

**UNIVERSITY OF MISKOLC
FACULTY OF ECONOMICS**

YAHYA KHAN

**CORPORATE SOCIAL RESPONSIBILITY AND
FIRM'S FINANCIAL PERFORMANCE: EVIDENCE
FROM THE BANKING SECTOR OF PAKISTAN**

**SUMMARY OF THE DOCTORAL (PhD)
DISSERTATION**



**Miskolc
2020**

**HANTOS ELEMÉR DOCTORAL SCHOOL OF BUSINESS,
MANAGEMENT AND REGIONAL SCIENCE
UNIVERSITY OF MISKOLC
FACULTY OF ECONOMICS**

**Head of Doctoral School
PROF. DR KÁROLY BALATON**

**Thesis Supervisor
DR. KRISZTINA SZEGEDI
Associate Professor**

**CORPORATE SOCIAL RESPONSIBILITY AND
FIRM'S FINANCIAL PERFORMANCE:
EVIDENCE FROM THE BANKING SECTOR OF
PAKISTAN**

By

YAHYA KHAN

**MISKOLC
2020**

TABLE OF CONTENTS

List of Tables.....	ii
List of Figures.....	ii
1. Brief Summary of the PhD Dissertation.....	3
2. Motivation and Problem Statement.....	5
2.1. Research Objectives	6
2.2. Research Questions	6
2.3. Scope of the Research	7
3. Theoretical Framework	8
4. Methodology	10
4.1. Sample and Data Selection.....	10
4.2. Independent Variable.....	11
4.2.1. Approaches to Measuring CSR Disclosure Index	11
4.2.2. Content Analysis	11
4.3. Dependent Variable.....	13
4.4. Control Variables	14
4.5. Hypothesis Development	15
4.6. Model Specification	16
4.6.1. Regression Model	16
4.7. Specification Tests	17
5. Findings of the Study	18
5.1. The Current Status of Corporate Social Responsibility Disclosure by Banks in Pakistan	18
5.2. The Relationship between Corporate Social Responsibility Disclosure and Bank's Financial Performance	19
5.3. Relationship between Each Dimension of Corporate Social Responsibility Disclosure and Bank's Financial Performance	20
5.4. GMM two-step regression.....	23
6. Contribution and Policy Recommendations of the Study	24
6.1. New Scientific Results of the research	25
References.....	26
List of Publication related to the thesis.....	33
List of further Publication of the Author	33
Appendix I : Table 7. Summary of CSR Disclosure Index (Score) of Listed Commercial Banks 2018-2018 (Year wise)	34

List of Tables

Table 1 List of Banks Listed on Pakistan Stock Exchange	10
Table 2: List of CSR Items of each dimension of CSR.....	12
Table 3 Descriptions of Employed Variables.....	14
Table 4 Summary of CSR Disclosure Index (Score) of Listed Commercial Banks 2018-2018 (Year wise)	34
Table 5 Summary of Regression Results of the relationship between CSRI and Financial performance of commercial Banks in Pakistan	20
Table 6 Summary of Regression Results of the relationship between each Dimension of CSR and Financial Performance of Commercial Banks in Pakistan	22

List of Figures

Figure 1 Empirical Research Framework	8
---	---

1. Brief Summary of the PhD Dissertation

The attention of the general public, regulatory authorities, research scholars and media over the importance of a firm's CSR practices and its disclosure has increased over the last decade, especially after the global economic crisis of 2008-2010. The need and significance of CSR practices made the businesses more aware and concerned about their CSR activities for employees, customers, community, environment and other concerned stakeholders. A number of firms in Pakistan have realized the long-term benefits of CSR initiatives, its disclosure and have therefore adopted CSR policies in their business operations. However, business in Pakistan confronts numerous challenges in the implementation and practice of CSR, due to lack of proper understanding of the CSR concept, its proper disclosure and motivation.

Review of the extant literature reveals that, though there are a handful of studies investigating CSR and its disclosure practices in the financial sector of Pakistan by taking into consideration investments and donations in philanthropy, health, education and social welfare dimensions of CSR. However, research studies considering the firms' stakeholders through the lens of stakeholder's theory, are scant. Thus, this study attempts to fill the gaps in the existing literature and investigate the impact of CSR disclosure practices of the commercial banks on financial performance by taking the main stakeholders such as shareholders, employees, managers/governance, customers, suppliers, competitors, community and society, environment and CSR management as key indicators of CSR.

The conceptual framework of the study was designed by taking nine dimensions of CSR, consisting of Shareholder, Employee, Manager, Customers, Suppliers, Competitors, Community and Society, Environment and CSR management. Four indicators include ROE, ROA, EPS (Accounting-based variable) and Tobin's Q (Market-based variable) was employed to evaluate the financial performance of the firm. Control variables – the size of the bank, age of the bank, capital ratio and over-head expenses were used to control the impact of dependent variables. Both exploratory and explanatory research designs were utilized. Mixed-designed research was employed. Among 26 scheduled commercial banks in Pakistan, the sample is restricted to 20 banks, which are listed on Pakistan Stock Exchange in 2018. The data of the banks from 2008 to 2018 was used and collected from the annual reports and official websites of the selected sample. The construction of CSR index through content analysis has taken place in several stages, identification of CSR dimensions and construction of CSR index, identification of data sources and collection of annual reports and other documents related to banks CSR practices, reliability of content analysis was considered and content analysis was adopted to codify the data and measure the CSR score of all selected banks. The data of financial measurement indicators and control variables were collected from State Bank of Pakistan financial reports regarding the financial sector of Pakistan, banks' annual reports and Pakistan Stock Exchange. Two sets of hypothesis based on the literature studied on the relationship of CSR and financial performance were developed, to analyze the impact of CSR and all dimensions of CSR on the financial performance of listed commercial banks. In order to test the set of hypothesis three groups of panel data model was utilized consisting of Pooled OLS, Fixed Effects Model and Random Effects Model.

Content analysis of annual reports and official webpages for the period 2008-2018, was used to measure the CSR disclosure of all listed commercial banks operating in Pakistan. Moreover, the index was developed termed as 'CSR Disclosure Index', which presents the results in the form of indices for all banks individually and collectively for each year from 2008 to 2018. The values of the index showed the performance of the banks in the sample, high score indicates the high performance of the bank while a low score determines less involvement of the bank in respective CSR activities. The results of the current study indicated that in the year 2008 the average CSR score of all banks is 0.5648 while in 2018 it increased to 0.7106. This shows that the level of CSR activities disclosure increased by 14.58 per cent in the last decade, this represents the dedication of commercial banks towards CSR initiative inside and outside the organization for their employees and society in large.

The association between CSR practices as a composite construct, of commercial banks in Pakistan and financial performance; ROE, ROA, EPS and Tobin's Q, was checked, through regression analysis. The relation of each dimension of CSR: shareholder, employee, Manager/Governance, Supplier, Competitor, Community and Society, Environment and CSR Management with the financial performance of commercial banks in the sample was also checked, for the data ranging from 2008 to 2018. The results of the study indicated that CSR disclosure is significantly and positively associated with accounting-based financial performance (ROE and ROA). However, the relationship with EPS was positive but insignificant. Similarly, CSR disclosure was found to be negatively and insignificantly associated with Tobin's Q of the firm. The possible reasons for this might be that during 2008-2010 Pakistani markets suffered not only from the global financial crisis but also from the war against terrorism, reducing the GDP from 4.8 in 2007 to 1.67 in 2010, resulting in a decrease in financial performance and would have an impact on firm's value, defined by Tobin's Q. The findings of the study confirm that the involvement of banks in CSR practices may have a positive impact on the overall financial performance of commercial banks in Pakistan. Moreover, the results also showed a positive and significant relationship between customer, community and society and CSR management dimensions of CSR disclosure with ROE. Similarly, the community and society had a positive impact on ROA. Supplier and shareholder dimensions are positively and significantly related to EPS and Tobin's Q respectively. This implies that CSR activities of commercial banks in Pakistan; related to community, customers, suppliers and CSR management (good governance, transparency and anti-corruption policies) and its disclosure may improve their financial performance. On the other hand, competitor dimension of CSR has a significant negative impact on ROE and ROA. The reason might be an intensely competitive environment in the financial market. Furthermore, environment dimension is negatively and significantly related to ROA and EPS. The results suggested that competitor and environment dimensions of CSR may reduce the investor's returns. However, the overall regression findings suggest a positive impact of CSR initiatives on the financial performance of commercial banks.

The finding of the study suggested that commercial banks in Pakistan put more emphasis on the disclosure of information related to shareholders, employees, manager/governance, customers, community and society and CSR management. However, the interest of these banks in suppliers and environmental aspects of CSR is very low. Furthermore, the nature, flexibility and extent of

involvement in CSR activities of each bank in the sample is different, which may affect the association of each dimension of CSR with the financial performance and its significant level.

This study contributes to the general understanding of CSR practices and its proper disclosure of businesses in developing countries, specifically in Pakistan by providing an intensive examination of the association between CSR disclosure and financial performance of the listed commercial banks. Implications to the policymakers and management and governance bodies of the financial sector of Pakistan are also provided.

2. Motivation and Problem Statement

The attention of the general public, regulatory authorities, research scholars and media over the importance of a firm's CSR practices and its disclosure has increased over the last decade, especially after the global economic crisis of 2008-2010. The need and significance of CSR practices made the businesses more aware and concerned about their CSR activities for employees, customers, community, environment and other concerned stakeholders. A number of firms in Pakistan have realized the long-term benefits of CSR initiatives, its disclosure and have therefore adopted CSR policies in their business operations (Khan et al. 2018a, Ehsan et al. 2018). However, business in Pakistan confronts numerous challenges in the implementation and practice of CSR, due to lack of proper understanding of the CSR concept, its proper disclosure and motivation (Majeed et al. 2015). Some of the research studies have attempted to investigate the CSR and its disclosure practices in Pakistan (Ahmad, 2006, Mian, 2010, Awan et al. 2012, Majeed et al. 2015, Ehsan et al. 2018). The current study intends to examine the level of CSR practices and their disclosure among the listed commercial banks in Pakistan. The study also intends to investigate the impact of CSR disclosure practices of these commercial banks on their financial performance. In order to achieve the objectives of the study, CSR and financial data have been collected from the annual reports, financial websites of concerned banks, State Bank of Pakistan (SBP) and Pakistan Stock Exchange (PSE).

The current study has been justified due to numerous grounds. Most of the studies conducted on CSR disclosure issues have been carried out in the developed nations (Gray et al. 1995a, Brumm, 2005, Lux et al. 2005, Deegan, 2002, Campbell, 2000, Hartman et al. 2007, Guthrie and Farneti, 2008, Doh and Guay, 2006, Nasrullah and Rahim, 2014). On the other hand, the studies on CSR practices in developing countries are limited (Muthuri and Gilbert, 2011, Hopkins, 2012, Hossain et al. 2006, Bayoud et al. 2012, Jamali et al. 2017). The studies on the association between CSR disclosure and financial performance in the context of Pakistan are insufficient, more specifically in the financial sector. The variation in CSR understanding, laws and regulations, and culture in Pakistan could be different as compared to other developing and developed countries. These differences may affect the empirical findings of the study in relation to other developing countries.

Considering the context of Pakistan, research on issues related to CSR and its disclosure practices is limited, whereas the disclosure of CSR activities has not been prevailing practice (Khan and Nomani, 2002, Lund-Thomsen, 2004, Nishtar, 2006, Makki and Lodhi, 2008). The development and awareness of CSR enhanced after 2008 in Pakistan and the Security and Exchange Commission of Pakistan (SECP), for the first time, provided Companies General Order, 2009 in accordance with CSR and its disclosure practices of companies (Ehsan et al.

