Contents

Corporate Social Responsibility and Earnings Management; An Empirical Analysis of chemical industry in Pakistan

Abstract

The purpose of this study is to find out the relationship between CSR and earning management and to investigate the influence of CSR on earnings management. In order to test the above two hypothesis of the study, two variables Corporate Social Responsibility and earnings management are examined. CSR is represented by 10 factors and for earning management, Jones modified model is used. The population of the study is chemical industry and sample size consists of 10 companies of chemical industry. The data were collected from annual report of the companies. Panel data is used for analysis. Cross sectional fixed effect model and time period common coefficient model is used in the study, as suggested by Fixed Effects Test (likely hood ratio) and Hausman test. The results of panel regression suggest that there is no significant relationship between CSR and earning management. The reason is that the Cost of CSR in Chemical industry of Pakistan is not so much to impact on the earning management.

(Key words; CSR Corporate Social Responsibility, Earning Management, Chemical Industry, Pakistan)

CHAPTER 1

INTRODUCTION

Introduction

Organizations, now-a-days are in pressure because of the growing importance of the CSR activities. They have a risk of losing their stakeholder's support if they would not engage themselves in CSR activities which could ultimately affect their position in the market place. The term Corporate Social Responsibility (CSR) denotes the relationship between businesses and the surrounding environmental factors. it has widely hold the attraction of academics and practitioners (Holder-Webb et al.,2009). The CSR activities have a large contribution in motivating the businesses in order to participate in the environmental activities and to report it to the stakeholders.

Most of the researchers shed light on the benefits of practicing CSR, e.g. to improve the goodwill of the firms, improving their integrity and accountability, increasing the share price, and eliminating stakeholder's pressure on firms and pleasing them. Butt., (2014) indicated that the term CSR includes all those activities that an organization takes on its will, generally, to provide for the interest of all interested parties and specifically, growing up the well-being of the firm's employees and make them enable to practice CSR not only for the purpose of profit but also considering the whole society and their interest. Other researchers like Abagail and Donald (2001) defined CSR as procedure that brings some additional benefits to the people of the society which is not mandatory by law without neglecting the interest of the organization. The above definition explains an important point that CSR means taking any willful action by the organization that is not imposed by law for the betterment of society. It means that organization should do work for women and minorities not only to obey the law but they should do it as social activity.

Along-with the above stated benefits of engaging in CSR, studies showed that involvement in the CSR activities can be used as a tool to influence the stakeholder's perception regarding the real future of the firm. It can also be used to divert the attention of stakeholder from any such activity that can reduce the quality of financial reports. DeMaCarty (2009), stated that talented and intelligent managers may able themselves to make profit through CSR, it may be the reason mentioned in the previous literature that indicated a positive linkage between CSR and the organizational financial performance. CSR conventionally influenced the perception of the organizational stakeholders about its transparency. Managers justify their actions as well as catch the stakeholder's support by engaging in CSR, thus the chances of reported earnings manipulation were reduced.

The main issue that represents environmental efficiency and the welfare of organizational stakeholders is that the organization must align with its core business and policies. In addition to the organizational activities regarding goods and services, it must cope with the societal pressure that arises from their activities. Societal groups constantly pressurize managers to devote their resources to CSR activities and policies. This demand comes not only from the private organizations, shareholders, consumers, owners, trade unions, but also from other social bodies that implement CSR code of conduct like the triple bottom line the GRI Guide line, even the competitors can pressurize to implement CSR policies in organization. In addition, organizations that do not employ CSR policies and practices will reduce their goodwill, raise costs and reduce the shareholders wealth. On the other hand, organizations that follow CSR practices can increase value by changing the attitudes of the society towards the organization also make the organization viable to compete in the market (Porter and Kramer, 2006). For this purpose every organization makes strategy and policies of CSR and takes practical steps to employ CSR practices. The strategy of the CSR must clear the objective of the organization, the method it is used and will also clearly mention its policies that will be employed up to the extent.

When demand of the stakeholders about will increase, the managers will respond positively by investing extra resources. This response is due to the importance which stakeholder's demands avail. Other does not confer more attention to stakeholder's demands for the CSR. The reason behind this is that such managers do not perceive any link among stakeholder's demand, profitability and the shareholder's interest in CSR.

The main objective of this study is to analyze the link between CSR and earning management. Particularly it examines that whether the organizations that adopt the CSR activities may also bring transparency in their earning management policies. To check the transparency, financial reporting is the main source that provides information regarding organizational performance and activities to various stakeholders who don't have full access to internal information that most of the insider stakeholders have. Consequently, it can also be used as a tool to make investment decision in the organization in which earning is the most important factor, mainly considered in investment decision. Investors use earnings as a predictor for future uncertainty of the firms. According to Healy and Wahlen, (1999), earnings are one of the most important indicators that the external stakeholders can trust on. Generally, firms with sound financial performance can make themselves different from those of poor performers with the help of financial reporting, which ultimately help investors in their investment decision.

The relationship of CSR and earning management can be supported by stakeholder theory. Freeman and Velamuri (2006) states that organization's responsibilities are not only to satisfy the shareholder's interest but also to cope with the needs and wants of the other stakeholders who bears the losses and also stand for the benefits of the firms. These stakeholders might be the workers in the organization, the peoples or the overall society and the environment.

While making financial reporting, mangers can implement willful changes in it without disturbing the accounting principles to manipulate their earnings. Earning management can be explained as the manipulations in accounting number by the managers. Furthermore, the increase or decrease in the accounting numbers may be used to mislead the external parties or to hide the reality of the financial reporting to achieve the firm's objectives. Rational managers would not involve in manipulating accounting number if they don't perceive some private benefits linked with it. The previous research identified three main benefits of earning management which are regulatory incentives, contractual provision and investor's motivation. The above studies reveal that the decisions on earning management of firm affect the CSR activities. In his paper Elias (2004) described that earning management is the activity that is used for any purpose in the process of external financial reporting, his objective was to earn some extra benefits the author argued that disturbing the accounting numbers to hide the real figures from stakeholders.

Research indicated that most of the time, manager's tries to influence its short-term prices of the stock in the events like new stock issues. Other researcher suggested that manager may use their earning manipulations to convey some private information to the secondary market keeping in view some future benefits of the firms. Secondly, many researchers analyzed the contractual arrangement written in accounting figures and found that manipulations in these arrangements can create benefits for managers such as bonuses, job safety and justifying the breach of debt contracts. Finally, regulatory justification is also one of the main reason involve in manipulation in the accounting numbers. Managers that work in these sectors bear intense pressure of the regulatory bodies working to control the prices and market shares. This pressure motivates managers to use earning management as a trick to reduce their profit (Watts and Zimmerman, 1978).

These discretionary actions of managers, to manipulate actual value of the organizational assets, contracts and financial efficiency, have negative effects on owners, workers, community, social environment, manager's repute, job safety and opportunities. The disturbing effect of earning manipulation is the lack of stakeholder's support which ultimately leads to catch the attention of concerned stakeholders. Other outcome is that the mangers are under the fear of awkward manners by workers, confusion from customers, force from investors, desertion from partners, legal actions, protests of union, less response from community, and publicity in media.

It is clear that stakeholder's awareness is costly for manager's jobs and can damage the organizational reputations, so this could be compensated by employing corporate social activities.

By employing CSR practices organization can regain the stakeholder's satisfaction and improve its reputation. Revealing information about CSR activities and results may have positive impact on organization reputation. This positive reputation can help bind with the public and help in regaining the organizational goodwill, therefore increasing the organizational ability to catch the attention of suppliers and governments for contracts, to charge the premium and to minimize the cost of capital (Fombrun *et al.*, 2000).

Involving in the CSR activities, the organization can get back the support of various interested parties. At the same time the organization can receive encouraging treatment of the regulatory bodies, support from activists and favorable response from the public and good image in media

Our main assumption is that the managers have a benefit of planning a friendly image in the society, by employing CSR activities as an influential instrument to get support from the stakeholders. By involving in CSR practices the manager can get the favor of owners and other stakeholders which are affected by the manager's actions of earning management. In this sense, the CSR can be used as protective method in earning management perspective.

Organizations can enhance their financing and investment ability with the help of financial information and can also meet with the state regulations and contractual pre-requisites. External stakeholders can evaluate from financial reporting, the amount and risk of future cash flow, the timing and also available information about the earning that are reported. Stakeholders make their decisions about investment and credit issuing, based upon the analysis of the financial statements.

Hence, the earning's quality that is reported in the financial statements play a significant role in conveying the information among the firm's internal and external interested parties. The bookkeeping records of an organization have a significant role in the process of conveying information to stakeholders. To disclose any information, the process has three parts, the company (who send the information), the financial reports (information), and the organization's interested parties (who receive the message). Even though it is not essential that the results will be in favor of everyone, but the organization has benefit to control the information practices to influence stakeholders in taking various steps. The objective may be to influence creditors to give loan on easy terms and to show a sound health of the financial reports to release the pressure from the regulatory authorities on the organization (Yongtao and L.Margaret, 2011).

