CORPORATE SOCIAL RESPONSIBILITY AND FINANCIAL PERFORMANCE: AN EMPIRICAL STUDY ON EGYPTIAN BANKS

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Abstract

Due to the significance of the banking sector in the stability and welfare of any economy; it is important to constantly monitor and evaluate its performance. Most banks have incorporated social practices in their business operations regardless of the managers' real intentions of whether it is for the corporate image that might lead to better performance; or it is for the well being of the environment or society overall. Consequently, the purpose of this study is to check if the concept of the CSR is widely applied to local, international and Islamic banks operating in Egypt over the interim period from 2005 to 2013 and if there is a difference in the application. Moreover does CSR really matters and affect banks' financial performance. Descriptive statistics will be used. The difference in performance will be tested for statistical significance using one way ANOVA tests. The statistical study conducted on 34 banks categorized under Local commercial, International and Islamic banks are operating in Egypt. The relationship is neutral when it is looked at from the ROA measure. The banks' Corporate Social Responsibility did not have any impact on the financial performance of the banks. However, the relationship was positive when the financial performance perspective was looked from the estimated ROE and NIM; it implies that banks' corporate social responsibility practices not act as costs to shareholders as they do not reduce the returns. Whether the relationship is positive or neutral, the coefficient for both models are rather small as well as the model that resulted in Neutral relationship had lower standard of error which indicates that it is a better model compared to the model using ROE and NIM as the dependent variable. Therefore relationship is Neutral**.

Keywords: Corporate Social Responsibility, Banking Sector and Financial Performance

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** To the spirit of my teacher / Prof. Nabil Abdul Salam Shaker

1 Introduction

Corporate Social Responsibility is a broad concept that describes a business's obligation to interact with society or a self-explanatory term as it is the responsibility that the corporations have, according to Carroll (1979), it could be classified into four categories: economical, legal, ethical, and philanthropic. The economical responsibility is to provide returns to stakeholders, emphasising on stakeholders and employees, and provide products and services to the market with that of a fair price. The legal responsibility is to comply the rules and regulations of higher authority. The ethical responsibility is to do what is right needless it to be in the laws and obligations. The philanthropic responsibility is to do beyond the ethical responsibilities. The first three categories are all required and are expected from corporations to incorporate in their codes of conduct and businesses. However, the philanthropic responsibility is not required from corporations as it should be a voluntary responsibility that an entity would want to take. Nevertheless, Corporate Social Responsibility is a commitment that the corporation has for its both internal and external stakeholders; who are entities that affect and in return gets affected by the corporation's business decisions, environment and society as a whole by integrating both social and environmental values within its core business operations, such definition is a worldwide accepted definition of Corporate Social Responsibility by The World Business Council on Sustainable Development (2002).

Most corporations incorporated the concept of Corporate Social Responsibility within their business practices since the end of the Great depression that happened in US in the 1930s (André Habisch, Jan Jonker, Martina Wegner, and René Schmidpeter, 2005; Dima Jamali and Ramez Mirshak, 2007; Zu, 2009).

Moreover, organisations are not sole players in

the market and are liable to comply with the rules and regulations set by the government or higher authority within the economy, which is in order to *"play with the rules'".* Consequently, it is expected from organisations that they would perform in a manner that is consistent with the government and laws expectations, and comply with the rules and regulations that are set by the federals, states and locals.

Furthermore, organisations has ethical responsibilities which represents fairness and justice; they should perform in a manner that is consistent with the recognisable and evolving societal custom and ethical moral expectations, meaning that there should be no compromises of such expectations with the aim to achieve organisation's goals. The reason is that organisations should recognise that the integrity and ethical behaviour goes beyond complying the mere rules and regulations.

Organisations should perform in a consistent manner that reflects the philanthropic and charitable expectations of the citizens, which is done through providing assistance to both private and public educational institutions. Also, managers and employees within the organisation should do voluntary work to promote the wellbeing of the society. The sole aim of organisations' manners is to consequently enhance the overall quality of life of the society that the organisation operates in.

Banks are the most important financial institutions in the economy as they play various roles in the economy, which are the intermediation role, payments role, guarantor role, agency role, and policy role (Rose, pp. 3-8); hence, Banks has responsibilities, similar to other businesses in the market. Whether in developed or developing countries, most banks have incorporated the concept of corporate social responsibility within their practices however. This research paper structured into four sections; section one includes literature reviews and hypothesis development, section two includes data and research design, section three includes data analysis and section four includes conclusion.

2 Corporate social responsibility

Throughout the literature of CSR there is no exact definition, but referred to Archie Carroll in the (1979) & (1991) defined a widely accepted definition that over the four business-society areas. Institutions have four responsibilities that could be considered as layers within a hierarchy: Economical, Legal, Ethical responsibility, and Philanthropic responsibility (Archie B. Carroll, 1979, 1991 As cited in André Habisch, Jan Jonker, Martina Wegner, and René Schmidpeter, 2005, p. 337). Howard Bowen (Crane, 2008, p. 304) defined the social responsibilities of businessmen as the obligations to conform and align the policies and decisions with society's desired outcomes. Since then, Social Responsibility now referred to, as corporate social responsibility. Windsor (2001) suggested that business leaders for the first time cohered the concept of responsibility and responsive practices in their business from a corporate perspective.

Primarily, organisations' existence is due to their economical entities as to provide goods and services to those who need and want them; though at first the whole process of providing goods and services were mainly to make acceptable profit, now it is mainly to maximise profit. Thus, the economical layer is the basic layer that is expected from any firm within the economy. Organisations should perform in a manner that would consistently move with the aim of maximising earnings per share, which are done through committing to profit maximisation, maintaining the competitive spirit, and maintaining while improving, if possible, the operating efficiency. Corporate Social responsibility's importance was proven; regarding its importance to the overall well-being of the economy and society, where according to KPMG's 2008 triennial survey on Corporate Social Responsibility reporting which stated that Corporate Social Responsible activities create value in several aspects, CSR activities fulfil the financial markets' expectations, differentiate the entity from its competitors, and attract talented individuals.

Different Corporate Social Responsibilities theories were found in previous literature and could be categorised to four categories: Instrumental, theories, and Ethical theories (Elisabet Garriga & Domenec Mele, 2004). Whereas, the theoretical perspectives were Agency perspective, Stakeholder perspective, resource based view, and slack-resources hypothesis (Marcia Millon Cornett, Otgontsetseg Erhemjamts,& Hassan Tehranian, 2013, pp. 4-5). On one hand, throughout the four categories includes different theories about the reason why businesses incorporate social concepts and practices. The instrumental category grouped theories that state corporate social responsibility is incorporated within the business practices to act as a mean of creating profit and wealth. The political category grouped theories that state businesses incorporation of corporate social responsibility within the business practices would provide social power that would facilitate cooperation with others. The Integrative category grouped theories that state businesses must incorporate corporate social responsibility within their businesses due to the dependence of the business' lifetime on the society, in terms of survival and growth. The Ethical category grouped theories that stated that the relationship between businesses and society is defined by the ethical values of both sides, which are deep-seated; hence, the business accepts the ethical obligation over other obligations enforced upon the business.

Nevertheless, the perspectives of corporate social responsibility in more detail are as follows: Agency perspective argues that managers tend to exploit corporate resources to benefit their self-interest at

shareholders' cost when there is no shareholder control. However, Stakeholder perspective declares that institutions have relationships with other stakeholders, and not only the shareholders. Competitive advantage and long-term value creation can be achieved through effective stakeholder management, as it would enhance the institution's ability to achieve them. Nonetheless, Resource-based view of the institution challenges the Effective stakeholder management theory as the Resource based view states that the institution's ability to outperform its competitors and create value for its shareholders depends on the unique integration of human, organisational and physical resources over time.

