The Relationship between CSR and Corporate Financial Performance & Stock Performance: An Applied Study on the Egyptian Stock Market

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Synopsis

The purpose of this research was to study the relationship between Corporate Social Responsibility (CSR) and Corporate Financial Performance (CFP) in terms of return on assets (ROA), return on equity (ROE), return on sales (ROS), and return on invested capital (ROIC). Besides, the research is uniquely studying whether or not a significant relationship exists between organizational CSR activities and SP in terms of market capitalization, market value to book value ratio (MV/BV) and price/earnings ratio (P/E ratio). Further, this research studies whether or not a significant relationship exists between CFP activities and SP.

The study’s population is the listed companies in the Egyptian Stock Exchange. Whereas, the study’s sample is the listed companies in the Egyptian Stock Exchange that constitutes the Egyptian CSR Index (S&P/EGX ESG Index), excluding banks, insurance companies and investment firms due to the different nature of the activity and therefore the financial statements items.

The study was conducted during the period from the beginning of 2007 until the end of 2014. The study’s secondary data (i.e. stock prices, financial reports and CSR index) are gathered from Egypt for the Dissemination of Information Company (egID) and The Egyptian Institute of Directors (EIoD).

The study used Structural Equation Modeling (SEM) in testing hypotheses which enables to specify, estimate, assess and present models to show hypothesized relationships among variables, build models more
accurately than with standard multivariate statistics techniques, and allow building attitudinal and behavioral models that reflect complex relationships.

The results demonstrated a positive relationship between CSR and their corresponding CFP in terms of ROA, ROE, ROS, and ROIC. Moreover, a positive relationship between CSR activities and their corresponding SP in terms of market capitalization, market value to book value ratio (MV/BV), and price/earnings ratio (P/E ratio). Besides, there is a positive relationship between CFP, as a latent variable, and their corresponding SP. The results also demonstrated that there was an association with CSR and CFP but not a directional causal relationship. In addition, more CSR activity did not necessarily result in greater profits; however, more CSR is not associated with fewer profits.

The implications of these findings can add to the practice of incorporating CSR into corporate strategy to improve firm profitability as well as to contribute to gains for societies and communities, especially in developing countries. The findings will not only add credibility to the existing literature but also provide evidence based management research in the current investments environment.

**Key Words:** Corporate Social Performance, Corporate Financial Performance, Stock Performance.
العلاقة بين المسؤولية الاجتماعية للشركات وكل من الأداء المالي للشركات وأداء الأسهم
دراسة تطبيقية على الشركات المقيدة البورصة المصرية

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الملخص:
هدفت الدراسة الحالية إلى بحث العلاقة بين المسؤولية الاجتماعية للشركات (CSR) والأداء المالي للشركات (ROA)، والعائد (ROE) على حقوق المساهمين (ROE)، والعائد على المبيعات (ROS)، والعائد على رأس المال المستثمر (ROIC). إلى جانب ذلك، وتتفرد الدراسة الحالية ببحث وجود علاقة بين المسؤولية الاجتماعية للشركات وأداء الأسهم (SP) معبرا عنه في عوائد المال السوقى (Market Capitalization)، ومضاعف الربحية (P/E ratio)، عادل على ذلك، دراسة ما إذا كانت هناك علاقة معنوية تربط بين الأداء المالي للشركات وأداء الأسهم.

وفيما يتعلق مجتمع الدراسة في الشركات المقيدة في البورصة المصرية، كما تمثلت عينة الدراسة في الشركات المقيدة ببورصة الأوراق المالية بمصر المكونة لمؤشر المسؤولية الاجتماعية للشركات (S&P/EGX ESG Index)، مع استبعاد البنوك وشركات التأمين وشركات الاستثمار نظرًا لطبيعتها الخاصة واختلاف طبيعة النشاط، وبالتالي بنود القوائم المالية.
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The study was conducted during the period from the beginning of 2002 to the end of 2002. The study relied on secondary data collected from the EGID (Egyptian Center for Corporate Governance) and EIoD (Egyptian Institute of Directors) databases. Structural Equation Modeling (SEM) was used to test the study's hypotheses, where the structural equation model allows expressing multiple derived relationships between the company's financial performance and share performance in a single latent variable. The study showed a positive meaningful relationship between corporate social responsibility and the company's financial performance, expressed as return on assets, return on shareholders' equity, and return on invested capital. In addition, there was a positive meaningful relationship between corporate social responsibility and share performance, in addition to the fact that more spending on corporate social responsibility does not necessarily lead to achieving similar increases in profits. However, it did not lead to an increase in profits.

Keywords: Corporate Social Responsibility, Financial Performance, Share Performance.
1. Introduction

Deutsch and Pintér (2016) described corporate social responsibility (hereinafter: CSR) as corporate actions that are not required by law and support the societal good beyond the interests of the organization. CSR can be viewed as an expensive investment; however, long-term results can provide a greater degree of financial performance and sustainability as a result of solidifying and building a strong foundation within a community to support the structure of an organization to ensure a high intrinsic value of the organization (Husted & Allen, 2007).

As a means of sustaining and growing competitive advantage in businesses, to obtain greater levels of Corporate Financial Performance (hereinafter: CFP) and stock performance (hereinafter: SP), the pressure to practice CSR and incorporate it into marketing strategies has gained momentum and continues to gain attention (Cheah et al., 2007). Much research has been conducted on the topic of CSR demonstrating a positive relationship with financial performance. On the other hand, there is also much research demonstrating a negative or nonexistent relationship.

The problem is that many leaders of organizations and stakeholders or investors view CSR as an expensive obligation that does not necessarily contribute to the profits of the organization (Husted & Allen, 2007).

The management dilemma with which executive leaders are confronted is the true value of CSR, at what level to invest in CSR activities and whether CSR activities will contribute to organizational financial strength and competitive advantage that corresponds to greater shareholder value. As noted earlier, McWilliams and Siegel (2001) described CSR as corporate actions that are not required by law and support the societal good beyond the interests of the organization. Deutsch and Pintér (2016) definition is consistent with elder definitions by Ruževičius (2011). According to Ruževičius (2011), it is important that a company’s long-term strategy balances the needs of all stakeholders, including society, the community, and employees of the company inclusive of the entire supply chain used for such a company. Ruževičius (2011) elaborated on the fact that the balance of a company’s needs and the needs of society can be guaranteed and solidified as a result of various good practices inclusive of ideas and volunteer standards or systems that are grounded on the concept of CSR.
Nowadays, many corporations belong to the banking, telecommunications, real estate, oil and gas, and food sectors are active in adopting the CSR concept. These corporations communicated CSR activities via a wide range of media outlets. They possessed the necessary resources and the economic capability that allowed them not only to abide CSR-related laws, but as well to go beyond these laws voluntarily.

Egypt’s experience includes samples of the CSR contributing to community development. Before the 1952 Revolution, Egyptians’ facilities of education and healthcare were established through corporate giving - El-Awkaf. These SCR development activities were at a standstill shortly thereafter, alongside the succeeding nationalization of Egypt's huge enterprises (Hassan, 2010). Afterward, the insignificant companies of private sector were incapable to compete with charitable works. As a result, the state undertakes responsibility for CSR and economic development. Consequently, the private sectors corporations’ role to develop community during the past decades has fluctuated significantly (Saleh, 2010). It was reformed according to political alterations — sometimes it acted as a catalyst and at others, it was a barrier to many charitable activities (Naser et al., 2006).

CSR in Egypt is still viewed as a non-institutionalized activity and is assumed primarily as a philanthropic concept (El Ghoul, 2010). Egyptian corporations operate in an environment where CSR compliance is mostly voluntary and many lack the necessary consistency and seriousness of purpose in their CSR activities. In Egypt there are the usual public relations and marketing campaigns rather than well-conceived plans aimed at continuing societal development and sustainable economic development (El Sayed, et al., 2006).

On the other hand, Regarding worldwide CSR activities, Muller and Whiteman (2009) reported that there are several studies that found about half of the Global Fortune 500 firms contributed cash, services, and goods valued at US$580 million to the Tsunami relief efforts (Muller & Whiteman, 2009), and that 79 US firms had a mean donation of US$934 million to Tsunami relief (Patten, 2008). Patten (2008) also found that there was a positive response on behalf of the US financial market as a result of the corporate philanthropic contributions made to the Katrina efforts.
2. **Statement of the Problem**

The problem of this research was to study the relationship between Corporate Social Responsibility (CSR) and Corporate Financial Performance (CFP) in terms of return on assets (ROA), return on equity (ROE), return on sales (ROS), and return on invested capital (ROIC). Besides, studying whether or not a significant relationship exists between organizational CSR activities and SP in terms of market capitalization, market value to book value ratio (MV/BV) and price/earnings ratio (P/E ratio). Further, studying of whether or not a significant relationship exists between CFP and SP.