The firm Involvement in the CSR activities is linked with stakeholders and they can obtain a lot of benefit related with CSR activities. Most of the firms consider CSR as an important factor in planning their business policies and strategies. Organizations are socially integrated with the stakeholders like its owner, workers, and investors etc, and it is the responsibility of them to run its business ethically and on a trustworthy manner. By employing CSR activities the organization tries to meet the stakeholder’s expectations and execute the social agreements. It is expected that the organization would operate ethically and would work in the best interest of its stakeholders and report actual information that illustrate the real financial position of the organizations. Another case is that mangers are motivated from agency problems as well as they connect CSR in the opportunistic manner (Prior *et al.* 2008). Specifically, organizations that employ CSR practices do not show the wrong-doing of company. Managers that carry out CSR practices are opportunistic and dwarf by the CSR revelation. Furthermore, organization having more CSR disclosure can control information. There will be low degree of earnings, meaning that the information is not showing as actual. As a result, the relation between CSR disclosure and manipulated financial reporting become practical problem.

Previous studies found mixed results regarding the relationship between CSR and transparent reporting. They reported that organizations involving more in CSR activities report its financial position more transparently and involve less in earning management (Chih*et al*,.2008). Despite that, other researchers indicate that mangers might use CSR practices as plan to hide their opportunistic activities. Organizational managers can cover his/her job encouraging

CSR practices. Organizational managers who perceive some individual benefits would alter the earning figures due the reason they want to stay in touch with the organization by employing CSR activities. They further documented that there is significant positive relationship between earning management and CSR activities. It is argued that those organizations which employed CSR practices are aggressive towards high earnings management. In the management concept social responsibility is considered as the main corporate duty of the organizations. In the company decisions making time giving importance to the CSR activities thus the link between organization social activities, its policies and its financial statements become the main issue at the time of decision making (Arlow& Gannon, 1982; Ullmann, 1985). Different debates have been conducted about the relationship between organizational social activities and its earnings. From one point of view, it is considered as a swap between social activities and earnings reporting. Those who support this debate suggest that the cost that is incurred from CSR activities is considered as a financial shortcoming in contrast to those who are less accountable organizations to CSR. Secondly, similar opinion is that the overall cost of CSR activities are minimum and organization get benefits in terms of workers efficiency and productivity by taking actions regarding CSR. Third, contrasting view point is that the cost of taking actions on CSR activities is significant but it can be balance by decreasing other costs.

(Cornell & Shapiro., 1987) suggested that according to the stakeholder theory, the organization should have to please not only the investors and shareholders, but also the external as well as internal creditors, and other interested parties. Lenders and other stakeholders suggest CSR activities as management capabilities. They think them as a reputational investment as practicing CSR activities. Building the CSR reputation may improve the management’s image and allow them to swap costly external contracts with less costly internal contracts. On the other hand, the reduced CSR repute in the eyes of stakeholders can decrease the management reputation and results in improved costly external contract.

The main purpose of the study is to know the attitude related to managers that make decisions about earning management, CSR and also to know about its relationship. Shafer and Simmons (2008) in their study indicated that the Hong Kong tax practitioner's approach is significantly affected by CSR and is also motivated to eliminate the negative tax schemes.

1.1 Problem statement

Numerous studies have been conducted on social responsibility and its relationship with earning management. There is limited literature which documents the relationship between social responsibility and earning management in developing countries like Pakistan. The implication of social responsibility is given less importance in developing countries. Furthermore, studies conducted in Western and some Asian countries cannot be generalized and may not necessarily have some application in context of Pakistan.

1.3 Research Question

This study has various research questions which are given below.

1. Does a relationship exist between corporate social responsibilities and earning management decisions in the chemical industry of Pakistan?

1.4Research objectives

The main objectives of the study are;

1. To explore the existence of relationship between corporate social responsibility and earning management in the chemical industry of Pakistan.

Significance of the study

The main purpose of this study is to know whether organizations engaging in CSR activities exercise transparent reporting of earning in their financial statement and avoid earnings manipulations. This study focused on the above stated phenomenon specifically for the chemical industry of Pakistan as chemical industry is the main cause in the environmental pollution in Pakistan. By reporting its empirical result the study will be able to know that whether industries like chemical should have engage in CSR practices and what will be its effects on their earnings. This study will help the management in their earning management decision making process that whether they should involve in CSR activities or not, and up to what extent they should engage in the earning manipulation. The research will also help the government agencies concerning with environmental pollution to control the organizations by bringing out some new legislation regarding CSR in the firms. The findings of this study will help chemical industry to have a positive attitude towards CSR. The study will bring this phenomenon into the notice of policy makers, the results of the study will enable them to link the social conduct of chemical companies to the other aspects of their financial performance like honest reporting and transparency. While government’s concern for chemical industry’s adverse affect on environment is understandable, there is also a need to keep an extra eye on the financial reporting mechanism of these companies – because CSR and earnings management are two sides of the same ethical coin.

1.2Delimitation of the study

The underlying study is about the relationship between CSR and earning management in chemical industry of Pakistan. The study excluded some variables due to time constraints and data availability, like value added statement, value added information and discussion of marketing network etc.

Organization of the study

In addition to this introductory chapter, this thesis is organized as follows Chapter 2 reviews relevant literature on CSR and earnings management, Chapter 3 discusses the methodology for analysis. Chapter 4 reports the empirical results and discussion. Finally chapter 5 concludes with discussion, and recommendations.

CHAPTER 2

LITERATURE REVIEW

2.1 Review of Literature

Recently the CSR activities have received more attention from the general public while at the same time organizational stakeholders are also taking interest in these activities due to its significant outcome. Moreover, from the last few years, there is considerable growing trend in the CSR practices because the large number of organizations contributes in social and environmental activities andthese activities are also reported by their respective firms (Deegan and Gordon, 1996; Hooghiemstra, 2000; Brown and Deegan, 1998).According to (Deegan, 2002; Hummels and Timmer, 2004), organizations that undertaking such activities cautiously and in the right way, so that the firm's social and economic returns will come significant and it may have positive effect on the company's future financial statements.

Chih et al., (2008) indicates that organizational managers give information regarding the company's efficiency to different stakeholders, who are interested in the organizationalactivities though financial reporting, these stakeholders may be the workers, creditors, state of the country and can be the financial institutions.Every stakeholders haven't right of entry to avail this information like the companies internal has. Therefore financial reporting is main source that helps in knowing about the financial performance of the companies in making investment decisions.Earning is the main important figure in financial reporting that is used by the internal stakeholders to control the share prices and comply with the external laws of government and the creditworthiness.Furthermore, by using earnings, external interested parties avail information about the firm's performance in future and also examine the risk associated with it.This point out that from organizational managers there is less information available to the stakeholders so the mangers have benefits to cover up the misconduct and mislead the external stakeholders by earning manipulation in the financial reporting.The organizational managers can also make increase or decrease in the earning reporting by using the benefits offlexibility that is available in the generally accepted accounting principles (Prior et al., 2008).This willful change in the earnings reporting is known as earning management.

According to (Leuz et al., 2003), organizations that employ earning management practices, their results indicate that it will have lower performance. Thus it will affect the stakeholder's skill to administer the companies. Other researchers like Zahra et al., (2005) documented that from the management decisions like earning management can change the actual accounting figures and its financial position. This type of decisions affects the stakeholders negatively. Furthermore, the survival for the organization is difficult due to engaging in earning management decisions and it will results in losing support of the interested parties (Prior et al., 2008). There may be threat for manager from the different stakeholders for manipulating in accounting numbers, because it might affect the well being of the organization, thus the managers may lose their job (Fombrun et al., 2000; Prior et al., 2008). Managers have the benefits to employ CSR activities as a technique to cope with the stakeholder's pressure and can influence their thinking about the future of the organization and can also change their minds from earning manipulations activities. So engaging in CSR can improve the manager's opportunistic behavior.

Chihet al., (2007) conduct a study on corporate social responsibility, investor protection and earning management. They examine1, 653 companies in 46 countries. The features related to

CSR during the periods from 1993 to 2002, check the quality of firm's financial information that are released, have positive or negative effects. Their results showed that with the CSR commitment, earnings smoothness is moderate, decreased in earnings and the earning aggressiveness is increased.

Alsaadi et al., (*2013)*conduct a study and examine the relationship between corporate social responsibility and earning management by using discretionary accruals as a proxy for earning management. They use a sample of 4085 firms for the period of 2003 to 2011 and their result reveal a strong positive relationship between CSR and EM. Hong and Andersen (2011) also investigated the relationship between corporate social responsibility (CSR) and earning management (EM). Database website's KLD index is used for CSR includes information from the problem areas like the society, worker relations, human rights, corporate governance, the goods, the environment, diversity. Their results showed that organization employing socially responsible activities has higher quality accruals and less activity based earning management, they both impacts the financial reporting quality.

Previously many researchers have been widely conducted in the developed economies perspective. Such as, Yip *et al.* (2011) in which they apply US data, their results conclude that politicalsituation have impact on the relationship between CSR practices and earning manipulation; Kim *et al.*(2012) employ Domini 400 public index, their result found that organization who used CSR activities show to decrease manipulation in accounting numbers, as contrast to organization which are not involved in CSR activities.