2018). Although, the CSR practices have increased in the last decade, but are still underdeveloped and have limitations due to the voluntary nature of its disclosure (Jariko et al. 2016, Khan et al. 2018a).

A small number of studies have been conducted on the relationship between CSR disclosure and companies' financial performance in Pakistan – most of them have focused the manufacturing sector (Murtaza et al. 2014, Kakakhel et al. 2015, Kiran et al. 2015, Khurshid et al. 2016). However, less attention has been paid to the financial sector and measured CSR in terms of investments and donations in philanthropy, health, education and social welfare (Malik and Nadeem, 2014, Bagh et al. 2017), and less focus been there on the importance of other stakeholders determined by stakeholder's theory.

Due to above-mentioned research gaps in the CSR related literature in the context of Pakistan, the current study focuses on the development of CSR index, based on stakeholder's theory; to measure the CSR disclosure of listed commercial banks in Pakistan. The study will not only probe into the association of CSR disclosure but also its several dimensions with the financial performance of listed commercial banks during the time period of 2008-2018, to understand the relationship in a broader spectrum.

2.1. Research Objectives

My research intended to scrutinize the CSR practices and its disclosure of the listed commercial banks in Pakistan, by utilizing the index approach of content analysis of CSR information communicated by concerned banks in their annual reports and official websites. Moreover, the current study aims to examine the impact of CSR disclosure on the financial performance of commercial banks under study. In order to achieve the aims of this study, the following objectives are established.

- (1) To develop CSR disclosure index in order to assess the level of Corporate Social Responsibility disclosure of the listed banks in Pakistan during the period of 2008-2018

The study aims to achieve this objective, the level of CSR disclosure and linked practices of the banks through content analysis of the annual reports of the respective banks.

- (2) To investigate the extent of the relationship between Corporate Social Responsibility and Financial Performance of the banks in Pakistan.

For the purpose, this research examines the association between CSR disclosure index and financial performance indicators empirically by using econometric models.

2.2. Research Questions

To achieve the stated research objectives, the current study seeks to explore the following research questions.

- (1) What is the existing status of CSR disclosure by the listed banks in Pakistan?
- (2) Whether there is a relationship between CSR disclosure and banks' financial performance?
- (3) To what extent does each dimension of CSR disclosure predict the banks' financial performance, both market and accounting based?

The first research objective is related to the first research question. Under this research question the overall CSR disclosure, along with the disclosure of several dimensions of CSR in accordance with stakeholder's theory are explored in the first empirical part of this dissertation.

The results help to determine the level of CSR disclosure practices in commercial banks of Pakistan.

The second research objective is linked to the second and third research questions. The study aims to comprehend the extent of the relationship between CSR disclosures, disclosure of its dimensions and financial performance of the listed commercial banks in Pakistan. The results obtained after the analysis of the relationship are presented in the second empirical part of this dissertation.

2.3. Scope of the Research

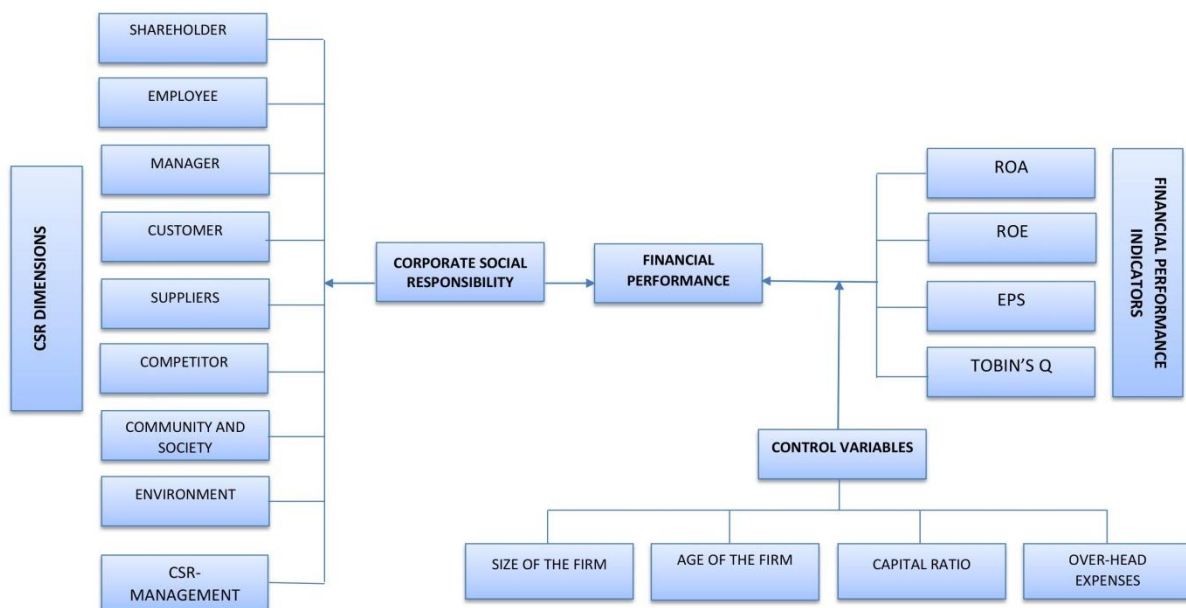
The current study is based on the listed commercial banks on the Pakistan Stock Exchange (PSE) in 2018. The main objectives of this study are achieved through two empirical examination methods. Firstly, the examination of CSR disclosure practices carried out through content analysis of annual reports and official websites of the banks in the sample. The analysis of the extent of CSR disclosure practices has been carried out based on CSR checklist developed in the light of previous studies on CSR disclosure, covering nine stakeholder's categories: shareholders, employees, manager/governance, customers, suppliers, competitors, community and society, environment and CSR management.

Secondly, an investigation carried out into the relationship between CSR disclosure, disclosure of its dimension and financial performance of the respective banks. Several regression models have been utilized in the investigation of this relationship, including pooled OLS, fixed effects model and random-effects model.

3. Theoretical Framework

On basis of literature review concerning relation of CSR disclosure and financial performance, the study considered different dimensions of CSR disclosure in accordance with Stakeholders theory (Roberts, 1992, Foster and Jonker, 2005, Hawkins, 2006, Jitaree, 2015) i.e., Shareholder, Employees, Manager, Customer, Supplier, Competitor, Community and Society, Environment and CSR-management. In this study banks' financial performance was evaluated through four different indicators: Return on Assets (ROA), Return on Equity (ROE), Earning per Share (EPS) and Tobin's Q. Some control variables i.e., Size of the firm, Age of the firm, Capital ratio and Over-Head Expenses of the desired banks are considered. Figure 2 shows research framework of this study to measure the association of CSR disclosure and financial performance of banks under consideration.

Figure 1 Empirical Research Framework



Source: Created by Author based on literature studied¹

¹ BAGH, T., KHAN, M. A., AZAD, T., SADDIQUE, S. & KHAN, M. A. 2017. The Corporate Social Responsibility and Firms' Financial Performance: Evidence from Financial Sector of Pakistan. *International Journal of Economics and Financial Issues*, 7, 301-308.
 CHOI, J.-S., KWAK, Y.-M. & CHOE, C. 2010. Corporate social responsibility and corporate financial performance: Evidence from Korea. *Australian journal of management*, 35, 291-311.
 SAYED, S., MALIK, I. R., AHMED, M. & ALI, M. 2017. Does Corporate Social Responsibility Improve the Firm's Financial Performance: A Theoretical Perspective of Agency and Stakeholder Theory by Financial Sector of Pakistan. *Journal of Contemporary Management Sciences*, 3, 137-156.
 DATTA, C. K. & AL MAHMUD, A. 2018. Impact of Capital Adequacy on Profitability Under Basel II Accord: Evidence from Commercial Banks of Bangladesh. *European Journal of Business and Management*, 10, 48-58.
 SHEN, K.-Y., YAN, M.-R. & TZENG, G.-H. 2017. Exploring R&D influences on financial performance for business sustainability considering dual profitability objectives. *Sustainability*, 9, 1-21.
 SCHOLTENS, B. 2008. A note on the interaction between corporate social responsibility and financial performance. *Ecological economics*, 68, 46-55.
 MAQBOOL, S. & ZAMEER, M. N. 2018. Corporate social responsibility and financial performance: An empirical analysis of Indian banks. *Future Business Journal*, 4, 84-93.

In response to the research objectives, I have employed both exploratory and explanatory research designs. As one of the research objectives was to identify and explore the categories of CSR and to assess the level of CSR disclosure of listed commercial banks in Pakistan. In order to achieve the above-stated objective, this study is designed as exploratory research. The second research objective was to analyze the relationship of CSR disclosure and financial performance of listed commercial banks operating in Pakistan, this section of the research study follows explanatory research design. Thus, I have employed mixed-design research, in which each design counts for a specific objective of the study.

4. Methodology

4.1. Sample and Data Selection

There are 26 scheduled banks in Pakistan but our sample is restricted to 20 banks, which are listed on Pakistan Stock Exchange in 2018. The sample includes state-owned banks, conventional and Islamic banks. For the collection of data, the study has utilized the annual reports of the respective banks for the year 2008 to 2018 (Sharif and Rashid, 2014, Bagh et al. 2017). These reports are readily available sources of the required data.

The particular period was chosen because 2008 was a year where Pakistani economy faced various challenges especially in context of global financial crisis and terrorism and is considered as a most difficult year in last few decades. The deterioration in the domestic and external imbalances started in first quarter of the year 2008. The banking sector of Pakistan was the only sector that survived the global crisis of 2007-2012. Commercial banks play a leading role in providing financial services to general public and businesses. Thus, these types of banks are actively involved in facilitating and promoting sustainable development and social stability in the region (Kalpana and Rao, 2017). Da Silva Monteiro and Aibar-Guzmán (2010) mentioned that in the frame of CSR studies researchers often excluded the banking sector. The widespread interaction of commercial banks with general public and its huge importance in the economy is the basic motivation in the selection of said sector as the subject of the study.

Table 1. List of Banks Listed on Pakistan Stock Exchange

Public Sector	
S.No	Name of the Bank
1	National Bank of Pakistan
2	The Bank of Punjab
3	Bank of Khyber
Conventional Commercial Banks	
4	Askari Bank
5	Allied Bank Limited
6	MCB Bank Limited
7	Bank Alfalah
8	Bank Al Habib
9	Faysal Bank
10	HBL Pakistan
11	JS Bank
12	Samba Bank Limited
13	Silk bank Limited
14	Standard Chartered Pakistan
15	Soneri Bank
16	Summit Bank
17	United Bank Limited
18	Habib Metropolitan Bank
Islamic Banks	
19	Meezan Bank Limited
20	Bank Islami Pakistan Limited

Source: Pakistan Stock Exchange 2018

The annual reports (obtained from Pakistan Stock Exchange and concerned banks' websites and official webpages of all commercial banks in a sample are carefully analyzed in order to record the incidences of the CSR disclosures of these banks. The data is collected and compiled

manually. The data regarding financial performance indicators are collected from the financial statements of financial sector issued by State Bank of Pakistan, Pakistan Stock Exchange and from the financial statements of listed commercial banks of Pakistan.

4.2. Independent Variable

In this study, corporate social responsibility disclosure is an independent variable. Sarkar and Searcy (2016, p.143) define CSR as *“it implies that firms must foremost assume their core economic responsibility and voluntarily go beyond legal minimums so that they are ethical in all of their activities and that they take into account the impact of their actions on stakeholders in society while simultaneously contributing to global sustainability”*. This study employed the above definition of CSR because it is brief and in accordance with Stakeholder theory.

4.2.1. Approaches to Measuring CSR Disclosure Index

There are several approaches to measure the CSR disclosure of a firm. The most common methods utilized by researchers are Reputational indices and Rating/scaling approach, CSR survey and Content analysis (Stanwick and Stanwick, 1998, Scholtens, 2008, Tilakasiri, 2013).