Moreover, since many distinct generations of work were made towards defining the operationalization of corporate social responsibility, the term Corporate Social Performance came to existence (Zu, 2009, p. 32). According to Wood, There are three major components of CSR. The major three components are: the level of corporate social responsibility, the process of corporate social responsiveness, and the outcomes of the corporate social behaviour. The first level compromises the principles of legitimacy, the second level compromises the principle of public responsibility, and third level compromises the principle of managerial discretion (Peter A. Stanwick and Sarah D. Stanwick, 1998 and Pieter van Beurden and Tobias Gosslingq, 2008). However, Liangrong Zu (2009) defined CSR as the Business' configuration of principles, process, policies, programs, and observable outcomes that relate to institution's societal relationship.

While the slack-resources hypothesis state the better the institution's financial performance the more the surplus resources available to be allocated investing social activities and practices to address the social issues.

3 Literature review and hypothesis development

Does incorporating corporate social responsibility into business practices have any impact on the financial performance and the value of the Bank? A very few studies have even touched the issue. Throughout the literature reviews, there were mixed conclusions from limited number of empirical and case studies. Consequently, the subject of the paper is to investigate the relationship between Banks' corporate social responsibility and the banks' financial performance and if there is any difference between Commercial, international and

Islamic banks in applying Corporate Social Responsibility Concept. Moreover, if the bank' size of has a vital impact on applying Corporate Social Responsibility.

Margolis and Walsh (2003) stated that from 1972 to 2002 127 studies were made about the relationship between CSR and financial performance: 54 reported positive, 7 reported negative, 28 reported non-significant and 20 reported mixed findings. Those inconsistent findings resulted from the dissimilar CSR proxies researchers implemented throughout different periods. Nevertheless, few recent studies were made to evaluate the impact of Corporate Social Responsibility on bank's Financial Performance using multiple-linear regression analysis, whereas, the studies also showed inconsistent findings.

Hsiang-Lin Chih, Hsiang-Hsuan Chih, and Tzu-Yin Chen (2010) studied the relationship between CSR and Financial performance of several financial institutions and concluded that the relationship was neutral. They used the enforcement indices, the shareholder rights and legal enforcement indices, and the cooperation in Labour - Employer relations index as Corporate Social Responsibility determinants, and they used Returns on Assets as Financial Performance indicator. Likewise, another study was made by Maria-Gaia Soana (2011), which focused on the Italian banking sector, found the same result of neutral relationship by using Ethical parameters of Internal social, external social, environmental, and economic policies as Corporate Social Responsibility index, and She used Returns on average equity, Returns on average assets, and Cost-to-income ratio as Financial Performance indicators. Also, recent study in the US by Marcia Millon Cornett, Otgontsetseg Erhemjamts, and Hassan Tehranian (2013) concluded the same relationship. Meanwhile, their study used Bank's all strengths, all concerns and ESG index as Corporate Social Responsibility determinants, and industry-adjusted returns on Assets and returns on equity capital as financial performance indicators. Also, their findings showed that banks' characteristics affect the profitability of the banks; the characteristics are the size of the bank and the board of directors' size and gender. Islam Ahmed and Hassan (2012) showed a positive, although insignificant, relationship between operating performance and CSR for a very small sample of banks in Bangladesh.

A recent study made by Daniel F. Ofori, Richard B. Nyuur, and Mildred D. S-Darklo (2014) concerning with the banking sector in Ghana concluded that the relationship between banks' corporate social responsibility and their financial performance was positive, using questionnaires and surveys as proxies of Corporate Social Responsibility performance, and return on assets and return on equity as financial performance indicators. Their results concluded that the banks' social performance do not contribute much to the banks' financial performance, as it relied mostly on other control variables of growth, origin, debt ratio, and size. The reasoning is due to the researchers' results that showed most banks use the corporate social activities as strategies triggered towards enhancing the banks' reputation and validating the legitimacy of their operations. moreover, Brian J.Bolton (2013) studied banks in the US using modified KLD index as the CSR determinant; and

returns on assets along with Tobin's Q as financial performance indicators concluded that the relationship between bank's Corporate Social Responsibility and bank's financial performance was positive as long as the bank directly aligns the CSR investments with its core operating activities. Similarly, a study conducted by W. Gary Simpson and Theodor Khoers (2002) concluded with a positive relationship between those two variables using CRA rating which was developed every commercial bank as a Corporate Social Responsibility determinant, return on assets and loan losses as financial performance determinants. Their findings are consistent with Sandra A. Waddock and Samuel B. Graves (1997) suggestion about socially embedded purposes and strategic postures may relate to positive strategic outcomes in financial performance. In addition, his findings are consistent with the stakeholder theory that proposes that there is a tension between the institution's explicit costs and implicit costs to stakeholders, if the institution attempts to reduce cost by engaging in socially irresponsible actions, costs would occur more.

Nonetheless, Manisha Saxena and A S Kohli (2011) investigated banks in India using annual reports and Karmayog survey reports as the banks' Corporate Social Responsibility index; and Profit after Tax and Earning per share as Financial Performance indicators concluded that the relationship was neutral, however, more slighted towards negative. Likewise, Mona Kamal (2013) concluded the relationship between Corporate Social Responsibility and bank's Financial Performance was negative in Egypt's banking sector using ratio of claims on the private business sector to Egypt's GDP and Bank density as Corporate Social Responsibility proxies, and liquidity and asset quality as Financial Performance indicators. Both findings are consistent with neoclassical economist's argument about Corporate Social Responsibility's competitive disadvantage that costs would occur that consequently reduce shareholders' profits and wealth (Graves, Sandra A. Waddock and Samuel B., 1997).

3.1 Hypothesis development

Most of this prior research showed that a little work has been done to draw the relation between the CSR and financial performance of the banks not only that but also there is no further studies tried to draw this relation to banks operating in the MENA and GCC which revealing the importance of this study. The measurement of corporate social responsibility in previous studies mainly relied on index scores that were previously available due to the presence of Corporate Social Responsibility rating agencies and companies. Whereas, also Authors of previous studies used different corporate social responsibilities measurement methodologies, studied samples at different scales and different duration; that might have been in a bad economic phase, and studied the relationship in different countries with different economical statuses, which could be either developing countries or developed countries. Nevertheless, it has also been concluded that most of the previous researchers assessed the financial performance of banks using the traditional accounting based ratios of return on assets and return on equity, and some used Tobin's Q.

Since only one study was conducted regarding the CSR's relationship with the banking sector in Egypt. The author's research will extend on the previous research aiming to identify the relationship between the CSR practices for Banks in Egypt and its FP using a different approach by accomplishing those objectives:

- To score each bank's CSR during the period of study 2005 to 2013.
- To investigate the CSR practices of all operating banks in Egypt by separating banks into three different groups; Local, international and Islamic banks.
- How does banks' Corporate Social Responsibility impact their financial performance?
- To conclude which group of banks (Local Commercial Banks, International Banks and Islamic Banks) have the best practice of CSR

3.1.1 The null hypothesise

Ho: The relation between Corporate Social Responsibility and the Financial Performance in the commercial banking industry in Egypt is zero or negative.

3.1.2 Against the alternative hypothesis

Hi: The relation between Corporate Social Responsibility and the Financial Performance in the commercial banking industry in Egypt is positive.

3.1.3 The joint hypotheses

3.1.3.1 The null hypothesis

H_0: $\beta_1 = ... = \beta_8 = 0$ (i.e. the independent variables do not affect the dependent variable, jointly).

3.1.3.2 Against the alternative hypothesis

H_1: $\beta_1 \neq ... \neq \beta_8 \neq 0$ (i.e. the independent variables affect the dependent variable, jointly).