Yip et al. (2011) investigated that whether CSR and Earning management is related to each other or not. They employ a new variable of political environment and argued that the link between the CSR and EM is context –specific and that context is politics. They examine their hypothesis by regressing earning management on CSR and found that there is a strong relationship between CSR and EM which is booted by political environment. CSR grasp the organization responsible for three context- their social and environmental ability and the also the conventional financial point of view (Adams &Zutshi 2004). It is a broader concept than only meeting with its legal duty (Rose 2007) and adjust in their the idea of making ethical and justifiable decisions (Branco& Rodrigues 2006), while involving in the business which is not disturbing the interested parties as well as cope with the demands of these various stakeholders (Bansal&Kandola 2004).

Revealing information about the CSR activities in financial statements is a source for organizations to convey information to the external stakeholders to acknowledge themselves that how they are reacts to such issues. Years back, there has been a wide study that shows an increasing tendency of revealing such information about CSR. In 2008, the top 250 firms in the global fortune have published 83% of their information about CSR where 79% of them have published a separate report of information. This could be compared with 52% in 2005, 45% in 2002 and in 1999 the same figure was 35% (KPMG, 2008). While many of such disclosure were mandatory, most of the firms disclose them as voluntary.

CSR information revelation can affect the stakeholder's perception. Most of the researchers like (Dierkes&Antal 1985; Gray, Kouhy& Lavers1995), believes that the disclosure of CSR information is beneficial for the firms. Al-Tuwaijri, Christensen and Hughes II (2004) and Clarkson, Richardson and Vasvari (2008) found a significant positive link amid CSR disclosure and the performance of the environment and they argued that the revelation and the environmental performance can imitate each other Gelb and Strawser (2001).

Some of the recent research shows a negative link between CSR disclosure and CSR performance and they found a weak link between each other. Patten (2002) argued various reasons to justify this negative relationship where the basic reason was that the data samples were very small because of which the research could not manage the irrelevant variables that could affect the link between them. Patten (2002) uses somehow a bigger sample of 131 firms and found a negative link between them after controlling for the organizational size and industry. Francis et al. (2008) investigated that whether the link amid the disclosure of the firms that do not practice CSR and the quality of earning is substitutive or opposite. They use a sample of 677 US firms and a self-constructed voluntary disclosure index to investigate the phenomenon and find a significant positive complementary link between earning's quality and voluntary financial disclosure, meaning that firms with higher voluntary disclosure have high earning quality or lesser earning manipulations.

Conventionally, a very little number of studies investigated the relationship between CSR and earning management. Chih, Shen and Kang (2008) argued that earning management may be positively, negatively or may not have a link with corporate social responsibility. They argued that if the organization wants to maintain his firm transparent, it would than involve in less earning manipulation which ultimately shows an inverse relationship. On the other side, if the firm wants higher CSR performance and they also want to cope with the various stakeholder demands, then their financial performance may disturbed, which leads them to manipulate in earnings up side to cope with the disturbance and deliver its desired results. They denote it as multi-dimensioned hypothesis. Lastly, they argued that if the earning manipulation is caused by some institutional aspects, then there could no relationship between CSR and earning management. Chih et al. (2008) found three dimensions for earning management which are, earning aggressiveness, risk aversion, and escaping from the earning's loss. They found these dimensions high, in the firms that have high CSR performance which strengthen their multi-dimensional hypothesis. Riahi-Belkaoui (2004) investigated that firms with high CSR performance have higher discretionary accruals which supports the multi-dimensional hypothesis of Chih et al. (2008).

Whereas, most of the studies on CSR have been large, all of them focused on the link between earning management and CSR (Hillman and Keim, 2001; Coombs and Gilley, 2005; Griffin and Mahon, 1997; McWilliams and Siegel, 2000, 2001; Pava and Krausz, 1996; Roberts and Dowling, 2002; Simpson and Kohers, 2002; Waddock and Graves, 1997). These studies have directly been investigated that whether CSR and Earning management are linked to each other or not. Various types of link between CSR and earning management may be possible. For example, simply if the firm keeping engage itself in CSR practices, it would not involve in earning manipulation which denotes the negative relationship between them. The reason behind is that if the wants itself to be socially responsible, it will not hide the adverse earnings and would therefore do not involve in earning manipulations.

According to S.Petrovits (2006) organization that wants to accomplish the earning objective and thus by giving donations to the charitable foundations. Another researcherdeMaCarty (2009)indicate that expert managers who can measure CSR practices they might obtain efficiency in profit and also get better credit. DeMaCarty (2009) stated that this ability in the mangerscan lead to the positive relationship between CSR and firms financial reporting.

Labelle et al. (2010) found that there is the absence of empirical literature which deals how CSR plays role in calculating the earning management. Their results point out that organization having CSR practices is linked with the earning management.Chih et al. (2008), also find the same result they indicate that organization that employ CSR activities engage in less earning management.

Mcguire et al., (1988) analyze the relationship between perception of firm's corporate social responsibility and measurement the quality of their financial statements using for company's reputation the fortune magazine.Results indicate that by checking financial statements as accounting based measures and stock market returns is closely related with the corporate social responsibility. Other results showed that risk is also closely related with corporate social responsibility.

Mill (2006), empirically examines the quality of financial statements in UK of a trusty unit who firstly doing investment in the conventional activities recently this organization doing investment in the corporate social activities. For the comparison, they take into account three types of conventional funds whose aim is not yet changed. After the analysis the results showed a temporary increase in the returns. It indicates that increased in the change in returns is only due to socially responsible investment not from changes in managing the funds.Mishra and Suar(2010), in his study investigate by employing corporate social responsible activities that they whether have impact on the financial and non-financial performance. Data is collected perpetually on CSR from 150 senior's level Indian managers of non-financial mangers through questionnaire investigation. For the financial performance data is used from secondary sources of the companies. To measure theCSR, questionnaire was developed in respect of six stakeholders including workers, consumers, shareholders, public, natural environment, and producer. After the analysis results indicate that registered companies take responsibility in business practices than organization which are not registered.

Graves et al., (1994) conduct a research to check the link between corporate social responsibility and company’s financial statements quality and to know that whether this will motivate the interest of peoples. Results from this study point out that there is significant relationship between CSR and corporate financial statements.

According to Wright et al.,(1997) and Marcus, (1989) they found in his studies that there is negative relationship between corporate social responsibilities with the firm’s financial positions. Other researchers like (Margolis and Walsh, 2003; Orlitzky et al., 2003) also investigate the relationship between corporate social responsibility practices and the organizational quality of financial statements. After the analysis, their results find that there is positive impact of CSR activities on the financial performance of the firms.

Seemingly, research conducted by (British Council et al., 2002) and its results indicated that there is no demonstrable relationship between corporate social activities and organization financial statements due to this there is less companies engaging in the CSR activities. Other researcher (Krishna, 1992) finds that the main difficulties in employing CSR practices in the organization is that the top managers is in on temporary basis thus they do not prefer the main concern of the organization, and result will be that there might be problems in the measurement and assessment of the activities related to corporate social responsibility.

According to PiC et al., (2004) companies taking into account the practices of corporate social responsibilities to make strong relation with the general public and also to improve the product brand image of his companies. Clarkson, (1995) argued that, if the organizational managers are able to produced enough capital and satisfy the current stakeholders it may be successful and will run efficiently for long run. Any interested parties leave the organization and do not support it affect the firms overall operations and ultimately influence the firm's financial statements quality.

Rufet al., (1998) conducted a study to examine the relationship between corporate social responsibility performance and corporate financial performance. The aim of this relationship was to know that how corporate social performance can influence the financial accounting numbers. The conclusion indicate the support of the principal of stakeholder theory which emphasis to satisfy all interested parties. Results finding that change in corporate social performance have positive impact on sales improvement for the present and following year. Results also indicate that by improving in sales, the corporate social performance was also improved and ultimately effects inlong run financial statements of the organization.

Tang et al., (2011) conduct a research on how can corporate social responsibilities influence the corporate financial statements. Data is collected from 130 companies from the year 1995 to 2007. Their propositions is that CSR include a low speed, a reliable approach, focused on CSR measurement, its result find that it will improve the positive contributions of CSR to financial presentation.

Zulch and Salewski (2014) argued in a study to re-examine the relationship between corporate social responsibility and the degree of earning management. Sample for analysis was taken based on European companies IFRS. Their finding is that organizations that employ CSR practices are involve more in earning management. The characteristics is country specific reasonable the relation between corporate social responsibility and degree of earning management and present extra analysis which support this idea. The results find that the trend is increasing to invest in the corporate social activities so it is not possible that the quality of financial positions will be also improved.

Prior et al, (2008) examine the relationship between CSR and degree of earning management. They used 593 companies of 26 countries as a sample. Sustainable investment research international (SiRi) company Incorporation, where as adjusted modified Jones model Kothari et al., (2005) is used as an earning management proxy. They concluded that there is positive association between CSR and earning management, it means that when earning management is increased that is resulted from bettering its CSR. Choi and Pae (2011), in their study do not assume the independent relations between corporate social responsibilities and earning management. In the analysis they run regression of two different positions one using ethical commitment (CSR) as dependent variable and other earning quality as dependent variable. The finding indicated that organization which employs ethical commitment or CSR activities will involve in less earning management, their reporting of accounting figures will be more predictably, and forecast preciously the future cash flow than with those organizations which are involved in lower practices of CSR.