The findings will contribute to the body of knowledge in which leaders and investors have objective measurable data to apply to business strategies that can provide a confidence level of impact on organizational CFP (Husted & Allen, 2007) and SP.

3. **Research Question**

1. What is the relationship between organizations that engage in Corporate Social Responsibility (CSR) activities and the corresponding Corporate Financial Performance (CFP)?

   This question is broken out into the following sub-question:-

   - What is the relationship between organizations that engage in CSR activities and the corresponding organizational return on assets (ROA)?
   - What is the relationship between organizations that engage in CSR activities and the corresponding organizational return on equity (ROE)?
   - What is the relationship between organizations that engage in CSR activities and the corresponding organizational return on sales (ROS)?
   - What is the relationship between organizations that engage in CSR activities and the corresponding organizational Return on Invested Capital (ROIC)?

2. What is the relationship between organizations that engage in CSR activities and the corresponding Stock Performance (SP)?
This question is broken out into the following sub-question:-

- What is the relationship between organizations that engage in CSR activities and the corresponding market capitalization (MC)?
- What is the relationship between organizations that engage in CSR activities and the corresponding market value to book value ratio (MV/BV)?
- What is the relationship between organizations that engage in CSR activities and the corresponding organizational price/earnings ratio (P/E ratio)?

3. What is the relationship between CFP and the corresponding SP?
   This question is broken out into the following sub-question:-
   - What is the relationship between CFP and the corresponding market capitalization (MC)?
   - What is the relationship between CFP and the corresponding market value to book value ratio (MV/BV)?
   - What is the relationship between CFP and the corresponding price/earnings ratio (P/E ratio)?

4. Research Objectives
1. Studying the relationship between organizations that engage in Corporate Social Responsibility (CSR) activities and the corresponding Corporate Social Performance (CFP)

   This Objective is broken out into the following sub-Objectives:-
   - Studying the relationship between organizations that engage in CSR activities and the corresponding organizational ROA
   - Studying the relationship between organizations that engage in CSR activities and the corresponding organizational ROE
   - Studying the relationship between organizations that engage in CSR activities and the corresponding organizational ROS
• Studying the relationship between organizations that engage in CSR activities and the corresponding organizational ROIC

2. What is the relationship between organizations that engage in CSR activities and the corresponding Stock Performance (SP)

This Objective is broken out into the following sub-Objectives:-

• Studying the relationship between organizations that engage in CSR activities and the corresponding market capitalization (MC)
• Studying the relationship between organizations that engage in CSR activities and the corresponding MV/BV
• Studying the relationship between organizations that engage in CSR activities and the corresponding organizational P/E ratio

3. Studying the relationship between CFP and the corresponding SP

This Objective is broken out into the following sub-Objectives:-

• Studying the relationship between Corporate Financial Performance (CFP) and the corresponding market capitalization (MC)
• Studying the relationship between Corporate Financial Performance (CFP) and the corresponding market value to book value ratio (MV/BV)
• Studying the relationship between Corporate Financial Performance (CFP) and the corresponding price/earnings ratio (P/E ratio)

5. Significance of the Study

This study answers the question about the significance of a relationship, or lack thereof, between organizations engaging in CSR and their corresponding CFP & SP. As a result of collecting data that support a relationship, or lack thereof, the expectation and an assumption is that organizations invest in areas to obtain the greatest level of returns to obtain higher levels of financial performance. CSR may help organizations become more profitable, achieve a stronger competitive position, and also
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influence to where investments are made to achieve greater financial performance. The significance of these findings contribute to the identification of organizations recognized as engaging in CSR and potentially influence greater attention and focus on such investments for the better good of organizations, society, and communities. A significant element involves understanding the significance of a relationship, as Schreck (2011) found; extensive expenditure associated with social and environmental product features did not produce positive financial benefits. This study contributes to the body of knowledge for evidence based management and making business decisions based on research. It can increase awareness associated with the relationship between CSR activities and CFP & SP.

Although the relationship between CSP and CFP has become a hot topic of the Western management community after several decades of arguments, there is still little empirical literature about the relationship between Egyptian companies’ CSR and CFP.

In addition, the research is uniquely studying whether or not a significant relationship exists between organizational CSR activities and SP in terms of market capitalization, market value to book value ratio (MV/BV) and price/earnings ratio (P/E ratio) as no other studies either local or international have done.

The research provides valuable information and awareness regarding how leaders, investors, and society may protect and invest in resources for future business growth and generations through practicing socially responsible behavior while improving leaders and societal perceptions on whether or not CSR has a positive relationship with organizational CFP (Barnett & Salomon, 2006) and SP. It is important to recognize, according to Vogt (2007), that statistical significance does not always translate into significant practical application.

6. Literature Review

CSR and financial performance are two organizational factors that are widely discussed and studied with no definitive answers, which is possibly a result of differing definitions in existence, interpretations, databases, and applications of such CSR practices. Over the past several decades, debates have continued over CSR and the associated impact on organizational CFP (Geva, 2008). This discussion has resulted in a large body of literature supported by numerous and varying philosophical views,
despite the relevant differences between theoretical assumptions surrounding the fundamental idea that organizations have an obligation to work for social betterment (Geva, 2008).

For the purposes of this study a literature review was conducted, yet not an exhaustive review, to set the basis for establishing the CSR phenomenon and the management dilemma being studied. The review addresses independent and dependent variables separately and jointly as well as many of the studies that are either quantitatively focused or qualitatively focused with a limited review of mixed methods approaches.

Yusoff et al. (2016) investigated the relationship between CSR activities and CFP of Malaysian Public listed companies. This study relied on secondary data obtained through content analysis of published companies annual reports for the year 2009:2013. Based on purposive sampling method, this study covered the assessment of the top hundred companies in Malaysia whose names and shares were quoted in Malaysia stock exchange. Yusoff et al. (2016) discovered that most of the relationship between four CSR activities (environmental, community, marketplace and workplace) with CFP (ROA and ROE) were positive. It can be concluded that Malaysian top 100 companies that actively involved in four activities are able to enhance their financial performance. It is imply that sound financial management can effectively be achieved through appropriate CSR practice that leads to a considerable economic development. Companies’ performance would be improved by adopting this appropriate recommendation for enhancing good CSR practice.

In Egypt, Kamel (2014) focused in making a proposed framework contributes to improving CSR financial reporting quality and maximizing the firm value. The researcher found that commitment to CSR contributes to improving the financial performance of firms. The most firms committed to social responsibility provide high quality financial information compared to other firms. CSR disclosure does not affect the firm value in the Egyptian environment. Also, the field study demonstrated that; the components of the proposed framework contribute to enhancing firms to commit to social responsibility. The proposed framework contributes to improving the comparability as one of the characteristics of the quality of financial reporting, also the indicators included in the framework contributes to improving the relevancy of the financial reporting. The proposed framework contributes to maximizing the firm value by
improving the level of reliability on the information of CSR, also the social responsibility disclosure contributes to reducing the cost of capital. Finally, the guarantees included in the proposed framework – external auditing and parallel reports- contribute to achieving the quality of social responsibility disclosure.

In USA, Griffin (2016) extends earlier research concerning the relationship between CSR and CFP, with particular emphasis on methodological inconsistencies. The results indicate that there is a direct positive relationship between CSR and CFP. While, Gregory and Whittaker (2012) tested how investors value CSP based upon realized stock market returns. The study concluded that researchers who are interested in the question of whether engagement with a CSR agenda is a value-enhancing activity for a company (as argued by some stakeholder theorists) or value destructive (as argued by Friedman: “The social responsibility of business is to increase its profits.”, The New York Times Magazine, 1970), need to look beyond returns-based tests to answer the research question posed. Besides, Godfrey et al. (2011) studied to search whether shareholders gain when managers disperse corporate resources through activities classified as CSR. The study used 178 negative legal/regulatory actions against firms throughout the 11 years from 1993–2003. The paper found that participation in institutional CSR activities -those aimed at a firm's secondary stakeholders or society at large- provides an ‘insurance-like’ benefit. Defining CSR and reformulating CSR model to build a framework for business and society research, Wood (2016) framed CSR at institutional, organizational, and individual levels; processes of social responsiveness are shown to be environmental assessment, and stakeholder management; and outcomes of CSR are posed as social impacts, programs, and policies.

Eshan and Kaleem (2012) aimed to explore the nature of relationship between CSR and CFP in the context of Pakistan. Panel data of one hundred non-financial firms for the period of 2006:2009 has been collected from manufacturing sector. These firms are listed at Karachi Stock Exchange and their data has been collected from their annual reports. Results revealed that the nature of relationship between CSR and CFP is positive in case of Pakistani manufacturing firms.