4 Methodology

4.1 Data

The data used in is a combination of both qualitative and quantitative. The quantitative data is gathered from secondary sources, the secondary data would be each bank's annual financial statements that are provided annually on their websites, and also, the secondary data would be gathered from Bankscope database. Meanwhile, the qualitative data is gathered from a mixture of secondary sources and primary sources, the information provided on the bank's website regarding the study period; along with their annual reports. The primary data would be gathered

through interviewing and surveying the CSR manager(s) and/or the Head of Finance in the Bank's head office located in Egypt. The study duration from 2005 till 2013 of sample of 34 banks for the 9-year period, the number of sampled data points is 315 in total for all banks commonly had the financial statements on the BANKSCOPE. The sample includes all commercial banks operating in the Egypt and divided into three major groups:

- Group (A): Local Egyptian Banks count for 24 bank.
- Group (B): International Bank count for 7 banks.
- Group (C): Islamic Banks locally or regionally count for 4 banks.

The 34 banks that are operating in the Egyptian market is listed below in Table 1, 2 and 3 provides information about total assets and rank according to their assets.

Table 1. Local commercial Egyptian banks as of 2013 in L.E ('000)

	Bank name	Assets Mil USD	Assets in Mil EGP	Rank by assets
1	Commercial International Bank		113,752	3
2	Union National Bank- Egypt		5,643	n/a
3	Societe Arabe International De Banque (SAIB)	3,471		11
4	Egyptian Gulf Bank		9,884	22
5	National Bank of Egypt		366,592	1
6	Bank Misr		218,160	2
7	Suez Canal Bank		18,294	15
8	Banque du Caire		65,115	5
9	Arab African International Bank	9,216		6
10	Principal Bank for development and agricultural credit		33,195	n/a
11	Arab International Bank	3,181		13
12	Export Development Bank of Egypt		19,345	n/a
13	The National Bank of Kuwait Egypt		20,395	14
14	United Bank		17,076	18
15	Al Ahli United Bank	2,136		n/a
16	Housing and Development Bank		14,592	n/a
17	Industrial Development and workers Bank		2,525	n/a
18	Arab Investment Bank	861		26
19	Arab Bank Corporation		7,375	n/a
20	Bank Audi	3,262		12
21	Bloom Bank Egypt	1,675		21
22	Egyptian and Arab Land Bank		22,075	n/a
23	Misr Iran Development Bank	963		n/a
23				Total

Table 2. International commercial banks as of 2013 in L.E ('000)

	Bank name	Assets Mil USD	Assets in Mil EGP	Rank by assets
1	Piraeus Bank Egypt SAE	1,127		23
2	Credit Agricola Bank	4,121		10
3	HSBC Bank		53,246	n/a
4	Barclays Bank	2,493		19
5	CITI Bank	2,120		n/a
6	African Import and Export Bank	4,358		n/a
7	Bank of Alexandria and San Polo	5,894		n/a
7				Total

Table 3. Islamic regional and local banks as of 2013 in L.E ('000)

	Bank name	Assets Mil USD	Assets in Mil EGP	Country rank by
1	Qatar National Bank Al Ahly	11,704		4
2	Faisal Islamic Bank of Egypt	6,532		8
3	Abu Dhabi Islamic Bank	2,349	16,306	20
4	Al Baraka Bank Egypt	2,627		16
4				Total

4.2 Research design

The following equation addresses how CSR impacts bank performance:

$$\text{Bank's Financial Performance}_{i,t} = \beta_0 + \beta_1 (\text{CSR score}_{i,t}) + \beta_2 (\text{Capital Adequacy}_{i,t}) + \beta_3 (\text{Asset Qualityi}_{i,t}) + \beta_4 (\text{Asset Quality\_2}_{i,t}) + \beta_5 (\text{Asset Quality\_3}_{i,t}) + \beta_6 (\text{Management Quality}_{i,t}) + \beta_7 (\text{Earning Quality}_{i,t}) + \beta_8 (\text{Total asset}_{i,t}) + \varepsilon_i + \quad i=1,...8 \; t=1,..9 \tag{1}$$

4.2.1 Measuring corporate social responsibility

The measurement or the selection of CSR proxies would be through a qualitative mean of analysing the data, according to Maria-Gaia Soana (2011), there are five ways to select proxies to measure CSR of banks: *Content Analysis, Questionnaire Surveys, Reputational measures, one-dimensional indicator, and multidimensional indictor*. *The Content Analysis* measures the amount of social responsibility announced in published documents such as labour right protection, social reports within the bank's websites. However, the analysis of contents would be time consuming as to look for social information on the website when the sample size is magnificent. Similarly, some social information in the span of the study period might not be available, which would act as obstacles towards concluding the scoring of the corporate social responsibility.

The Questionnaire surveys assess the level of the bank's CSR through analysing the completed questionnaires by the managers that would provide a subjective qualitative method of gathering social reflecting only managers' perception of CSR. Such limitation of gathering only managers' perception about Corporate Social Responsibility would make most research authors combine one of the other methods to have a more valid measure of CSR.

The Reputational measures, social performance ratios made by researchers or specialized journals, represent the amount of goodwill or reputation the bank has. The widely used measure is Fortune magazine's corporate reputational index, though Markowitz was one of the first to develop those kinds of indicators. Meanwhile, Fortune magazine's corporate reputational index's survey focuses on 8 characteristics that are compared to competitors. Those characteristics are Long term investment value, Financial soundness, Wise use of assets, Quality of management, Quality of products and services; Innovativeness, Ability to attract, develop, and keep talented people; and, Community and environmental responsibility(Gerald E. Fryxell and Jia Wang, 1994), whereas, those characteristics incorporate scores or measures that indicate both corporate social responsibility and the financial performance variables.

The one-dimensional indicators that trigger only at one aspect of CSR practice out of various CSR practices. The commonly used are the *philanthropic activities, customer orientation, and compliance with law, and the respect to environment* the bank has.

The multi-dimensional index referred to as Ethical rating, which is rated by specialized agencies' quantification models that differ in the scope of stakeholder groups' selection, where the ratings are based subjectivity. However, there are no rating agencies for banks in Egypt.

4.2.2 Bank's corporate social responsibility scoring

The CSR score of each of the 34 commercial and Islamic banks operating in the Egyptian market would be done under the methodology of S&P/EGX ESG index. Whereas, The Egyptian Institute of Directors, S&P Indices and Crisis have created the S&P/EGX ESG Index. The S&P/EGX ESG specifically addresses organisations that perform well and are traded within the Egyptian stock exchange. The S&P/EGX ESG reflects the performance according to three parameters of environmental, social and corporate governance responsibility when compared to one another. Since many Banks operating in the Egyptian market ware listed in the Egyptian stock exchange, they are assumed to abide Corporate Governance; hence, the Social Responsibility aspect of the banks' appendix would be solely used, which is Appendix B mentioned in the S&P ESG Methodology (S&P Dow Jones Indices). The scoring of the Appendix B, T&D Template for Assessing Environment and Social Conduct (E&S) includes what

to consider when converting the amount of social information disclosed to quantitative data. The scoring would be binary with 0 and 1. 0 when no information was disclosed and 1 when there is disclosed information. Similarly for the extra points criteria the scoring are of 0 and 3, 0 when there is no information and 3 when there is information. The parameters and aspects of the SCR scoring are as follows:

- *Environment:* Environmental Pollution and Natural Resources Use.
- *Social:* Management Policy and Performance Indicators.
- *Employees:* Employee Relations/Job Creation, Labour Rights, Employee Health &Safety, HIV/AIDS, Equal Opportunity, and Union Relations.
- *Community:* Human Rights, Community Investment.
- *Customers/Product:* Product Safety, Anti-trust, Customer Outreach & Product Quality.

The scoring for each bank's studied year is done for 9 criteria, which are concerned with the Employee benefits, which includes the availability of employee stock ownership plans, other long-term employee incentive plans, staff development, and employee safety; the firm's policy on recruitment; the firm's policy on environmental issues; the firm's policy on philanthropy; and the firm's relationship with other stakeholders including customers, creditors, society/community, and suppliers(Corporate Social Performance, Firm Valuation, and Industrial Difference: Evidence from Hong Kong, 2013).