In the most recent time Kim et al, (2012) studied on the corporate social responsibility and earning management. Their research investigates that organization which employs corporate social practices attitude is different from those who does not use CSR practices. Result concluded from the study is that organization employing CSR activities are fewer probable, to maneuver the operating practices, to focus on SEG examination and to change accounting numbers willingly.

Surraco et al., (2007) conduct a research on relationship between earning management and corporate social responsibility by representing theory of stakeholder agency and structure of earning management. They hypothesize positive relation between CSR and earning management. They establish empirically their theoretical relation by using database consist of 593 companies from 26 countries from the year 2002 to 2004. The result conclude that the expectation of the researcher was that there is positive relation between CSR and earning management, after the analysis, it is pointed out that there is positive relation between CSR and corporate financial performance but when earning management practices was used than there was negative relationship of corporate social responsibility and earning management.

Dechow and Sweeney (1996), conclude from their study that a situation where owners of the firms guess that their company was engaged in the earning management activities thus in result in the stock market its value will be defected and the creditor's wealth could be affected. Correspondingly, the banks that provide loan will back money on rising of income estimated, as a result there's arise a problem at the time of loan recovery (DeFond and Jiambalbo, 1994).

Another interested parties that is worker of the organization is also affected from the earning management practices. D'Souza *et al*, (2000) conduct a study on the relationship between earning management and the cost of labor. They concluded that organization where labor union is present and every contract is negotiated will be less engaged in the earning management activities. The contract will be negotiated at the time of issued earnings; purpose is to decrease the cost of labor.Lastly, it is concluded that there will be lack of trust in the honesty of managers in the organization where accounting numbers are manipulated and are not reports as same as what the real profitable situation are, and the association, the markets will be affected by erosion in assurance, and result will be that it might be problematic for the whole society (Zahra *et al*., 2005).

According to Luoma and Goodstein in (1999), concluded from their study that there is confusion about employing CSR activities that whether it will make socially friendly policies like mechanism of corporate governance. Its observation is different from the views of stakeholder theory that they are telling that the involvement of interested parties is vital way to, support the apparent authority, director's involvement is increased, and the inspection of the higher management is increased.

Donaldson and Preston (1995), proposed an instrumental stakeholder theory stated that efficient management entail positive relationships with main interested parties, thus result will be the better financial performance (Graves, 1997, and Freeman, 1984; Waddock).

The main theme behind the instrumental stake holder theory is that by employing CSR activities firms may be a mechanism that guide us to use the resources more effectively (Orlitzky*et al.*, 2003), thus the result will be that there have a significant impact of CSR on corporate financial performance.Therefore, the management that makes strategy and its relationship with the interested parties is considered as an intangible asset, and can be sight as a way from which the financial performance of the organization was improved by bring into play the resource based theory (Hillman and Keim, 2001).Berman *et al.* (1999) from their study also concluded that organizations having a good relationship with the interested parties have a significant impact on company financial performance, another researcher Waddock and Graves, (1997) concluded that sometimes this idea is called excellent management hypothesis.

The significant impacts of corporate social responsibility on company's social performance haveconsidered an issue by different opinions. Like firstly, Preston and O'Bannon, (1997) stated that the managers currently employed in the organization want to avail higher level of seniority, for this they take decisions for short term which generate long term societal problems and in result it impact on the financial performance due to expense is increases.

Secondly, Aupperle*et al*., (1985) studied that the firm management have a relationship among the 11 interested parties for a contradictory purpose, result concluded that very inflexible and from the resources that are consumed by organization might spoil the company financial performance. Lastly, Jones, (1995), argued that for fulfilling the interest of the interested parties the organization manager take advantage from the opportunity thus employing the CSR practices to disturb the financial reporting system. Another researcher (Rowley 1997) stresses that companies that involved in more CSR activities thus his relationship with various interested parties result will might be different and the processes of making decision in organization will delay.

According to Friedman (1970) and Jensen (2001) concluded, that companies which invests in the social responsible programs and their investment is without getting back something in return, so due to this, the owners of the companies does not take interest in employing CSR practices.

A study conducted by (Heltzer2010) to investigate the relationship between corporate environmental responsibility and earning management. The KLD data are used to create subsamples of environmental strengths and concern. For the earning management discretionary accruals is used as proxy, 2,171 companies are taken as sub-samples. The result of this study concluded that companies having at least one strength of environment do not display the various levels of earning management, whereas companies which have at least one concern show the higher level of earning management. In addition research also concluded that organization having several environmental concern display higher level of earning management than where only one environmental concern.Cahan, (1993), in his study examined the relationship between corporate environmental responsibilities and earning management. Cahan hypothesize that whether earning management enhances for a companies that are working or intended to work in nuclear power plants in the wake of the Three Mile Island nuclear power plants accident. The result indicated that there was no significant relationship between corporate environmental activities and earning management.

Coffee, (2003), proposed the institutional hypothesis, and recommends that the ethics are not refusing due to the dishonor of the ethics results but it is from some other factors. Such as, the decline in corporate social practices is not due to earning management but it is due to institutional factors which are unrelated.Kang c f and Scholtens b, (2013) examine the relationship of earning management with corporate social responsibility and investor protection using data of 139 companies in ten Asian countries. They assume that there is inverse relationship between CSR and earning management and also with investor protection and earning management. For the earning management they analyze smoothness of earnings and earning aggressiveness. Result conclude that Asian companies engaging in better CSR practices are significantly engage less with earning management. Also indicate that investor protection is negative associated with earning management. In addition they also conclude from result that CSR have positive relation with investor protection.

A meta-analysis is conducted by Margolis et al. (2007) research on 167 studies to investigate the relations of corporate social responsibility and financial performance. After the analysis result find that 58 % of research showed insignificant relationship between CSR and financial performance. Research indicates that there was significant relationship in 27% studies, and 2% studies have negative relationship. Further 13% studies failed result failed due to does not account the sample size or from other main factors thus test are not run to get significance results.

According to Robinson et al. (2008), there are various opinion have been put in considerationthat why the practices related to CSR may increase the worth of the organizations. Like McGuire et al. (1988) concluded that organization that are engaged in CSR activities might improve the wellbeing of the organization, while companies that are not following the CSR activities result will be that the explicit claim of investors will increase on the organization. Furthermore Fombrun and Shanely(1990) propose that organization that are involving in CSR activities can build significant reputation in the product and labor markets, results will be that the companies can receive premium on customer prices thus the sales will be increasing, because whenreputation is enhance it means that there exist betterment in the quality of the product.

2.2 Theoretical Framework and Hypothesis Development

2.2.1 Theoretical Framework

The discussion explain the appearance of CSR as a framework that business uses for a society, the performance standard is set to from which an organization pledge to impact society and environment in a positive and a productive manner. Following are various major theories that can be backed to help the CSR in his practices.

2.2.1.1Shareholder Theory

The Nobel laureate Milton Friedman is the most vocal supporter of this theory which basically proposed that the firm's business is only one responsibility is to make profit, and having main purpose is to enhance the economic value of the shareholders. The other activities regarding CSR that companies could engage are only those which is permitted by law and regulations or either these practices give benefit to the shareholders value.

2.2.1.2Social Contract Theory

Gray and other (1996) as cited in Moir (2001) stated that society can be conceived as a chain of contracts between the members of society and society itself. From the above definition it is clear that the business firms are a part of the society thus they take the responsibilities to include the equal amount of social ethics in their business practices like other members of the society. According to Moir (2001) the social ethics comprises a set of principles that how people are caring for one another, where rational people would accept it for the common benefits on one condition only if the other member will also follow the same principle in the society. By agreeing to this standard firms can support the general society and would work up to some extent for the community.

2.2.1.3Legitimacy Theory

Suchman (1995) stated that the main purpose of the companies in taking actions for the society is showing their business ethical in the society. According to Moir (2001) when a company faced any legitimacy threat they may follow the following four main legitimacy strategies.

1. The companies show to his stakeholders that they have intent to improve his performance.
2. Companies do not change the real performance but seek ways to changes the firm's perception.
3. Firms divert the perception of the stakeholders from the major issues.
4. Firms find out ways to decrease the expectations of stakeholder about their performance.

2.2.1.4Corporate Social Performance Theory

According to wood (1991) corporate social performance has already been understood, as the adjustment of social responsibility's principles in the business firm, reaction to the social requirements, strategies, policies and the results that mirror the company's association with the society. According to this theory the firm has to contribute to the societal issues that stem from its operations like ecological pollution, despite only increasing in their economic value.

Therefore, enhancing the corporate social performance means shifting the firm's behavior to create less harmful and more valuable products to the society and their people (Wood 1991).

