Bankruptcy; moderating effect of Board Independence

In this model, the effect of CSR on the bankruptcy and moderating effect of the board independence is determined by the help of regression model. The model has been tested and the results have been evaluated as the following.

Table 33: Effect of CSR and Board Independence on Bankruptcy (Pakistan)

Variable	Coef.	Panel-corrected Std. Error	P>|z|
CSR	-0.2314	0.0536	0.000
Total Assets	-0.4042	0.0310	0.000
Board Independence	0.1260	0.0429	0.000
Cons	7.2190	0.3621	0.000
R^2 = 0.0211			
P-value= 0.000			

In this model the calculated r-squared is 0.0211 which is equal to 2.11%. The bankruptcy on the independent variable can be determined of 2.11% whereas the residual is calculated in this model is equal to 0.9789. The significance of the model can be determined by the value of the prob>Chi2 that is calculated in this model to be 0.000. The calculated value of prob>Chi2 in this model is less than the value of Alpha that is equal to the 0.005. Therefore, overall the model is significance and it can be trusted and in this way, it can used to draw implications. The model is also evidence for using the results based on the fact that estimates by the model are not due to the statistical error and margin of error. Furthermore, the coefficients of the model show the change in the one unit of variation in the CSR, total assets and board independence then bankruptcy tend to change by -0.231 (p>|z|=0.00), -0.404 (p>|z|=0.00) and 0.126 (p>|z|=0.003) respectively. In can interpreted as CSR and total assets are negatively influencing on the Altman Z-score while the last variable that is of board independence effected positively and significantly on the Altman Z-score. Meanwhile, following model was used in which moderating variable was included and following result was achieved.

Table 34: Effect of CSR on Bankruptcy; moderating effect of Board Independence (Pakistan)

Variable	Coef.	Panel-corrected Std. Error	P>|z|
CSR	-0.5890	0.0989	0.000
Total Assets	-0.3984	0.0310	0.000
Board Independence	-2.5412	0.5939	0.000
Board Independence*CSR	0.4795	0.1082	0.000
Cons	9.1870	0.6324	0.000
R^2 = 0.0219			
P-value= 0.000			

In this model the calculated r-squared is 0.0219 which is equal to 2.19%. The bankruptcy on the independent variable can be determined of 2.19% whereas the residual is calculated in this model is equal to 0.9781. The effect of moderating variable and board of independence is statistically insignificant as the value of the r-squared is very low. The significance of the model can be determined by the value of the prob>Chi2 which is again equal to 0.000 that explains the significance of the model and it can be trusted in order to evaluate to draw estimations for the companies in Pakistan. This model can be interpreted that one unit of change in the CSR, total assets, board independence and moderating effect variable will influence a change of -0.589 (p>|z|=0.00), -0.398 (p>|z|=0.00), -2.54 (p>|z|=0.000) and 0.479 (p>|z|=0.00) respectively. Hence, it can be stated that Board independent is significantly moderating between CSR and Altman Z-score where it is found to have positive moderating effect.

4.12.5 Effect of CSR on Bankruptcy; moderating effect of Audit Committee Independence

This is the fifth model which is regarding the effect of CSR on the bankruptcy in order to determine that how the audit committee's independence affects relation of CSR and bankruptcy. This relation has been tested by the help of regression model and further this relation has been done on the companies that are listed in the Pakistan. Following are the results of the model.

Table 35: Effect of CSR and Audit Committee Independence on Bankruptcy (Pakistan)

Variable	Coef.	Panel-corrected Std. Error	P>|z|
CSR	-0.2335	0.0549	0.000
Total Assets	-0.4257	0.0324	0.000
Audit Independence	0.5603	0.2006	0.005
Cons	7.0516	0.3540	0.000
R^2 = 0.0215			
P-value= 0.000			

As the significance of the model can be find out by the help of value of prob > chi2 which is calculated as 0.000 and it implies that model is significant. Further it can be used for prediction and model can be trusted overall. On the other hand, r-squared value of the model is calculated as 0.0215 and 2.15% in term of percentage. This percentage implies that 2.15% of the bankruptcy can be estimated by the independent variables of the model. The remaining portion of bankruptcy can be estimated by other variables as based on the r-squared of the model. In terms of the interpretation of the model that shows one unit of change in the CSR, total assets and audit committee's independence tends to change by -0.233 (p > |z|=0.00), -0.425 (p > |z|=0.00) and 0.560 (p > |z|=0.005) respectively. Overall, Altman Z-score is significant but negatively affected by total assets and CSR whereas it is affected positively and significantly by audit committee's independence.

Table 36: Effect of CSR on Bankruptcy; moderating effect of Audit Committee Independence (Pakistan)

Variable	Coef.	Panel-corrected Std. Error	P>|z|
CSR	-0.1361	0.1092	0.213
Total Assets	-0.4252	0.0329	0.000
Audit Independence	1.2100	0.6962	0.082
Audit Independence*CSR	-0.1197	0.1096	0.275
Cons	6.5206	0.6935	0.000
R^2 = 0.0216			
P-value= 0.000			

The prob>Chi2 of this model is also calculated as the prob>Chi2 = 0.00 infers that this model is also statistically significant at 0.05. This model indicates that estimates of model are true and are free from statistical error. The estimations of this model can be used in order to draw conclusion and provide recommendations. Meanwhile, the r-squared of the model is 0.0216 that infers that 2.16% variation in the bankruptcy can be estimated by the CSR, total assets, audit committee's independence and moderating variable. In addition to this, the effect of moderating variable is negative and significant, effect of total assets is negative significant and effect of audit committee's independence is positive and significant on Altman Z-score. Hence, the audit committee's independence is negatively moderating the effect of CSR on the Altman Z-score. The r-squared of models are compared in order to find out the predictability than r-square of simple model is 2.15% and r-squared of moderating model is 2.16%; since model's predictability power has not change significantly hence it can be stated that audit committee's independence and audit committee's independence moderates effect of CSR on the bankruptcy in the same way.

4.11.6 Effect of CSR on Bankruptcy; moderating effect of CEO duality

The sixth model intend to determine effect of CSR on the bankruptcy and examine the mediating effect of CEO duality. Therefore, following regression models were constructed and results are interpreted

Table 37: Effect of CSR and CEO duality on Bankruptcy (Pakistan)

Variable	Coef.	Panel-corrected Std. Error	P>|z|
CSR	-0.1987	0.0512	0.000
Total Assets	-0.4219	0.0302	0.000
CEO Duality	-1.661	0.3453	0.000
Cons	7.4100	0.3366	0.000
$R^2 = 0.0239$			
P-value= 0.000			

The R-squared of the model is 0.0239 implying that 2.39% variation in the bankruptcy of the Pakistani companies can be estimated by the predictors of the study which includes CSR, total assets and CEO duality. Meanwhile, the prob>Chi2 (p-value) of the model is 0.000 which is less than alpha 0.05 suggesting to claim that model is significant at 0.05. Hence, the results of the model can be trusted from statistical point of view based on the fact that results are free from any sampling error or any other statistical error. Therefore, the estimates of the model could be trusted despite the predictability of the model is very low, and predictability of the model depends on the predictors of the study which cannot strongly estimate the dependent variable which always result in lower r-squared. Furthermore, the panel corrected coefficients shows that if there is one unit of variation in CSR, total assets and CEO duality then bankruptcy tend to change by -0.19 (p>|z|=0.00), -0.42 (p>|z|=0.00) and -1.66 (p>|z|=0.00) respectively. This implies that effect of CSR, total assets and CEO duality is significant on the Altman Z-score but effect is negative. The negative and significant effect shows that in presence of CEO duality CSR and total assets increases the bankruptcy ratio. Therefore, it can be interpreted that in case of Pakistan, CSR, total assets and CEO duality negatively affects firm's Z-score which means that the increases chances of firms to go bankrupt. However, for moderation effect of CEO duality, following model was tested with moderating variable

Table 38: Effect of CSR on Bankruptcy; moderating effect of CEO duality (Pakistan)

Variable	Coef.	Panel-corrected Std. Error	P>|z|
CSR	-0.2286	0.0566	0.000
Total Assets	-0.4265	0.0311	0.000
CEO Duality	-0.4468	1.8495	0.022
CEO Duality *CSR	0.4468	0.2621	0.088
Cons	7.5954	0.3847	0.000
$R^2 = 0.0242$			
P-value= 0.000			

The r-squared of this model is 0.0242 which means 2.42% variation in the bankruptcy can be predicted by CSR, total assets, CEO duality and interaction variable. The model is also significant at Prob>Chi2 = 0.00 indicating that estimates of the model are true and significant enough to draw implications. In addition to this, the r-square of model after inclusion of interaction variable has improved from 2.39% to 2.42%, and this is an insignificant improvement in the model. Meanwhile, concerning the coefficients of the model shows that one unit of change in the CSR, total assets, CEO duality and moderating variable will influence a change of -0.22 (p>|z|=0.00), -0.42 (p>|z|=0.00), -4.24 (p>|z|=0.02) and 0.44 (p>|z|=0.08) respectively. Therefore, it can be determined that all predictors have negative and significant effect except for the moderating variable which has insignificant effect on the Altman Z-score. Hence, it is evident that CEO duality does not influence the effect CSR on the bankruptcy. This is an indication that in case of Pakistan, the CSR expenditure does not contribute to lower the chances of the companies to bankrupt. Therefore, Pakistani firms cannot emerge from the bankruptcy despite they are spending a greater amount on the CSR and that firm have a CEO duality, and even it is associated negatively with the bankruptcy ratio.