Setiawan and Darmawan (2011) investigated the CSR and CFP as well as the relationship between the two variables. The CSR and CFP are calculated from the annual (sustainable) report of firms listed in the Indonesian Stock
Exchange Market. The results show that the CSR activities conducted by firms are still relatively low. Furthermore, the panel data estimation suggests that CSR has the **positive** effect on the CFP. The results also indicate that the financial crisis in 2008 reduced the positive effect of the CSR on the CFP.

Whether CSR has the potential to make positive contributions to the development of society and businesses (in terms of ROE and ROA) in Nigeria, Uadiale and Fagbemi (2011) used a sample of 40 audited financial statements of quoted companies. They found that CSR has a **positive** and significant relationship with the financial performance measures. These results reinforce the accumulating body of empirical support for the **positive** impact of CSR on financial performance.

**In Korea**, Choi et al. (2010) studied the empirical relation between CSR and CFP using a sample of 1222 firm during 2002-2008. The paper measures CSR by both an equal-weighted CSR index and a stakeholder-weighted CSR index suggested by Akpinar, et al. (2008). CFP is measured by return on equity, return on assets, and Tobin’s Q. The study finds a **positive** and significant relationship between CFP and the stakeholder-weighted CSR index, but not the equal-weighted CSR index.

Aiming at investigating the relationship between Chinese companies' CSR and financial performance, Chen and Wang (2011) found that companies' CSR activity can **improve** their CFP of the current year and have significant effects on their financial performances of the next year, and vice versa. The variation of CSR and financial performance can also significantly influence each other. This research integrates the factors of time delay and cause effect with the relationship of CSR and CFP, and then provides theory support for companies taking CSR.

Whether CSR towards primary stakeholders influences the CFP and the non-CFP of Indian firms, Mishra and Suar (2010) used perceptual data on CSR and NFP that were collected from 150 senior-level Indian managers through questionnaire survey. Findings indicate that stock-listed firms show responsible business practices and better CFP than the non-stock-listed firms.

**On the other hand**, Deutsch and Pintér (2016) attempted to review the different methodologies used for the evaluation and measurement of CSR and CFP of banks and to show what kind of relationship can be found between CSR and CFP of banks according to the relevant literature and the
results of an empirical analysis using the sample of seven dominant market players in the Hungarian banking sector between 2006 and 2013. The researcher found that the CSR and CFP have a short term negative effect on the ROA.

Salama et al. (2011) examined the relationship between corporate environmental performance and firm risk in the British context using the largest dataset assembled so far, with community and environmental responsibility (CER) rankings for all rated UK companies between 1994 and 2006. The paper found that a company's environmental performance is inversely related to its systematic financial risk. However, an increase of 1.0 in the CER score is associated with only a 0.028 reduction in its \( \beta \) coefficient.

Crisotomo et al. (2009) examined the relationship between CSR and CFP in an emerging market – Brazil. Content analysis was conducted to extract data from two different sources, one relative to CSR data and another that provided financial data. CSR indexes and financial performance measures were calculated to allow the estimation of regression analysis conducted to examine the relationship between CSR and performance. The results indicate that CSR is value destroying in Brazil since a significant negative correlation between CSR and firm value was found. Additionally, a neutral relationship characterizes the mutual effect between CSR and CFP.

On the contrary to the previous conflicting findings, Brine et al. (2007) found that there is no statistically significant relationship between CSR and stock performance of companies in Australia.

7. Limitations of the Work Reviewed

The majority of the CSR research is either qualitative or quantitative with few mixed methodologies. It is difficult to generalize the results due to the numerous moderating variables that are not consistently acknowledged as well as the inconsistent use of definitions and metrics. In addition, researchers over decades have reported a negative, positive, and a neutral relationship associated with CSP and CFP (McWilliams & Siegel, 2000). However, several studies bring into question the validity, interpretations, and mediating variables associated with many of the findings. Ocler (2009) brought into question validity concerns and Nelling and Webb (2009) presented data using a time series fixed effect approach. These studies demonstrated that results associated with CSR and CFP was weaker than originally presented in earlier research or as believed in earlier times.
Quite a lot of studies were exploratory in nature. As a result, causality or inference associated with relationships between CSP and organizational CFP was not identified or established definitively. Overall, it has been reported that limitations also include concerns about reliability and validity of the CSP and CFP measures, statistical methodology controls, absence of controls, lack of testing for and controlling mediating mechanisms, and sampling problems (Margolis & Walsh, 2003).

In summary, research limitations exist and as a result it is important to minimize such limitations to strengthen the reliability and validity of the research, recognize and acknowledge the limitations, and apply best practices and standards of research.

8. Summary of the Literature Review and Research Gap

Based on the literature reviewed, CSP is clearly a topic for continued research due to the variability in findings despite the numerous qualitative and quantitative studies that currently exist. The perspective gained from this review illustrates the need for consistent definitions and consistent metrics to be applied with similarities of businesses. More study is needed to better correlate CSR with organizational CFP, particularly with regard to the various results found in the literature. Additional knowledge learned from new researches on CSR and CFP can contribute to scholars’ and practitioners’ work in increased awareness and implications of CSR, differing methodologies, and use of databases, all of which can be used to study the concept for increased reliability and validity, increased precision in defining CSR, and the respective organizational financial performance outcomes.

Above and beyond, there is a difference in methods of measuring CSR and CFP. Most of previous studies assumed that just publishing social responsibility reports means that the firm more interested in social responsibility. These studies neglected the content of these reports and the volume of activities, which necessarily vary between enterprises. Crisotomo et al. (2009) relied on the size of spending on this responsibility, yet it did not take the moral side of the responsibility which may in some cases exceeds the importance of spending on this responsibility. Therefore, results of that study was unexpected in terms of any impact for CSR on the CFP.
Further, the research is uniquely studying whether or not a significant relationship exists between organizational CSR activities and SP as no other studies either local or international have done.

9. Study Hypotheses

H1: The practice and execution of organizational Corporate Social Responsibility (CSR) activities have no significant relationship with the Corporate Financial Performance (CFP).

This hypothesis is broken out into the following sub-hypotheses:-

H1a: The practice and execution of organizational CSR activities have no significant relationship with the return on assets (ROA).

H1b: The practice and execution of organizational CSR activities have no significant relationship with the return on equity (ROE).

H1c: The practice and execution of organizational CSR activities have a significant relationship with the return on sales (ROS).

H1d: The practice and execution of organizational CSR activities have no significant relationship with the return on invested capital (ROIC).

H2: The practice and execution of organizational CSR activities have no significant relationship with the Stock Performance (SP).

This hypothesis is broken out into the following sub-hypotheses:-

H2a: The practice and execution of organizational CSR activities have no significant relationship with the market capitalization (MC).

H2b: The practice and execution of organizational CSR activities have no significant relationship with the market value to book value ratio (MV/BV).

H2c: The practice and execution of organizational CSR activities have a significant relationship with the price/earnings ratio (P/E ratio).
H3: The Corporate Financial Performance (CFP) has no significant relationship with the corresponding Stock Performance (SP).

This hypothesis is broken out into the following sub-hypotheses:

H3a: The Corporate Financial Performance (CFP) has no significant relationship with the corresponding market capitalization (MC).

H3b: The Corporate Financial Performance (CFP) has no significant relationship with the corresponding market value to book value ratio (MV/BV).

H3c: The Corporate Financial Performance (CFP) has no significant relationship with the corresponding price/earnings ratio (P/E ratio).

10. Study Model

![Study Model](source: Prepared by researcher)
### 11. Study Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
<th>Calculation</th>
<th>Ref.</th>
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<tbody>
<tr>
<td>S&amp;P/EGX ESG Index (CSR&lt;sub&gt;index&lt;/sub&gt;)</td>
<td>The S&amp;P/EGX ESG Index is the first of its kind in Egypt. It is an index based purely on quantitative factors rather than subjective ones. Environmental, social and corporate governing factors have been extensively quantified and translated into a series of scores measuring securities in the universe of publicly traded Egyptian companies. This index not only ensures a selection of environmentally, socially and corporate governance responsible companies, but also securities which are representative of the Egyptian equity markets based on size and liquidity. This index includes 30 stocks from the universe of 100 Egyptian companies screened annually, and uses an innovative score-weighting scheme.</td>
<td>Index value = Index Market Value&lt;sub&gt;t&lt;/sub&gt; / Index Divisor&lt;sub&gt;t&lt;/sub&gt;</td>
<td>Egyptian Corporate Responsibility Center-ECRC (2015)</td>
</tr>
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**Constituent Weightings**

1. **Quantitative Score:** Each of the companies trading on the Egyptian Stock Exchange is assigned a quantitative ranking based on the three factors—transparency and disclosure of (1) corporate governance, (2) environmental practices (3) social governance.