4.2.3 Bank's financial performance measures

There are two approaches to measure the financial performance that are market-based and Accounting-based (Pieter van Beurden and Tobias Gossling, 2008). However, the author will only focus on the accounting-based financial performance measures. For accounting based measures there are Profitability ratios to track bank performance. The key profitability ratios are return on Average Assets (ROA), Return on Equity (ROE) and Net Interest Margin (NIM). ROA is an indicator of how efficient the managers are in how capable they are in converting the bank's assets into net earnings. The interest margin state that if the banks managed to employ its assets and generate enough return from loans and lastly. Griffin and Mahon (1997) claimed that multiple measures of FP should be used. They also argue that accounting measures rather than market-derived measures should be used because market measures may be picking up more than just FP. This study employs three accounting measures of FP that are recognized throughout the banking industry and are believed to accurately reflect the financial performance of banking. Variables used in the analysis are summarised in the following table:

Table 4. Variable definition

Variable Name	Variable description
	Financial Performance - Dependent Variable
Return on Assets	Net operating Income / Average Total Assets
Net Interest Margin	Net Interest Income/ Average Total Assets
Return on Equity	Net operating Income / Average Total Equity
	Independent Variable CSR - Independent Variable
Corporate Social Responsibility Rating	Dummy variable which equals 0 if CRA rating is needs improvement and 1 if the CRA rating is outstanding; the Scoring of the SCR using S & P and /EGX ECG.
	Seven Control Variables
T otal Assets	Natural logarithm of Average Total Assets
Capital Adequacy	Total Equity Capital / Average Total Assets
Asset Quality 1	Loans Provisions / Total loans
Asset quality 2	Provisions / Average Assets
Asset quality 3	Loans Loss Reserves / Average Assets
Management quality	Loans / Deposits
Earning Quality	Total Expenses / Total Revenue

4.2.4 Statistical model

A multiple linear regression analysis would be used. The following multiple regression equation was made:

$$\text{Bank's Financial Performance}_{i,t} = \beta_0 + \beta_1 (\text{CSR score}_{i,t}) + \beta_2 (\text{Capital Adequacy}_{i,t}) + \beta_3 (\text{Asset Qualityi}_{i,t}) + \beta_4 (\text{Asset Quality\_2}_{i,t}) + \beta_5 (\text{Asset Quality\_3}_{i,t}) + \beta_6 (\text{Management Quality}_{i,t}) + \beta_7 (\text{Earning Quality}_{i,t}) + \beta_8 (\text{Total asset}_{i,t}) + \varepsilon_i + \quad i=1,...8 \; t=1,..9 \tag{2}$$

The bank's financial performance is the dependent variable (ROA, ROE and NIM), as the financial performance of the year depends on other variable, which are CSR score of the year as independent variable and; under the control of the bank's, Total assets, Capital Adequacy, Management Quality, Earning Quality and Asset quality (CMEL Approach) Nevertheless, the symbol £, represents error, as any model there are percentages of errors and not 100% accurate. Total asset would indicate the bank's size, and the Capital Adequacy would indicate the leverage amount and the financial risk for the bank.

$$\text{ROA}_{i,t} = \beta_0 + \beta_1 (\text{CSR score}_{i,t}) + \beta_2 (\text{Capital Adequacy}_{i,t}) + \beta_3 (\text{Asset Qualityi}_{i,t}) + \beta_4 (\text{Asset Quality\_2}_{i,t}) + \beta_5 (\text{Asset Quality\_3}_{i,t}) + \beta_6 (\text{Management Quality}_{i,t}) + \beta_7 (\text{Earning Quality}_{i,t}) + \beta_8 (\text{Total asset}_{i,t}) + \varepsilon_i + \quad i=1,...8 \; t=1,..9 \tag{3}$$

$$\text{ROE}_{i,t} = \beta_0 + \beta_1 (\text{CSR score}_{i,t}) + \beta_2 (\text{Capital Adequacy}_{i,t}) + \beta_3 (\text{Asset Qualityi}_{i,t}) + \beta_4 (\text{Asset Quality\_2}_{i,t}) + \beta_5 (\text{Asset Quality\_3}_{i,t}) + \beta_6 (\text{Management Quality}_{i,t}) + \beta_7 (\text{Earning Quality}_{i,t}) + \beta_8 (\text{Total asset}_{i,t}) + \varepsilon_i + \quad i=1,...8 \; t=1,..9 \tag{4}$$

$$\text{NIM}_{i,t} = \beta_0 + \beta_1 (\text{CSR score}_{i,t}) + \beta_2 (\text{Capital Adequacy}_{i,t}) + \beta_3 (\text{Asset Qualityi}_{i,t}) + \beta_4 (\text{Asset Quality\_2}_{i,t}) + \beta_5 (\text{Asset Quality\_3}_{i,t}) + \beta_6 (\text{Management Quality}_{i,t}) + \beta_7 (\text{Earning Quality}_{i,t}) + \beta_8 (\text{Total asset}_{i,t}) + \varepsilon_i + \quad i=1,...8 \; t=1,..9 \tag{5}$$

5 Data analysis

5.1 Descriptive statistics

CSR score has the minimum score of 0 and maximum of 33. The 0 points out at how some banks have no social information disclosed on their website and annual reports during the study period. The average of the CSR scores is 5.227, and the variation or the volatility of the CSR scores among the banks and 4 years is 9.4967. The financial measures of ROA, ROE and NIM for the study period have the maximum returns of .2878%, .3894% and .1932 respectively, which means the managers managed to convert their assets to returns with only 0.2878% through operations, and .3894 % is maximum approximate net benefit that shareholders are to receive. However, the minimum return are -.024%, -.7194%, and -.009% respectively, those figures show that the maximum amount of loss occurred during the study period since they are in negative signs the reason for the negative returns could be due to global financial crisis followed by the Egyptian revolution that happened in 2011 and its consequences on banks performance. Moreover, the average ROA is.0176% that is quite low, which shows that most bank managers managed to get at least some returns from operating their assets though there were bad economical and political situations, and average ROE is .0663% which shows that most managers in average of the banks managed to provide approximate net benefit to the shareholders of .0663%. Furthermore, the volatility of the financial measures of ROA, ROE and NIM .04988%, .190% and 0.032% approximately, the volatility of ROA, ROE and NIM is not high. The analysis shows that banks are not good in terms of Asset Management and Net Interest Margin and this very clear when we see the return on assets and the net interest margin ratios.

The Capital Adequacy ratio shows the financial risk that the banks have due to the leverage or the amount of liability that the bank has for their lenders and customers. The Minimum and maximum financial risk that is within the sample has shown the ratio of .035 and 1.765, it seems in the light of the sampled data that most of the banks have high financial risk as they are almost near to 2 and this is very common in the banking industry.

The results of the descriptive statics are shown in appendix (C).

Asset quality_1 has a negative significant relationship with return on assets and equity by -0.159 and -0.455 at significant level 0.005, 0.000 respectively and positive relation with net interest margin by -0.063 but not significant.

Asset quality_2 has a negative significant relationship with return on assets and return on equity by -.197, -0.362 at significant level 0.001 and 0.000 respectively and has a negative relationship with net interest margin at -0.112.

Asset quality_3 has a positive significant relationship with return on assets and equity and net interest margin by 0.001, 0.000 and 0.051 at significant level 0.000, 0.000 and 0.004 respectively.

Management quality has a positive relationship but not significant with return on assets and return on equity whereas has a negative relationship but not significant with net interest margin by 0.083, 0.071 and -0.092 respectively.

Earning quality has a negative significant relationship with return on equity and net interest margin by -0.175, -0.125 at significant level 0.002, 0.029 respectively whereas has a negative but not significant relationship with return on assets by 0.206.