4.11.7 Effect of CSR on Bankruptcy; moderating effect of Shareholder's Activism

The eighth model of the study is to determine effect of CSR on bankruptcy and moderating effect of shareholder's activism for which following models are tested and are interpreted

Table 39: Effect of CSR and Shareholder's Activism on Bankruptcy (Pakistan)

Variable	Coef.	Panel-corrected Std. Error	P>|z|
CSR	-0.2128	0.0528	0.000
Total Assets	-0.4225	0.3203	0.000
Shareholder's Activism	0.6933	0.1411	0.000
Cons	6.7811	0.3373	0.000
R^2 = 0.0223			
P-value= 0.000			

The R-squared of the model is 0.0223 implying that 2.23% variation in the bankruptcy of the Pakistani companies can be estimated by CSR, total assets and shareholder's activism. The r-square of the model is low and this means that remaining variance of the bankruptcy is residual which can only be estimated by the predictors (variables) that are not in the model. Hence, residual of the model is 0.9773 or 97.73% variance of the bankruptcy could be estimated by the other variables that are not in model. Meanwhile, the prob>Chi2 (p-value) is 0.000 which is less than alpha 0.05 advising that model is significant. Since, model is significant thus interpretations of the estimates can be made given that a significant model implies that estimates provided of the model are not due to any statistical error.

Based on this fact, estimates of the model could be trusted despite the estimation power of the model is low which is due to variables in the model could not predict bankruptcy strongly. On the other hand, coefficients indicate that one unit of variation in CSR, total assets and shareholder's activism will influence a variation of -0.212 (p>|z|=0.00), -0.422 (p>|z|=0.00) and 0.69 (p>|z|=0.00) in the bankruptcy (z-score) respectively. Therefore, it can be concluded that effect of CSR, total assets and shareholder's activism is significant on the Altman Z-score on the basis of p-value. Therefore, it can be evidently stated that CSR and total assets negatively influence the Z-score in case of Pakistani companies which increases the risk of bankruptcy. However, the shareholder's activism is found to have significant and positive effect on the Z-score. Hence, having higher shareholder's activism in the company also can improve z-score of the company to make it stronger financially and operationally; but rather could contribute to lower the z-score of the company. Furthermore, in order to examine the mediating of the shareholder's activism following model was used through interaction variable

Table 40: Effect of CSR on Bankruptcy; moderating effect of Shareholder's Activism (Pakistan)

Variable	Coef.	Panel-corrected Std. Error	P>|z|
CSR	-2.8002	0.5136	0.000
Total Assets	-0.4483	0.0321	0.000
Shareholder Activism	-13.9964	2.8011	0.000
Shareholder Activism *CSR	3.2297	0.6347	0.000
Cons	18.7205	2.3697	0.000
R^2 = 0.0278			
P-value= 0.000			

The r-squared of this model is 0.0278 which means 2.78% variation in the bankruptcy can be predicted by CSR, total assets, shareholder's activism and moderating variable. The model is also significant at Prob>Chi2 = 0.00 indicating that estimates of the model are true and significant enough to draw implications. Meanwhile, the coefficients of the model shows that one unit of change in the CSR, total assets, shareholder's activism and moderating variable will influence a change of -2.80 (p>|z|=0.00), -0.44 (p>|z|=0.00), -13.99 (p>|z|=0.00) and 3.22 (p>|z|=0.00) respectively. Therefore, it can be interpreted as that the effect of CSR, total assets and shareholder's activism on the Z-score is negative and significant, but effect of interaction variable is positive and significant. In addition to this, R-square of the model has improved from 2.23% to 2.78% and this implies that model has improved after inclusion of the moderating variable. Therefore, it can be determined that shareholder's activism moderates the effect of CSR on the Z-score. Meanwhile, results of this model suggest that if the shareholder's activism of the companies in Pakistan increases then this tend to increase z-score and save companies from going bankrupt.

4.12 Discussion of Objectives

Objective 1: To understand importance of corporate social responsibility (CSR) for prevention of bankruptcy in the manufacturing firms in Pakistan and Australia.

It was studied that CSR activities have been playing a vital role in Pakistan as well as Australia (Asrar-ul-Haq, Kuchinke, and Iqbal, 2017; AlHadi, et al. 2017). Reason behind the importance of CSR activities is that they are focused towards serving the society in which the company has been operating. Another aspect which was studied is that the importance of CSR activities can never be neglected in a country which is working for the development of their infrastructure and society (de Jong and van der Meer, 2017). In addition, it was also studied that CSR activities can only be executed when the company is focused towards returning benefits the society in which they are operating. Furthermore, it has also been studied that CSR activities serve the companies as their branding activities as, when the company comes to the ground in order to serve the community, people know about the existence and the products and services of the company (Jeong, et al. 2018). Therefore, in such a case it becomes easier for the company to create a position in the market as well as their target customers which contributes the business of the company in significant manner.

When it comes to analyse the CSR activities of the Pakistani companies, it was observed that a country like Pakistan where the people are struggling to fulfil their basic needs, it becomes necessary that instead of focusing the technological development, the companies should focus the infrastructural development in terms of their CSR activities. Another aspect which was studied that the company ordinance that has been followed in Pakistan mentions about the CSR activities which was initially introduced during the period of 1950's (Kaskeen, 2017). In addition, there are various components which were defined in the company ordinance such as the economic responsibilities of the company which are towards their shareholders and owner and legal responsibilities of the firm which refers to the compliance of law as well as rules and regulation of the company. Moreover, the ordinance also mentioned about the ethical responsibilities which means that the company should consider their employees as well as the society.

In Pakistan, most of the companies focuses the ethical and philanthropic responsibilities in terms of their CSR activities. Reason behind focusing these components is that these activities contribute the positive image of the company. Therefore, chances for the revenue growth of the company increase when they invest for the CSR activities which directly contribute the society. However, on the other hand, when it comes to analysing the company ordinance of Australia, it has been studied that most of the companies in Australia prefer that their business process should abide the law and the company should completely comply with the policies which makes the position of the company stronger in terms of law (Nguyen, Agbola, and Choi, 2019). Moreover, it was also observed that there are no specific laws for the CSR activities towards the development of society in Australia and the companies are not forced to fulfil any specific requirement from the country's regulatory bodies for company ordinance.

In addition, it is necessary to mention that Australian companies focus some of the elements in their business environment which are defined as the CSR activities such creating an environment where the employees would feel safe and valued by the company (Basu, et al. 2015). For that particular reason, they have successfully created a culture where bullying is considered as crime and also the discrimination on any base is not allowed. Moreover, they also focus the gender equality and provide the equal opportunity for all the genders so that every individual would have equal probability of growing in their careers. Furthermore, there is consumer law in Australia and all of the companies are required to abide by it, therefore, it has also been considered as the part of their CSR activities as the consumer law protects the rights of the consumers. In such a way, it becomes clearly evident that if the company is complying the consumer law provided by the country, the company is serving the society in which their consumers are also included.

However, there are some of the elements which were also observed in the company ordinance of Australia which contributes the wellbeing of the society such as they are required to create a culture where their competitors should not be targeted by the marketing campaigns of the company. Therefore, it refers that there are some of the restrictions for companies in terms of marketing their products and services. Environmental protection is also highlighted by the company ordinance of Australia which is the part of CSR activities all over the world. While considering the environmental protection in terms of industrial and manufacturing process, companies are required to assess that how much carbon they have been emitting (Wirth, et al. 2016).

In order to protect the environment, it has been studied that both Australian and Pakistani companies are required to evaluate their carbon emission and take necessary steps to reduce their carbon footprint. For that particular reason it becomes necessary that the companies should focus the technological advancement which could help them to reduce their carbon emission (Rangan, Chase, and Karim, 2015). However, this element can only be reduced but it can never be eliminated from the manufacturing process. Therefore, there are alternatives to contribute the environment such as the companies are required to plant the trees after evaluating that how much carbon their manufacturing process emits and in return, they should have to plant the equal number of trees which would reduce the carbon from the environment. Furthermore, they are also required to undertake the waste water management process in order to reduce the pollution from the sea and rivers. Reason behind focusing the waste water management is that, it was observed that polluted waste of industries has been affecting the marine species in significant manner and this should be controlled by the companies themselves, therefore waste water management helps them to process the industrial waste before letting it go into the sea.