2. **Qualitative Score:** independent sources of information, news stories, web sites and CSR filings are used to evaluate the actual performance of the
company on a scale of 5 to 1, with 1 being the lowest and 5 being the highest. A final qualitative score is determined for each company.

3- **Composite Score:** A composite score is calculated for each company by summing the qualitative score and the quantitative score.

4- Each company’s weight in the index is determined as a function of its ESG score.

<table>
<thead>
<tr>
<th>Return on Assets (ROA)</th>
<th>A measure of a company’s net income divided by its total assets</th>
<th>ROA = Net Income / Total Assets</th>
<th>Brigham &amp; Houston, 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return on Equity (ROE)</td>
<td>A measure of a company’s net income divided by its common equity.</td>
<td>ROE = Net Income/ Common Shareholders’ Equity</td>
<td>(Shinde et al., 2011)</td>
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<tr>
<td>Return On Sales (ROS)</td>
<td>A ratio widely used to evaluate a company's operational efficiency. ROS is also known as a firm's &quot;operating profit margin&quot;</td>
<td>ROS = Net Income Before Interest and Tax / Sales</td>
<td>(Barnea &amp; Rubin, 2010)</td>
</tr>
<tr>
<td>Return on Invested Capital (ROIC)</td>
<td>A calculation used to assess a company's efficiency at allocating the capital under its control to profitable investments. Return on invested capital gives a sense of how well a company is using its money to generate returns. Comparing a company's return on capital (ROIC) with its weighted average cost of capital (WACC) reveals whether invested capital is being used effectively.</td>
<td>ROIC = (Net Income - Dividends) / Total Capital</td>
<td>(Arbuckle, 2012)</td>
</tr>
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12. Theoretical Framework

- **Foundations of CSR**
  - **Definition and Evolution of the Concept of CSR**

  According to Berete (2012), despite the large number of studies addressing CSR, it is still almost impossible to agree on a common definition (Fifka, 2009; Okoye, 2009). However, CSR remains the problem of business (Fifka, 2009), and it is involved in almost all business decisions (Montiel, 2008). Taking into account several factors that other authors have used in previous studies to define CSR, Fifka (2009) developed a more business-oriented definition of CSR. He defined CSR as the economic and legal obligation as well as voluntary responsibilities of companies to participate in the social development of the communities where they operate while
staying in the limit of their available resources and underlying business strategies (Fifka, 2009).

Berete (2012) added that Wang and Juslin (2009) argued that the concepts of Western CSR are not well adapted in China for two main reasons. First, the primary reason of CSR is not well defined, and second the ethic approach of CSR fails to consider Chinese culture and reality (Wang & Juslin, 2009). Considering the cultural aspect that the western CSR concepts fail to address, Wang and Juslin (2009) defined CSR as the meaning of loving people and respecting nature. They called this definition the “Chinese harmony approach to CSR” (Wang & Juslin, 2009). More recently, Russo and Pirrini (2010) described a whole new perceptive of CSR. CSR focuses on stakeholder model now, and it requires companies to build relationships that are more complex with their stakeholders (Russo & Pirrini, 2010).

- **Drivers of CSR**

Organizations choose to become socially and environmentally responsible for multiple reasons. Examining the trends for CSR has been a recent trend in the literature of CSR (Angus-Leppan et al., 2010). Starting with Friedman (1970), who argued that the social responsibility of business is to generate profit, many scholars have sought to determine the reasons why corporations engage in corporate social initiatives.

Willard (2005) identified the founder’s personal passion, public relation crisis, and regulation pressure as the three drivers of first wave that motivate corporations to act socially and environmentally responsible. In the same study, Willard identified a perfect storm of threats and a compelling business value as the two emerging drivers of sustainability. Two years later, Kusyk and Lozano (2007), through a review of literature from 1973 to 2006 covering 83 countries to identify the drivers of CSR, found 80 drivers to the CSR of small- and medium-sized enterprises. Among these drivers, the most cited were owners/managers moral and ethical values, customers (image, reputation, and customer loyalty), supply chain, and strong link to community (Kusyk & Lozano, 2007). Worthington et al. (2007) also examined the context of emergence of supplier diversity forms in U.S. and U.K. Their goal was to investigate the reasons why organizations engage in socially responsible purchasing initiatives. The results of the analysis
indicated that legislative and policy developments, economic imperatives, stakeholder pressures, and ethical influences are the drivers of CSR (Worthington et al., 2007).

- **Implementation of CSR**

Implementing CSR has become imperative for companies that wish to stay competitive (Aldama et al., 2009). Aldama et al. (2009) argued that the effective management of CSR remains a challenge for every company.

Christie (2009) argued that knowing how to get started is a big challenge when implementing CSR. The first step companies need to take to promote CSR is to ensure that they comply with relevant legislations (Christie, 2009). Christie (2009) added that organizations could promote their CSR by evaluating current strategies and processes, soliciting the inputs of external stakeholders, and ensuring that CSR practices are incorporated into all levels of business strategies and processes. In order to implement CSR in their business strategies, some companies have implemented code of conduct (Preuss, 2010). Codes of conducts are important in implementing CSR strategies (Tulder, Wijk, and Kolk, 2009). Mijatovic and Stokic (2010) indicated that internal self-regulations such as statements of corporate values and codes of conduct have more influence on CSR practices than external self-regulations such as implementing ISO 9001 and ISO 14001 standards do. However, there are conflicting findings regarding the influence of codes of conduct on the behavior of the members of an organization (Kaptein & Schwartz, 2008). Therefore, companies should consider the pros and cons of codes of conducts before using them as a tool to implement CSR.

Several factors such as size (Aldama et al., 2009) and individuals assigned for the work (Park, 2009) are likely to influence the implementation of CSR. Aldama et al (2009) argued that the size of a company as defined by its revenues and number of employees is strongly associated with its CSR structuring and strategies. Regarding the assignment of individuals for CSR implementation, Park (2009) argued that it is very important to assign the right individuals for the task. CSR roles should be assigned to people who are not only familiar with the company’s direct and indirect impact on the society (Aldama et al., 2009), but are also able to influence the strategic planning of the company (Park, 2008).
Corporate Financial Performance (CFP)

Various metrics are used to calculate a firm’s financial performance. Understanding the metrics used to calculate financial performance is very relevant in studying the relationship between CSR and CFP.

The return on equity (ROE) is an important financial performance metric that has also been used in several studies as dependent variable to examine the relationship between CSR and financial performance (De-los-Ángeles et al., 2009; Makni et al., 2009; Park & Lee, 2009). It is an accounting performance of a firm and it is the ratio of the net income to the shareholders’ equity (Park and Lee, 2009).

The return on sales (ROS), the return on invested capital (ROIC), and the return on assets (ROA) are also important indicators of financial performance. The ROS is a ratio widely used to evaluate a company's operational efficiency. ROS is also known as a firm's "operating profit margin" (Goyer, 2006). The ROIC is a calculation used to assess a company's efficiency at allocating the capital under its control to profitable investments. The RAO indicates the profitability relative to a firm’s total assets (Denizci & Li, 2009). De-los-Ángeles et al. (2009) used ROA as dependent variable to examine the relationship between CSR and financial performance.

Stock Performance (SP)

Various metrics are used to calculate a firm’s Stock performance (i.e. market capitalization, market value to book value ratio (MV/BV) and price/earnings ratio (P/E ratio). Understanding the metrics used to calculate financial performance is also very relevant in studying the relationship between CSR and CFP.

Market capitalization is the total dollar market value of all of a company's outstanding shares. The investment community uses this figure to determine a company's size, as opposed to sales or total asset figures.

MV/BV a ratio used to find the value of a company by comparing the book value of a firm to its market value. Book value is calculated by looking at the firm's historical cost, or accounting value. Market value is determined in the stock market through its market capitalization. P/E ratio is the ratio for valuing a company that measures its current share price relative to its per-share earnings.
The Relationship between CSR and Corporate Financial Performance & Stock Performance: An Applied Study on the Egyptian Stock Market

- **CSR and CFP & SP**

While studies concerning the relationship between CSR on SP experiencing a remarkable shortage, significant number of empirical studies in more than 30 years have attempted to investigate the relationship between CSR and financial performance (Garcia-Castro et al., 2010). However, the results are still mixed (Garcia-Castro et al., 2010). There have been three different findings on the relationship between CSR and financial performance: positive, negative, and neutral. Among 21 empirical researches reviewed by Pava & Krausz (1996), 12 researches found a positive relationship, eight found a negative relationship, one found a neutral relationship between CSR and financial performance.