Table 5. Coefficient of correlations

		ROA	ROE	NIM
Cap.Ad	Pearson Corr.	.863**	.037	-.012
	Sig. (2-tailed)	.005	.000	.275
Ass.Qu1	Pearson Corr.	-.159**	-.455**	-.063
	Sig. (2-tailed)	.005	.000	.273
Ass.Qu2	Pearson Corr.	-.197**	-.362**	-.112
	Sig. (2-tailed)	0.001	0.00	0.051
Ass. Q 3	Sig. (2-tailed)	.001	.000	.051
	Sig. (2-tailed)	.000	.000	.004
Mang.Qu	Pearson Corr.	.083	.071	-.092
	Sig. (2-tailed)	.149	.218	.109
Earn.Qu	Pearson Corr.	-.073	-.175**	-.125*
	Sig. (2-tailed)	.206	.002	.029
Soc.CSR	Pearson Corr.	-.098	.051	-.051
	Sig. (2-tailed)	.088	.369	.372
Emp.CSR	Pearson Corr.	.008	.104	-.050
	Sig. (2-tailed)	.893	.071	.387
Com.CSR	Pearson Corr .	-.037	.121*	-.063
	Sig. (2-tailed)	.520	.034	.270
Cus.CSR	Pearson Corr.	.073	.190**	.264**
	Sig. (2-tailed)	.204	.001	.000
CSR	Pearson Corr Correlation	.031	.183**	.131*
	Sig. (2-tailed)	.588	.001	.022
Assets	Pearson Corr	-.004	.025	.113*
	Sig. (2-tailed)	.945	.668	.048

Assets have a negative relationship by -0.004 with return on assets and positive relationship with return on equity by 0.025 and positive significant relationship with net interest margin. CSR has positive significant relationship with return on equity by 0.121 at significant level 0.34 and Customer CSR has positive significant relation with return on equity and net interest margin by 0.190 and 0.264 respectively and at significant level .001 and .000 respectively. Corporate Social Scoring has a positive significant relationship with return on equity and net interest margin by 0.183 and 0.131 at significant level .001 and .022 respectively.

Table 6. Capital adequacy as a control variable

Control variables			ROA	ROE	NIM
Cap.Ad	ROA	Correlation	1.000	.199	.249
		Significance (2-tailed)		.000	.000
		df	0	303	303
	ROE	Correlation	.199	1.000	.108
		Significance (2-tailed)	.000		.060
		df	303	0	303
	NIM	Correlation	.249	.108	1.000
		Significance (2-tailed)	.000	.060	
		df	303	303	0
	Soc.CSR	Correlation	.047	.057	-.053
		Significance (2-tailed)	.409	.318	.352
		df	303	303	303
	Emp.CSR	Correlation	.145	.107	-.051
		Significance (2-tailed)	.011	.063	.377
		df	303	303	303
	Com.CSR	Correlation	.133	.127	-.065
		Significance (2-tailed)	.020	.027	.256
		df	303	303	303
	Cus.CSR	Correlation	.190	.192	.264
		Significance (2-tailed)	.001	.001	.000
		df	303	303	303
	CSR	Correlation	.198	.187	.131
		Significance (2-tailed)	.000	.001	.023
		df	303	303	303

Employee CSR has positive significant relationship with ROA by 0.145 at significant level 0.011. Community CSR has a positive significant relationship with ROA and ROE by 0.133 and 0.127 and at significant level 0.020 and 0.027. Customer CSR has a positive significant relationship with ROA and ROE and NIM by 0.190, 0.192 and 0.264 and at significant level 0.001, 0001 and 0.000. CSR scoring has a positive significant relationship by 0.198, 0.187 and 0.131 and at significant level 0.000, 0.001 and 0.023.

Table 7. Asset quality_1 as a control variable

Control variables			ROA	ROE	NIM
Ass.Qu1	ROA	Correlation	1.000	.069	.107
		Significance (2-tailed)		.230	.062
		df	0	303	303
	ROE	Correlation	.069	1.000	.088
		Significance (2-tailed)	.230		.123
		df	303	0	303
	NIM	Correlation	.107	.088	1.000
		Significance (2-tailed)	.062	.123	
		df	303	303	0
	Soc.CSR	Correlation	-.113	.013	-.057
		Significance (2-tailed)	.048	.816	.321
		df	303	303	303
	Emp.CSR	Correlation	-.010	.060	-.057
		Significance (2-tailed)	.861	.296	.321
		df	303	303	303
	Com.CSR	Correlation	-.053	.086	-.070
		Significance (2-tailed)	.352	.133	.224
		df	303	303	303
	Cus.CSR	Correlation	.047	.128	.257
		Significance (2-tailed)	.415	.025	.000
		df	303	303	303
	CSR	Correlation	.004	.120	.122
		Significance (2-tailed)	.945	.037	.033
		df	303	303	303

Social CSR has a negative significant relationship with ROA by -0.113 at significant level 0.048. Customer CSR has positive significant relationship with ROE and NIM by 0.128 and 0.257 at significant level 0.025 and 0.00.

CSR scoring has a positive significant relationship with ROE and NIM by 0.120 and 0.122 and at significant level of 0.037 and 0.033 respectively.

Table 8. Asset quality_2 as a control variable

Control variables			ROA	ROE	NIM
Ass.Qu2	ROA	Correlation	1.000	.067	.096
		Significance (2-tailed)		.241	.094
		df	0	303	303
	ROE	Correlation	.067	1.000	.072
		Significance (2-tailed)	.241		.210
		df	303	0	303
	NIM	Correlation	.096	.072	1.000
		Significance (2-tailed)	.094	.210	
		df	303	303	0
	Soc.CSR	Correlation	-.137	-.012	-.072
		Significance (2-tailed)	.017	.831	.209
		df	303	303	303
	Emp.CSR	Correlation	-.031	.037	-.073
		Significance (2-tailed)	.587	.516	.205
		df	303	303	303
	Com.CSR	Correlation	-.064	.080	-.079
		Significance (2-tailed)	.264	.161	.170
		df	303	303	303

Table 8. Asset quality_2 as a control variable (continued)

Control variables			ROA	ROE	NIM
	Cus.CSR	Correlation	.038	.135	.249
		Significance (2-tailed)	.511	.019	.000
		df	303	303	303
	CSR	Correlation	-.013	.114	.110
		Significance (2-tailed)	.828	.047	.055
		df	303	303	303

Social CSR has negative significant relationship with ROA by -0.137 at significant level 0.017. Customer CSR has positive significant level with ROE and net interest margin by 0.135 and 0.249 at significant level at 0.019 and 0.000.

CSR scoring has a positive significant relationship with ROE by 0.114 and at significant level 0.047.

Table 9. Asset quality_3 as a control variable

Control variables			ROA	ROE	NIM
Ass.Qu3	ROA	Correlation	1.000	.072	.085
		Significance (2-tailed)		.211	.137
		df	0	303	303
	ROE	Correlation	.072	1.000	.056
		Significance (2-tailed)	.211		.330
		df	303	0	303
	NIM	Correlation	.085	.056	1.000
		Significance (2-tailed)	.137	.330	
		df	303	303	0
	Soc.CSR	Correlation	-.113	.033	-.062
		Significance (2-tailed)	.049	.569	.277
		df	303	303	303
	Emp.CSR	Correlation	-.014	.072	-.069
		Significance (2-tailed)	.805	.209	.231
		df	303	303	303
	Com.CSR	Correlation	-.051	.106	-.075
		Significance (2-tailed)	.374	.066	.190
		df	303	303	303
	Cus.CSR	Correlation	.038	.141	.241
		Significance (2-tailed)	.505	.014	.000
		df	303	303	303
	CSR	Correlation	-.002	.137	.107
		Significance (2-tailed)	.971	.016	.063
		df	303	303	303

Social CSR has a negative significant relationship with ROA by -0.113 and at significant level 0.049. Customer CSR has positive significant relationship with ROE and NIM by 0.141 and 0.241 and at significant level 0.014 and 0.000. CSR scoring has positive significant relationship with ROE by 0.137 and at significant level 0.016.