Objective 2: To differentiate firms through Altman Z-score in case of Australia and Pakistan to determine which firms are at brink of bankruptcy

Based on the empirical findings of the study, it can be determined that on average a given company of Australia has z-score 3.58 which is greater than Altman z-score 2.99 therefore it can be stated that on average a given company is out of suffering zone and falls in safe zone. Consequently, there are low or no probability that company will go bankrupt in the next two years. This is also supported in the study of Subramaniam et al. (2019) which implies that the companies having z-score of 2.99 or greater has less risk involved in bankruptcy. On the basis of this finding, it can be suggested that firms in Australia have less chance to indulge in the risk of bankruptcy. It is because the Australian companies are well aware of capitalizing the investment in CSR activities and effectively utilizes the difference channels of communication to portray image of company as contributor society and development of better world/

On the other hand, the analysis of Pakistan also identified that there are less risks among the Pakistani companies in manufacturing sector to go bankrupt. This is due to the purpose that mean value of bankruptcy score in Pakistan is 3.24 with standard deviation 7.49. This implies that on an average, a given company in Pakistan has Altman z-score 3.24 which depicts that there are less chances of Pakistani manufacturing company to indulge in risks associated with bankruptcy. However, this value might increase or decrease by the standard deviation 7.49

reach to 10 or might also be negative. This specifies that there are some other companies in Pakistan that have z-score in negative implying that these companies at risk of bankruptcy. The study of Ehsan et al. (2018) also supports that the expenditures of CSR practices in Pakistan are more in contrast to developed countries which increases the cost of company.

In contrast to this, the mean CSR among Pakistani companies is 4,107,654 with standard deviation of 10,189,396 by which the mean CSR can diverge. On the basis of mean value of CSR, it can be clearly specified that on average each company has been spending more than Rs. 4 million, and the maximum recorded spending of one company is greater than Rs. 88 million which is a huge amount for the social work in Pakistan. This has been supported from the study of Yu et al. (2019) that firms in Pakistan are emphasizing on the increased spending over CSR activities due to the fact that there has been an increased awareness among the consumer regarding the concept of CSR. This depicts that how important CSR is being perceived by Pakistani companies. Since, CSR alone might be significant for the company to become socially responsible, however it also has an indirect positive effect on the performance of firm as the worth and value of the company increases in the society. The study of Ioannou, Kassinis and Papagiannakis (2018) also supports the argument that implication of CSR practices generates the positive perception of company in the minds of consumers which incline them to make repeat or more purchases of the products that are offered by the company.

This depicts the significance of CSR practices among both Pakistani and Australian manufacturing firms. However, the mean difference between the two countries is due to the purpose that Australia is considered as the developed economy. The study of Zvarikova, Spuchlakova and Sopkova (2017) also states that risk of bankruptcy in the developed economies is less in contrast to the risk of bankruptcy in developing or underdeveloped economies. This is due to the purpose that companies operating in developed economies have more value of their business and are expected to overcome the crisis by generating money from shareholders. However, the investment is low in developing economies in contrast to the developed economies. This has also been supported in the research study of Gómez-Bezares, Przychodzen and Przychodzen (2017) that financial operations of companies operating in the developing economies are at risk due to the low involvement of shareholders in contrast to the involvement of shareholders in developed economies. This has been due to the reason that shareholders prefer high performing companies rather than low performing companies for the purpose of getting more return while involving less risk.

Objective 3: To determine relationship between CSR and bankruptcy in context of manufacturing companies of Pakistan and Australia

It has been identified on the basis of analysis that there is insignificant relationship between the CSR and bankruptcy among the manufacturing sector of Pakistan. This can be interpreted as if the company invests more on the CSR activities; it may or may not lead to the improvement in z-score as the relationship between them is not significant. On the other hand, it can also be stated that increasing the spending on CSR activities does not help the company in order to reduce the chances of bankruptcy. However, the findings of literature oppose this insignificant relation as the study of Attig et al. (2013) identified that activities related to CSR helps companies to mitigate the risk. According to this study, CSR has been recognised as one of the requirements of stakeholders in improving the relationships of stakeholders while ensuring the long-term sustainability. Moreover, it also ensures that the firm is utilising the resources in an efficient manner.

Moreover, the increased use of CSR activities may help the company in developing the positive image among the minds of consumers. In a research study of Melissen et al. (2018) it has been stated that companies can build positive image of the business by indulging into green practices while manufacturing or implementing the CSR practices. In this manner, it is necessary for the companies to indulge and implement the CSR activities while manufacturing the products. In addition to this, the company can increase its cost due to the activities of CSR as these activities are costly. In addition to this, a study put forward by Stoian and Gilman (2017) it has been stated that the cost of company increases with the adoption of CSR practices and its implications. However, the cost of the company may increase but it also leaves positive impact on the firm's image into the market which is being capitalized sooner or later. However, another important aspect can also be highlighted that in case of Pakistan the CSR has been found to have no influence over the Altman Z-score, which means the engagement of the Pakistani companies into the CSR activities is not fruitful for them and there could be various reasons. Few of the reasons may include that when an investor firm in another country spends on the CSR activities, it effectively and efficiently capitalize the investment on CSR through social media, print media, and many other channels to let public know what company is doing in the market and for their and social good? This leaves a positive influence over the general population at large and consumers in specific. Hence, this may be a major reason that Pakistani companies could not capitalize the investment in CSR and it does not prevent companies from going bankrupt in Pakistan.

In addition to this, the analysis of CSR expenditure in context of Australia showed that correlation coefficient between the CSR expenditure and z-score indicates that there is very weak but positive interrelation between the variables. Meanwhile, the relationship implies that interrelation between the CSR expenditure and z-score is not statistically significant. Consequently, it can be inferred as that if a company increase it's spending on the CSR activities then it may and may not substantially improve z-score of the company since relation is not significant. This also can be evaluated in another way as spending higher on CSR activities does not reduce chances of the company to go bankrupt in case of Australian firms. The study of Bansal, Khanna and Sydlowski (2019) also supports the findings as it has been stated that CSR activities increase the expenditures of company and these expenditures cannot be recovered by the company.

In this manner, the cost of company is increased while reducing the revenues of the company. The other reason is that the company may also lose its shareholders as the concept of CSR is resisted by the shareholders of company. It has also been indicated in the study of Lins, Servaes and Tamayo (2017) that the activities of CSR are not supported by the shareholders of company as they tend to increase the expenses of company while reducing the return on shares of stakeholders. However, it has been identified through the literature that CSR activities help the company in order to increase the sales in long term. This is due to the purpose that the awareness of CSR among the consumers has been increased and they prefer to make purchases from the firms that are involved in CSR activities. The study of Saharan and Singh (2018) indicates that there has been an increased preference of companies that are involved in CSR activities among the consumers. Pertaining to this, fact, the companies can implement the activities of CSR while increasing their sales in the long term.

Objective 4: To determine the impact of corporate social responsibility (CSR) on likelihood of bankruptcy of Pakistani and Australian manufacturing firms

On the basis of empirical findings of the study, it has been found that there is positive and significant impact of CSR expenditures over the Altman z-score which means if the firm increases the expenditures over the CSR activities then chances of bankruptcy decreases for the company in case of Australia. However, in case of Pakistan, the results have been found be contradicting that expenditures on CSR negatively affects the Altman z-score which means their chances of going bankruptcy increases if they increase spending on CSR. Meanwhile, this finding from the Pakistan can be related with the argument that CSR expenditures have less impact on the cost of companies that are operating in the developed countries. The study of

Nollet, Filis and Mitrokostas (2016) also stated that CSR expenditures incur less threat on the financial operations of the company that are operating in the developed economies. Moreover, it has also been identified that board ownership has the weak and negative relationship with bankruptcy. However, the relationship is found to be significant among board ownership and bankruptcy. This implies that if the board ownership has more shares in the company, there will be less chances of the company to face the risk of bankruptcy. This has also been implied in the study of Manzaneque, Priego and Merino (2016) that involvement of directors in the shares of company creates less chances of bankruptcy. This is due to the purpose that the interest of shareholders increases in the performance of the company which reduces the risk of bankruptcy among the firms.

On the other hand, the analysis of Pakistan identified that there has been a weak and negative relation of CSR expenditure and bankruptcy among the manufacturing companies of Pakistan. However, the relationship is not significant among these two variables which show that the relationship is negligible. The negative relations among bankruptcy and CSR expenditure is also supported in the study of Lee, Byun and Park (2018) that increase in the expenditure of CSR activities have no effect on the risk of bankruptcy. This is due to the purpose that people make more purchases of products that are offered by companies involve in CSR practices. This helps the companies in order to increase the sales while increasing their performance in the industry by generating more revenue. However, another study of Diddi and Niehm (2017) suggests that there is a relation of CSR activities with the bankruptcy of company as the consumers are more inclined towards the usage of products that are manufactured by the companies involve in CSR practices. This has been due to the reason that CSR costs increases the expenditure of companies which results in the bankruptcy.