13. **Applied Study**

13.1 **Population of the Study**

The study’s population is the companies listed in the Egyptian Stock Exchange.

13.2 **Sample of the Study**

The sample study is the Egyptian Stock Exchange listed companies that constitutes Corporate Social Responsibility Index (CSR index), after excluding banks, insurance companies and investment firms because of the different nature of the activity and therefore the financial statements items. Thus the study sample consists of 26 companies. Table (1) in the Appendix illustrates names of these companies.

13.3 **Period of the Study**

The study was conducted during the period from the beginning of 2007 until the end of 2014.

13.4 **Data Sources and Data Collection**

CSR (independent variable) was measured using S&P/EGX ESG Index, an Environment, Social and Governance (ESG) Index for Egypt. Data is gathered from the Egyptian Institute of Directors (EIoD).

The Egyptian Institute of Directors (EIoD) was established in 2003 as the first institute focusing on Corporate Governance in the Arab Region. It aims at spreading awareness, knowledge, and best practices of corporate governance in Egypt, the Middle East, and North Africa (MENA) region in a
way that meets the legitimate expectations and best interests of various stakeholders, and in different types of organizations such as listed, non-listed, family-owned and state-owned enterprises (SOEs). The activities of the Institute are targeted at directors, key executives, shareholders, and other stakeholders of such organizations.

Data concerning CFP (dependent variable) that was defined in terms of return on assets (ROA), return on equity (ROE), return on sales (ROS), and return on invested capital (ROIC), SP (dependent variable) that was defined in terms of market capitalization, market value to book value ratio (MV/BV) and price/earnings ratio (P/E ratio), and moderating factors in terms of the size of an organization; the cultural environment; and the type of industry were collected from Egypt for Information Dissemination (egID).

egID is the sole aggregator and authorized distributor of the Egyptian Exchange’ Listed Companies’ information. It has been able to serve world class customers both locally and internationally. It is a joint venture between the Egyptian Exchange - EGX and NASDAQ OMX.

13.5 Handling Methods and Statistical Properties of the Data

The following is a brief presentation to address those characteristics related to the data of the study:

13.5.1 Missing Data Handling

By considering the variables of the study, we find that the percentage of missing data is 1.5%. As a result, we compensate for those missing data by the mean values of each variable of the study.

13.5.2 Extreme-Data Handling

The Outlier values in the variables handled by finding the logarithm of decimal basis for those values.

13.5.3 Test of Normality

We will use skewness coefficient and kurtosis coefficient values, as well as Kolmogorov Smirnov test (Tabachnick & Fidell, 2007), in order to examine whether the data variables normally distributed or not. It is clear from the results table (1) that the value of skewness coefficient and kurtosis coefficient close to zero, indicating that each variable of the data study almost follow normal distribution, and the sig. values of Kolmogorov Smirnov test for each variable of the study are greater than 0.05, so the data variables of the study follow the normal distribution.
Table (1)
The Values of Skewness and Kurtosis Coefficients and the Sig. Values of Kolmogorov Smirnov Test

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Corporate Social Responsibility (CSR)</td>
<td>0.042</td>
<td>0.038</td>
<td>0.142</td>
</tr>
<tr>
<td>2</td>
<td>Return on Assets (ROA)</td>
<td>0.077</td>
<td>0.069</td>
<td>0.185</td>
</tr>
<tr>
<td>3</td>
<td>Return on Equity (ROE)</td>
<td>0.062</td>
<td>0.056</td>
<td>0.140</td>
</tr>
<tr>
<td>4</td>
<td>Return on Sales (ROS)</td>
<td>0.037</td>
<td>0.033</td>
<td>0.128</td>
</tr>
<tr>
<td>5</td>
<td>Return on Invested capital (ROIC)</td>
<td>0.082</td>
<td>0.074</td>
<td>0.248</td>
</tr>
<tr>
<td>6</td>
<td>Market Capitalization (MC)</td>
<td>0.064</td>
<td>0.058</td>
<td>0.230</td>
</tr>
<tr>
<td>7</td>
<td>Market Value to Book Value Ratio (MV/BV)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Price/Earnings Ratio (P/E Ratio)</td>
<td>0.070</td>
<td>0.063</td>
<td>0.140</td>
</tr>
</tbody>
</table>

Source: Prepared by researcher

13.5.4 Test of Data Linearity
The linearity of the data means the stability of the amount or the rate of change between the values of two variables during their range. Figure (2) illustrates the shape spread between each two variables. Each two variables form a straight line. Consequently, we find that the relation between each two variables is linear.

Shape Spread between each two Variables

Source: Prepared by researcher
13.5.5 Multicollinearity Test of the Data Variables

Multicollinearity is a problem that occurs when the correlation coefficient between the variables in the model under consideration is high (i.e., greater than 0.90). Where there is a hugeness in the size of error in the model under study (Tabachnick & Fidell, 2007). By calculating values of the correlation coefficients between the variables under study, we find that there are no values for the correlation coefficients are greater than 0.85. Table (2) contains matrix of correlation coefficients between variables of the study. Data illustrates that there is no redundant variables in the sample study.

<table>
<thead>
<tr>
<th>CSR</th>
<th>ROA</th>
<th>ROE</th>
<th>ROS</th>
<th>ROIC</th>
<th>MC</th>
<th>MV/BV</th>
<th>P/E Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSR</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>0.547</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROE</td>
<td>0.654</td>
<td>0.832</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROS</td>
<td>0.432</td>
<td>0.748</td>
<td>0.850</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROIC</td>
<td>0.753</td>
<td>0.698</td>
<td>0.745</td>
<td>0.775</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MC</td>
<td>0.658</td>
<td>0.235</td>
<td>0.126</td>
<td>0.161</td>
<td>0.122</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MV/BV</td>
<td>0.611</td>
<td>0.124</td>
<td>0.151</td>
<td>0.118</td>
<td>0.239</td>
<td>0.789</td>
<td>1</td>
</tr>
<tr>
<td>P/E Ratio</td>
<td>0.721</td>
<td>0.117</td>
<td>0.142</td>
<td>0.111</td>
<td>0.119</td>
<td>0.701</td>
<td>0.698</td>
</tr>
</tbody>
</table>

Source: Prepared by researcher

13.6 Statistical Method

We will use structural equation modeling (SEM) as the main tool in the current research. The structural equation modeling (SEM) is the method suitable for the analysis of Confirmative Causal Relationship, due to the tremendous ability to deal with many of the statistical models used, such as contrast and analysis of covariance and regression multivariate factor analysis and analysis of pathways and models econometric equations immediate and modeling analysis in the direction of one Non-Recursive Modelling multivariate models, and modeling of latent variables modelling, the structural model is used to explain the causal relationships between variables, and are reaching a structural model through several attempts to model assertive, and
with a better quality and the image of the model assertive - measured goodness of fit of model, is compiled assertive form to the structural model. Thus, the structural equation models can be seen as an "umbrella" includes a range of multi-statistical methods of traditional and modern variants. These models are used widely in the social sciences because of its ability to deal with the measured and latent variables (Li, 2014), and uses a structured analysis program plucks Analysis of Moment Structure (AMOS) in the formation of structural equation modeling (SEM).

13.7 Statistical Criteria for the Quality of Structural Model Estimates

To make sure of the quality of estimating the structural model, the model representation of the nature of the research problem, and study the paths significance, we use a set of statistical criteria as follows:

13.7.1 Normed Chi-Square (a.k.a. The relative chi-square)

This value equals the chi-square index divided by the degrees of freedom. The criterion for acceptance varies across researchers, ranging from less than 2 (Ullman, 2001) to less than 5 (Schumacker & Lomax, 2004).

\[
\text{Number of total degrees of freedom} = \frac{\text{the number of the measured variables} \times (\text{number of the measured variables} + 1)}{2} \tag{1}
\]

\[
\text{Number of degrees of freedom} = \text{number of total degrees of freedom} - \left[ \text{the number of variations of the error terms} + \text{number of factors variations} + \text{number of factors loading} + \text{number of variations among the factors} \right] \tag{2}
\]

13.7.2 Goodness of Fit Index (GFI)

The goodness of fit index (GFI) is a measure of fit between the hypothesized model and the observed covariance matrix (Baumgartner & Hombur, 1996).

13.7.3 Adjusted Goodness of Fit (AGFI)

The adjusted goodness of fit index (AGFI) corrects the GFI, which is affected by the number of indicators of each latent variable. The GFI and AGFI range between 0 and 1, with a value of over .9 generally indicating acceptable model fit (Baumgartner & Hombur, 1996).