2.2.1.5 Stakeholder Theory

This theory is an addition in the shareholder value theory, and states that the organization responsibilities are not only to satisfy the shareholder but also to cope with the needs and wants of the other stakeholders who bear the losses and also stand for the benefits of the firm. These other stakeholders might be the workers in the organization, the peoples or the overall society. The Freeman and velamuri (2006) support the stakeholder theory argued that if the organization's objective is to work for the improvement in stakeholder's value and this stakeholder may include the employees, people and society at large, then there would no need left for the firms to engage in additional CSR activities. Following are 7 principles used to make this theory convenient, this principle of stakeholder management is planned by the Clarkson Center for business ethics (1999).

1. Identification and management of the interest of all stakeholders.
2. Listen to and correspond with all the stakeholders.
3. Be sensitive to the interest and capabilities of all stakeholders.
4. Recognize the inter-dependence efforts and rewards between stakeholders to achieve a fair distribution.
5. Cooperate with other businesses, public and private to minimize the harm out of companies operations. For example environment.
6. Avoid activities that put in danger the human rights.

7. Manager should to know about his own role conflict as corporate stakeholders and their authorized duties towards all other interested parties.

2.2.1.6Agency theory

Agency theory states when one party (the principle) delegate its decision making authority to another party (the agents) and give him its consent to act on his behalf. This would need the principle to trust on his agent's decision taken on the basis of inadequate information and its unexpected results. Friedman (1970) explain an agency theory in his criticism of CSR, and describe that for organization, manager are the owners of the companies they have a duty to increase the profit of the company, spends money and doing anything else will be the misuse of the authority. Though, Carroll (1979) indicate that the financial and societal importance of the companies are frequently dependent together; for example safety of the product is concerned both with socially and financially. Hence employing CSR in firms is best for the economic interest.

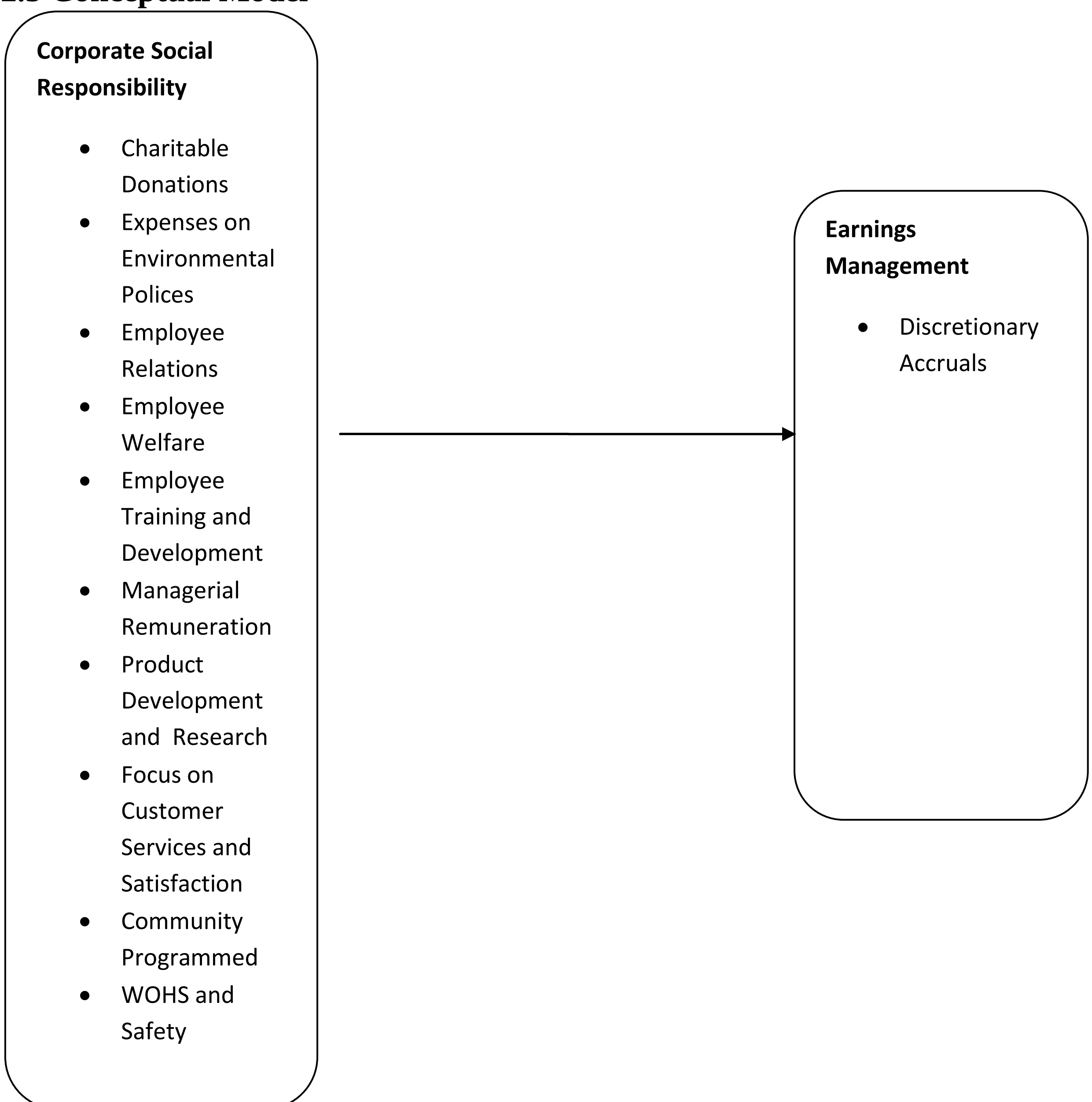
Many researchers used the stakeholder theory to support the corporate social responsibility (CSR), like (Rauf et al., 1999) used the stakeholder theory to investigate the relationship between corporate social performance and financial performance of the firms.**(**Weshah et al., 2012) used the stakeholder's theory to examine the impact of corporate social responsibility with corporate financial performance. As we discussed in the stakeholder's theory explanation that organization which works for the benefits of the stakeholders including community, workers and all the society, have no need to employ any other separate CSR activities in the business.

In other studies another theory that is Agency theory is used the support of corporate social responsibility and earning management framework like (Tribo et al., 2007) they argued that from the earning management activities the interest of the stakeholder is disturbed. Therefore managers who change in the actual accounting figures can deal with the policy and awareness of the stakeholders by employing corporate social responsibility practices. Other researchers like (Nemece et al., 2004) have investigated the relationship between earning management and agency theory. They stated that there is asymmetry information between the principals (owners) and agents (controllers) of the company, which allows taking action as they see the opportunity because they have various interests with the principals. In this study earning management is consider as an agency fee to run the managers who are probable to maintain their individual importance by issuing the financial statements where the actual economic picture of the companies is hidden. As a result owner's investment decisions will not be accurate and will be based on fake information. However, earning management not only has impact on shareholders but also stakeholders are affected strongly.

From the above discussion it is concluded that this study use stakeholder theory and agency theory to support the framework of CSR practices and earning management activities. Generally, the initial point for the measurement of discretionary accruals is the total accruals. A specific model is then accepted for the practice to make the nondiscretionary part of the total accruals, dividing total accruals into discretionary and non-discretionary accruals. The majority of models need at least one factor to be estimated, and this is usually applied by the use of the estimation period, at the time in which no organized (systematic) earning management is forecasted.

Various methods are used in the studies to compute the discretionary accruals such as, The Healy Modal (1985), The De angelo Model (1986), The Industry Model (1991), The Jones Model (1991), and The Modified Jones Model (1995). The most modern model used now days is modified cross sectional Jones model (1995) that is used in the previous literature such as (Prior et al. 2008) and (Hassan.A; Butt.A and Shah.A 2009) which is also the main model for our study to compute the discretionary accruals.

2.3 Conceptual Model



2.4 Hypothesis Development

Managers have the benefits to employ CSR activities as a technique to cope with the stakeholder's pressure and can influence their thinking about the future of the organization and can also change their minds from earning manipulations activities. So engaging in CSR can improve the manager's opportunistic behavior. Kang et.al (2007) conducts a study on corporate social responsibility, investor protection and earning management. They examine1,653 companies in 46 countries. The features related to CSR during the periods from 1993 to 2002, check the quality of firm's financial information that are released, have positive or negative effects. Their results showed that with the CSR commitment, earnings smoothness is moderate, decreased in earnings and the earning aggressiveness is increased.