Table 10. Management quality as a control variable

Control variables			ROA	ROE	NIM
Mang.Qu	ROA	Correlation	1.000	.128	.124
		Significance (2-tailed)		.026	.030
		df	0	303	303
	ROE	Correlation	.128	1.000	.114
		Significance (2-tailed)	.026		.046
		df	303	0	303
	NIM	Correlation	.124	.114	1.000
		Significance (2-tailed)	.030	.046	
		df	303	303	0

Table 10. Management quality as a control variable (continued)

Control variables		ROA	ROE	NIM
Soc.CSR	Correlation	-.082	.069	-.073
	Significance (2-tailed)	.154	.231	.201
	df	303	303	303
Emp.CSR	Correlation	.023	.119	-.068
	Significance (2-tailed)	.684	.038	.237
	df	303	303	303
Com.CSR	Correlation	-.034	.124	-.067
	Significance (2-tailed)	.557	.030	.241
	df	303	303	303
Cus.CSR	Correlation	.082	.199	.257
	Significance (2-tailed)	.155	.000	.000
	df	303	303	303
CSR	Correlation	.044	.196	.119
	Significance (2-tailed)	.446	.001	.037
	df	303	303	303

Employee CSR has positive significant relationship with ROE by 0.119 at a significant level 0.038. Community CSR has a positive significant relationship with ROE by 0.124 at significant level 0.030. Customer CSR has positive significant relationship with ROE and NIM by 0.199 and 0.257 and at significant level 0.000. CSR scoring has a positive significant relationship with ROE and net interest margin by 0.0196 and 0.119 and at significant level 0.001 and 0.037.

Table 11. Earning quality as a control variable

Control variables			ROA	ROE	NIM
Earn.Qu	ROA	Correlation	1.000	.122	.107
		Significance (2-tailed)		.033	.061
		df	0	303	303
	ROE	Correlation	.122	1.000	.087
		Significance (2-tailed)	.033		.128
		df	303	0	303
	NIM	Correlation	.107	.087	1.000
		Significance (2-tailed)	.061	.128	
		df	303	303	0
	Soc.CSR	Correlation	-.102	.042	-.059
		Significance (2-tailed)	.074	.464	.304
		df	303	303	303
	Emp.CSR	Correlation	-.002	.083	-.067
		Significance (2-tailed)	.977	.148	.245
		df	303	303	303
	Com.CSR	Correlation	-.052	.091	-.089
		Significance (2-tailed)	.369	.112	.120
		df	303	303	303
	Cus.CSR	Correlation	.062	.167	.249
		Significance (2-tailed)	.278	.003	.000
		df	303	303	303
	CSR	Correlation	.018	.155	.111
		Significance (2-tailed)	.756	.007	.054
		df	303	303	303

Customer CSR has positive significant relationship with ROE and net interest margin by 0.167 and 0.249 at significant level 0.003 and 0.000 respectively.

Table 12. Assets as a size as a control variable

Control variables			ROA	ROE	NIM
Assets	ROA	Correlation	1.000	.133	.117
		Significance (2-tailed)		.020	.042
		df	0	303	303
	ROE	Correlation	.133	1.000	.105
		Significance (2-tailed)	.020		.067
		df	303	0	303
	NIM	Correlation	.117	.105	1.000
		Significance (2-tailed)	.042	.067	
		df	303	303	0
	Soc.CSR	Correlation	-.104	.046	-.104
		Significance (2-tailed)	.069	.428	.070
		df	303	303	303
	Emp.CSR	Correlation	.011	.103	-.112
		Significance (2-tailed)	.855	.072	.051
		df	303	303	303
	Com.CSR	Correlation	-.041	.127	-.144
		Significance (2-tailed)	.477	.027	.012
		df	303	303	303
	Cus.CSR	Correlation	.079	.193	.241
		Significance (2-tailed)	.171	.001	.000
		df	303	303	303
	CSR	Correlation	.038	.197	.087
		Significance (2-tailed)	.508	.001	.130
		df	303	303	303

CSR community has a positive significant relationship with ROE by 0.127 and at significant level 0.027 & a negative significant relationship with NIM by -0.144 and at significant level 0.012. CSR customer has a positive relationship with ROE & NIM by 0.193 and 0.241 and at significant level 0.001 and 0.000 respectively. CSR scoring has a positive significant relationship with ROE by 0.197 and at significant level 0.001.

5.2 Regression analysis

Three dependent variables are ROA, ROE and NIM. The model that fulfils the criteria for the best model would be chosen, according to the significance level, R^2 and Mean Sum of Errors. None of the CSR score showed to have any relation to explain the change in ROA. The model has 0.876 as the coefficient of determination, meaning that 87.6% of the data is explained by the model, whereas a more reliable measure of the adjusted coefficient of determination, it shows that the model can explain 76.8% of the data. R^2

Table 13. Model summary

Model	R	Variables entered	Method	R^2	Adjusted R^2	Std. Error of the Estimate
1	.863[a]	Cap.Ad	Stepwise	.744	.743	.030916239
2	.872[b]	Ass.Qu2	Stepwise	.760	.758	.030009315
3	.876[c]	Assets	Stepwise	.768	.765	.029561693

Table 14. Coefficients

Model		Un-standardized coefficients		Standardized coefficients	t	Sig.
		B	Std. error	Beta		
1	(Constant)	-.009	.002		-4.431	.000
	Cap.Ad	.170	.006	.863	29.734	.000
2	(Constant)	-.003	.002		-1.464	.144
	Cap.Ad	.168	.006	.852	30.151	.000
	Ass.Qu2	-.727	.164	-.125	-4.433	.000
3	(Constant)	-.048	.014		-3.395	.001
	Cap.Ad	.170	.006	.862	30.774	.000
	Ass.Qu2	-.717	.162	-.124	-4.442	.000
	Assets	.011	.003	.089	3.201	.002

Also, the model has the significance level less than 1% that means it is a good model. Also the model shows to have low standard of error that is 0.02956%. CSR scoring is not exiting this means that CSR scoring or any of its angles has no role to explain the change in ROA. The author can construct the multiple linear regression equation as follows:

$$\hat{Y} = -.048 + 0.170X_1 - .717X_2 + 0.011X_3 \quad (6)$$

Where $\hat{Y}$ – the dependent variable Returns on Assets (ROA);

X_1 – the control variable, Capital Adequacy (Cap.ad);

X_2 – the control variable, Asset Quality (Ass.Qu2);

X_3 – the control variable, Total Assets.

5.2.1 Return on Equity (ROE) as dependent variable

Determination, it shows that the model can explain 76.8% of the data. R^2

Table 15. Model summary

Model	R	Variables entered	Method	R^2	Adjusted R^2	Std. error of the estimate
1	.455[a]	Ass.Q1	Stepwise	.207	.204	.314110783
3	.469[c]	Cust. CSR	Stepwise	.220	.215	.312043754

Both Asset quality_1 and CSR customer explaining the change in return in equity the coefficient of determination of the model is 0.469 or 46.9% as shown in the below which is lower than the model used previously of 87.6%. The adjusted coefficient of determination was 0.220, which is also lower than the previous model using ROA of 0.768 meaning that this model succeeds in explaining only 22 % of the data change. However, the standard error of the Estimate is rather high as it is .312%.

The coefficients that are concluded in the test are shown in the below table whereas, it shows that there is a constant figure of .157.

Table 16. Coefficients

Model		Un-standardized coefficients		Standardized coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.157	.021		7.603	.000
	Ass.Qu1	-5.045	.567	-.455	-8.900	.000
2	(Constant)	.111	.029		3.801	.000
	Ass.Qu1	-4.824	.572	-.435	-8.440	.000
	Cus.CSR	.009	.004	.116	2.245	.025

The coefficient explains that with every increase of asset quality_1, the Return on equity decreases by 4.824%. Through knowing the coefficients of the variables, the author is able construct the multiple linear regression equation, which is as follows:

$$\hat{Y} = 0.111 - 4.824X_1 + 0.009X_2 \quad (7)$$

Where $\hat{Y}$ – the dependent variable Returns on Equity (ROE);

X_1 – the control variable, asset quality_1;

X_2 – independent variable Customer CSR.