13.7.4 Comparative Fit Index (CFI)

The comparative fit index (CFI) analyzes the model fit by examining the discrepancy between the data and the hypothesized model, while adjusting
for the issues of sample size inherent in the chi-squared test of model fit (Gatignon, 2010), and the normed fit index (Bentler, 1990). CFI values range from 0 to 1, with larger values indicating better fit; a CFI value of .90 or larger is generally considered indicating acceptable model fit.

13.7.5 Root Mean Square Residual (RMR)
It is the square root of the average of the square residuals. It is used to judge the validity of the proposed model to explain the relationship between the variables of the study, and its acceptable value is close to zero.

13.7.6 Root Mean Square Error of Approximation (RMSEA)
The root mean square error of approximation (RMSEA) avoids issues of sample size by analyzing the discrepancy between the hypothesized model, with optimally chosen parameter estimates, and the population covariance matrix (Arbuckle, 2012). The RMSEA ranges from 0 to 1, with smaller values indicating better model fit. A value of .06 or less is indicative of acceptable model fit (Hu & Bentler, 1999).

13.8 The Proposed Model for the Research Problem Variables under Study
Referring to the matrix of correlation coefficients in table (2), we find that there is a high correlation coefficients between return on assets (ROA), return on equity (ROE), return on sales (ROS), and return on invested capital (ROIC), and each other’s. Therefore, it can be expressed in a single latent variable called Corporate Financial Performance (CFP). Moreover, there is a high correlation coefficients between market capitalization (MC), market value to book value ratio (MV/BV) and price/earnings ratio (P/E ratio), and each other’s. Therefore, it can be expressed in a single latent variable called stock performance (SP). Besides, there is a high correlation coefficients between Corporate Social Responsibility (CSR) and return on assets (ROA), return on equity (ROE), return on sales (ROS), return on invested capital (ROIC), market capitalization (MC), market value to book value ratio (MV/BV) and price/earnings ratio (P/E ratio).

Figure (3) shows the confirmatory measurement proposed model to the variables of the research problem under study for the sample companies.
13.9 Estimating the Coefficients of Proposed Structural Model of the Sample Companies as a Whole

By using the data of the sample study companies as a whole during the study period, and depending on the software of analysis of moments (AMOS) in estimating SEM model, we found that the indicators of the overall compatibility quality of the estimated structural model at the level of sample companies as a whole ensures the high quality of total compatibility of the proposed model, and all indicators are at acceptable limits, as illustrated in table (3). Therefore, we can rely on that model in testing the hypotheses of the study. **Table (3)**

<table>
<thead>
<tr>
<th>Absolute fit measures</th>
<th>Obtained Values</th>
<th>( \chi^2 )</th>
<th>df</th>
<th>( \chi^2 / df )</th>
<th>GFI</th>
<th>AGFI</th>
<th>CFI</th>
<th>RMR</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>68.678</td>
<td>23</td>
<td>2.986</td>
<td>0.875</td>
<td>0.917</td>
<td>0.942</td>
<td>0.049</td>
<td>0.061</td>
</tr>
</tbody>
</table>

Source: Prepared by researcher
After the statistical verification of the appropriateness of the estimated structural model, the model parameters are evaluated to determine the degree of the statistical significance for these coefficients. Table (4) shows the estimates of the proposed structural model coefficients for the sample companies study as a whole during the period study.

### Table (4)
The Results of Estimating (SEM) on the Level of the Sample Companies as a Whole

<table>
<thead>
<tr>
<th>Declaration of the Path</th>
<th>Path</th>
<th>Standard Path</th>
<th>Standard error</th>
<th>t-value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFP --&gt; ROA</td>
<td>0.645</td>
<td>0.581</td>
<td>0.114</td>
<td>5.092</td>
<td>0.009</td>
</tr>
<tr>
<td>CFP --&gt; ROE</td>
<td>0.852</td>
<td>0.767</td>
<td>0.084</td>
<td>9.129</td>
<td>0.000</td>
</tr>
<tr>
<td>CFP --&gt; ROS</td>
<td>0.745</td>
<td>0.671</td>
<td>0.136</td>
<td>4.930</td>
<td>0.017</td>
</tr>
<tr>
<td>CFP --&gt; ROIC</td>
<td>0.716</td>
<td>0.644</td>
<td>0.093</td>
<td>6.929</td>
<td>0.000</td>
</tr>
<tr>
<td>SP --&gt; MC</td>
<td>0.638</td>
<td>0.574</td>
<td>0.111</td>
<td>5.173</td>
<td>0.006</td>
</tr>
<tr>
<td>SP --&gt; MV/BV</td>
<td>0.665</td>
<td>0.599</td>
<td>0.103</td>
<td>5.811</td>
<td>0.000</td>
</tr>
<tr>
<td>SP --&gt; P/E ratio</td>
<td>0.712</td>
<td>0.641</td>
<td>0.134</td>
<td>4.782</td>
<td>0.014</td>
</tr>
<tr>
<td>CSR --&gt; CFP</td>
<td>0.601</td>
<td>0.560</td>
<td>0.102</td>
<td>5.488</td>
<td>0.000</td>
</tr>
<tr>
<td>CSR --&gt; SP</td>
<td>0.663</td>
<td>0.597</td>
<td>0.094</td>
<td>6.348</td>
<td>0.000</td>
</tr>
<tr>
<td>CFP --&gt; SP</td>
<td>0.652</td>
<td>0.641</td>
<td>0.058</td>
<td>11.048</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Source: Prepared by researcher

Given the results of table (4), we conclude that there are significance positive relationships at 5% level of significance for the following paths:

1- The paths of return on assets (ROA), return on equity (ROE), return on sales (ROS), and return on invested capital (ROIC) with CFP.

2- The paths of market capitalization (MC), market value to book value ratio (MV/BV) and price/earnings ratio (P/E ratio) with SP.

3- The path of CSR with CFP.

4- The path of CSR with SP.

5- The path of Corporate CFP with SP.

6- We can arrange the variables that constitutes Corporate Financial Performance (CFP) in terms of the most influential on it, based on the absolute value of the standard paths, where return on equity (ROE) in the first rank, return on sales (ROS) in the second rank, and return on invested capital (ROIC) in the third rank, and return on assets (ROA) in the fourth rank.

7- We found that the variables that most influence SP is price/earnings ratio (P/E ratio), followed by market value to book value ratio (MV/BV), and market capitalization (MC).
13.10 The Results of Hypotheses Tests

H1: The Practice and Execution of Organizational CSR Activities have No Significant Relationship with CFP.

From the results in table (4) concerning estimates of the proposed model coefficients and their significance, we found that there is a direct significant positive effect of CSR on CFP valuing (0.601) at 5% level of significance. Therefore, we conclude that the practice and execution of organizational CSR activities have significant relationship with the CFP. Figure (4) illustrates the direct positive effect of CSR on CFP.

**Figure (4)**
The Direct Positive Effect of Corporate Social Responsibility (CSR) on Corporate Financial Performance (CFP)

Source: Prepared by researcher

The results also demonstrated that there was an association between CSR and CFP but not a directional causal relationship. In addition, more CSR activity did not necessarily result in greater profits; however, more CSR is not associated with fewer profits (see Figure 5).

**Figure (5)**
More CSR Activity did not Necessarily Result in Greater Profits

Note: $\theta > \delta$
Source: Prepared by researcher
This hypothesis is broken out into the following sub-hypotheses:

**H1a: The Practice and Execution of Organizational CSR Activities have No Significant Relationship with Corresponding Return on Assets (ROA).**

From the results in table (4) concerning estimates of the proposed model coefficients and their significance, we found that there is indirect significant positive effect of CSR on (ROA) valuing (0.601× 0.645) at 5% level of significance. Therefore, we conclude that the practice and execution of organizational CSR activities have significant relationship with the (ROA). Figure (6) illustrates the indirect positive effect of CSR on ROA.

**Figure (6)**

**The Indirect Positive Effect of Corporate Social Responsibility (CSR) on the Return on Assets (ROA)**

![Image](image.png)

Source: Prepared by researcher

**H1b: The Practice and Execution of Organizational CSR Activities have No Significant Relationship with Corresponding Return on Equity (ROE).**

From the results in table (4) concerning estimates of the proposed model coefficients and their significance, we found that there is indirect significant positive effect of CSR on (ROE) valuing (0.601× 0.852) at 5% level of significance. Therefore, we conclude that the practice and execution of organizational CSR activities have significant relationship with the (ROE). Figure (7) illustrates the indirect positive effect of CSR on ROE.
H1c: The Practice and Execution of Organizational CSR Activities have A Significant Relationship with Corresponding Return on Sales (ROS).