Alsaadi A; Jaafar A; and Ebrahim S.M, (*2013)* conduct a study and examine the relationship between corporate social responsibility and earning management by using discretionary accruals as a proxy for earning management. They use a sample of 4085 firms for the period of 2003 to 2011 and their result reveal a strong positive relationship between CSR and EM.Cahan et al., (2011) investigated that whether CSR and Earning management is related to each other or not. They employ a new variable of political environment and argued that the link between the CSR and EM is context –specific and that context is politics. They examine their hypothesis by regressing earning management on CSR and found that there is a strong relationship between CSR and EM which is booted by political environment. Thus our first hypothesis is;

Many types of associations are possible between corporate social responsibility and earning management. As we can say that organization who have employ good CSR activities does not engage in earning management, which express the negative indication between CSR and EM. The main reason is that organizations that are socially responsible do not hide the real accounting figures thus no earning management activities is carried out. In this regard, Shleifer (2004) argued corporation will have strong commitment with the social responsibility as people have objections on its unethical activities. Definitely, CSR practices provide transparency and decreases the chances for managers to engage in earnings activities. In the same way, Gelb and Strawser (2001) indicate that some degree of US companies which employed CSR practices gives more useful and wide disclosure against those firms that are not paying more attention to the social goals. Similarly, Shen and Chih (2005) indicate that CSR activities in the records of accounting numbers can decrease banks motivation to manage earnings in the banking industry. Since the organizations having CSR perception are not only focused to raising the present profit but also their purpose is to develop relation with the stakeholders of the companies. Thus our Second hypothesis will be;

Ho. There is no significant relationship between corporate social responsibility (CSR) and earning management (EM) in chemical sector of Pakistan.

H1. There is significant relationship between corporate social responsibility (CSR) and earning management (EM) in chemical sector of Pakistan.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Sample and Procedure

All data to develop model for this study are secondary data taken from annual financial reports (Annual report) of chemical companies listed in Karachi stock exchange (KSE-100) Pakistan. The main purpose by selecting the chemical industry for this study is that this industry is involved in the pollution of environment in Pakistan. Thus the employment of more CSR practices is necessary in this industry to protect the environment and to satisfy the societal needs at large. The data were obtained from the publication of financial statements obtained from the Karachi Stock Exchange (KSE-100). Total 26 companies of chemical industry are listed in the Karachi Stock Exchange from which this study selected a sample of 10 companies over the period from 2004 to 2013, Pakistani currency and presents CSR disclosure in the financial reports.

3.2 Explanation of Variables

The research model consist of two variables namely Corporate Social Responsibility (CSR) and Earning Management (EM). Corporate social responsibility is independent variable while earning management is dependent variable. Here is the explanation of the operational definition and measurement of each variable.

3.2.1 Independent Variable Corporate Social Responsibility (CSR)

Corporate Social Responsibility is the organizational practices to enhance community social welfare by discretionary business activity and with the help of organizational resources. To measure the corporate social responsibility, an index is uses for social disclosure which is dummy variable. The disclosure of financial donations can be accessed from the annual reports of the chemical companies that are listed in the Karachi stock exchange of Pakistan. For calculation of Corporate Social Responsibility index (CSRI) using the dichotomy approach the proxy that is used in this study for the measurement of CSR instruments were given a value of 1 if disclosed, and the value of 0 if not disclosed (Haniffa& Cooke, 2005). Additional scores from each item add together to obtain a total score for each company and the total score is weighted with total score that should be disclosed in the item. Various proxies have been used in the literature to measure the Corporate Social Responsibility. This study used the following proxies to measure CSR which is also used by different researchers in the previous literatures like (Hackston and Milne 2006; Dianita and Rahmawati 2011; Mishra et al., 2010;Oba et al., In 2013 and Khan &Muttakin B M, 2014).

3.2.1.2 Charitable Donations

The variable proxy is capture as a dummy variable. Organizations or individual giving financial donations to needy people or to the valuable causes is one of the simplest ways of philanthropy. Various types of financial donations like making one time cash donation, awarding scholarships, offering food or medicines, providing services or expertise can be used by the organizations. Such a company is assigned 1 and where otherwise it is assigned 0.

3.2.1.3 Expenses on Environmental Policies

This proxy of variable is catched as a dummy variable. Environmental policy means making such a policy that give assurance to an organization that these polices could be used as per rules, regulations and further method relating to environmental problems. Where the firm reports such an issues like noise reduction, pollution prevention and control, recycling activities and environmental best practices in the supply chain; such a firm is assigned ‘1’ and where otherwise it is assigned ‘0'.

3.2.1.4 Community Programmed (Health and Education)

This proxy of variable is captured as a dummy variable. The organizations which started different projects regarding healthcare and also provide the education facilities to the community like companies are involved to renovate the local schools and the building of hospitals. Such a firm is assigned ‘1’ and where otherwise it is assigned ‘0’.

3.2.1.5 Employee Relations

This CSR proxy is catch as a dummy variable. Employee relationship is a two way communication between employer and employees of organizations in the workplace. It is necessary to prevent and resolve the problems that are faced by the employer and employees. Therefore good employer and employee relationships enhance productivity lead to motivate and satisfaction. Such a company is assigned 1 and where otherwise it is assigned 0.

3.2.1.6 Employees Welfare

This CSR proxy is used as a dummy variable. Employee welfare means that the corporations offer various types of services, remunerations and facilities to the employees of the organization. It is not necessary that the welfare is deal in the form of money but it might be in any forms like accommodations, grants, medical facilities and also facility of transportations. Such a company is assigned 1 and where otherwise it is assigned 0.

3.2.1.7 Employee Training and Development

This CSR proxy is employed as a dummy variable. Organizations responsibility is to train the employees' however for employee development both management and employees are responsible. The company's responsibility is to make available sufficient resources and friendly environment that enhance the productivity and individual employee development. Such a company is assigned 1 and where otherwise it is assigned 0.

3.2.1.8 Worker Occupational Health and Safety

This CSR proxy is used as a dummy variable. By law a company is responsible to provide workers facility regarding health and safety. Worker occupational health and safety is a company apprehensive where they provide different programs for health and safety of workers in work place and for worker dependents. Such a company is assigned 1 and where otherwise it is assigned 0.

3.2.1.9 Product Development and Research

This CSR proxy is used as a dummy variable. Successful organizations have keen interest in product development and research as they provide customers new products flavors and used to satisfy them by new ways. Most of the firms change their products covering, taste, aroma, features and bring new ideas to their products. Such a company is assigned 1 and where otherwise it is assigned 0.

3.2.1.12 Focus on customer service and satisfaction

Customers satisfaction means how a product satisfy a customer by its quality, services that provided, the environment were buying and selling of product and services are provided and product pricing. Successful firms conduct different surveys to know about customers wants so they introduce a better product to accomplish their needs and wants. Such a company is assigned 1 and where otherwise it is assigned 0.

3.2.1.13 Managerial Remuneration

Managerial remuneration are the various types of facilities and parks like convince facility i.e. car, residency facility, medical facility, education facility, and medical allowances etc.

3.2.2 Model development for CSR

$$\mathbf{EM_{it} = D0 + D1charit_{it} + D2envir_{it} + D3prod_{it} + D4Commun_{it} + D5empl_{it} + D6employ_{it} + D7devlop_{it} + D8train_{it} + D9manag_{it} + D10Focus_{it} + \varepsilon_{it}}$$

Whereas: EM = Earning Management

Charit = Charitable Donations Dummy

Envir = Expanses on Environmental Policies Dummy

Prod= Product Quality and Safety Dummy

Empl = Employee Relations Dummy

Work = Worker's Occupational Health and Safety Dummy

Employ = Employee Welfare Dummy

Devlop = Product Development and Research Dummy

Employee Train = Employee Training and Development Dummy

Manag = Managerial Remuneration Dummy

Focus = Focus on Customer Service and Satisfaction Dummy

“i” = cross sections

“t”= time series

“Ɛ”= error term

3.2.3 Dependent Variable Earning Management (EM)

Earning management is the practice of taking purposeful action without disturbing the generally accepted accounting principles to report earnings on their level of desire. (Davidson, Stickney and Weil, 1987, cited in Schipper, 1989, p.92).

From the past studies, it is indicated that earning management is determined through accruals means that accruals are used as a proxy for earning management. Previous studies stated that earning management do not equal to total amount of accruals, earning management can be useful in a situation where the authorities can easily judge the accruals. Accruals can be categorized into two groups’ discretionary accruals and non-discretionary accruals, for calculating discretionary accruals we have to subtract non-discretionary accruals from total accruals.

3.2.3.1 Measurement of discretionary accruals

The modified cross sectional Jones model (1995) are used in many previous literature for the measurement of earning management like Prior et al, (2008) and Hassan.A; S A Butt and Shah.A.Z.S,(2009), this model stated that discretionary accruals are computed by deducting nondiscretionary accruals from overall accruals and these non-discretionary accruals are calculated as follows:

Non-discretionary accruals are estimated during the event year (i.e. the year in which earnings management is hypothesized) as:

$NDA_t = \alpha_1[1/ A_{t-1}] + \alpha_2[\Delta REV_t - \Delta REC_t/A_{t-1}] + \alpha_3[PPE_t/A_{t-1}]$

Where: TAt is total accruals in year t scaled by lagged total assets

Δ*REVt*is revenues in year t less revenue in year t-1

PPEt is gross property plant and equipment at the end of year t

ΔRECt is net receivables in year t less net receivable in year t-1. All of the variables have been scaled by lagged total assets.

At-1 is total assets at the end of year t-1

α1, α2, α3 are firm specific parameters ε is the residual, which represents the firm specific discretionary portion of total accruals.

After figuring out discretionary accruals, ordinary least square (OLS) method will be used.