Content analysis is also a broadly used method for measuring CSR disclosure (Khan, 2010, Paulik et al. 2015, Romero, 2016, Syed and Butt, 2017). In the content analysis, the researchers analyze the secondary data sources that may include annual reports, other CSR publications and official websites of the firms regarding CSR activities. The information gathered through this method is then converted to quantitative form, to develop CSR disclosure index and measure the extent of CSR disclosure of the firm. This method mainly focuses on the quantity of the CSR disclosure rather than the quality which is the main disadvantage of this method (Guthrie and Abeysekera, 2006)

4.2.2. Content Analysis

According to Abbot and Monsen (1979, p.504), *“Content analysis is a technique for gathering data that consist of codifying qualitative information in anecdotal and literary form into categories in order to drive quantitative scale of varying level of complexity”*. The content analysis technique is commonly used in CSR literature not only for the collection of data but also gives information about the firm’s disclosure pattern (Guthrie and Farneti, 2008). Two approaches of content analysis, ‘index’ and ‘volumetric’ approaches are commonly found in previous literature regarding CSR (Vourvachis, 2007). I used index approach method, aggregated score of all items is calculated by binary coding method in which 1 is assigned when an item is present otherwise 0 is assigned.

The construction of the CSR index through content analysis in this research study has taken place in several stages. In the first stage, the CSR dimension and its important items were identified and also clearly defined. Nine categories and number of items in each category (Table 2) is as follows: Shareholder; 6 items, Employee; 12 items, Manager/Governance; 5 items, Customer; 8 items, Supplier; 6 items, Competitor; 3 items, Community and Society; 12 items; Environment; 13 items and CSR-management; 6 items. Categories and items related to CSR activities are chosen after a thorough analysis of previous studies on CSR disclosure (Scholtens, 2008, Day and Woodward, 2009, Gao, 2011, Ahmed and Ahmad, 2011, Awan et al. 2012, Birindelli et al. 2015, Sharif and Rashid, 2014, Khalid and Nasir, 2015, Fatima, 2017, Ehsan et al. 2018, Deutsch and Pintér, 2018, Maqbool and Zameer, 2018). The second stage of this research process was to assess the data sources and collection of various documents issued by State Bank of Pakistan, Commercial Banks, and Pakistan Stock Exchange. Annual reports are one of the main tools, especially used by financial institutions to disclose their socially

responsible practices (Hassan et al. 2010). According to Jenkins and Yakovleva (2006), for the disclosure of CSR information, companies use different types of mediums i.e., radio and television advertisements, brochures, community reports, press releases, videotapes, and websites. But for a researcher it is quite impossible to analyze all the mediums of CSR communication regarding social and environmental disclosure (Gray et al. 1995b). Annual reports, Code of ethics and conducts and other financial documents were gathered, to analyze the disclosure of selected CSR items by all banks under study. In third stage, the reliability of the content analysis was considered, as it is an important issue that needs to be addressed (Unerman, 2000). For this purpose, twenty annual reports of different banks from the sample were randomly selected and the content analysis of these reports was conducted. The same set of annual reports were provided to three different independent people ‘coders’ and after explaining the process, CSR categories and items of the study, they were asked to analyze the reports and assign code to each item accordingly. On the completion of the reliability test, some small changes were accepted, to increase the reliability of analysis. In fourth stage of this process, index approach of content analysis was adopted to codify the data and measure the CSR scores in order to construct CSR disclosure index. Dichotomous and un-weighted disclosure index method is used (Saleh et al. 2010, Rouf, 2011, Tilakasiri, 2013). According to this technique, if a bank discloses the information related to CSR items in its annual report or on their website is assigned a score of “1” and if the related information is found missing then the score is “0” (Gujarati, 2009, Sharif and Rashid, 2014).

To sum the final CSR index (CSRI), the un-weighted indexes are calculated as follows:

$$CSRI_j = \frac{\sum_i^n x_{ij}}{n_j} \quad (4.1)$$

Whereas

$CSRI_j$ = Corporate social responsibility index of j^{th} bank

n_j =total number of CSR items for j^{th} bank, $n = 71$

$x_{ij} = 1$ if “ i^{th} ” item is disclosed by “ j^{th} ” bank annual reports and 0 if the item is not disclosed in annual reports/website

Table 2. List of CSR Items of each dimension of CSR

Shareholder	Employee
Items	Items
1. Investor relation Management	1. Gender diversity
2. Common Forum for dialogue	2. Employee education & Training
3. Flexible policies for shareholders and investors	3. Employee benefits
4. Appreciating shareholders	4. Employee safety and Hygiene
5. Information disclosure for share holders	5. Equal opportunity
6. Bonus interest and long term development	6. Employee welfare & health
	7. Minorities (discrimination Policy)
	8. Employee motivation, rewards and satisfaction
	9. Number of employees
	10. Female worker (discrimination Policy)
	11. Facilities to family (health & education)
	12. Feedback
Manager	Customer
Items	Items
1. Board of Directors (Names, qualification & position)	1. Marketing Practices (responsible, ethical)

2. Independent Directors	2. Customer relation management
3. Board effectiveness (Governance structure)	3. Customer satisfaction
4. Relation between all stakeholders	4. Customer Awareness
5. Management/Staff	5. Social Responsible Investment
	6. Social Responsible Saving
	7. Micro credits/Micro Financing
	8. Funding Initiatives to NGO
Supplier	Competitor
Items	Items
1. Equal opportunity to suppliers	1. Relationship with Competitors
2. Provision of info to suppliers	2. Collaboration with competitors
3. Feedback system/Complaint mgt system	3. Fair selling practice(No negative advertisement)
4. Fair negotiation with supplier	
5. Long-term relationship with suppliers	
6. Support, caring, protection and advances	
Community and Society	Environment
Items	Items
1. Charitable Initiatives/zakat	1. Environment concern/initiatives
2. Health and education	2. ISO 14000/14001
3. Internships/scholarships	3. Environmental Policy/Guidelines
4. Employment opportunities	4. Pollution Control
5. Eradication of Poverty	5. Awards for environmental protection
6. Sponsorship (Sports and Culture)	6. Recycling/reuse of waste
7. Aid to natural disasters affectees	7. Investment in energy project
8. Community Support Program	8. Planting and Greening
9. Aid to War and terrorism affectees	9. Past and current operating cost of eco- friendly products
10. Human rights/no child labour	10. Agriculture support programs
11. Sustainable financing	11. World bank guidelines (envir)
12. Disable Person	12. Taking into account environmental risk
	13. OECD Guidelines
CSR-Management	
Items	
1. Function dedicated to CSR issues	
2. Code of Conducts/ethic	
3. CSR report/Sustainability report	
4. Anti-corruption/anti-bribery	
5. Governance policy	
6. Transparency (Internal, external audit)	

Source: Created by Author based on literature studied (Khalid and Nasir, 2015, Gao, 2011, Ehsan et al. 2018, Ahmed and Ahmad, 2011, Deutsch and Pintér, 2018, Awan et al. 2012, Amran et al. 2017, Syed and Butt, 2017, Fatima, 2017, Khan et al. 2018, Khan, 2010, Day and Woodward, 2009, Sharif and Rashid, 2014, Maqbool and Zameer, 2018, Romero, 2016, Paulík et al. 2015, Scholtens, 2009, Birindelli et al. 2015)

4.3. Dependent Variable

In this study I have utilized Financial Performance of selected banks of Pakistan as dependent variable. The literature of CSR and financial performance relationship shows that both accounting-based measures such as ROA, ROE, ROS and Net profit margin (Waddock and Graves, 1997, Lyon, 2007, Moneva and Ortas, 2010, Ahamed et al. 2014, Saeidi et al. 2015, Bagh et al. 2017) and market based measure such as Tobin's Q and Stock returns (Scholtens, 2008, Karagiorgos, 2010) were used as indicators for financial performance. Hoskisson et al.

(1993) suggested that the combination of both market-based and accounting-based indicators should be employed in future researches regarding CSR-FP relationship.

In light of the finding of the previous studies, it can be stated that these four profitability ratios are the most practical measures, to analyze the association between CSR disclosure and financial performance of firms. In my research I used both accounting-based and Market-based indicators to measure the financial performance of the selected banks. For accounting-based performance, ROA, ROE, and EPS; and for market-based Tobin's Q ratios are employed. These ratios are measured from State Bank of Pakistan financial reports and annual reports of the selected banks.

4.4. Control Variables

Based on the literature of the previous empirical and theoretical studies of CSR and FP of firms, it is emphasized that the relationship of these two variables are under control of certain variables (Waddock and Graves, 1997). Most of the studies on social performance and economic performance were noticed to have used size of the firm, risk and age of the firm as control variables in order to control the impact of the dependent variables (Waddock and Graves, 1997, Rouf, 2011, Moore, 2001, Zhang, 2013, Han et al. 2016). In this study I introduced firm size, firm age, capital ratio and over-head expenses of the firm as control variable in the analysis of the dependent and independent variables i.e., financial performance and corporate social responsibility of selected banks operating in Pakistan.

Table 3. Descriptions of Employed Variables

Variables	Description	Year	Data Source
Independent Variables	CSR Disclosure by Banks		
CSRI (CSR disclosure Index)	Calculated through content analysis	2008-2018	Bank's Annual reports/official websites
Dimensions of CSR (Disclosure of each dimension of CSR)	Calculated through content analysis	2008-2018	Bank's Annual reports/official websites
Dependent Variables	Profitability Ratios		
ROE	Ratio between net income and shareholders' equity	2008-2018	State Bank of Pakistan/Annual reports
ROA	Ratio between income produced and total assets	2008-2018	State Bank of Pakistan/Annual reports
EPS	Ratio between earnings of common shareholder and total outstanding stocks	2008-2018	State Bank of Pakistan/Annual reports
Tobin's Q	The ratio between total value of the firm and total assets of firm	2008-2018	State Bank of Pakistan/Pakistan Stock Exchange
Control Variable			
Size of Firm	Total asset of the firm	2008-2018	State Bank of Pakistan/Annual reports
Age of Firm	Age of firm since its	2008-2018	Bank's Annual

	incorporation		reports/Annual reports
Capital Ratio	Ratio of equity to average assets	2008-2018	State Bank of Pakistan/Annual reports
Over Head Expenses	Ratio of non-interest expenses to average total assets	2008-2018	State Bank of Pakistan/Annual reports

4.5. Hypothesis Development

After the literature survey, the relationship of CSR and financial performance can be divided into three categories on the basis of the nature of the relationship: positive, negative and neutral/no relation between CSR and financial performance. Several studies directed a positive association between CSR activities and financial performance of the firm. They support the notion that CSR may be perceived as mean to generate positive image, profits and improve overall performance of the organization. The stakeholder theory also forecasts: higher the CSR practices, the better organization financial performance (Waddock and Graves, 1997, Orlitzky, 2001, Tsoutsoura, 2004, Allouche and Laroche, 2005, Lyon, 2007, Scholtens, 2008, Oeyono et al. 2011, Zhang, 2013, Ahamed et al. 2014, Saeidi et al. 2015, Lins et al. 2017, Blasi et al. 2018). Some of the research studies during the literature survey support the negative relationship between CSR and financial performance. Most of these scholars point out that the involvement of the firm in CSR activities tends to increase the administrative costs and becomes financial burdens on the organizations (Margolis and Walsh, 2003, Crisóstomo et al. 2011, Lioui and Sharma, 2012, Wu and Shen, 2013, Nollet et al. 2016, Han et al. 2016, Sayed et al. 2017). Some of the research scholars also argue that investment in CSR projects does not have any impact on the financial performance of the firm and indicates a neutral association between the two variables (McWilliams and Siegel, 2000, Fiori et al. 2007, Fauzi, 2009, Aras et al. 2010, Choi et al. 2010, Iqbal et al. 2012, Sayed et al. 2017).