5.2.2 Net Interest Margin (NIM) as dependent variable

Table 17. Model summary

Model	R	Variable entered	Method	R^2	Adjusted R^2	Std. error of the estimate
1	.264[a]	Cus.CSR	Stepwise	.070	.066	.032839127
2	.363[b]	CSR	Stepwise	.132	.126	.031772477
3	.400[c]	Assets	Stepwise	.160	.152	.031301004
4	.421[d]	Ass.Qu3	Stepwise	.177	.166	.031033087
5	.437[e]	Mang.Qu	Stepwise	.191	.177	.030831159

CSR Customer and scoring explain the change in NIM. The coefficient of determination of the model is 40.0% is lower than the model used previously of 46.9%. The adjusted coefficient of determination was 0.191, which is also lower than the previous model using ROA of 0.220 meaning that this model succeeds in explaining only 19 % of the data change.

The standard error of the Estimate is as it is .0308%. The model is of high significance as the Significance figure is 0.000. The coefficients that are concluded in the test are shown in the below table.

Table 18. Coefficients

Model		Un-standardized coefficients		Standardized coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.023	.003		8.601	.000
	Cus.CSR	.002	.000	.264	4.767	.000
2	(Constant)	.030	.003		10.033	.000
	Cus.CSR	.006	.001	.789	6.327	.000
	CSR	-.003	.001	-.582	-4.664	.000
3	(Constant)	-.022	.017		-1.306	.192
	Cus.CSR	.007	.001	.917	7.096	.000
	CSR	-.004	.001	-.798	-5.688	.000
	Assets	.014	.004	.204	3.193	.002
4	(Constant)	-.020	.016		-1.203	.230
	Cus.CSR	.007	.001	.900	7.017	.000
	CSR	-.004	.001	-.810	-5.814	.000
	Assets	.014	.004	.212	3.347	.001
	Ass.Qu3	-.028	.011	-.133	-2.497	.013
5	(Constant)	-.010	.017		-.591	.555
	Cus.CSR	.007	.001	.908	7.123	.000
	CSR	-.004	.001	-.832	-5.999	.000
	Assets	.013	.004	.198	3.127	.002
	Ass.Qu3	-.034	.011	-.161	-2.966	.003
	Mang.Qu	-.007	.003	-.121	-2.226	.027

The coefficient explains that with every increase of CSR customer by 0.007, NIM will increases by 0.007% and the decrease in CSR scoring by -0.004 the NIM will decrease by - 0.004, the author is able construct the multiple linear regression equation, which is as follows:

$$\hat{Y} = 0.010 + 0.007X_1 - 0.007X_2 \quad (8)$$

Where $\hat{Y}$ – the dependent variable Net Interest Margin (NIM);
X_1 – **i**ndependent variable Customer scoring;
X_2 – independent variable CSR scoring.

Does there is an impact of the bank identity (Local, International or Islamic) in CSR practicing in Egypt?

The author divided the sample into local and International and Islamic banks to figure out if the identity of the bank has any impact to practice social responsibility.

- Group (a) includes local commercial banks (23 banks);
- Group (b) includes international (7 banks);
- Group (c) includes Islamic banks (4 banks).

The analysis on local commercial banks

Correlation of coefficient

Results showed no significant relationship between CSR and ROA, ROE and NIM.

Partial correlation by using control variables

No relationship between CSR and ROA, ROE and NIM we used any of the control variables.

5.2.3 Return on Asset as dependent variable (ROA)

Table 19. Model summary

Model	R	Variables entered	Method	R^2	Adjusted R^2	Std. error of the estimate
1	.611[b]	Ass.Qu2	Stepwise	.373	.343	.010191115

Only asset quality_2 managed to explain the change in ROA by 61.1%. The model showed significant at 0,003.

Table 20. Coefficients

Model	Un-standardized coefficients		Standardized coefficients	t	Sig.
	B	Std. error	Beta		
1 (Constant)	.015	.003		4.957	.000
Ass.Qu2	-1.070	.303	-.611	-3.533	.002

5.2.4 Return on equity as dependent variable (ROE)

Table 21. Model summary

Model	R	Variables entered	Method	R^2	Adjusted R^2	Std. error of the estimate
1	0.881 [b]	Ass.QuI	Stepwise	0.777	.0.766	0.090105728
2	0.907 [c]	Mang. Q2	Stepwise	0.822	0.804	0.082451731

Only asset quality_1 and management quality explain the change in ROE by 90.7%. at significant level of 0.036.

Table 22. Coefficients

Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.181	.024		7.624	.000
	Ass.Qu1	-6.677	.781	-.881	-8.547	.000
2	(Constant)	.259	.041		6.351	.000
	Ass.Qu1	-7.084	.737	-.935	-9.608	.000
	Mang.Qu	-.119	.053	-.219	-2.254	.036

The analysis on international and Islamic banks

Correlation of coefficient

No significant relationship between CSR and ROA, ROE and NIM.

Partial Correlation by using control variables

Capital adequacy as a control variable

Employee CSR has a positive significant relation with return on asset by 0.696 and at significant level 0.025.

Asset quality_1 as a control variable

Results showed that there is no relationship between CSR and ROA, ROE and NIM.

Assets as a control variable

Employee CSR has a positive significant relation with return on equity by 0.935 and at significant level 0.000.

Other control variables

Results showed that there is no relationship between CSR and ROA, ROE and NIM.

5.2.5 Return on Assets as a dependent variable (ROA)

Only capital adequacy and management quality explain the change in ROA.

Table 23. Model summary

Model	R	Variables entered	Method	R^2	Adjusted R^2	Std. error of the estimate
1	.988[b]	Cap.ad	Stepwise	.976	.974	.013646710
2	.994[c]	Ass.Qu2	Stepwise	.989	.986	.009879440

Table 24. Coefficients

Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. error	Beta		
1	(Constant)	-.002	.005		-.424	.681
	Cap.ad	.165	.009	.988	19.307	.000
2	(Constant)	.008	.005		1.722	.123
	Cap.ad	.159	.006	.955	24.698	.000
	Ass.Qu2	-1.268	.419	-.117	-3.029	.016

5.2.6 Return on Equity as a dependent variable (ROE)

Only asset quality_1 managed to explain the change in ROE.

Table 25. Model summary

Model	R	Variables entered	Method	R^2	Adjusted R^2	Std. error of the estimate
1	.748[b]	Ass.QuI	Stepwise	.559	.510	.145731938

Table 26. Coefficients

Model		Un-standardized coefficients		Standardized coefficients	t	Sig.
		B	Std. error	Beta		
1	(Constant)	.232	.062		3.765	.004
	Ass.QuI	-8.792	2.603	-.748	-3.378	.008

6 Key aim and findings

6.1 Conclusion

Three models were constructed and tested to conclude the relationship between the CSR and the FP of the banks by using data points during the period 2005 to 2013. The first model assured that there is no relationship between Employee, Customer, community and social CSR or CSR scoring and the ROA, ROE and NIM. The second model assured that Customer CSR has a positive significant relationship with the ROE. The third model assured that Customer CSR and CSR scoring has a positive significant relationship with NIM.

In that sense we can reject the null hypothesis and accept the alterative that "There a partially relation between Corporate Social Responsibility and the Financial Performance in the commercial banking industry in Egypt is positive"

The relationship is neutral when it is looked at from the ROA measure. The banks' Corporate Social Responsibility did not have any impact on the financial performance of the banks. However, the relationship was positive when the financial performance perspective was looked from the estimated returns to the shareholders - Return on Equity - or Net Interest Margin; it implies that banks' corporate social responsibility practices not act as costs to shareholders as they do not reduce the returns.