In addition to this, it has also been identified that board ownership has weak but positive relation with the bankruptcy. However, the relationship has been found to be insignificant among these two variables which show that the relationship is negligible. In other words, I can also be stated as the involvement of board owners in the shares of company does not reduce the chances of company to go bankrupt. The study of Ahmad (2018) also supports the argument as the board ownership has no relation with the bankruptcy of company. This is due to the reason that chances of failure remain same even if the board owners are involved in the shares of company. However, the interest of owners might differ from the companies in which board owners are not involved as the shareholders of the company. Another study of Darko, Aribi and Uzonwanne (2016) implies that the involvement of board owners in the shares of company increases the chances of company's high performance. This is due to the reason that board owners are concerned about their own shares and their investment for which they tend to put more effort for the better performance of the company.

In this manner, the companies should focus more on the implications of CSR practices as the awareness among the consumers has been increasing related to the CSR activities. This has made it necessary for the firms operating in manufacturing sector. This is due to the reason that manufacturing involves such practices and procedures that are against the sustainability of environment. It has been implied in the research study of Diana et al. (2017) that there is more responsibility of environmental sustainability on the firms that are involved in the manufacturing process. This shows the importance of CSR activities for the manufacturing firms in the industry. In addition to this, it also helps the companies to build a positive image of the company in the minds of consumers. The study of Yadav, Kumar Dokania and Swaroop Pathak (2016) also suggests that activities related to CSR helps the company in building positive image of the business among the consumers. This depicts the significance of CSR activities for the manufacturing firms.

Objective 5: To determine the moderating effect of corporate governance's components on the impact of corporate social responsibility (CSR) on bankruptcy of manufacturing firms in Pakistan and Australia

Based on the empirical findings of the study, it has been found that ownership of top 10 investors, audit committee independence, CEO duality and shareholder's activism positively and significant moderates the influence of CSR on Altman Z-score in Australian companies. This implies that a higher proportion of top 10 investors, independence of audit committee, duality of CEO, and shareholder's activism are certain contributing factors those enforce firms to spend on the CSR activities which in turn becomes a source of social guarantee or may be stated as financial protection since its chances of going bankrupt reduces significantly. On the other hand, it has been found that there is an insignificant but positive moderating influence of board ownership on the relationship between CSR and bankruptcy in Australia. This depicts that there is not significant moderation of board ownership in influencing the relationship of CSR and bankruptcy. The study of Manzaneque, Priego and Merino (2016) contradict the argument which stated that the involvement of board ownership in the decisions of company and its shares have huge impact on the bankruptcy of the company. This is due to the reason that these decisions are based on the performance of the company and are taken by the company's board of directors. In addition to this, the significant and positive moderating effect of top 10 shareholders of the company has been identified as influencing the relationship of CSR and bankruptcy. This has also been supported in the study of Wang et al. (2016) that the involvement of shareholders in the decisions related to CSR activities is crucial as the shareholders resist the decision of CSR activities due to the increase in cost.

The institutional ownership also had negative moderating but insignificant effect on the relationship of CSR and bankruptcy. This depicts that the involvement of institutional ownership does not affect the relationship of CSR expenditure and bankruptcy among the

Australian manufacturing firms. The study of Drover et al. (2017) also supports that investments made by large financial institutions are more focused on generating high returns on shares of companies. In this manner, they are less likely to support the expenditure of CSR activities. On the other hand, if the company indulges into the activities of CSR, these investors may pull their investment which leads to the shortage of funds for the company. In this manner, the company will face the problem of bankruptcy. The negative moderating but insignificant influence of board interdependence has also been identified on the relationship CSR activities and bankruptcy. Another study of Birt et al. (2019) states that interdependence of company reduces the risk of bankruptcy as it utilizes the resources of other subjects for the purpose of catering the needs of their own. In this manner, it can be stated that there is a moderating influence of corporate governance on the relationship between CSR expenditure and bankruptcy to a certain extent among the firms in Australia.

The analysis of Pakistani firms identified that there is a negative moderating but insignificant effect of board ownership on the relationship between CSR activities and bankruptcy. It has been discussed above in the study of Manzaneque, Priego and Merino (2016) that the involvement of board ownership in the decisions of company and its shares have huge impact on the bankruptcy of the company. However, the effect has been identified as an insignificant influence on the relationship of CSR activities. On the other hand, the top 10 shareholders have positive and significant moderating influence on the relationship of CSR activities and bankruptcy. The study of Maak, Pless and Voegtlin (2016) also supports the argument that there is an influence of shareholders on the decisions related to CSR activities of the company. This is due to the reason that these activities increase the expenditure of company which is resisted by the shareholders as the dividend per share is reduced.

Additionally, the institute ownership also has positive and significant moderating influence on the relationship of CSR expenditure and bankruptcy. This also depicts that there is an influence of large financial organisations on the adoption of CSR activities of the company. The study of Lins, Servaes and Tamayo (2017) suggests that large financial organisations focus on reduction of CSR activities of the company as an investor while reducing the chances of bankruptcy for the company. In this manner, it can be stated that there is moderating influence of corporate governance on the relationship of CSR activities and bankruptcy.

Objective 6: To determine generalizability of the constructed model empirical model in case of Pakistan and Australia

The empirical model of following study was to examine the effect of the CSR spending on the bankruptcy of the manufacturing and non-manufacturing companies of Australia and Pakistan. Meanwhile, the empirical also includes the one of most important factors that could be associated with the firm that how firms are being directed and controlled and how does it affect the impact of CSR spending on the probability of bankruptcy. In general, it has been discussed by the Saeidi et al., (2015) that investors emphasise organisations to engage into the environmental, social, and governance standards that collected represents the CSR initiatives of the companies. The core reason behind emphasize is to allow firms emerge from the financial distress; whereas the governance standards are principal for the attainment of better direction and being controlled effectively by the board of directors by means of strategizing.

In this regard, it has also been suggested by Du, Bhattacharya, and Sen (2010) that CSR is linked with the risk mitigation based on the fact that involvement in the CSR increases responsibility of the organisation towards environment, society and morality to ensure justice by all means and avoid any socially irresponsible behaviour. On the other hand, firm's involvement in the CSR activities is a signal that firm has been utilizing internal resources efficiently, and cost of being socially irresponsible is also reduced in this scenario. Therefore, positive CSR involvement is associated with the firm's improved image and reputation in the market; thus, as per the findings of the De Prijcker (2008) this must have a positive association with the bankruptcy. Furthermore, comparing these findings with the findings of present study, then it can be determined that empirical model of the Australia can significantly and positively estimate the bankruptcy of the companies; this implies that in case of Australia, CSR has positive and significant impact on the bankruptcy score (Altman z-score).

A rising Altman z-score means firm's financial position improves and that its chances to bankruptcy are minimum and negligible. Therefore, in case of Australia the model of CSR and bankruptcy can be generalised since CSR can be used effectively to predict the bankruptcy of the companies. This implies that if Australian companies involves into the CSR spending then this could become one of crucial part of the companies to leverage the investment in terms of lowering its bankrupt chances. However, referring to the moderating effect of the corporate governance, then it is evident that corporate governance is structure and governance standards that determines how firms are operated and controlled. Similarly, in case of Australia, moderating effect of all corporate governance factors was also determined, and empirical findings are comprehensively presented into the following table

Table 41: Hypothesis Assessment of Australia

	Moderates	Effect	Significance
CSR -> Board Ownership -> Bankruptcy	Yes	Positive	Not Significant
CSR -> Top 10 Shareholders -> Bankruptcy	Yes	Positive	Significant
CSR -> Institutional Ownership -> Bankruptcy	Yes	Negative	Not Significant
CSR -> Board Independence -> Bankruptcy	Yes	Negative	Not Significant
CSR -> Audit Committee Independence -> Bankruptcy	Yes	Negative	Significant
CSR -> CEO Duality -> Bankruptcy	Yes	Negative	Significant
CSR -> Shareholder's Activism -> Bankruptcy	Yes	Positive	Significant

It has been found that all variables have been moderating the effect of CSR on the bankruptcy in case of Australia, and it has been determined through comparing the coefficient of determination, and coefficient of determination has improved after inclusion of moderating variable each time in each model. Therefore, it is clear that corporate governance as whole moderates the effect but is subject to the strength, direction and significance of moderation as illustrated into the table above. Meanwhile, top 10 shareholders, audit committee independence, CEO duality and shareholder's activism moderate the effect of CSR on bankruptcy significantly; but top 10 shareholders and shareholder's activisms positively moderates, and CEO duality negatively moderates. Therefore, it can be evidently stated that constructed empirical models reveal that companies that have been involving into the CSR spending and firm's top 10 shareholders owns a greater ownership then this could moderate the effect of CSR on the bankruptcy positively. This could be translated into the empirical model in case of Australia companies those significant ownership is owned by the top 10 shareholder and that companies' have strong shareholder's activism; these companies can significantly reduce the chances of bankruptcy. However, one of important attribute of the Australian empirical model and empirical findings is that effect of CSR on the bankruptcy is positive in all models which means spending on CSR increases Altman z-score and rising z-score means firms' chances to go bankrupt are decreasing. Therefore, from general and empirical point of view this model can be generalised in Australia in case of manufacturing and non-manufacturing companies. Similarly, in case of Pakistan, the moderation effect was found as follows