3.2.3.2 Estimation through Ordinary Least Square Method

In order to calculate α1, α2, α3 regression has been used. Total accruals calculated through cash flow statement approach have been regressed on difference between change in revenue in current year and change in receivable in current year and property, plant and equipment as depicted in the above equation. Then coefficient values have been adjusted in equation to calculate non-discretionary accruals.

3.3 Econometric Approach

This section of the study includes various statistical tests in order to analyze the data and obtain results. First we calculate the Descriptive Statistics for Corporate Social Responsibility (CSR) and Earning Management (EM) to know about the Mean, Median, and kurtosis etc.

Second we run the unit root test to check that data is stationary or not. For this we run the Im, Pesaran and Shin W-stat.

Third we run the panel regression analysis for this research because the data is both cross sections and time periods. So in panel regression we run the different model that is Common Coefficient Model, Fixed Effect Model and Random Effect Model also we run the F-test and Hausman test for the selection of model that is best suited for this study.

CHAPTER 4

DATA ANALYSIS

4.1 Descriptive Statistics

	DA	CDS	CPRG	ENVP	ER	ETD	EW	FCSS	MNGR	PDR
Mean	-0.002109	0.77000	0.57000	0.74000	0.67000	0.58000	0.57000	0.61000	0.52000	0.60000
Median	-0.00526	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000
Maximum	0.34090	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000
Minimum	-0.50475	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Std. Dev.	0.13357	0.42295	0.49757	0.44084	0.47258	0.49604	0.49757	0.49020	0.50211	0.49236
Skewness	-0.24265	-1.28317	-0.28278	-1.09430	-0.72307	-0.32417	-0.28278	-0.45105	-0.08006	-0.40824
Kurtosis	4.57396	2.64652	1.07996	2.19750	1.52284	1.10509	1.07996	1.20344	1.00641	1.16666
Observations	100	100	100	100	100	100	100	100	100	100
Cross sections	10	10	10	10	10	10	10	10	10	10

Interpretation:

Table 4.1 shows the descriptive statistics of the annual data of the CSR and earning management, Earning Management is determined by Jones modified model (1995), while CSR is determined by means of 10 proxies named as, charitable donations and subscription, community programmed, environmental policies, employee relation, employee welfare, employee training and development, managerial remuneration, workers occupational health and safety, product development and research, and focus on customer services and satisfaction, the mean show the average of the data while the median show the central tendency of each variable data, the mean median and standard deviation shows that the volatility among all the variables is very low, The skewness shows that how much the data is asymmetry and deviated from the normal distribution, From the above tables the mean value of discretionary accruals is -0.002109 and the maximum value of DA is 0.340902 and the minimum value of DA is -0.504756, the data of DA is negatively skewed -0.242655 means data are skewed left and the kurtosis value of DA is 4.573960 which show higher kurtosis the more peaked and fatter tails than normal distribution called leptokrutic. The mean value of charitable donations is 0.770000 and the maximum value is 1.000000 and the minimum value is 0.000000, the data of charitable donation is negatively skewed -1.283171 and the kurtosis value of charitable donations is 2.646527 which near to 3 show normal distribution kurtosis. The mean value of Community Programmes is 0.570000 and the maximum value is 1.000000 and the minimum value is 0.000000, the data of Community Programmes is negatively skewed -0.282785 and the kurtosis value of Community programmes is 1.079967 which show less peaked and have thinner tail than normal distribution has kurtosis value between 1 and 3 called platykurtic. The mean value of expenses on environmental polices is 0.740000 and the maximum value is 1.000000 and the minimum value is 0.000000, the data of expenses on environmental policies is negatively skewed -1.094306 and the kurtosis value of expenses on environmental polices is 2.197505 which show less peaked. The mean value of employee relations is 0.670000 and the maximum value is 1.000000 and the minimum value is 0.000000, the data of employee relations is negatively skewed -0.723077 and the kurtosis value of expenses on employee relations is 1.522840 which show less peaked than normal distribution. The mean value of employee trainings and development is 0.580000 and the maximum value is 1.000000 and the minimum value is 0.000000, the data of employee training and development is negatively skewed -0.324176 and the kurtosis value of expenses on employee training and development is 1.105090 which show less peaked. The mean value of employee welfare is 0.570000 and the maximum value is 1.000000 and the minimum value is 0.000000, the data of employee welfare is negatively skewed -0.282785 and the kurtosis value of expenses on employee welfare is 1.079967 which show less peaked and thinner than normal distribution has value between 1 and 3 called platykrutic. The mean value of Focus on customer services and satisfaction is 0.610000 and the maximum value is 1.000000 and the minimum value is 0.000000, the data of Focus on customer services is negatively skewed -0.451051 and the kurtosis value of Focus on customer services and satisfaction is 1.203447 which show less peaked. The mean value of Focus on Managerial remuneration is 0.520000 and the maximum value is 1.000000 and the minimum value is 0.000000, the data of Managerial remuneration is negatively skewed -0.080064 and the kurtosis value of Managerial remuneration is 1.006410 which show thinner tails than normal distribution. The mean value of Focus on product development and research is 0.600000 and the maximum value is 1.000000 and the minimum value is 0.000000, the data of Focus on product and development is negatively skewed -0.408248 and the kurtosis value of product development is 1.16666 which show less peaked and has thinner tail than normal distribution called platykrutic.

4.2 Unit root test

Unit root test use in order to find out that whether the data is stationary or non-stationary, in order to make analysis it is necessary that the data should be stationary and the unit root problem must not exist means that the effect is not transfer from one to one in current observation, if the data have unit root problem or in other words trend exist in the data the statistical analysis cannot be performed to obtain results. Why do we need to test for non-stationarity? The stationarity of a series can strongly affect the behavior and properties for example persistence of shocks will be infinite for non-stationary series. Second in spurious regression if two variables are trending over time, a regression of one on the other could have a high R2 even if the two are totally unrelated.

If the variables in the regression model are not stationary, then it can be proved that the standard assumptions for asymptotic analysis will not be valid. In other words, the usual "t-ratios" will not follow a t-distribution, so we cannot validly undertake hypothesis tests about the regression Parameters.

4.2.1 Panel Unit Root Test Results

Panel Unit Root Test

Variables	**Method**	**Statistic**	**Prob.****	**Level/1st diff**
Charitable donations	Im, Pesaran and Shin W-stat	-3.88642	0.0001	I(0)
Exp on environmental policies	Im, Pesaran and Shin W-stat	-4.23362	0.0000	I(0)
Employee relations	Im, Pesaran and Shin W-stat	-4.55241	0.0000	I(0)
Employee welfare	Im, Pesaran and Shin W-stat	-2.5E+14	0.0000	I(0)
Employee T&D	Im, Pesaran and Shin W-stat	-4.41983	0.0000	I(0)
Managerial remunerations	Im, Pesaran and Shin W-stat	-5.69267	0.0000	I(0)
Products D&R	Im, Pesaran and Shin W-stat	-3.36994	0.0004	I(0)
Focus on customer services and satisfaction	Im, Pesaran and Shin W-stat	-3.51336	0.0002	I(0)
Community programmer	Im, Pesaran and Shin W-stat	-4.59287	0.0000	I(0)
WOHS and safety	Im, Pesaran and Shin W-stat	-3.51609	0.0002	I(0)

Interpretation

In order to find out that whether the data is stationary or non-stationary Im, Pesaran and Shin W-stat is applied the test result suggest that there is no problem of unit root and the data is stationary because the p value is significant and less than 0.05 for those all variables of the study.

4.3Panel Regression Analysis

Panel regression is used in order to analyze the panel data, a kind of data which is combination of both time series and cross sectional data, here in panel regression various model have been used, first common and fixed effect model have been used, and then redundant test or f test have been applied in order to make the choice that which one model is appropriate for the study among common coefficient and fixed effect model, the results of the redundant model suggest that fixed effect model is used for cross section data.

4.3.1 Common Coefficient Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CDS_?	-0.121803	0.084012	-1.449819	0.1505
CPRG_?	0.153784	0.139503	1.102374	0.2732
ENVP_?	0.091327	0.081325	1.122984	0.2644
ER_?	0.024878	0.026502	0.938713	0.3504
ETD_?	-0.119595	0.139833	-0.855271	0.3946
EW_?	0.003640	0.026614	0.136781	0.8915
FCSS_?	0.002248	0.025208	0.089196	0.9291
MNGR_?	-0.028192	0.026603	-1.059718	0.2921
PDR_?	0.003299	0.026225	0.125780	0.9002

R-squared	0.062784	Mean dependent var	-0.002109
Adjusted R-squared	0.029608	S.D. dependent var	0.133574
S.E. of regression	0.134877	Akaike info criterion	-1.083219
Sum squared resid	1.655452	Schwarz criterion	-0.848754
Log likelihood	63.16097	Hannan-Quinn criter.	-0.988327
Durbin-Watson stat	1.744431		

Interpretation

This step is the 1st step of analysis. In this step we none the cross sections and time periods of data and then we can check that the common coefficient model, fixed effect model or random effect model to be use.