In previous studies the arguments on the association of corporate social responsibility and financial performance and Stakeholder theory indicate a positive relation between the two stated variables. On the basis of these studies and research questions of the study, this study also expected that CSR has a positive impact on organization financial performance. I have developed Two sets of hypotheses to explain CSR and financial performance in listed commercial banks in Pakistan.

In first set of hypotheses CSR disclosure index is taken as independent variable, as under:

- H_1^A There is a positive and significant association between CSR disclosure and Return on Equity (ROE)
- H_2^A There is a positive and significant association between CSR disclosure and Return on Assets (ROA)
- H_3^A There is a positive and significant association between CSR disclosure and Earning per Share (EPS)
- H_4^A There is a positive and significant association between CSR disclosure and Tobin's Q (TOBIN's Q)

Second set of hypotheses is based on the relationship of each dimension of CSR disclosure with the indicators of financial performance, as under:

- H_1^B There is a positive and significant association between each dimension of CSR disclosure and Return on Equity (ROE)

- H_2^B There is a positive and significant association between each dimension of CSR disclosure and Return on Asset (ROA)
- H_3^B There is a positive and significant association between each dimension of CSR disclosure and Earning per Share (EPS)
- H_4^B There is a positive and significant association between each dimension of CSR disclosure and Tobin's Q (TOBIN's Q).

4.6. Model Specification

In order to examine the association between CSR and financial performance of the selected sample of banks and to test the developed hypothesis empirically, I used three groups of panel data models. These models consist of Constant Coefficient Model (Pooled OLS), Random Effect model (GLS) and Fixed Effect Model (LSDV).

Panel data model is data set in which the behavior of variables is observed over a period of time. Baum and Christopher (2006) and Gujarati (2009) argued that panel data model is more effective in detecting and measuring those effects that cannot be observed through cross-sectional OLS. They also asserted that variability, high degree of freedom and less collinearity are the advantages of panel data over cross-sectional data.

4.6.1. Regression Model

The basic multiple regression model is employed in this study, in order to analyze the relationship of CSR disclosure and financial performance as follows:

$$Y(FP_{jt}) = \beta_0 + \beta_1 X(CSRI_{jt}) + \beta_2 X(Con. var_{jt}) + \varepsilon_{jt} \quad (4.2)$$

Whereas

FP_{jt} =Financial performance of bank j in time period t i.e., $ROA_{jt}, ROE_{jt}, EPS_{jt}$ and $TOBIN's Q_{jt}$

β_0 =Model intercept

β =Slop

$CSRI_{jt}$ =Corporate social responsibility disclosure index of bank j in time period t

$Con. var_{jt}$ =Control variables for bank j in time period t

ε_{jt} =Statistical error term

4.6.1.1. Financial Performance and CSR Disclosure Index (CSRI)

In order to test the first set hypotheses of the study, model (i) is be modified as below:

CSR disclosure index and Return on Equity (ROE) i.e. H_1^A

$$ROE_{jt} = \beta_0 + \beta_1 CSRI_{jt} + \beta_2 SIZE_{jt} + \beta_3 AGE_{jt} + \beta_4 CAPRATIO_{jt} + \beta_5 OH. EXPENSES_{jt} + \varepsilon_{jt}$$

CSR disclosure index and Return on Asset (ROA) i.e. H_2^A

$$ROA_{jt} = \beta_0 + \beta_1 CSRI_{jt} + \beta_2 SIZE_{jt} + \beta_3 AGE_{jt} + \beta_4 CAPRATIO_{jt} + \beta_5 OH. EXPENSES_{jt} + \varepsilon_{jt}$$

CSR disclosure index and Earning per Share (EPS) i.e. H_3^A

$$EPS_{jt} = \beta_0 + \beta_1 CSRI_{jt} + \beta_2 SIZE_{jt} + \beta_3 AGE_{jt} + \beta_4 CAPRATIO_{jt} + \beta_5 OH. EXPENSES_{jt} + \varepsilon_{jt}$$

CSR disclosure index and Tobin's Q (TOBIN's Q) i.e. H_4^A

$$TOBIN's Q_{jt} = \beta_0 + \beta_1 CSRI_{jt} + \beta_2 SIZE_{jt} + \beta_3 AGE_{jt} + \beta_4 CAPITAL RATIO_{jt} + \beta_5 OH. EXPENSES_{jt} + \varepsilon_{jt}$$

4.6.1.2. Financial Performance and Each Dimension of CSR

For analysis of the second set of hypotheses which indicates the relationship between each dimension of CSR in the study i.e., Shareholder (SIndex_{jt}), Employee (EIndex_{jt}), Manager (MIndex_{jt}), Customer (CIndex_{jt}), Supplier (SuppIndex_{jt}), Competitor (COIndex_{jt}), Community and Society (CSIndex_{jt}), Environment (ENVIndex_{jt}) and CSR-management (CSR_{Mjt}) with financial performance indicators i.e., ROA_{jt}, ROE_{jt}, EPS_{jt} and TOBIN'S Q_{jt}. In order to test the second set of hypotheses, the regression estimation model (i) is expressed as below:

Each dimension of CSR disclosures and ROE i.e. H₁^B

$$ROE_{jt} = \beta_0 + \beta_1 SIndex_{jt} + \beta_2 EIndex_{jt} + \beta_3 MIndex_{jt} + \beta_4 CIndex_{jt} + \beta_5 SuppIndex_{jt} \\ + \beta_6 COIndex_{jt} + \beta_7 CSIndex_{jt} + \beta_8 EnvIndex_{jt} + \beta_9 CSR_{Mjt} + \beta_{10} SIZE_j \\ + \beta_{11} AGE_{jt} + \beta_{12} CAPRATIO_{jt} + \beta_{13} OH.EXPENSES_{jt} + \epsilon_{jt}$$

Each dimension of CSR disclosures and ROA i.e. H₂^B

$$ROA_{jt} = \beta_0 + \beta_1 SIndex_{jt} + \beta_2 EIndex_{jt} + \beta_3 MIndex_{jt} + \beta_4 CIndex_{jt} + \beta_5 SuppIndex_{jt} \\ + \beta_6 COIndex_{jt} + \beta_7 CSIndex_{jt} + \beta_8 EnvIndex_{jt} + \beta_9 CSR_{Mjt} + \beta_{10} SIZE_j \\ + \beta_{11} AGE_{jt} + \beta_{12} CAPRATIO_{jt} + \beta_{13} OH.EXPENSES_{jt} + \epsilon_{jt}$$

Each dimension of CSR disclosures and EPS i.e. H₃^B

$$EPS_{jt} = \beta_0 + \beta_1 SIndex_{jt} + \beta_2 EIndex_{jt} + \beta_3 MIndex_{jt} + \beta_4 CIndex_{jt} + \beta_5 SuppIndex_{jt} \\ + \beta_6 COIndex_{jt} + \beta_7 CSIndex_{jt} + \beta_8 EnvIndex_{jt} + \beta_9 CSR_{Mjt} + \beta_{10} SIZE_j \\ + \beta_{11} AGE_{jt} + \beta_{12} CAPRATIO_{jt} + \beta_{13} OH.EXPENSES_{jt} + \epsilon_{jt}$$

Each dimension of CSR disclosures and TOBIN'S Q i.e. H₄^B

$$TOBIN'SQ_{jt} = \beta_0 + \beta_1 SIndex_{jt} + \beta_2 EIndex_{jt} + \beta_3 MIndex_{jt} + \beta_4 CIndex_{jt} \\ + \beta_5 SuppIndex_{jt} + \beta_6 COIndex_{jt} + \beta_7 CSIndex_{jt} + \beta_8 EnvIndex_{jt} + \beta_9 CSR_{Mjt} \\ + \beta_{10} SIZE_j + \beta_{11} AGE_{jt} + \beta_{12} CAPRATIO_{jt} + \beta_{13} OH.EXPENSES_{jt} + \epsilon_{jt}$$

4.7. Specification Tests

Several specification tests have been adopted to specify an appropriate model among pooled OLS, fixed and random effect models. Such as Breusch-Pagan LM test is used to determine the selection between pooled OLS and random effect model. The study adopted Hausman (1978) specification test for panel data estimation model. It determines whether fixed effect or random effect model is appropriate for the analysis of CSR-FP relationship. Descriptive statistics simply explains the summaries for each dependent, independent variable and control variables such as central tendency, dispersion and distribution of all indicators of financial performance, corporate social responsibility and control variables of the model. The descriptive statistics of this study represent the mean, standard deviation, minimum and maximum values of these variables. In order to check the problem of multi-collinearity, this study employs Variance Inflation Factor (VIF) test. Gujarati (2009) suggest that if VIF values of the explanatory variables exceed maximum VIF value (10) then multi-collinearity is considered as a serious problem. This study utilizes Breush-Pagan/Cook Weisberg test in order to detect the problem of heteroscedasticity. This test was developed by Breush and Pagan (1979) and was independently developed by Cook and Weisberg (1983) with some extensions. The null hypothesis is that all the variances are constant. If the p-value is insignificant, null hypothesis is accepted. On other hand, significant p-value shows the presence of heteroscedasticity. In order to check auto-correlation between the residual terms of variables in the model, serial correlation Lagram-Multiplier test is utilized.

5. Findings of the Study

This research study has assessed the extent and level of CSR disclosure and its relation to the financial performance of listed commercial banks in Pakistan during time period 2008-2018. In 2018 there were 29 scheduled banks operating in Pakistan, out of which 20 banks were listed on Pakistan Stock Exchange. CSR disclosure variables of this study consist of nine dimensions in accordance with stakeholder theory including shareholders, employees, managers/ governance, customers, suppliers, competitors, community and society, environment and CSR management. The financial performance indicators consist of ROE, ROA, EPS (accounting based) and TBQ (Market based). Size, Age, Capital Ratio and Over Head Expenses are employed as control variables. The main findings of the study are summarized as follows:

5.1. The Current Status of Corporate Social Responsibility Disclosure by Banks in Pakistan

The findings of the content analysis, presented in Table 4, elaborate the nature and extent of CSR disclosure of commercial banks in Pakistan by analyzing the annual reports and official websites of concerned banks from 2008 to 2018. The results show that overall CSR disclosure by all banks in the sample increased by 14.58 percent over the studied period, from 56.48 percent in 2008 to 71.06 percent in 2018. The average overall CSR disclosure by all banks in the sample during 2008-2018 is 64.56 percent. This shows that the current status of CSR disclosure by commercial banks in Pakistan is moderate, indicating that the notion of CSR in banks operating in Pakistan is not fully developed. Muslim Commercial Bank disclosed maximum CSR related information (72.6 percent) followed by Standard Chartered Bank (71.45 percent) and Allied Bank Limited (71.06 percent) during the 2008-2018 period. Similarly, lowest amount of CSR information was disclosed by Samba Bank (51.22 percent) followed by Summit Bank (54.93 percent) and Soneri Bank (60.18 percent) during the studied period.

The findings of the study in Table 7 (Appendix I) also show that the most disclosed CSR dimension during the years 2008-2018 by commercial banks in Pakistan was manager/ governance (92.82 percent), followed by shareholder dimension (82.88 percent) and CSR management (79.32 percent). The disclosure of CSR practices related to employees and customers and community was 70.45 percent, 65.62 percent and 65.21 percent respectively. However, environment (40.04 percent) and supplier (40.53 percent) were the least disclosed CSR dimensions. Moreover, the disclosure of 'fixable policies for shareholders' as compared to other items of shareholder dimension was very low for all banks in the sample. The disclosure of information related to items such as 'gender, minorities, and facilities to the families' of employee dimension was not satisfactory. In customer dimension the disclosure of items 'social responsible investment and social responsible savings' was zero in the annual reports of all concerned banks. Similarly, information regarding 'equal opportunity to suppliers, fair negotiation and provision of information to suppliers' were absent in the annual reports of the respective commercial banks. All banks except National Bank of Pakistan and Standard Chartered Bank did not disclose information related to 'collaborations with competitors'.