Table 42: Hypothesis Assessment of Pakistan

	Moderates	Effect	Significance
CSR -> Board Ownership -> Bankruptcy	Yes	Negative	Not Significant
CSR -> Top 10 Shareholders -> Bankruptcy	Yes	Positive	Significant
CSR -> Institutional Ownership -> Bankruptcy	Yes	Positive	Significant
CSR -> Board Independence -> Bankruptcy	Yes	Positive	Significant
CSR -> Audit Committee Independence -> Bankruptcy	Yes	Negative	Not Significant
CSR -> CEO Duality -> Bankruptcy	Yes	Positive	Not Significant
CSR -> Shareholder's Activism -> Bankruptcy	Yes	Positive	Significant

It has also been found in case of Pakistani companies that all variables have been moderating the effect of CSR on the bankruptcy, and it has been determined through comparing the coefficient of determination, and coefficient of determination has improved after inclusion of moderating variable each time in each model. Therefore, it is clear that corporate governance as whole moderates the effect but is subject to the strength, direction and significance of moderation as illustrated into the table above. Meanwhile, it has been found that all variables of corporate governance, and it is evident that top 10 shareholders, institutional ownership, board independence and shareholder's activism positively moderate the impact of CSR on the bankruptcy. In contrast to the Australia empirical model, the empirical model and empirical findings of the Pakistani companies is entirely differing; whereas each model of the Panel Corrected Standard Error (PCSE) shows that CSR has negative and significant effect on the bankruptcy of Pakistani data. This means if the companies increase CSR spending then this increases then this will reduce the Altman z-score ratio means increasing the probability of the firms to go bankrupt in Pakistan. Despite having negative effect of CSR on bankruptcy, it is evident that top 10 shareholders, institutional ownership, board independence and shareholder's activism tend to positively moderate the effect of CSR spending on the bankruptcy. Consequently, this leaves position implications for the Pakistan that it could improve the effect of CSR on the bankruptcy positively if its majority of ownership is owned by the 10 top shareholders, has greater institutional ownership, has independent board and shareholder's activisms is high. Meanwhile, in case of Pakistani companies, this empirical model can also be generalised in case of manufacturing and non-manufacturing companies.

CHAPTER 5: CONCLUSION AND RECOMMENDATION

5.1 Introduction

The study is developed on the basis of exploring the role of CSR in preventing the bankruptcy along with the moderating effect of corporate governance in manufacturing sector. CSR can be defined as the efforts of the business contributing its capital towards the economy and the welfare of the society. The activities and efforts of CSR have led towards supporting the organisational goals for satisfying the stakeholders. In order to investigate the impact of CSR on preventing bankruptcy with the moderating effect of corporate governance among the manufacturing sector, the countries that is selected to be analysed is Pakistan and Australia. The rationale behind investigating the effect of CSR is because the activities of CSR act as a protector of the firm in which the stakeholders can reduce the possibility of stakeholders. For achieving the aims and objective of the study, the data is gathered from 200 companies in which the period consists of 2005 till 2018. The tools that are incorporated in the study are commonly the descriptive statistics, Pearson's correlation and regression.

In this particular section, the findings that has been obtained in the study are discussed by highlighted the main major findings of the study. The findings of the study are presented under the heading summarized findings. Moreover, the conclusion of the entire study is provided with respect to the formulated objective. In addition, the recommendations are presented in the section pointing out the importance of CSR for the company. Lastly, the future implication is also highlighted in the chapter which presents with the techniques for conducting the future studies.

5.2 Summarized Findings

As discussed above, the main focus of the study is towards analysing the role of CSR on the bankruptcy along with analysing the moderating effects of corporate governance in the manufacturing sector. The main variables that are identified in the study comprises of corporate social responsibility, bankruptcy, corporate governance, and control variables. There are several components that are measured for measuring the CSR which consists of donations, education expenditure, healthcare and social responsibility that has been observed from the study of Nadeem and Malik (2014). On the other hand, the variable bankruptcy is measured through the model of Altman Z-score which measures the financial distress of the organisation. Many of the researchers have used the Altman Z-score model for measuring the financial distress and bankruptcy of an organisation. The Altman Z-score utilizes a model which requires computing the working capital, total assets, retained earnings, EBIT, total equity market and total sales. Lastly, the control variables that are identified in the study consists of total assets, current ratio and debt to equity ratio.

On the basis of the variables, the data is gathered from the manufacturing sector belonging to Australia and Pakistan in which the period selected for collecting the data is from 2005 till 2018. Therefore, on the following section, the key findings from the empirical results of Pakistan and Australia are interpreted for determining the effects of CSR on bankruptcy with the moderating effect of corporate governance. With respect to the results of the Australian manufacturing sector, the mean value of Altman-Z was higher than the threshold. This means that the Australian's firms perceived to be in the safe zone and are not at the risk of bankruptcy. Although there were some companies of the Australian firms to have Altman Z-score lower than the threshold indicating that some of the firms were in financial distress and with the possibility of bankruptcy.

In addition, the diagnostic tests are conducted on the data set for determining whether there is a panel effect on the data panel. The test that is applied for determining the effects of the panel data is through Breusch-Pagan Lagrangian multiplier (LM). The results of the model have revealed that there is panel effect in the data on the basis of p-value on both Australia and Pakistan panel dataset. In addition, the Hausman test is conducted for assisting the researcher in the selection of the appropriate model in which it consist of mainly two models which consist of fixed effect model and random effect model. The Hausman Test has been applied on both Pakistan and Australia panel data set. The results of Hausman test has revealed that the appropriate model for the Australian panel data is the fixed effect model whereas the appropriate model for the Pakistani panel dataset is the random effect model. The models are selected on the basis of the significance value obtained in the Hausman test.

Another diagnostic test that is applied on the data set is the autocorrelation in which the purpose of the test is to observe the similarity on the value of variables over the different observations in data. This means that whether there is correlation between the values across the different time and observations. For determining the autocorrelation of the variables, the Woolridge test is applied for evaluating the autocorrelation in the dataset. With respect to the Australian manufacturing sector, the results of Woolridge test have indicated no first-order autocorrelation in the data set. On the other hand, the autocorrelation is observed in the Pakistani companies due to being significant value. On the basis of the results of autocorrelation results, OLS cannot be applied in the case of Pakistani data but can be applied to the data set of Australia. The Heterosecadacity has also been tested on the diagnostics tests for highlighting the presence of outliners on the data which indicates the standards error of the variable over time. The Modified Wald test has been conducted for Heterosecadacity among the data set of Australia and Pakistan. The results of the Modified Wald test have indicated that there is heteroscedasticity problem in both the countries data set which is Australia and Pakistan. Therefore, for addressing the heteroscedasticity and autocorrelation issue, there were two models that had been identified which are panels corrected standard error (PCSEs) model and feasible generalized least square (FGLS) in which the PCSEs model is applied for address autocorrelation and heteroscedasticity problem together and leading to robust results.

The first main test that is incorporated in the data set is the Pearson's correlation which examines the association and relationship of the variables with one another. With respect to the Australian data set, the Pearson's correlation is applied on the Bankruptcy for evaluating the association with the other variables. The results of the Pearson's correlations has indicated that the bankruptcy variable has significant connection with the variables Board ownership, top 10 investors, audit committee independence, shareholder activism and total assets. On the other hand, insignificant association of bankruptcy is determined with the institutional owners, board independence, CEO duality and CSR expenditure. The association of bankruptcy is identified as weak and negative with the Board ownership, top 10 investors, audit committee independence and shareholder activism. On the other hand, the interconnection of bankruptcy with total assets is found to be strong and positive. Therefore, this indicates that the increase of the total assets of the firm would result in improving the Altman Z-score and thus the bankruptcy of the firm would be reduced.

Moving forwards, the PCSE model is applied on the data set for determining the effects of CSR on bankruptcy while evaluating the moderating effects of corporate governance. The factors of the corporate governance that has been measured with respect to moderating effects consist of board ownership, top 10 shareholders, institutional ownership, board independence, audit committee independence, CEO duality and shareholders' activism. The first model applied among the Australian dataset is emphasized towards evaluating the moderating effect of board ownership. The results of the first model have indicated that board ownership has a moderating effect of CSR on bankruptcy. The second model on the Australian data measures the moderating effect of top 10 shareholders. The r-square of the model is improved after the moderating effect of top 10 shareholders and also indicated that the top 10 shareholders has a moderating effect on bankruptcy. The third model of the regression measures the effects of CSR on bankruptcy with the moderating effect of institutional ownership. With respect to the results, it has been identified that the moderating effect of institutional ownership has improved the model and it is also found that the institutional ownership has moderating effect of CSR on the bankruptcy. Furthermore, it was identified that the increase of institutional ownership among the Australian companies would result in lowering the z-score and further causing the company to the risk of bankruptcy.