From the results in table (4) concerning estimates of the proposed model coefficients and their significance, we found that there is indirect significant positive effect of CSR on (ROS) valuing \((0.601 \times 0.745)\) at 5% level of significance. Therefore, we conclude that the practice and execution of organizational CSR activities have significant relationship with the (ROS). Figure (8) illustrates the indirect positive effect of CSR on ROS.

![Figure (8)](image)

Source: Prepared by researcher

H1d: The Practice and Execution of Organizational CSR Activities have No Significant Relationship with Corresponding Return on Invested Capital (ROIC).

From the results in table (4) concerning estimates of the proposed model coefficients and their significance, we found that there is indirect significant positive effect of CSR on (ROIC) valuing \((0.601 \times 0.716)\) at 5%
level of significance. Therefore, we conclude that the practice and execution of organizational CSR activities have significant relationship with the (ROIC). Figure (9) illustrates the indirect positive effect of CSR on ROIC.

**Figure (9)**
The Indirect Positive Effect of Corporate Social Responsibility (CSR) on Return on Invested Capital (ROIC)

![Diagram](image)

Source: Prepared by researcher

**H2: The Practice and Execution of Organizational CSR Activities have No Significant Relationship with Corresponding Stock Performance (SP).**

From the results in table (4) concerning estimates of the proposed model coefficients and their significance, we found that there is a direct significant positive effect of CSR on (SP) valuing (0.663) at 5% level of significance. Therefore, we conclude that the practice and execution of organizational CSR activities have significant relationship with the (SP). Figure (10) illustrates the indirect positive effect of CSR on SP.

**Figure (10)**
The Direct Positive Effect of Corporate Social Responsibility (CSR) on Stock Performance (SP)

![Diagram](image)

Source: Prepared by researcher

This hypothesis is broken out into the following sub-hypotheses:-

**H2a: The Practice and Execution of Organizational CSR Activities have No Significant Relationship with Corresponding Market Capitalization (MC).**
From the results in table (4) concerning estimates of the proposed model coefficients and their significance, we found that there is indirect significant positive effect of CSR on (MC) valuing \((0.663 \times 0.638)\) at 5% level of significance. Therefore, we conclude that the practice and execution of organizational CSR activities have significant relationship with the (MC). Figure (11) illustrates the indirect positive effect of CSR on MC.

**Figure (11)**
The Indirect Positive Effect of Corporate Social Responsibility (CSR) on Market Capitalization (MC)

![Diagram](image)

Source: Prepared by researcher

**H2b: The Practice and Execution of Organizational CSR Activities have No Significant Relationship with Corresponding Market Value to Book Value Ratio (MV/BV).**

From the results in table (4) concerning estimates of the proposed model coefficients and their significance, we found that there is indirect significant positive effect of CSR on (MV/BV) valuing \((0.663 \times 0.665)\) at 5% level of significance. Therefore, we conclude that the practice and execution of organizational CSR activities have significant relationship with the (MV/BV). Figure (12) illustrates the indirect positive effect of CSR on MV/BV.

**Figure (12)**
The Indirect Positive Effect of Corporate Social Responsibility (CSR) on Market Value to Book Value Ratio (MV/BV)

![Diagram](image)

Source: Prepared by researcher
H2c: The Practice and Execution of Organizational CSR Activities have a Significant Relationship with Corresponding Price/Earnings Ratio (P/E Ratio).

From the results in table (4) concerning estimates of the proposed model coefficients and their significance, we found that there is indirect significant positive effect of CSR on (P/E ratio) valuing (0.663 × 0.712) at 5% level of significance. Therefore, we conclude that the practice and execution of organizational CSR activities have significant relationship with the (P/E ratio). Figure (13) illustrates the indirect positive effect of CSR on P/E ratio.

Figure (13)
The Indirect Positive Effect of Corporate Social Responsibility (CSR) on Price/Earnings Ratio (P/E ratio)

Source: Prepared by researcher

H3: The Corporate Financial Performance (CFP) has No Significant Relationship with the Corresponding Stock Performance (SP)

From the results in table (4) concerning estimates of the proposed model coefficients and their significance, we found that there is a direct significant positive effect of CFP on (SP) valuing (0.652) at 5% level of significance. Therefore, we conclude that the corporate financial performance (CFP) have significant relationship with the (SP). Figure (14) illustrates the direct positive effect of CFP on SP.

Figure (14)
The Direct Positive Effect of Corporate Financial Performance (CFP) on Stock Performance (SP)

Source: Prepared by researcher
This hypothesis is broken out into the following sub-hypotheses:

**H3a: The Corporate Financial Performance (CFP) has No Significant Relationship with Corresponding Market Capitalization (MC)**

From the results in table (4) concerning estimates of the proposed model coefficients and their significance, we found that there is indirect significant positive effect of CFP on (MC) valuing \((0.652 \times 0.638)\) at 5% level of significance. Therefore, we conclude that the corporate financial performance (CFP) have significant relationship with the (MC). Figure (15) illustrates the indirect positive effect of CFP on MC.

![Figure (15)](image)

Source: Prepared by researcher

**H3b: The Corporate Financial Performance (CFP) has No Significant Relationship with Corresponding Market Value to Book Value Ratio (MV/BV)**

From the results in table (4) concerning estimates of the proposed model coefficients and their significance, we found that there is indirect significant positive effect of CFP on (MV/BV) valuing \((0.652 \times 0.665)\) at 5% level of significance. Therefore, we conclude that the corporate financial performance (CFP) have significant relationship with the (MV/BV). Figure (16) illustrates the indirect positive effect of CFP on MV/BV.
H3c: The Corporate Financial Performance (CFP) has No Significant Relationship with Corresponding Price/Earnings Ratio (P/E Ratio)

From the results in table (4) concerning estimates of the proposed model coefficients and their significance, we found that there is indirect significant positive effect of CFP on (P/E ratio) valuing (0.652 × 0.712) at 5% level of significance. Therefore, we conclude that the corporate financial performance (CFP) have significant relationship with the (P/E ratio). Figure (17) illustrates the indirect positive effect of CFP on P/E ratio.

14. Study Results

- The study produced evidence that supported the research question asked, “What is the relationship between organizations that engage
in Corporate Social Responsibility (CSR) activities and the corresponding Corporate Financial Performance (CFP)?” and its related hypothesis that is “H1: The practice and execution of organizational Corporate Social Responsibility (CSR) activities have no significant relationship with the Corporate Financial Performance (CFP)” . The direct effect of CSR on CFP was positively significant at 5% level of significance, which provided support to reject the hypothesis H1 (see Figure 4). The results also demonstrated that there was an association with CSR and CFP but not a directional causal relationship. In addition, more CSR activity did not necessarily result in greater profits; however, more CSR is not associated with fewer profits (see Figure 5).

This hypothesis is broken out into the following sub-hypotheses:

- The study produced evidence that supported the research question asked, “What is the relationship between organizations that engage in CSR activities and the corresponding organizational return on assets (ROA)?” and its related hypothesis that is “H1a: The practice and execution of organizational CSR activities have no significant relationship with the return on assets (ROA)” . The indirect effect of CSR on ROA was positively significant at 5% level of significance, which provided support to reject the hypothesis H1a (see Figure 6).

- The study produced evidence that supported the research question asked, “What is the relationship between organizations that engage in CSR activities and the corresponding organizational return on equity (ROE)?” and its related hypothesis that is “H1b: The practice and execution of organizational CSR activities have no significant relationship with the return on equity (ROE)” . The indirect effect of CSR on ROE was positively significant at 5% level of significance, which provided support to reject the hypothesis H1b (see Figure 7).

- The study produced evidence that supported the research question asked, “What is the relationship between organizations
that engage in CSR activities and the corresponding organizational return on sales (ROS)” and its related hypothesis that is “**H1c: The practice and execution of organizational CSR activities have a significant relationship with the return on sales (ROS)**”. The indirect effect of CSR on ROS was positively significant at 5% level of significance, which provided support to reject the hypothesis H1c (see Figure 8).

- The study produced evidence that supported the research question asked, “What is the relationship between organizations that engage in CSR activities and the corresponding organizational Return on Invested Capital (ROIC)?” and its related hypothesis that is “**H1d: The practice and execution of organizational CSR activities have no significant relationship with the return on invested capital (ROIC)**”. The indirect effect of CSR on ROIC was positively significant at 5% level of significance, which provided support to reject the hypothesis H1d (see Figure 9).