Furthermore, in annual reports of all commercial banks under study, the information related to ISO 14000/14001, environmental guidelines provided by World Bank and OECD were absent. The findings of the study indicate that commercial banks in Pakistan mainly focus on activities

related to good governance, investors relation, development and retention of employees and customers, and contributions to the community. However, these banks did not give priority to supplier and environmental aspects of CSR and possible reason may be that banks and other stakeholders are not fully aware of the concept and meaning of CSR in Pakistan (Malik and Nadeem, 2014). This study supports and is consistent with the study of Deegan (2002), who emphasized on the importance of stakeholder's expectations and awareness to influence the level of CSR activities and its disclosure.

5.2. The Relationship between Corporate Social Responsibility Disclosure and Bank's Financial Performance

The findings in Table 4 explain the extent of relationship between CSR disclosure and financial performance of commercial banks in Pakistan during the 2008-2018 period. The results of the regression analysis indicate a positive and significant association of CSR disclosure to financial performance measured with ROE and ROA. These findings indicate that increase in bank's CSR activities and its disclosure tends to increase the financial performance of banks and is consistent with the studies of Santhiragar et al. (2018), Maqbool and Zameer (2018), Djalilov et al. (2015) and Fayad et al. (2017). However, the relationship of CSR with EPS is positive but insignificant. These findings support the studies of Batra and Bahari (2018) and Islam et al. (2012). Similarly, the association between CSR and TBQ is negative and insignificant, consistent with Sukcharoesin (2012) and Arshad et al. (2015). The possible reasons for these insignificant relationship of CSR disclosure and financial performance indicators (EPS and TBQ) might be lack of awareness, understanding of the meaning of CSR and the extent of CSR disclosure by concerned banks. Another possible reason may be the global recession and war against terrorism in Pakistan during 2008-2010, resulting a drastic decrease in the GDP from 4.8 in 2007 to 1.6 in 2010 (World Bank, 2019).

The value of Breusch-Pagen/Cook-Weisberg test in table 4 indicates the presence of heteroscedasticity, therefore robust standard errors were employed in all models. The use of robust standard errors in the presence of heteroscedasticity was recommended by some influential studies (Hoechle, 2007, Cameron and Miller, 2015).

Collectively these findings of the study suggest that the involvement of commercial banks in CSR activities and its proper disclosure helps improving their accounting based financial performance. However, CSR disclosure does not have any impact on the market based financial performance of listed commercial banks, which might have been affected by unstable economic conditions of the country.

Table 4. Summary of Regression Results of the relationship between CSRI and Financial performance of commercial Banks in Pakistan

Independent Variables	Dependent Variables			
	Return on Equity Random Effect	Return on Assets Fixed Effect	Earnings per Share Fixed Effect	Tobin's Q Random Effect
CSRI	1.727** (0.038)	7.323*** (0.045)	7.741 (0.303)	-0.887 (0.407)
Size	0.029 (0.279)	-0.811** (0.052)	-0.967 (0.346)	0.067 (0.477)
Age	-0.001* (0.062)	0.162 (0.357)	-0.455 (0.314)	0.004 (0.173)
Capital Ratio	0.015** (0.029)	-0.010 (0.760)	0.061 (0.351)	0.040*** (0.000)
Over Head Expenses	0.204 (0.295)	-0.288* (0.107)	0.208 (0.541)	0.026 (0.556)
Constant	3.508*** (0.000)	6.789 (0.362)	30.911 (0.129)	-0.510 (0.791)
Observations	220	220	220	220
Year Dummy	Yes	Yes	Yes	Yes
R-square	0.238	0.19	0.19	0.38
P Value (F)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Hausman				
Chi (x^2)	2.62	46.99	39.93	5.35
Prob	(0.0000)	(0.0000)	(0.0005)	(0.9804)
Breusch-Pagan				
LM				
Chi (x^2)	5.63	7.20	259.44	146.39
Prob	(0.0088)	(0.0036)	(0.0000)	(0.0000)
Breusch-Pagan				
Hetttest				
Chi (x^2)	635.58	95.65	46.00	44.84
Prob	(0.0000)	(0.0000)	(0.0000)	(0.0000)

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$, P-values are reported in Parenthesis

5.3. Relationship between Each Dimension of Corporate Social Responsibility Disclosure and Bank's Financial Performance

The regression results in Table 5 present the extent of association between each dimension of CSR disclosure and financial indicators of listed commercial banks in Pakistan. The results indicate that shareholder dimension of CSR disclosure has a positive significant impact on TBQ and support the study of Hopes and Thomas (2008). However the relationship is insignificant with accounting based financial performance. This shows that increase in shareholder's related CSR disclosure may influence the firm's value positively. Employees and manager/ governance dimensions of CSR disclosure has no impact on the financial growth of banks under study. These findings show contradiction with the studies of Kamal et al. (2012), Mention and Bantis (2013)

and Mangantar (2019) but are inclined to the findings of Pan et al. (2014), Dewany (2015) and Hu et al. (2015).

Similarly, this study presents that the disclosure of supplier related information has a positive impact on EPS of commercial banks in Pakistan and show consistency with the study of Lenssen et al. (2005) and Kosgei and Gitau (2016). However, the findings of the study show that disclosure of supplier's information by selected banks was very low during the studied time period. Moreover, the findings suggest that disclosure of customer dimension of CSR disclosure improves the financial performance of commercial banks measured by ROE and supports the results of Menassa (2010) and Lenssen et al. (2005). The analysis of competitor disclosure on various financial indicators shows that competitor disclosure has a negative significant association to ROE and ROA of banks in the sample. These findings elaborate that intense competitive environment the profitability of the firm decreases (Tan and Floros, 2014, Uddin and Suzuki, 2014). The impact of community and society disclosure on financial performance is positive and significant, measured in terms of ROE and ROA, and support the findings of Malik and Nadeem (2014).

The regression analysis of environmental dimension of CSR disclosure with financial performance indicates a negative and significant relationship to ROA and EPS of banks under study and these findings are inconsistent with the results of Smith et al. (2007). The plausible reason of this negative association might be little emphasis and lack of interest of banks in Pakistan on environmental aspects of CSR during years 2008-2018. Similarly, the findings of the current study show positive relation of CSR management – good governance, anticorruption mechanism, audit and transparency with ROE of commercial banks in the study as financial indicator. These results show relevance with the findings of Naceur and Omran (2008) and Augustine (2012).

The value of Breusch-Pagan/Cook-Weisberg test in table 4 shows the presence of heteroscedasticity, therefore robust standard errors were employed in all models. The use of robust standard errors in the presence of heteroscedasticity was recommended by some influential studies (Hoechle, 2007, Cameron and Miller, 2015).

The overall findings of the study suggest that commercial banks in Pakistan put more emphasis on the disclosure of information related to shareholders, employees, manager/ governance, customers, community and society and CSR management. However, the interest of these banks in suppliers and environmental aspects of CSR is very low. Furthermore, the nature, flexibility and extent of involvement in CSR activities of each bank in the sample is different, which may affect the association of each dimension of CSR with the financial performance and its significant level.

Table 5. Summary of Regression Results of the relationship between each Dimension of CSR and Financial Performance of Commercial Banks in Pakistan

Independent Variables	Dependent Variables			
	Return on Equity Random Effect	Return on Assets Fixed Effect	Earnings per Share Fixed Effect	Tobin's Q Random Effect
Shareholder	2.576 (0.893)	-0.228 (0.888)	2.320 (0.491)	0.988** (0.027)
Employee	-20.828 (0.553)	-1.956 (0.292)	1.620 (0.784)	-0.082 (0.908)
Manager	-5.760 (0.759)	0.321 (0.683)	1.656 (0.425)	0.457 (0.122)
Customer	74.680* (0.078)	3.170 (0.158)	3.911 (0.412)	0.443 (0.293)
Supplier	0.673 (0.966)	-1.349 (0.352)	4.473* (0.085)	-0.266 (0.625)
Competitor	-17.721** (0.046)	-4.073* (0.097)	-14.194 (0.171)	0.610 (0.181)
Community and Society	46.845* (0.092)	2.656*** (0.009)	2.768 (0.196)	-0.439 (0.255)
Environment	-9.600 (0.399)	-2.224** (0.041)	-8.631** (0.046)	-0.492 (0.299)
CSRmanagement	53.465* (0.080)	0.690 (0.694)	3.327 (0.292)	0.444 (0.292)
Size	3.552 (0.186)	-0.504 (0.218)	-0.566 (0.478)	0.005 (0.965)
Age	-0.091 (0.281)	-0.287 (0.323)	-1.353 (0.322)	0.002 (0.566)
Capital Ratio	1.737** (0.012)	0.030 (0.446)	0.107** (0.029)	0.037*** (0.004)
Over Head Expenses	-0.231 (0.889)	-0.354* (0.074)	-0.033 (0.864)	0.028 (0.616)
Constant	143.955 (0.937)	-822.319 (0.139)	-322.054 (0.211)	29.537 (0.413)
Observations	220	220	220	220
Year Dummy	Yes	Yes	Yes	Yes
R-square	0.38	0.14	0.17	0.35
P Value (F)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Hausman chi(x^2)	17.53	101.74	26.23	13.54
Prob	(0.2289)	(0.0000)	(0.0242)	(0.4842)
Breusch-Pagan LM chi(x^2)	1.57	7.33	220.65	66.65
Prob	(0.1055)	(0.0034)	(0.0000)	(0.0000)
Breusch-Pagan Hetttest Chi (x^2)	453.18	155.68	30.27	34.41
Prob	(0.0000)	(0.0000)	(0.0000)	(0.0000)

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$, P-values are reported in Parenthesis

5.4. GMM two-step regression

The Dynamic Panel Data (DPD) approach was employed in this study. Specifically, the robust two-steps system-GMM technique was used to control for the endogeneity. This model has been initially proposed by Arellano and Bover (1995); further developed by Blundell and Bond (1998); and introduced in Stata by Roodman (2006).

Table 6: Results using Two-step system GMM model

Variables	(1) ROE	(2) ROA	(3) EPS	(4) TOBIN Q
ROE (1 lag)	0.00238 (0.755)			
ROA (1 lag)		0.402*** (0.0000)		
EPS (1 lag)			0.507*** (0.0000)	
TOBIN Q (1 lag)				0.119*** (0.0000)
CSRI	0.361*** (0.0000)	8.399*** (0.0000)	11.01*** (0.0000)	0.859*** (0.006)
Size	0.123*** (0.0000)	3.764*** (0.000)	0.963* (0.082)	-0.695*** (0.0000)
Age	0.286 (0.273)	4.234*** (0.010)	19.98 (0.532)	1.299*** (0.0000)
Capital ratio	0.0162*** (0.0000)	0.116*** (0.0000)	-0.0218 (0.694)	-0.000437 (0.945)
Over Head Expenses	0.0953*** (0.0000)	0.839*** (0.0000)	0.256* (0.072)	-0.163*** (0.0357)
Observations	180	180	180	180
Diagnostic tests				
AR(1)	-0.79	-0.20	0.05	-2.63***
AR(2)	-1.06	-0.34	-1.67	-0.54
Hansen-j test (<i>p</i> -value)	18.66(0.67)	12.79(0.543)	13.87(0.87)	16.89(0.96)

P-values in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Several tests were applied to check the robustness of the results. The AR (1) and AR (2) are first order and second-order serial correlation; we accept (reject) the presence of first-order (second-order) serial correlation in the residuals, by applying the Arellano and Bond (1991) test under the null hypothesis of, residuals are not serially correlated. The J-statistic is the Hansen test of over-identifying restrictions, which shows that instruments used in estimations are valid. Hansen-j test confirms that instruments are valid, and our results are correctly estimated.