The fourth model of the regression measure the effect of CSR on bankruptcy with the moderating effect of board independence. On the basis of results, it has been identified that in simple model CSR has significant and positive effect but in final model, this effect became insignificant despite effect remained positive. Therefore, it can be stated that board independence has significantly moderated that effect of CSR on the bankruptcy of Australian firms. Thus, it is evident from the analysis that with the increase of board independence in the company then it can improve the z-score and cannot reduce chances of the company to bankrupt. The fifth model of the regression measure the effect of CSR on bankruptcy with the moderating effect of audit committee independence. The analysis identified that predictability power of model has improved in the final analysis hence it can be specified that independence of audit committee moderates effect of CSR on the bankruptcy. Consequently, it can be inferred as independence of audit committee can moderate the effect of CSR on the bankruptcy negatively while effecting significantly. This implies that manufacturing companies with the independence of audit committee could lead to greater chances of bankruptcy.

Furthermore, the sixth model of the regression measure the effect of CSR on bankruptcy with the moderating effect of CEO duality. Analysis identified that if a company has CEO duality status then it could negatively affect its financial position. Hence, it may not influence the bankruptcy score positively while chances of firm to go bankrupt still remain higher. However, overall findings suggest that CEO duality moderates effect of CSR on the bankruptcy however negatively. Therefore, manufacturing firms with the CEO duality are more unprotected to the risk of bankruptcy and also it increase chances of companies to go bankrupt.

The seventh model of the regression measure the effect of CSR on bankruptcy with the moderating effect of shareholder’s activism. The analysis identified that model has improved after addition of the shareholder’s activism. Consequently, it can be recognized that shareholder’s activism moderates the effect of CSR on the bankruptcy. In the meantime, results of this model recommend that if the shareholder’s activism of the companies in Australia intensifies then this tend to lower z-score while leading companies to towards bankruptcy. On the other hand, the analysis of manufacturing firms operating in Pakistan was also carried out under which it is illustrated with the descriptive statistics of the Pakistan’s variables that the mean bankruptcy score in Pakistan is 3.24 with along with the standard deviation of 7.49. This implies that on an average, a given company in Pakistan has Altman z-score 3.24 which is higher than the threshold value which is 2.99 indicating low risk of bankruptcy. However, this value might increase or decrease by change in standard deviation 7.49 if it reaches to 10 or may also turns negative. This depicts that there are some other companies that have z-score in negative suggesting that these companies at risk of bankruptcy. Conversely, the mean of CSR of the Pakistani companies is 4,107,654 along with standard deviation of 10,189,396 by which the mean CSR can differ.

On the basis of the mean value of CSR, it can be clearly stated that on average each company has been spending over Rs. 4 million, and maximum recorded spending of one company is greater than Rs. 88 million which is considered as a huge amount for the social work in Pakistan. This is an indication of how significant CSR is being perceived by Pakistani manufacturing organisations. Since CSR alone might be significant for the company to become social responsible, however it also has an indirect positive effect on the performance of firm as the worth and value of the company upsurges in the society. The correlation coefficient of board ownership and z-score is 0.00 while indicating that there is no interrelation between the variables while the relation is also insignificant. Thus, it implies that board ownership does not influence z-score in order to increase for the purpose of remaining in safe zone where probability of bankruptcy is nearly zero. It can be additionally understood that if the companies' directors of board owns portion of shares then it does not reduce the chances of company in order to go bankrupt. .

Moreover, referring to the coefficient between the top 10 investors and z-score which indicated that there is very weak but positive interrelation of top 10 investors with bankruptcy however, the interrelation was identified to be statistically insignificant. Consequently, it can be clearly stated that if the ownership of top 10 investors increases then it also tend to positively influence the z-score which means reducing chances of company to go bankrupt. Conversely, this relation may also not be based on material referring to the fact that relation is insignificant thus it may and may not have true influence on the z-score. The first model of the regression measures the effect of CSR on bankruptcy with the moderating effect of board ownership. The analysis identified that the effect of CSR on the bankruptcy is negative and significant while effect of moderating variable which is board ownership is insignificant. Generally the change is significant therefore it can be stated that effect of the CSR is negative effect on the bankruptcy. The second model of the regression measures the effect of CSR on bankruptcy with the moderating effect of top 10 shareholders. The analysis of this model identified that in simple model, CSR has positive and significant effect on the bankruptcy of Pakistani manufacturing firms. Thus, this infers that inclusion of moderating variable which is top 10 shareholders significantly affected the CSR effect on the bankruptcy of Pakistani manufacturing firms.

The third model of the regression measures the effect of CSR on bankruptcy with the moderating effect of institutional ownership. The analysis of the model identified that one unit of change in the CSR, total assets; institutional ownership which is moderating variable will influence a change of -0.415, -0.424, -2.18 and 0.519 correspondingly. Moreover, the effect of CSR on the bankruptcy is negative but significant while total assets and institutional ownership are also negatively affected. Furthermore, the effect of institutional ownership is also positive and significant. For that reason, it can be identified that institutional ownership moderates the effect negatively towards CSR on the bankruptcy of manufacturing firms in Pakistan. The fourth model of the regression measures the effect of CSR on bankruptcy with the moderating effect of board independence. It can be interpreted on the basis of analysis that one unit of change in the CSR, total assets, board independence which is moderating effect variable will influence a change of -0.589, -0.398, -2.54 and 0.479 correspondingly. Therefore, it can be stated that moderating variable has significant moderating effect while it effects negatively on the effect of the CSR on the bankruptcy. The fifth model of the regression measures the effect of CSR on bankruptcy with the moderating effect of audit committee independence. Based on the analysis, it is identified that the effect of moderating variable is significant and negative while the effect of total assets is negative and significant. On the other hand, the effect of audit committee's independence is positive and significant. Therefore, the audit committee's independence is negatively moderating the effect of CSR on the bankruptcy. In this manner, it can be stated that audit committee's independence moderates' effect of CSR on the bankruptcy in the same way.

The sixth model of the regression measures the effect of CSR on bankruptcy with the moderating effect of CEO duality. On the basis of analysis, it can be identified that all predictors have significant and negative effect excluding the interaction variable which has insignificant effect on bankruptcy. Therefore, it is apparent that CEO duality does not influence the effect CSR on the bankruptcy. This indicates that in case of Pakistan, the CSR expenditure does not subsidize to lower chances of the manufacturing companies in Pakistan to bankrupt.

Therefore, Pakistani firms cannot emerge from the bankruptcy despite they are spending an inordinate amount on the CSR and that firm have a CEO duality, and even it is allied negatively with the ration of bankruptcy. The seventh model of the regression measures the effect of CSR on bankruptcy with the moderating effect of shareholder's activism. From the results, it can be interpreted as the effect of CSR, total assets and shareholder's activism on the bankruptcy is significant and negative, but effect of interaction variable is significant and positive. Thus, it can be stated that shareholder's activism moderates the effect of CSR on the bankruptcy. In this manner, the results of this model suggest that if the shareholder's activism of the companies in Pakistan increases then z-score of companies will also increase while saving the companies from bankruptcy. Meanwhile, all research questions and research objectives have been addressed through the findings of the study, where the importance of the CSR is being related to the goodwill gesture for the firms to payback society as part of stakeholder's theory. In addition to, the interrelation between the CSR and prevention of bankruptcy has also been explored by each of the country and how does CSR affects the bankruptcy and moderating role of corporate governance has also been empirically proven. Therefore, the new and novelty findings have been explored in this study where the role of corporate governance has been determined and test how it influences the effect of CSR on bankruptcy.

5.3 Conclusion

The main purpose behind conducting this study has been to build a new model of using CSR in order to measure bankruptcy taking constructs of CG as having explaining power for existence of this mentioned relationship. The findings have led towards the conclusion that activities of CSR have been crucial due to their role in Pakistan along with Australia. The activities are important because these have been serving in the respective societies in which the firms have been functioning. In conclusion, the CSR activities of the firms in Pakistan and Australia have been obtaining branding aspects because it is providing a way of gaining awareness amongst the customers. The findings have also concluded that the examination of CSR expenditure in perspective of Australia exhibited that the relationship between the CSR expenditure and z-score is very weak but positive interrelation between the variables has been found. In the interim, this association concludes that interrelation amid the CSR expenditure and z-score is not significant and the increase in the spending of the company can or cannot lead towards a improved z-score of the company since relation is not significant. This conclusion has been drawn on the basis of Australian firms and it is inferred that higher spending of the firms on CSR activities does not decrease the chance of these firms to face bankruptcy. However, the one notion can be considered that the cost of the company can be increased with the increase in their revenues and it can lead towards losing shareholders of the company

The findings of the study have also led to the conclusion regarding the moderating influence of corporate governance on the relationship between CSR and bankruptcy in Pakistan and Australia. With reference to the analysis, it can be concluded that there is an insignificant but a positive influence of board ownership on the relationship between CSR and bankruptcy in Australia. It is also concluded that there is no significant moderation of board ownership in influencing the relationship of CSR and bankruptcy. Conclusively, the decisions related with CSR are relied on the performance of the firm and these decisions are taken mainly by the board members. The findings have also concluded that shareholders of the company have a significant and positive moderating effect on relationship of CSR and bankruptcy. However, the institutional ownership had negative moderating but insignificant influence on the relationship of CSR and bankruptcy. With respect to these findings, it can be concluded that with the involvement of institutional ownership the relationship of CSR expenditure and bankruptcy among the Australian manufacturing firms has not been affected.