- The study produced evidence that supported the research question asked, “What is the relationship between organizations that engage in CSR activities and the corresponding Stock Performance (SP)” and its related hypothesis that is “**H2: The practice and execution of organizational CSR activities have no significant relationship with the Stock Performance (SP)**”. The direct effect of CSR on SP was positively significant at 5% level of significance, which provided support to reject the hypothesis H2 (see Figure 10).

This hypothesis is broken out into the following sub-hypotheses:

- The study produced evidence that supported the research question asked, “What is the relationship between organizations that engage in CSR activities and the corresponding market capitalization (MC)” and it related hypothesis that is “**H2a: The practice and execution of organizational CSR activities have no significant relationship with the market capitalization (MC)**”. The indirect effect of CSR on MC was
positively significant at 5% level of significance, which provided support to reject the hypothesis H2a (see Figure 11).

- The study produced evidence that supported the research question asked, “What is the relationship between organizations that engage in CSR activities and the corresponding organizational MV/BV?” and its related hypothesis that is “H2b: The practice and execution of organizational CSR activities have no significant relationship with the market value to book value ratio (MV/BV)”. The indirect effect of CSR on MV/BV was positively significant at 5% level of significance, which provided support to reject the hypothesis H2b (see Figure 12).

- The study produced evidence that supported the research question asked, “What is the relationship between organizations that engage in CSR activities and the corresponding organizational price/earnings ratio (P/E ratio)?” and its related hypothesis that is “H2c: The practice and execution of organizational CSR activities have a significant relationship with the price/earnings ratio (P/E ratio)”. The indirect effect of CSR on P/E ratio was positively significant at 5% level of significance, which provided support to reject the hypothesis H2c (see Figure 13).

- The study produced evidence that supported the research question asked, “What is the relationship between Corporate Financial Performance (CFP) and the corresponding Stock Performance (SP)?” and its related hypothesis that is “H3: The Corporate Financial Performance (CFP) has no significant relationship with the corresponding Stock Performance (SP)”. The direct effect of CFP on SP was positively significant at 5% level of significance, which provided support to reject the hypothesis H3 (see Figure 14).

This hypothesis is broken out into the following sub-hypotheses:-

- The study produced evidence that supported the research question asked, “What is the relationship between CFP and the corresponding market capitalization (MC)?” and its related
The hypothesis that is “H3a: The Corporate Financial Performance (CFP) has no significant relationship with the corresponding market capitalization (MC)” The indirect effect of CFP on MC was positively significant at 5% level of significance, which provided support to reject the hypothesis H3a (see Figure 15).

- The study produced evidence that supported the research question asked, “What is the relationship between CFP and the corresponding market value to book value ratio (MV/BV)”? The related null hypothesis that is “H03b: The Corporate Financial Performance (CFP) has no significant relationship with the corresponding market value to book value ratio (MV/BV)” The indirect effect of CFP on MV/BV was positively significant at 5% level of significance, which provided support to reject the hypothesis H3b (see Figure 16).

- The study produced evidence that supported the research question asked, “What is the relationship between CFP and the corresponding price/earnings ratio (P/E ratio)” and its related hypothesis that is “H3c: The Corporate Financial Performance (CFP) has no significant relationship with the corresponding price/earnings ratio (P/E ratio)”. The indirect effect of CFP on P/E ratio was positively significant at 5% level of significance, which provided support to reject the hypothesis H3c (see Figure 17).

15. Association of the Study to Prior Research

The results of the current research can be used as a foundation to support CSR activities and investments because of the evidence associated with a positive relationship between CSR and ROA (Hypothesis H1a), ROE (Hypothesis H1b), ROS (Hypothesis H1c), ROIC (Hypothesis H1d), market capitalization (Hypothesis H2a), MV/BV (Hypothesis H2b), and P/E ratio (Hypothesis H2c). Besides, there was positive relationship between CFP and Market Capitalization (Hypothesis H3a), MV/BV ratio (Hypothesis H3b), and P/E ratio (Hypothesis H3c).
Margolis and Walsh (2003) reviewed 127 studies and found that the majority of the results suggested a positive association with minimal evidence of a negative association. A meta-analysis of 52 studies on CSR and CFP conducted by Orlitzky, et al. (2003) had similar findings with a general positive link between CSR and CFP as an overall outcome.

16. Implications and Contributions of the Present Research

This study contributes to the knowledge in the field of organizational management and leadership in numerous ways. One of the most significant corporate trends over the last decade is a growing trend towards activities associated with CSR (Barnea & Rubin, 2010). As a result, this study illustrates the importance to have such activities supported by research to substantiate the engagement, investment, and incorporation of CSR activities as an organizational strategy to strengthen CFP & SP.

By engaging in research directed towards answering the research question of what the relationship is between organizations that are recognized as participating in CSR activities and the corresponding CFP, as measured by ROA (Hypothesis H1a), ROE (Hypothesis H1b), ROS (Hypothesis H1c), ROIC (Hypothesis H1d), and SP, as measured by market capitalization (Hypothesis H2a), MV/BV (Hypothesis H2b), and P/E ratio (Hypothesis H2c) contributed to the current body of knowledge. Besides, the positive relationship between CFP and Market Capitalization (Hypothesis H3a), MV/BV ratio (Hypothesis H3b), and P/E ratio (Hypothesis H3c) also contributed to the current body of knowledge.

A conclusion with interpretations from the new findings, learning, and opportunities for further research has evolved. This study provided an evidence-based format through providing a foundation for a business case that can be used and applied when organizations are contemplating engagement in CSR activities and the corresponding organizational financial performance. This contribution is important because typically the objective of a business is to maximize shareholder wealth and often, for this reason, managers have questioned the rationale behind performing socially responsible activities (Shinde et al., 2011). Because of the lack of understanding or individual perceptions associated with CSR, it is not uncommon for managers or directors to sacrifice CSR in favor of increasing shareholder wealth without completely understanding the overall financial
relationship with CSR activities (Shinde et al., 2011). This study contributed to a stronger body of evidence to enable managers to make more informed, evidenced based decisions with regard to CSR activities and the associated relationship that CSR can have with CFP & SP.

17. Recommendations

It is recommended, based on the current research and the literature findings, that organizations incorporate CSR activities into their organizational cultural beliefs and practices. CSR strategies should be incorporated into organizational policies and standard operating procedures so that CSR becomes part of employee and organizational engagement, business practices, and belief systems. As a result of such policy and practitioner beliefs, engagements and practices based on evidenced based management, a greater return of organizational financial performance is possible as evidenced through this study. In today’s business environment cost-containment and business growth is at the forefront of executive minds and goals for delivering the highest level of shareholder value. Investing in CSR activities and spending more money can be viewed as an undesired practice, yet by understanding the true implications of such practices and engagement, including CSR into strategic plans can ultimately result in greater ROA (Hypothesis H1a), ROE (Hypothesis H1b), ROS (Hypothesis H1c), ROIC (Hypothesis H1d), and SP, as measured by market capitalization (Hypothesis H2a), MV/BV (Hypothesis H2b), and P/E ratio (Hypothesis H2c) for financial outcomes and deliverables for shareholders.

18. Future Research

It is suggested that additional research opportunities exist in areas specifically by using a variety of research designs and methodologies and statistical tests. Such additional tests could also include correlations using variables such as those that involve a company’s financials and respective revenue size, large versus small companies, and industry comparisons. In addition to surveying for leadership perceptions and definitions associated with terminology and CSR understanding and viewpoints. This kind of research will not only add credibility and confidence to the existing literature, but also address practices and provide evidence-based management in the current economic environment.
19. REFERENCES


submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Accounting, Cairo university.


The Relationship between CSR and Corporate Financial Performance & Stock Performance: An Applied Study on the Egyptian Stock Market


20. Appendix

Table (1)
The Companies of the sample study

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<tr>
<th>Serial No</th>
<th>ISIN Code</th>
<th>Company</th>
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<td>Global Telecom Holding</td>
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<tr>
<td>2</td>
<td>Egs48011c018</td>
<td>Egyptian Company For Mobile Services (Mobinil)</td>
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<tr>
<td>3</td>
<td>Egs70431c019</td>
<td>Egyptian For Tourism Resorts</td>
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<tr>
<td>4</td>
<td>Egs69082c013</td>
<td>Egyptian Kuwaiti Holding</td>
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<tr>
<td>5</td>
<td>Egs42051c010</td>
<td>Egyptian Transport (Egytrans)</td>
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<td>Gb Auto</td>
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<td>7</td>
<td>Egs690c1c010</td>
<td>Raya Holding For Technology And Communications</td>
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<td>8</td>
<td>Egs3c01c016</td>
<td>Arabian Cement Company</td>
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<td>Six Of October Development &amp; Investment (Sodic)</td>
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Source: Prepared by the researcher