4.3.2 Fixed Effect Model (FEM)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.007316	0.049207	0.148684	0.8822
CDS_?	-0.037813	0.088483	-0.427351	0.6703
CPRG_?	0.039059	0.130133	0.300143	0.7648
ENVP_?	0.018598	0.087546	0.212440	0.8323
ER_?	0.024708	0.027568	0.896249	0.3728
ETD_?	-0.014160	0.133576	-0.106007	0.9158
EW_?	-0.012494	0.029050	-0.430071	0.6683
FCSS_?	-0.000610	0.028562	-0.021367	0.9830
MNGR_?	-0.014359	0.026853	-0.534716	0.5943
PDR_?	-0.016195	0.027623	-0.586285	0.5593
Fixed Effects (Cross)				
ARI—C	-0.104849			
BIA—C	-0.046299			
DAW—C	0.092545			
ENGR—C	0.137496			
FAUB—C	-0.023168			
FAUF—C	0.045117			
ICI—C	0.001639			
LOT—C	-0.068321			
NIM—C	-0.072198			
SIT—C	0.038037			

Effects Specification			
Cross-section fixed (dummy variables)			
R-squared	0.338962	Mean dependent var	-0.002109
Adjusted R-squared	0.192065	S.D. dependent var	0.133574
S.E. of regression	0.120063	Akaike info criterion	-1.232322
Sum squared resid	1.167625	Schwarz criterion	-0.737339
Log likelihood	80.61608	Hannan-Quinn criter.	-1.031993
F-statistic	2.307477	Durbin-Watson stat	2.374252
Prob(F-statistic)	0.005793		

Interpretation

In the above table the Fixed Effect Model is tested for the purpose to test than the F test for the selection of model between Common coefficient Model and Fixed Effect Model if the result is significant it means used Fixed Effect Model if insignificant than Common Coefficient Model is used.

4.3.3 Redundant Fixed Effects Test (likely hood ratio)

Effects Test	Statistic	d.f.	Prob.
Cross-section F	3.732222	(9,81)	0.0006
Cross-section Chi-square	34.691137	9	0.0001

Interpretation

The value of Redundant Fixed Effects Test is significant therefore fixed effect model is used for cross section.

4.3.6 Time Period Fixed Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.023279	0.055623	-0.418510	0.6767
CDS_?	-0.126361	0.092826	-1.361273	0.1772
CPRG_?	0.164670	0.154345	1.066895	0.2892
ENVP_?	0.102578	0.089497	1.146167	0.2551
ER_?	0.032029	0.032684	0.979985	0.3300
ETD_?	-0.126712	0.154790	-0.818604	0.4154
EW_?	0.008110	0.030160	0.268904	0.7887
FCSS_?	0.008527	0.031759	0.268496	0.7890
MNGR_?	-0.026063	0.031580	-0.825304	0.4116
PDR_?	0.007433	0.030668	0.242363	0.8091
Fixed Effects (Period)				
2004—C	0.012862			
2005—C	-0.008120			
2006—C	-0.011002			
2007—C	0.016075			
2008—C	0.005803			
2009—C	0.005509			
2010—C	-0.017058			
2011—C	0.002359			
2012—C	-0.003358			
2013—C	-0.003070			

Effects Specification

Period fixed (dummy variables)

R-squared	0.070240	Mean dependent var	-0.002109
Adjusted R-squared	-0.136374	S.D. dependent var	0.133574
S.E. of regression	0.142391	Akaike info criterion	-0.891206
Sum squared resid	1.642283	Schwarz criterion	-0.396224
Log likelihood	63.56029	Hannan-Quinn criter.	-0.690878
F-statistic	6.409957	Durbin-Watson stat	1.763394

Prob(F-statistic)	0.993902

Interpretation

In the step of data analysis we none the cross sections and fixed the time period of data and then we can check the Redundant Fixed Effects for Time Period Model to check that either we use fixed or common effect model further.

4.3.7 Redundant Fixed Effects for Time Period Model

Effects Test	Statistic	d.f.	Prob.
Period F	0.052313	(9,81)	1.0000
Period Chi-square	0.579572	9	0.9999

Interpretation

In the above table the Redundant Fixed Effect Test is tested to select the model between the Fixed Effect Model and Common Coefficient Model. The result showed that F value is Insignificant so it means that the Common Coefficient Model is used for this study in the Time Period Fixed Model.

4.3.8 Final Model for this study is Cross sectional Fixed Effect Model and Time Periods Common Effects Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.007316	0.049207	0.148684	0.8822
CDS_?	-0.037813	0.088483	-0.427351	0.6703
CPRG_?	0.039059	0.130133	0.300143	0.7648
ENVP_?	0.018598	0.087546	0.212440	0.8323
ER_?	0.024708	0.027568	0.896249	0.3728
ETD_?	-0.014160	0.133576	-0.106007	0.9158
EW_?	-0.012494	0.029050	-0.430071	0.6683
FCSS_?	-0.000610	0.028562	-0.021367	0.9830
MNGR_?	-0.014359	0.026853	-0.534716	0.5943
PDR_?	-0.016195	0.027623	-0.586285	0.5593
Fixed Effects (Cross)				
ARI—C	-0.104849			
BIA—C	-0.046299			
DAW--C	0.092545			
ENGR--C	0.137496			
FAUB--C	-0.023168			
FAUF--C	0.045117			
ICI--C	0.001639			
LOT--C	-0.068321			
NIM--C	-0.072198			
SIT--C	0.038037			

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.338962	Mean dependent var	-0.002109
Adjusted R-squared	0.192065	S.D. dependent var	0.133574
S.E. of regression	0.120063	Akaike info criterion	-1.232322
Sum squared resid	1.167625	Schwarz criterion	-0.737339
Log likelihood	80.61608	Hannan-Quinn criter.	-1.031993
F-statistic	7.207477	Durbin-Watson stat	2.374252
Prob(F-statistic)	0.005793		

Interpretation

After tested the different tests the model that is used for this study is for Cross Section Fixed Effects Model and for Time Period Common Coefficient Model that is shown in the above table, the results of the study suggests that Charitable donations, Expense on environmental policies, Employee relations, Employee welfare, Employee T&D, Managerial remunerations, Products D&R, Focus on customer services and satisfaction, Community programmer, WOHS and safety has no impact on earning management because if we see the p value of every variables are insignificant, means that corporate social responsibility have no role in explaining earning management in chemical industry of Pakistan therefore the hypothesis is rejected and there is no significant impact of CSR on earning management. The results of the study also support by some previous literature and similar results are also obtained by Chih, Shen and Kang (2008) and argued that the relationship between CSR and earnings management may be positively, negatively or there would be no link between earning management and corporate social responsibility. Similarly some other researcher like Krishna (1992) finds that the main difficulties in employing CSR practices in the organization is that the top managers is in on temporary basis thus they do not prefer the main concern of the organization, and result will be that there might be problems in the measurement and assessment of the activities related to corporate social responsibility. Cahan (1993) also indicated that there is no significant relationship between corporate environmental activities and earning management. There are some studies which contradict with the results of the underlying study like British Council et al, (2002) and its results indicated that there is no demonstrable relationship between corporate social activities and organization financial statements due to this there is less companies engaging in the CSR activities.

CHAPTER 5

DISCUSSION, CONCLUSION AND RECOUMMENDATIONS

5.1 Discussion and conclusion

The underlying study is carried out to find the relationship between corporate social responsibilities and earning management. In this study two variables are used i.e. Corporate Social Responsibility and Earning Management to find the impact of CSR and earning management of Pakistan chemical industry. Two hypotheses has been developed for the study, hypothesis Ho was that the CSR has no significance impact on earning management and hypothesis no H1 is that CSR has significant relationship with earning management. After analyzing the data the study result shows that H0 hypothesis has been accepted as in the model the p value was insignificant means that the CSR has no significant impact on earning management and the underlying study conclude that there is no role of CSR in explaining the earning management of Pakistan chemical industry, the reason of this is that the Cost of CSR in chemical industry of Pakistan is not so much that impact on the earning management, that is discretionary or non-discretionary accruals of chemical industry of Pakistan.

The results of the study also support by some previous literature moreover similar results are also obtained by Chih, Shen and Kang (2008) and argued that the relationship between CSR and earnings management may be positively, negatively or there would be no link between earning management and corporate social responsibility. Similarly some other researcher like Krishna (1992) finds that the main difficulties in employing CSR practices in the organization are that the top managers is in on temporary base thus they do not prefer the main concern of the organization, and result will be that there might be problems in the measurement and assessment of the activities related to corporate social responsibility. Cahan (1993) also indicated that there is no significant relationship between corporate environmental activities and earning management. There are some studies which contradict with the results of the underlying study like British Council et al, (2002) and its results indicated that there is no demonstrable relationship between corporate social activities and organization financial statements due to this there is less companies engaging in the CSR activities.

5.2 Limitation and Future Recommendation

As the study is conducted to know the relationship between CSR and earning management of chemical industry in Pakistan. As it was a good attempt but the study also carried out some limitation which is the sample size of the study, the study use the sample size of 10 companies data for 10 years due to which the study results cannot be generalize, further research studies can use large sample size of various industries to find out precise results and can be generalize in study domain area.

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