The results in Table 6, present that the association between ROE and CSRI is positive and significant at 1 per cent level in Model 1. In model 2 the coefficients of ROA and CSRI are positive and significant at 1 per cent level. The table also determines a positive and significant relationship between EPS and CSRI at 1 per cent level, consistent with the study of (Samy et al. 2010, Islam et al. 2012). Similarly, the impact of CSRI on Tobin's Q is also positive and significant at 1 per cent level, supports the findings of Belu and Manescu (2013).

6. Contribution and Policy Recommendations of the Study

The current study contributes to the body of knowledge on CSR, its disclosure and dimension from a developing country context, like Pakistan in a number of ways as follows:

Firstly, the current study examines the impact of CSR practices and its disclosure on financial performance indicators of commercial banks in Pakistan in a relation to stakeholders theory, thus contributes to the literature on CSR disclosure and financial performance. Moreover, the prior studies examining the relationship between CSR disclosure and financial performance of firms are scant and report mixed findings, thus the present study is an endeavor to fill the gap in the literature.

Secondly, the current study has investigated the impact if CSR disclosure and financial performance by taking stakeholders theory as underpinning theory of the study. Review of the existing literature has revealed that less attention has been paid to consider the stakeholders theory in context of Pakistan. The results of the study provide that the level of CSR disclosure for commercial banks has been increased by 14.6 percent over the studied period. Commercial banks in Pakistan disclose the CSR information by focusing on nine dimensions namely shareholders, employees, manager/ governance, customers, suppliers, competitors, community and society, environment and CSR management. The most disclosed dimension of CSR by these commercial banks are shareholders, manager/governance employees, customers, CSR management and community and society. However, less interest has been paid to CSR activities related to suppliers and environment. The findings of the study reveal that CSR disclosure practices of commercial banks in Pakistan taken into account the interest of almost all stakeholders. The findings of the study further reveal that stakeholder could get maximum benefits when the expectations of all stakeholders are met. The results of this study support the stakeholders theory: the expectations and pressure of stakeholders may affect the CSR disclosure of companies (banks).

Thirdly, this study provides insights on the CSR disclosure practices in the context of Pakistan. The existing literature on the CSR disclosure reveals that majority of the previous studies have been conducted in developed countries, while attention has not been paid to developing countries and Pakistan in particular. The results show that CSR disclosure has gradually increased in the commercial banks from year 2008-18. These commercial banks are less attuned to disclose information on supplies and environmental aspects of CSR. This suggests that government of Pakistan should revisit its CSR guidelines and offer incentives to commercial banks in Pakistan, so that they may consider and enhance CSR activities and its disclosure. The study also reveals that there are no established rules and regulations for companies in Pakistan to regulate the CSR activities. Mostly, the firms engage in CSR activities and its disclosure on voluntary basis.

This study will help the concerned regulating bodies to develop and ensure the implementation of standard framework on CSR practices and its disclosure, in order to promote corporate transparency in such CSR activities.

Fourthly, this study has developed CSR index to determine the level of CSR disclosure in commercial banks, thus contributing to a methodology. CSR index has been used to collect the CSR data of the concerned banks from their annual reports and their official websites through content analysis. The findings of the study help the stakeholders and banks to understand the

extent of CSR and its disclosure in Pakistan. This study provides a unique measurement, CSR index that has not been used previously, to analyze and interpret the nature of relationship between CSR and financial performance of banks in Pakistan.

Review of the existing literature shows that majority of the prior studies have been conducted in the manufacturing sector while less focus has been devoted to the financial sector. Finally, the current study contributes to the model of the study, indicating the relationship of CSR disclosure and its dimensions with financial performance in the financial sector of the Pakistan.

6.1. New Scientific Results of the research

T1 - CSR reporting activity of Pakistani banks has intensified over the past decade, but the current status of CSR disclosure by commercial banks in Pakistan is moderate, indicating that the notion of CSR in banks operating in Pakistan is not fully developed.

T2 - Commercial banks in Pakistan mainly focus on activities related to good governance, investors' relation, development and retention of employees and customers, and contributions to the community. However, these banks did not give priority to supplier and environmental aspects of CSR.

T3 - The involvement of commercial banks in CSR activities and its proper disclosure helps improving their accounting based financial performance. However, CSR disclosure does not have any impact on the market based financial performance of listed commercial banks, which might have been affected by unstable economic conditions of the country.

T4 - Commercial banks in Pakistan put more emphasis on the disclosure of information related to shareholders, employees, manager/ governance, customers, community and society and CSR management, positively influencing the financial performance of the banks. However, the interest of these banks in suppliers and environmental aspects of CSR is very low. Furthermore, the nature, flexibility and extent of involvement in CSR activities of each bank is different, which may affect the association of each dimension of CSR with financial performance and its significance level.

T5- The research has developed CSR index to determine the level of CSR disclosure in commercial banks, thus contributing to a methodology. CSR index has been used to collect the CSR data of the concerned banks from their annual reports and their official websites through content analysis.

References

- ABBOTT, W. F. & MONSEN, R. J. 1979. On the measurement of corporate social responsibility: Self-reported disclosures as a method of measuring corporate social involvement. *Academy of management journal*, 22, 501-515.
- AHAMED, W. S. W., ALMSAFIR, M. K. & AL-SMADI, A. W. 2014. Does corporate social responsibility lead to improve in firm financial performance? Evidence from Malaysia. *International Journal of Economics and Finance*, 6, 126-138.
- AHMAD, S. J. 2006. From principles to practice. *Journal of Corporate Citizenship*, 24, 115-129.
- AHMED, A. & AHMAD, I. 2011. *Corporate Conscience: CSR in Pakistan-a Study*, Prakruthi.
- ALLOUCHE, J. & LAROCHE, P. 2005. A meta-analytical investigation of the relationship between corporate social and financial performance.
- AMRAN, A., FAUZI, H., PURWANTO, Y., DARUS, F., YUSOFF, H., ZAIN, M. M., NAIM, D. M. A. & NEJATI, M. 2017. Social responsibility disclosure in Islamic banks: a comparative study of Indonesia and Malaysia. *Journal of Financial Reporting and Accounting*, 15, 99-115.
- ARAS, G., AYBARS, A. & KUTLU, O. 2010. Managing corporate performance. *International Journal of productivity and Performance management*.
- ARELLANO, M. & BOVER, O. 1995. Another look at the instrumental variable estimation of error-components models. *Journal of econometrics*, 68, 29-51.
- ARSHAD, M. G., ANEES, F. & ULLAH, M. R. 2015. the impact of corporate social responsibility on firm's financial performance. *The International Journal of Applied Research*, 4, 9-28.
- AUGUSTINE, D. 2012. Good practice in corporate governance: Transparency, trust, and performance in the microfinance industry. *Business & Society*, 51, 659-676.
- AWAN, A. W., KAMAL, Y., RAFIQUE, M. & KHAN, S. 2012. Corporate social responsibility in Pakistan economy. *Business & Economic Review*, 2, 1-31.
- BAGH, T., KHAN, M. A., AZAD, T., SADDIQUE, S. & KHAN, M. A. 2017. The Corporate Social Responsibility and Firms' Financial Performance: Evidence from Financial Sector of Pakistan. *International Journal of Economics and Financial Issues*, 7, 301-308.
- BATRA, R. & BAHRI, A. 2018. Financial Performance and corporate Social Responsibility (cSr): empirical evidence From banks in india. *International Journal of Business Ethics in Developing Economies*, 7, 37.
- BAUM, C. F. & CHRISTOPHER, F. 2006. *An introduction to modern econometrics using Stata*, Boston, Stata press.
- BAYOUD, N. S., KAVANAGH, M. & SLAUGHTER, G. 2012. Factors influencing levels of corporate social responsibility disclosure Libyan firms: A mixed study. *International Journal of Economics and Finance*, 4, 13-29.
- BELU, C. & MANESCU, C. 2013. Strategic corporate social responsibility and economic performance. *Applied Economics*, 45, 2751-2764.
- BIRINDELLI, G., FERRETTI, P., INTONTI, M. & IANNUZZI, A. P. 2015. On the drivers of corporate social responsibility in banks: evidence from an ethical rating model. *Journal of Management & Governance*, 19, 303-340.
- BLASI, S., CAPORIN, M. & FONTINI, F. 2018. A multidimensional analysis of the relationship between corporate social responsibility and firms' economic performance. *Ecological Economics*, 147, 218-229.

- BLUNDELL, R. & BOND, S. 1998. Initial conditions and moment restrictions in dynamic panel data models. *Journal of econometrics*, 87, 115-143.
- BREUSCH, T. S. & PAGAN, A. R. 1979. A simple test for heteroscedasticity and random coefficient variation. *Econometrica: Journal of the Econometric Society*, 47, 1287-1294.
- BRUMM, J. 2005. The Japanese perspective. In: MULLERAT, I. R. (ed.) *Corporate Social Responsibility: The Corporate Governance of the 21* Netherland: Kluwer Law, The Hague.
- CAMERON, A. C. & MILLER, D. L. 2015. A practitioner's guide to cluster-robust inference. *Journal of human resources*, 50, 317-372.
- CAMPBELL, D. J. Legitimacy theory or managerial reality construction? Corporate social disclosure in Marks and Spencer Plc corporate reports, 1969–1997. Accounting forum, 2000. Wiley Online Library, 80-100.
- CHOI, J.-S., KWAK, Y.-M. & CHOE, C. 2010. Corporate social responsibility and corporate financial performance: Evidence from Korea. *Australian journal of management*, 35, 291-311.
- COOK, R. D. & WEISBERG, S. 1983. Diagnostics for heteroscedasticity in regression. *Biometrika*, 70, 1-10.
- CRISÓSTOMO, V. L., DE SOUZA FREIRE, F. & DE VASCONCELLOS, F. C. 2011. Corporate social responsibility, firm value and financial performance in Brazil. *Social Responsibility Journal*, 7, 295-309.
- DA SILVA MONTEIRO, S. M. & AIBAR-GUZMÁN, B. 2010. Determinants of environmental disclosure in the annual reports of large companies operating in Portugal. *Corporate Social Responsibility and Environmental Management*, 17, 185-204.
- DATTA, C. K. & AL MAHMUD, A. 2018. Impact of Capital Adequacy on Profitability Under Basel II Accord: Evidence from Commercial Banks of Bangladesh. *European Journal of Business and Management*, 10, 48-58.
- DAY, R. & WOODWARD, T. 2009. CSR reporting and the UK financial services sector. *Journal of Applied Accounting Research*, 159-175.
- DEEGAN, C. 2002. The legitimising effect of social and environmental disclosures—a theoretical foundation. *Accounting, Auditing & Accountability Journal*, 15, 282-311.
- DEUTSCH, N. & PINTÉR, É. 2018. The Link between Corporate Social Responsibility and Financial Performance in the Hungarian Banking Sector in the Years Following the Global Crisis. *Financial and Economic Review*, 17, 124-145.
- DEWANY, F. W. 2015. Analysis of the effect of GCG quality on the financial performance of Islamic banks. *The Indonesian Accounting Review*, 5, 119-128.
- DJALILOV, K., VASYLIEVA, T., LYEONOV, S. & LASUKOVA, A. 2015. Corporate social responsibility and bank performance in transition countries. *Corporate Ownership and Control*, 13, 879-888.
- DOH, J. P. & GUAY, T. R. 2006. Corporate social responsibility, public policy, and NGO activism in Europe and the United States: An institutional-stakeholder perspective. *Journal of Management studies*, 43, 47-73.
- EHSAN, S., NAZIR, M. S., NURUNNABI, M., RAZA KHAN, Q., TAHIR, S. & AHMED, I. 2018. A multimethod approach to assess and measure corporate social responsibility disclosure and practices in a developing economy. *Sustainability*, 10, 2955.
- FATIMA, M. 2017. A comparative study of CSR in Pakistan! *Asian Journal of Business Ethics*, 6, 81-129.
- FAUZI, H. 2009. Corporate social and financial performance: Empirical evidence from American companies. *Globsyn Management Journal*, Forthcoming.