With regard to main results, it can be concluded that investments made by large financial institutions are prone to focusing on producing higher returns for the firms. However, with this focus, these firms are less likely to have a high livelihood of supporting the expenditure of CSR activities. On the other hand, if the company panders into the activities of CSR, these investors may pull their investment which indicates towards the deficiency of funds and capital for the company. In this manner, the company will face the problem of bankruptcy. The findings have also concluded that board of directors do not have a significant influence on the relationship CSR activities and bankruptcy. In this manner, it can be stated that there is a moderating influence of corporate governance on the relationship between CSR expenditure and bankruptcy to a certain extent among the firms in Australia. This also imply that corporate governance of the firms can be made effective if the firm is inclined towards reducing the chance of bankruptcy.

Furthermore, the study has also calculated the Z-score of the firms operating in Australia and Pakistan for the purpose of determining difference amid the firms filing for bankruptcy and the ones that are not facing the risk of bankruptcy. With regard to the study's findings, it can be determined that on average a given company of Australia has a higher z-score as compared to the Altman z-score. It can be concluded that on the basis of usual explanation of the findings a given company is not within the bankruptcy zone. Accordingly, there is little or no likelihood that company will go insolvent or bankrupt in the next two years. This also concludes that the firms in Australia are not under the threat of bankruptcy due to their higher spending on CSR. On the contrary, in the context of Pakistan, it can be concluded that there is a smaller amount of risks amid the Pakistani companies in manufacturing sector to go bankrupt. It has been due to the fact that on average a Pakistani company has found to have a higher Altman score.

However, the findings have also indicated that other firms in the manufacturing sector of Pakistan can be under the threat of bankruptcy because of the negative z-score. On the basis of findings related with CSR, it can be clearly concluded that on average the expenditure of each company is extensively high. It also implies that the firms in Pakistan have been engaged in spending a large amount of capital in social work. It can also be concluded that firms are inclined towards higher spending on CSR due to their increased awareness. This also concludes that the importance of CSR practices among both Pakistani and Australian manufacturing firms is high. However, conclusively, the mean difference of bankruptcy in Pakistan is higher than Australia. It has been due to the fact that companies functioning in developed economies have more experience and have high business value which means that they are expected to cater the crisis by producing money from shareholders.

In addition to the empirical findings of the study, it can also be concluded that bankruptcy has the weak but positive relation with the CSR expenditures in Australia. Conclusively, this association is insignificant with regard to the bankruptcy and CSR expenditures among Australian firms and it also implies that CSR expenditures have less influence on the cost of companies that are operating in the developed countries such as Australia. In addition to this, it has been found that board ownership and bankruptcy are negatively related and this relationship has also found to be weak. However, due to significant relationship, it can be concluded that if the board ownership has more shares in the company, there will be less chances of the company to face the risk of bankruptcy. The interest of the shareholders is increased with the increase in the overall performance of the company and it can be reduced if the risk of bankruptcy is reduced within the firms through strengthening the corporate governance structure of the company.

Meanwhile, referring to the main findings of the Pakistani firms, it has been concluded that there is a negative but statistically insignificant effect of board ownership on the relationship between CSR activities and bankruptcy. Moreover, the institute ownership also has positive and significant moderating influence on the relationship of CSR expenditure and bankruptcy. This also portrays that there is an effect of large financial organisations on the adoption of CSR activities of the company which means that large financial organisations are more inclined towards adopting CSR activities because these firms do not concern regarding the cost of the activities affecting their overall returns. The findings have also found the effect of CSR on bankruptcy with the curbing effect of CEO duality.

Furthermore, all independent variables in case of Pakistan firms has been found to have a negative and significant effect excluding the interaction variable which means the corporate governance could not influence the relationship between the CSR and bankruptcy. Thus, it is found that CEO duality does not impact the effect CSR has on the bankruptcy. It is also concluded that in case of Pakistan, the CSR expenditure does not promote to lower probabilities of the manufacturing companies in Pakistan to bankrupt. Conclusively, the firms in Pakistan have not emerged from the issue of bankruptcy notwithstanding they are spending an excessive amount on the CSR and that firm have a CEO duality, and even it is associated negatively with the share of bankruptcy. In addition to this, the effect of CSR on bankruptcy with the moderating effect of shareholder’s activism has found that the effect of CSR, total assets and shareholder’s activism on the bankruptcy is significant and negative, but influence of interaction variable is significant and positive. With respect to this, it is concluded that the model has enhanced after addition of the moderating variable which stakeholder’s activism.

5.4 Recommendations

The empirical findings of the study provide numerous implications for the managers, board, shareholders and other financial stakeholders including regulatory authorities in Australia and Pakistan. The interest of the all stakeholders is to protect their interest in respective company, and that those governing, operating and directing company must align the organisational objectives with the interest of shareholders. The interest of shareholders is to protection of their investment and wealth creation in long-term; and to further shed light on the how shareholder's interest could be protected and wealth creation could be ensured for long-term, following recommendations are provided of all key stakeholders

The managers must involve into the CSR activities that could materially contribute to the environment and society; and this could activity could be form of donations, education help in form of scholarships, funding the NGOs that have been working to educate the underprivileged locales. Similarly, CSR spending must be made on the initiatives that have direct and positive effect on the environment and society; and this tend to provide two benefits (1) society and environment will be benefitted and (2) the image and reputation of the firm will increase among the customers and other stakeholders. In addition to this, involvement in the CSR spending is also a signal that firm has been utilizing internal resources efficiently and that it has strong financial position internally and externally based on the fact that firm on only contribute to CSR that is financially sound and has not been under any unusual and undesired circumstances.

It is recommended for the shareholders that they should chose the board of directors with their votes and must be casted to the candidates that also have ownership of the company for a good period of time. It is because, the shareholder's representation must be performed by someone who also has interest in the firm. Since, interest in the firm means ownership and in this condition the firm is to be governed and directed in the way that is in best interest of the shareholders, hence board must be independent from the conflict of interest. The conflict could emerge in condition when board is not entirely independent and that there is conflict between the members that represent the shareholder's interest and that represent that management's interest. Theoretically, there is no need for the executive director given that CEO is a personnel in charge to represent that management interest and ensure communication between the management and board.

It could be practically implemented to make board entirely independent that could only focus on how to protect interest of shareholders because their own interest is with the performance of the organisation. This is also found in the empirical findings of the study; whereas it is also critical for the shareholders and other financial stakeholders to demand restriction on the CEO duality based on the fact that CEO duality in the model is found to be negatively associated with the Altman z-score and cause probability of the bankruptcy to rise in given circumstances. Thirdly, it was found that higher shareholders activism triggers a positive influence over bankruptcy, and this implies that shareholders should also require their representatives to be present as predetermined schedule. It increases the significance of the subject matter under consideration and helps in decision making due to presence of independent members that those interest is aligned with the shareholder’s interest. Consequently, improved performance, value creation, long-term and sustainable growth is destined.

In addition to this, it is also recommended for the companies in Pakistan that their involvement in the CSR has contradiction with the findings from Australia; this implies that in case of Pakistan, CSR does not play role in reducing probability of the bankruptcy. However, this negative effect could be turned positive if involvement of the companies in CSR is direct that could benefit the environment and society as whole. The basic difference between the Australia and Pakistani companies is that Australian companies can successfully leverage the investment of CSR and utilize it to improve and influence firm’s image and reputation. Australian companies have strategized to reap the benefits of spending on CSR through better communication in the financial statements which increases firm’s value and helps to gain trust of the shareholders and other financial stakeholders. Therefore, it is also recommended for

Pakistani companies adopt the same strategy in order to better absorb and leverage the investment in CSR.

5.5 Managerial Implications

As per the findings, it is determined that the CSR plays a major role towards the decreasing of bankruptcy while also enhancing the brand image. Related to this fact, the companies can implement the activities of CSR while increasing their sales in the long term through comprehending the various factors that can influence their decisions related with CSR activities. However, the findings have suggested that firms in Australia have less chance to be bankrupt. In this manner, it can be implied that firms in Pakistan should emphasise more on the implications of CSR practices as the awareness among the consumers has been increasing related to the CSR activities. This study has focused on producing mindfulness regarding the benefits of corporate social responsibility for the firms in manufacturing sector and its impact in preventing the bankruptcy. In addition to this, the companies can also be able to affect the shareholders and investors through implementing effective CSR strategies and through strengthening the corporate governance structure and its all components as in accordance with the findings of the study.