Whether the relationship is positive or neutral, the coefficient for both models are rather small as well as the model that resulted in Neutral relationship had lower standard of error which indicates that it is a better model compared to the model using ROE and NIM as the dependent variable. Thus, the relationship between CSR and ROA, ROE and NIM is Neutral. The findings' results are consistent with Hsiang-Lin Chih, Hsiang-Hsuan Chih, and Tzu-Yin Chen; Maria-Gaia Soana;and Marcia Millon Cornett, Otgontsetseg Erhemjamts, and Hassan Tehranian.

Also we will accept that the alternative hypothesis states that" the independent variables affect the dependent variable, jointly). The findings that the author has concluded with identified that relationship between those two variables is neutral or positive depending on which perspective of financial performance measure it is looked at. The Bank social performance does not contribute too much to the banks' financial performance.

6.2 Further research suggestions

Since there are different methodologies used in measuring the CSR, different sample size and study period. It opens pathways to further studies to use different methodologies and indexes to conclude the actual relationship between CSR and financial performance. Similarly, further studies could classify the relationship of CSR and Financial performance to the different kinds of banks, as in Commercial banks, Retailing banks, Islamic banks, and so on.

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Appendix A. Assessing environment and social conduct (E&S) of Egyptian companies

Table A.1. Assessing environment and social conduct (E&S) of Egyptian companies

Environment
Environmental Pollution
Disclosure of:
1. Emissions of greenhouse gases.
2. Emissions of ozone-depleting substances.
3. NOx, SOx and other emissions.
4. Physical or regulatory risks associated with climate change.
5. Policy on management of emissions or regulatory risks associated with climate change
Extra Point Question
Disclosure of:
1. Defined targets relating to emission.
2. A committed carbon credit program.
Natural Resources Use
Disclosure of:
1. Energy consumption broken down by primary energy source.
2. Use of renewable resources of energy.
3. Total energy saved due to conservation and efficiency improvements.
4. Initiatives to reduce energy consumption or energy audit.
5. Defined targets relating to energy conservation.
6. Type of raw materials used.
7. Percentage of materials used that are recycled.
8. Initiatives to improve efficiency of material usage.
9. Policies/Initiatives for management of water use.
10. Total water used.
11. Total water used by source.
12. Policy/initiatives taken for management of hazardous waste.
13. Policy for management of (waste) water discharged.
Extra Point Question
Disclosure of:
1. Production of energy efficient products (e.g. solar panels).
Social
Management Policy and Performance Indicators
Disclosure of:
1. Information relating to product life cycle.
2. Incidents of, and fines or non-monetary sanctions for, non-compliance with applicable environmental regulations.
3. Environmental impact of type of transportation used for logistical purposes.
4. Explicit environmental policy.
5. Efforts to preserve biodiversity (e.g. plantation of tree).
6. Management system/certification regarding environmental practices (that is status on ISO 14001 certification).
7. Policy on disaster management.
Extra Point Question
Disclosure of:
1. EMS in all location/ facilities and 100 % ISO 14001 certification.
Employees
Employee Relations/Job Creation
Disclosure of:
1. Programs for career development.
2. Initiatives to involve employees in decision making (including intra-management level communication etc.).
3. Information on policy/rules relating to non-financial benefits to employees (including housing etc.).
4. Information on policy/rules relating to healthcare.
5. Policy/Rules relating to employee separation and lay off.
6. Policy/Rules for profit sharing (stock options etc.) with lower management/employees
Labour Rights
Disclosure of:
1. Management system/certification regarding employment and labour practices (that is status on SA 8000 certification).

Table A.1. Assessing environment and social conduct (E&S) of Egyptian companies (continued)

2. Policy on code of conduct for protecting human rights.
3. Initiatives to enforce the above policy.
4. Number of strikes/ lockouts and the number of employees involved.
Extra Point Question
Disclosure of:
1. SA 8000 certification at all locations/facilities.
2. Reference to ILO core convention in code of conduct.
3. Code of conduct applies to supply chain as well.
Employee Health & Safety (H&S)
Disclosure of:
1. Explicit health and safety policy.
2. Incidents of work related injury/ accidents.
3. Initiatives on employee health and safety.
4. Dissemination of health based knowledge and training including awareness about HIV/AIDS
5. Management system/certification regarding health and safety practices (that is status on OHSAS 18000 certification).
Extra Point Question
Disclosure of:
1. OHSAS 18000 certification at all locations/facilities.
Equal Opportunity
Disclosure of:
1. Explicit statement about equal opportunity employer (gender, caste, religion, etc.)
2. The gender breakdown of total workforce.
3. Number of employees by ethnicity or caste (whatever applicable).
4. Initiatives for promoting employment of women and/or disabled people.
5. Policy on discrimination in employment/treatment of employees affected with HIV aids
6. Policy/Rules to address incidence of sexual harassment and recourse.
Extra Point Question
Disclosure of:
1. The Board of Directors has an independent women director.
Union Relations
Disclosure of:
1. Number or percentage of employees that are unionized.
Community
Human Rights
Disclosure of:
1. Policy or code of conduct on addressing human rights (e.g. child labor, forced labor, bonded labor, etc.).
Community Investment
Disclosure of:
1. Explicit policy/statement regarding community investment.
2. Initiatives on community awareness or education.
3. Company participation in public-private initiatives for community development.
4. Description/Amount of total contributions/donations to charitable initiatives (health, education etc).
Customers/Product
Product Safety
Disclosure of:
1. Policy/procedures on recall of product.
Anti-trust
Disclosure of:
1. Policies covering fair practices and monopolistic practices.
Customer Outreach and Product Quality
Disclosure of:
1. Annual expenditure incurred on customer awareness initiatives.
2. Number of customer satisfaction surveys conducted in a year.
3. Mechanism for redressing grievances and feedback from customer.
4. Policy/procedures for protection of customer confidentiality/privacy.
5. Procedures and programs for adherence to laws, standards, and voluntary codes related to marketing communications including advertising, promotion and sponsorship.
6. Policy/procedures on customer education regarding product/service provided.
7. Management system/certification regarding product quality (status on ISO 9000/Six sigma).

Appendix B. Questionnaire

1. Does the company explicitly mention the safety and welfare policy/benefits of its employees?
2. Does the company provide a provident fund for its employees?
3. Does the company explicitly mention professional development training programs for its employees?
4. Does the company explicitly mention the role of customers?
5. Does the company explicitly mention environmental issues in its public communications?
6. Does the company explicitly mention the role of suppliers/business partners?
7. Does the company explicitly mention its obligations to shareholders?
8. Does the company explicitly mention its broader obligations to society and/or the community?
9. Does the company explicitly mention its obligations to creditors?

Appendix C. Data analysis

Table C.1. Descriptive statistics

	N	Range	Minimum	Maximum	Mean	Std. deviation
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
ROA	34	.312756	-.024938-	.287818	.01768679	.049883161
ROE	34	1.108939	-.719477-	.389462	.06634647	.190956912
NIM	34	.202481	-.009238-	.193242	.03265448	.032010724
Cap.ad	34	1.729429	.035839	1.765268	.15540265	.288187384
Ass.Qu1	34	.118423	.002934	.121358	.01795365	.022338431
Ass.Qu2	34	.032598	.000761	.033358	.00703028	.007259450
Ass.Qu3	34	.654898	.000830	.655728	.11078061	.147638047
Mang.Qu	34	1.435574	.288600	1.724175	.67593424	.387227802
Earn.Qu	34	3.093947	.154660	3.248607	.89956767	.528171015
Soc.CSR	34	2.000000	.000000	2.000000	.84313726	.475448592
Emp.CSR	34	7.000000	.000000	7.000000	2.31372549	2.017037529
Com.CSR	34	5.000000	.000000	5.000000	1.55882353	1.547232494
Cus.CSR	34	19.000000	.000000	19.000000	4.78104575	4.469749953
CSR	34	33.00	.00	33.00	9.4967	7.15706
Assets	34	2.15	3.29	5.44	4.1513	.49008