- FAYAD, A. A., AYOUB, R. & AYOUB, M. 2017. Causal relationship between CSR and FB in banks. *Arab Economic and Business Journal*, 12, 93-98.
- FIORI, G., DI DONATO, F. & IZZO, M. F. 2007. Corporate social responsibility and firms performance-an analysis on Italian listed companies. *Available at SSRN 1032851*, 1-14.
- FOSTER, D. & JONKER, J. 2005. Stakeholder relationships: the dialogue of engagement. *Corporate Governance: The international journal of business in society*.
- GAO, Y. 2011. CSR in an emerging country: a content analysis of CSR reports of listed companies. *Baltic Journal of Management*, 263 - 291.
- GRAY, R., KOUHY, R. & LAVERS, S. 1995a. Corporate social and environmental reporting. *Accounting, Auditing & Accountability Journal*.
- GRAY, R., KOUHY, R. & LAVERS, S. 1995b. Methodological themes: constructing a research database of social and environmental reporting by UK companies. *Accounting, Auditing & Accountability Journal*, 8, 78.
- GUJARATI, D. N. 2009. *Basic econometrics*, Boston, Tata McGraw-Hill Education.
- GUTHRIE, J. & ABEYSEKERA, I. 2006. Content analysis of social, environmental reporting: what is new? *Journal of Human Resource Costing & Accounting*, 1-30.
- GUTHRIE, J. & FARNETI, F. 2008. GRI sustainability reporting by Australian public sector organizations. *Public Money and management*, 28, 361-366.
- HAN, J.-J., KIM, H. J. & YU, J. 2016. Empirical study on relationship between corporate social responsibility and financial performance in Korea. *Asian Journal of Sustainability and Social Responsibility*, 1, 61-76.
- HARTMAN, L. P., RUBIN, R. S. & DHANDA, K. K. 2007. The communication of corporate social responsibility: United States and European Union multinational corporations. *Journal of Business Ethics*, 74, 373-389.
- HASSAN, K. M., RASHID, M., IMRAN, M. & SHAHID, A. 2010. Ethical gaps and market value in the Islamic banks of Bangladesh. *Review of Islamic Economics*, 14, 49-75.
- HAUSMAN, J. A. 1978. Specification tests in econometrics. *Econometrica: Journal of the econometric society*, 46, 1251-1271.
- HAWKINS, D. 2006. *Corporate social responsibility: balancing tomorrow's sustainability and today's profitability*, Springer.
- HOECHLE, D. 2007. Robust standard errors for panel regressions with cross-sectional dependence. *The stata journal*, 7, 281-312.
- HOPE, O. K. & THOMAS, W. B. 2008. Managerial empire building and firm disclosure. *Journal of Accounting Research*, 46, 591-626.
- HOPKINS, M. 2012. *Corporate social responsibility and international development: is business the solution?*, Routledge.
- HOSKISSON, R. E., HITT, M. A., JOHNSON, R. A. & MOESEL, D. D. 1993. Construct validity of an objective (entropy) categorical measure of diversification strategy. *Strategic management journal*, 14, 215-235.
- HOSSAIN, M., ISLAM, K. & ANDREW, J. 2006. Corporate social and environmental disclosure in developing countries: Evidence from Bangladesh.
- HU, H., ISLAM, J. & SATHYE, M. 2015. Examining the relationship between corporate governance and bank performance in Bangladesh. *South African Journal of Business Management*, 46, 43-52.

- IQBAL, N., AHMAD, N., BASHEER, N. A. & NADEEM, M. 2012. Impact of corporate social responsibility on financial performance of corporations: Evidence from Pakistan. *International Journal of Learning & Development*, 2, 107-118.
- ISLAM, Z. M., AHMED, S. U. & HASAN, I. 2012. Corporate social responsibility and financial performance linkage: Evidence from the banking sector of Bangladesh. *Journal of Organizational Management*, 1, 14-21.
- JAMALI, D., KARAM, C., YIN, J. & SOUNDARARAJAN, V. 2017. CSR logics in developing countries: Translation, adaptation and stalled development. *Journal of World Business*, 52, 343-359.
- JARIKO, M. A., BØRSEN, T. & JHATIAL, A. A. 2016. CORPORATE SOCIAL RESPONSIBILITY IN PAKISTAN: ITS STATUS AND WAYS FORWARD. *International Journal of Business & Public Administration*, 13.
- JENKINS, H. & YAKOVLEVA, N. 2006. Corporate social responsibility in the mining industry: Exploring trends in social and environmental disclosure. *Journal of cleaner production*, 14, 271-284.
- JITAREE, W. 2015. Corporate social responsibility disclosure and financial performance: evidence from Thailand. *University of Wollongog*.
- KAKAKHEL, S. J., ILYAS, M., IQBAL, J. & AFEF, M. 2015. Impact of Corporate Social Responsibility on Financial Performance: Evidence from Pakistan's Cement Industry. *Abasyn University Journal of Social Sciences*, 8.
- KALPANA, B. & RAO, T. V. 2017. Role of commercial banks in the economic Development of India. *International Journal of Management and Applied Science*, 3, 1-4.
- KAMAL, M. H. M., MAT, R. C., RAHIM, N. A., HUSIN, N. & ISMAIL, I. 2012. Intellectual capital and firm performance of commercial banks in Malaysia. *Asian Economic and Financial Review*, 2, 577.
- KARAGIORGOS, T. 2010. Corporate social responsibility and financial performance: An empirical analysis on Greek companies. *European Research Studies*, 13, 85.
- KHALID, G. K. & NASIR, Z. M. 2015. Development and Testing of Corporate Social Responsibility (CSR) Index for Pakistan. *Development*, 5, 5-27.
- KHAN, F. S. & NOMANI, U. 2002. Corporate social responsibility and natural disaster reduction in Pakistan. *Sustainable Development Policy Institute*.
- KHAN, H. U. Z. 2010. The effect of corporate governance elements on corporate social responsibility (CSR) reporting: Empirical evidence from private commercial banks of Bangladesh. *International Journal of Law and Management*, 52, 82-109.
- KHAN, M., LOCKHART, J. C. & BATHURST, R. J. 2018. Institutional impacts on corporate social responsibility: a comparative analysis of New Zealand and Pakistan. *International Journal of Corporate Social Responsibility*, 3, 1-13.
- KHURSHID, M. K., SHAHEER, H., NAZIR, N., WAQAS, M. & KASHIF, M. 2016. Impact of corporate social responsibility on financial performance: The role of intellectual capital. *City university research journal*, 247-263.
- KIRAN, S. 2015. Corporate social responsibility and firm profitability: A case of oil and gas sector of Pakistan. *City University Research Journal*, 5.
- KOSGEI, R. C. & GITAU, R. 2016. Effect of supplier relationship management on organizational performance: A case study of Kenya Airways Limited. *International Academic Journal of Procurement and Supply Chain Management*, 2, 134-148.
- LENSEN, G., VAN DEN BERGHE, L., LOUCHE, C., VAN DE VELDE, E., VERMEIR, W. & CORTEN, F. 2005. Corporate social responsibility and financial performance. *Corporate Governance: The international journal of business in society*, 5, 129-138.

- LINS, K. V., SERVAES, H. & TAMAYO, A. 2017. Social capital, trust, and firm performance: The value of corporate social responsibility during the financial crisis. *The Journal of Finance*, 72, 1785-1824.
- LIOUI, A. & SHARMA, Z. 2012. Environmental corporate social responsibility and financial performance: Disentangling direct and indirect effects. *Ecological Economics*, 78, 100-111.
- LUND-THOMSEN, P. 2004. Towards a critical framework on corporate social and environmental responsibility in the South: The case of Pakistan. *Development*, 47, 106-113.
- LUX, J., THORSEN, S. S. & MEISLING, A. 2005. The European Initiatives. In: MULLERAT, I. R. (ed.) *Corporate social responsibility: The corporate governance of the 21st century*. Netherland: Kluwer Law International.
- LYON, D. 2007. *Financial performance: the motivation behind corporate social responsibility reporting*. PhD, University Of Otago.
- MAJEED, S., AZIZ, T. & SALEEM, S. 2015. The effect of corporate governance elements on corporate social responsibility (CSR) disclosure: An empirical evidence from listed companies at KSE Pakistan. *International Journal of Financial Studies*, 3, 530-556.
- MAKKI, M. A. M. & LODHI, S. A. 2008. Determinants of corporate philanthropy in Pakistan. *Pakistan Journal of Commerce and Social Sciences (PJCSS)*, 1, 17-24.
- MALIK, M. S. & NADEEM, M. 2014. Impact of corporate social responsibility on the financial performance of banks in Pakistan. *International Letters of Social and Humanistic Sciences*, 10, 9-19.
- MANGANTAR, M. 2019. The influence of corporate social responsibility and corporate governance on banking financial performance. 22, 95-105.
- MAQBOOL, S. & ZAMEER, M. N. 2018. Corporate social responsibility and financial performance: An empirical analysis of Indian banks. *Future Business Journal*, 4, 84-93.
- MARGOLIS, J. D. & WALSH, J. P. 2003. Misery loves companies: Rethinking social initiatives by business. *Administrative science quarterly*, 48, 268-305.
- MCWILLIAMS, A. & SIEGEL, D. 2000. Corporate social responsibility and financial performance: correlation or misspecification? *Strategic management journal*, 21, 603-609.
- MENASSA, E. 2010. Corporate social responsibility. *Journal of Applied Accounting Research*.
- MENTION, A. L. & BONTIS, N. 2013. Intellectual capital and performance within the banking sector of Luxembourg and Belgium. *Journal of Intellectual capital*, 286-309.
- MIAN, S. N. 2010. Corporate social disclosure in Pakistan: A case study of fertilizers industry. *The Journal of Commerce*, 2, 11.
- MONEVA, J. M. & ORTAS, E. 2010. Corporate environmental and financial performance: a multivariate approach. *Industrial Management & Data Systems*, 110 193-210.
- MOORE, G. 2001. Corporate social and financial performance: An investigation in the UK supermarket industry. *Journal of Business ethics*, 34, 299-315.
- MURTAZA, I. A., AKHTAR, N., IJAZ, A. & SADIQA, A. 2014. Impact of corporate social responsibility on firm financial performance: A case study of Pakistan. *International Review of management and business research*, 3, 1914.
- MUTHURI, J. N. & GILBERT, V. 2011. An institutional analysis of corporate social responsibility in Kenya. *Journal of business Ethics*, 98, 467-483.
- NACEUR, S. B. & OMRAN, M. The effects of bank regulations, competition and financial reforms on MENA banks' profitability. Economic Research Forum Working Papers, 2008. 1-33.