With respect to the findings, the managements of the firms would also be able to understand the dimensions of how shareholders' interest can be related with the CSR activities because the interest of the shareholders is increased with the increase in the overall performance of the company and it can be increased if the risk of bankruptcy is reduced within the sector. The basic variance amongst the Australia and Pakistani companies is that Australian companies can efficaciously control the investment of CSR and utilise it to recover and influence firm's image and reputation. In this way, the recommendations have been more focused on how firms operating in Pakistan can reduce the risk of bankruptcy and increase their level of CSR activities with significant investments. The firms can also consider and emphasise on shareholders' activism and regard it as the factor that can lead in the direction of increasing in the z-score of the companies. The managers of the companies can also focus on their savings and understand how the possibility of mitigating the risk of bankruptcy can be increased.

The managers and policy makers would have a certain knowledge regarding how the cost can be increased because of the CSR activities and if the adoption of such activities can lead towards the issue of bankruptcy or not. It has been significant to understand that how firms operating in developing countries are different from the firms in developed countries. The findings can help the companies in understanding how the adoption of CSR practices can lead the cost and its implications. With the help of the findings, the managers of the companies operating in Australia and Pakistan can understand the importance of indulging into CSR activities when producing or manufacturing their products. Considering all the issues and necessities that are important for the manufacturing companies, this research study has focused on discovering the role of corporate social responsibility on averting the bankruptcy and scrutinising the role of corporate governance in it. Due to this reason, the study would be important for the managers to comprehend how the adoption of corporate social responsibility is necessary for the companies which can also affect their profitability as well.

5.5 Future Implications

The following research has been mainly investigated to evaluate the effects of CSR on bankruptcy from the context of the manufacturing firms of Australia and Pakistan. Therefore, the research open doors for conducting studies in the future than lead to enhanced implications. The future researchers can consider conducting the research in different contexts. For instance, it has been recommended that future researches can be focused on other countries and these countries can either be both developed and developing countries. Moreover, there is a need to focus on other sectors that have been engaged in incorporating CSR activities. Therefore, future researchers can consider conducting the research in other different industries such as retail sector, hospitality or other sectors that are either engaged in CSR activities or facing the issue of bankruptcy.

In addition to this, the study lacks in terms of overall opinions and perceptions of the managers in the industry. Hence, future researchers can focus on conducting the research where data can be collected through primary sources and it can either be through survey interview or survey questionnaire. Another limitation of this study has been the fact that it has been based on quantitative design and due to this it has been recommended that future researchers should conduct the research by using qualitative data as well. It is also suggested that in future researchers can also emphasise on mixed method design where the quantitative data can be triangulate with the qualitative data. In this way, more comprehensive findings can also be provided with the help of study conducted in future.

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Appendix I

List of Pakistani Companies

No.	Company	No.	Company	No.	Company	No.	Company
1	Gul Ahmed Textile Mills Limited	26	Attock Cement (Pakistan) Limited	51	Treet Corporation Limited	76	Diamond Industries Limited
2	Nishat Mills Limited	27	Lucky Cement	52	Shakarganj Limited	77	AL KHAIR GADOON Limited
3	Nishat Chunian Limited	28	Kohat Cement	53	Punjab Oil Mills Limited	78	Colgate Palmolive Pakistan Limited
4	Banu Wollen Mills Limited	29	Pioneer Cement	54	GlaxoSmithKline Pakistan	79	BATA Pakistan Limited
5	Artistic Deninm Mills Limited	30	Bestway Cement	55	Searle Pakistan	80	Linde Pakistan Ltd
6	Feroze 1888 Mills Limited	31	Chearat Cement Ltd.	56	Abbot Pakistan	81	ICI Pakistan Limited
7	Kohinoor Textile Mills Limited	32	JAVEDAN Cement Corporation Limited	57	Highnoon Laboratories	82	MCB Muslim Commercial bank
8	Nishat Chunian Ltd	33	THATTA Cement Company Limited	58	Wyeth Pakistan Limited	83	ABL Allied Bank Limited
9	Cresecent textile Mills Limited	34	Power Cement	59	Sanofi Aventis Pakistan	84	Bank Alflah Limited
10	Dawood Lawrencepur Limited	35	Flying Cement Company Ltd.	60	Otsuka Pakistan	85	Askari Bank Limited
11	Khyber Textiles Limited	36	Fauji Fertilizer Company Limited	61	IBL Healthcare Limited	86	Dawood Hercules Corporation Limited
12	Kohat Textile Mills Ltd.	37	Fauji Fertilizer Bin Qasim Limited	62	Pakistan Oxygen Ltd.	87	Bank Al-Habib Limited
13	ZEPHYR Textiles Limited	38	CLOVER PAKISTAN LIMITED	63	Packages Limited	88	Orix Leasing Ltd
14	BHANERO Textiles Limited	39	Engro Foods Limited	64	Ibrahim Fibre Limited	89	Habib Metropolitan Bank Limited
15	Azgard Nine Limited	40	Ismael Industries Limited	65	I.C.I. Pakistan Limited	90	Bank Islami Pakistan Limited
16	Dawood Lawrencepur Ltd.	41	Mitchell's fruit Farms Limited	66	Lotte Chemical Pakistan Limited	91	Faisal Bank Limited

17	Mehmood Textile Mills Ltd.	42	National Foods Limited	67	Cherat Packaging Limited.	92	Bank of Punjab
18	The Crescent Textile Mills Ltd.	43	Quice Foods Limited	68	Pak Elektron Limited	93	National bank of Pakistan
19	Fauji Cement Company Limited	44	Unilever Pakistan Foods Limited	69	Ghani Glass Limited	94	Habib Bank Limited
20	Dewan Cement Limited	45	ZIL Limited	70	Thal Limited	95	Meezan Bank Limited
21	D.G Khan Cement	46	Shield Corporation limited	71	International Industries Limited	96	United Bank limited
22	Dandot Cement Company	47	Murree Brewery Company Limited	72	Service Industries Limited	97	Soneri Bank Limited
23	Gharibwal Cement Limited	48	Goodluck Industries Limited	73	Pakistan Cables Ltd.	98	EFU General Insurance
24	Fecto Cement Limited	49	Gillette Pakistan Limited	74	Shabbir Tiles & Ceramics Ltd.	99	Adamjee Insurance Company Limited
25	Maple Leaf Cement	50	Shezan International Limited	75	Singer Pakistan Ltd.	100	Jubilee Life Insurance Company Limited

List of Australian Companies

No.	Name of Company	No.	Name of Company	No.	Name of Company	No.	Name of Company
1	Mount Gibson Iron	26	Als Limited	51	vita Group Limited	76	FNP
2	Newcrest Mining	27	Brambles Limited	52	Domino PIZZA Enterprises	77	TGR
3	Northern Star	28	Lynas Corporation	53	Event Hospitality	78	AAC
4	Orica Limited	29	Cleanaway Waste Limited	54	Flight Centre Travel	79	RIC
5	Pro-Pac Packaging	30	IMF Bentham Limited	55	Fleetwood Corp	80	SFG
6	GWA Group Limited	31	Gowing Bros. Limited	56	G.U.D. Holdings	81	AVG
7	Mcmillan Shakespeare	32	Mortgage Choice Limited	57	Helloworld Travl Limited	82	WBA
8	Monadelphous Group	33	Navigator Global Limited	58	Woolworths Group Limited	83	APE

9	Downer Edi Limited	34	Pacific Group Limited	59	AMP Limited	84	BUB
10	K & S Corporation	35	Insurance Australia	60	ANZ Banking Group Limited	85	BRG
11	Neo Metals Limited	36	Macquarie Group Limited	61	Apn Property Group	86	RIO
12	Om Holdings Limited	37	HT&E Limited	62	ASX Limited	87	Resolute Mining
13	Phoslock ENV Tec Limited	38	Nick Scali Limited	63	Australian Ethical	88	TPG Telecom Limited
14	OZ Minerals	39	Noni B Limited	64	Auswide Bank Limited	89	ST Barbara Limited
15	Lycopodium Limited	40	City Chic Collective	65	EUROZ Limited	90	Sims Metal MGMT Limited
16	CI Resources Limited	41	Cash Converters	66	Fiducian Group Limited	91	Silver Lake Resource
17	CSR Limited	42	Select Harvests	67	Bell Financial Group	92	SYRAH RESOURCES
18	Fortescue Metals Group Ltd	43	Harvey Norman	68	SYD Airport FP Ordinary	93	Tribune Res Limited
19	Gold Road Resources Limited	44	QBE Insurance Group	69	Transurban Group FP Ordinary	94	Terramin Australia
20	Heron Resources Limited	45	Altura Mining Limited	70	Virgin Aus HLDG Limited	95	Western Areas Limited
21	Incitec Pivot	46	BHP Group Limited	71	Wellcom Group Limited	96	Hutchison
22	Jupiter Mines	47	Bluescope Steel Limited	72	COL	97	Macquarie Telecom GP
23	James Hardie Industries	48	Schaffer Corp. Limited	73	CCL	98	MNF Group Limited
24	Webjet Li Web	49	Skycity Ent Group Limited	74	MTS	99	Spark New Zealand
25	Wes Farmers	50	Tabcorp holdings limited	75	BKL	100	Telstra Corporation