- NASRULLAH, N. M. & RAHIM, M. M. 2014. Trends in CSR practices in developed and developing countries. *CSR in Private Enterprises in Developing Countries*. Springer.
- NISHTAR, S. 2006. The Gateway Paper--financing health in Pakistan and its linkage with health reforms. *JPMA. The Journal of the Pakistan Medical Association*, 56, S25-42.
- NOLLET, J., FILIS, G. & MITROKOSTAS, E. 2016. Corporate social responsibility and financial performance: A non-linear and disaggregated approach. *Economic Modelling*, 52, 400-407.
- OEYONO, J., SAMY, M. & BAMPTON, R. 2011. An examination of corporate social responsibility and financial performance. *Journal of Global Responsibility*, 2.
- ORLITZKY, M. 2001. Does firm size comfound the relationship between corporate social performance and firm financial performance? *Journal of Business Ethics*, 33, 167-180.
- PAN, X., SHA, J., ZHANG, H. & KE, W. 2014. Relationship between corporate social responsibility and financial performance in the mineral Industry: Evidence from Chinese mineral firms. *Sustainability*, 6, 4077-4101.
- PAULÍK, J., MAJKOVÁ, M. S., TYKVA, T. & CERVINKA, M. 2015. Application of the CSR measuring model in commercial bank in relation to their financial performance. *Economics & Sociology*, 8, 65.
- ROBERTS, R. W. 1992. Determinants of corporate social responsibility disclosure: An application of stakeholder theory. *Accounting, organizations and society*, 17, 595-612.
- ROMERO, F. P. 2016. A cross-case study on corporate social responsibility (CSR) in the Philippines: A comparative analysis on perspectives from the top banking institutions in the Philippines from 2010-2014. *GSTF Journal on Business Review (GBR)*, 4, 1-8.
- ROODMAN, D. How to do xtabond2: an introduction to 'difference' and 'system. GMM in STATA', Center for Global Development Working Paper No. 103, 2006. Citeseer.
- ROUF, D. 2011. The corporate social responsibility disclosure: A study of listed companies in Bangladesh. *Business and Economics Research Journal*, 2, 19-32.
- SAEIDI, S. P., SOFIAN, S., SAEIDI, P., SAEIDI, S. P. & SAAEIDI, S. A. 2015. How does corporate social responsibility contribute to firm financial performance? The mediating role of competitive advantage, reputation, and customer satisfaction. *Journal of business research*, 68, 341-350.
- SALEH, M., ZULKIFLI, N. & MUHAMAD, R. 2010. Corporate social responsibility disclosure and its relation on institutional ownership. *Managerial Auditing Journal*, 591-613.
- SAMY, M., ODEMILIN, G. & BAMPTON, R. 2010. Corporate social responsibility: a strategy for sustainable business success. An analysis of 20 selected British companies. *Corporate Governance: The international journal of business in society*, 10, 203-217.
- SANTHIRASEGAR, J., RAMAKRISHNAN, S., HISHAN, S. S. & JAMAL, N. M. 2018. The Relationship Between Corporate Social Responsibility Practices and Firm Performance of Domestic Banks in Malaysia. *International Journal of Engineering & Technology*, 7, 451-456.
- SARKAR, S. & SEARCY, C. 2016. Zeitgeist or chameleon? A quantitative analysis of CSR definitions. *Journal of Cleaner Production*, 135, 1423-1435.
- SAYED, S., MALIK, I. R., AHMED, M. & ALI, M. 2017. Does Corporate Social Responsibility Improve the Firm's Financial Performance: A Theoretical Perspective of Agency and Stakeholder Theory by Financial Sector of Pakistan. *Journal of Contemporary Management Sciences*, 3, 137-156.
- SCHOLTENS, B. 2008. A note on the interaction between corporate social responsibility and financial performance. *Ecological economics*, 68, 46-55.
- SCHOLTENS, B. 2009. Corporate social responsibility in the international banking industry. *Journal of Business Ethics*, 86, 159-175.

- SHARIF, M. & RASHID, K. 2014. Corporate governance and corporate social responsibility (CSR) reporting: an empirical evidence from commercial banks (CB) of Pakistan. *Quality & Quantity*, 48, 2501-2521.
- SHEN, K.-Y., YAN, M.-R. & TZENG, G.-H. 2017. Exploring R&D influences on financial performance for business sustainability considering dual profitability objectives. *Sustainability*, 9, 1-21.
- SMITH, M., YAHYA, K. & AMIRUDDIN, A. M. 2007. Environmental disclosure and performance reporting in Malaysia. *Asian Review of Accounting*, 15, 185 - 199.
- STANWICK, P. A. & STANWICK, S. D. 1998. The relationship between corporate social performance, and organizational size, financial performance, and environmental performance: An empirical examination. *Journal of business ethics*, 17, 195-204.
- SUKCHAROENSIN, S. 2012. The determinants of voluntary CSR disclosure of Thai listed firms. *International Proceedings of Economics Development & Research*, 46, 61-65.
- SYED, M. A. & BUTT, S. A. 2017. Financial and non-financial determinants of corporate social responsibility: empirical evidence from Pakistan. *Social Responsibility Journal*, 780-797.
- TAN, Y. & FLOROS, C. 2014. Risk, profitability, and competition: evidence from the Chinese banking industry. *The Journal of Developing Areas*, 303-319.
- TILAKASIRI, K. 2013. Construct an Index for Measuring Corporate Social Responsibility Activities for Developing World: Evidence from Sri Lanka. *International journal of Science and Research*, 4, 606-612.
- TSOUTSOURA, M. 2004. Corporate Social Responsibility and Financial Performance Working Paper Series. *University of California, Berkeley*.
- UDDIN, S. S. & SUZUKI, Y. 2014. The impact of competition on bank performance in Bangladesh: an empirical study. *International Journal of Financial Services Management* 2, 7, 73-94.
- UNERMAN, J. 2000. Methodological issues-Reflections on quantification in corporate social reporting content analysis. *Accounting, Auditing & Accountability Journal*, 667-681.
- VOURVACHIS, P. 2007. On the use of content analysis (CA) in corporate social reporting (CSR): revisiting the debate on the units of analysis and the ways to define them. 1-64.
- WADDOCK, S. A. & GRAVES, S. B. 1997. The corporate social performance–financial performance link. *Strategic management journal*, 18, 303-319.
- WORLD BANK. 2019. *Country; Pakistan* [Online]. World Bank Data Bank. Available: <https://data.worldbank.org/country/pakistan> [Accessed 08 September 2019 2019].
- WU, M.-W. & SHEN, C.-H. 2013. Corporate social responsibility in the banking industry: Motives and financial performance. *Journal of Banking & Finance*, 37, 3529-3547.
- ZHANG, J. 2013. *Determinants of corporate environmental and social disclosure in Chinese listed mining, electricity supply and chemical companies annual reports*. Phd, Edith Cowan University.

List of Publication related to the thesis

1. Khan, Y. and Szegedi, K., 2019. The concept of green banking in Pakistan. *Sarhad Journal of Management Sciences*, 5(2), pp.357-367.
2. Khan, Y., Rethi, G and Szegedi, K., 2018. Corruption as business challenge in Pakistan. *European Scientific Journal*, 14(16), pp, 1-20.
3. Khan, Y. and Szegedi, K., 2018. Role of small and medium enterprises in alleviation of poverty among disable people. *Sarhad Journal of Management Sciences*, 4(2), pp.272-279.
4. Khan, Y. and Szegedi, K., 2019. Corporate Social Responsibility Disclosure in Banking Sector of Pakistan: An Evidence from Commercial Banks. LIM Conference, December 5-6, Zalaegerszeg, Hungary, pp.18-27
5. Szegedi, K., Khan, Y., and Lentner, C., 2020. Corporate social responsibility and financial performance: Evidence from Pakistani listed banks. *Sustainability*, 12, pp.4080

List of further Publication of the Author

6. Shah, M.H. and Khan, Y., 2016. Trade liberalization and FDI inflows in emerging economies. *Business & Economic Review*, 8(1), pp.35-52.
7. Hussain, J., Shah, F.A., Rehman, W. and Khan, Y., 2018. Learning orientation and performance: the interaction effect of entrepreneurial orientation. *Pakistan Business Review*, 19(4), pp.960-977
8. Hussain, I., Hussain, J., Ali Khan, A. and Khan, Y., 2019. An analysis of the asymmetric impact of exchange rate changes on GDP in Pakistan: application of non-linear ARDL. *Economic research-Ekonomska istraživanja*, 32(1), pp.3094-3111

Appendix I : Table 7. Summary of CSR Disclosure Index (Score) of Listed Commercial Banks 2018-2018 (Year wise)

Years													
Banks	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Average CSR Disclosure	Ranking
Muslim Commercial Bank	0.5634	0.6479	0.7183	0.7324	0.7183	0.7465	0.7606	0.7324	0.7887	0.7887	0.7887	0.726	1
Standared Chartered Bank	0.662	0.6901	0.7183	0.6761	0.6761	0.6901	0.7042	0.7183	0.7606	0.7887	0.7746	0.7145	2
Allied Bank	0.6479	0.6479	0.6338	0.6338	0.7183	0.6901	0.7606	0.7465	0.7606	0.7887	0.7887	0.7106	3
National Bank of Pakistan	0.662	0.6901	0.662	0.6761	0.7042	0.6901	0.7042	0.7183	0.7324	0.7606	0.7606	0.7055	4
Habib Bank	0.5915	0.6197	0.662	0.6761	0.6901	0.7042	0.7042	0.6479	0.7324	0.7465	0.7324	0.6825	5
United Bank	0.6056	0.6338	0.662	0.662	0.6901	0.662	0.7324	0.7042	0.6901	0.7324	0.6901	0.6786	6
Bank Alhabib	0.5775	0.5915	0.6761	0.662	0.6479	0.662	0.6901	0.7042	0.7183	0.7465	0.7183	0.6722	7
Meezan Bank	0.5775	0.6056	0.6197	0.6056	0.6901	0.6761	0.6901	0.6901	0.7042	0.7465	0.7465	0.6684	8
Bank Alfalah	0.5915	0.5775	0.6197	0.6338	0.6197	0.6761	0.6901	0.6901	0.7042	0.7042	0.7042	0.6556	9
Habib Metropolitan	0.6197	0.6197	0.662	0.6338	0.662	0.662	0.662	0.662	0.662	0.6761	0.6761	0.6543	10
Bank Islami	0.5493	0.5493	0.6056	0.6197	0.662	0.662	0.662	0.662	0.6761	0.6901	0.7324	0.6428	11
JS Bank	0.5634	0.507	0.6056	0.5915	0.6056	0.662	0.6761	0.6761	0.7042	0.7465	0.7042	0.6402	12
Askari Bank	0.5915	0.5915	0.6338	0.6056	0.6338	0.6338	0.662	0.662	0.6761	0.662	0.6761	0.6389	13
Faysal Bank	0.5634	0.5915	0.5915	0.6056	0.6197	0.6197	0.6479	0.6338	0.6479	0.7042	0.7183	0.6312	14
Bank of Khyber	0.5211	0.5211	0.5352	0.5915	0.5915	0.5915	0.6479	0.6338	0.6761	0.7183	0.7183	0.6133	15
Bank of Punjab	0.493	0.493	0.507	0.5211	0.5634	0.6338	0.6901	0.7183	0.7183	0.7183	0.662	0.6108	16
Silk Bank	0.493	0.507	0.5634	0.5775	0.6197	0.6338	0.6479	0.6338	0.6479	0.6479	0.662	0.6031	17
Soneri Bank	0.4789	0.4789	0.493	0.5352	0.5775	0.6197	0.6761	0.6761	0.7042	0.7183	0.662	0.6018	18
Summit Bank	0.4789	0.4789	0.4789	0.493	0.5352	0.5493	0.5775	0.5634	0.6197	0.6338	0.6338	0.5493	19
Samba Bank	0.4648	0.4507	0.4789	0.4648	0.4789	0.493	0.507	0.507	0.5211	0.6056	0.662	0.5122	20

Source: Created by author based on the content analysis of the annual reports/website of listed commercial banks in Pakistan