Are Sustainable Firms More Profitable? Evidence From Egypt

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Abstract
The purpose of this study is to investigate the association between adopting sustainability practices by Egyptian companies and their level of profitability. Three hypotheses were tested, the first concerned whether sustainable firms achieve higher levels of market value of equity than non-sustainable firms, the second involved whether sustainable firms have higher levels of return on equity compared to non-sustainable ones, and the last was about the amount of cash dividends paid by sustainable firms to their stockholders as opposed to non-sustainable ones. The population of 221 Egyptian companies listed in the Egyptian stock market in the year 2015 was used to test these hypotheses. The results demonstrate that sustainability practices are associated with higher level of both market value of equity and return on equity. Furthermore, cash dividends paid to stockholders are proven to be higher for sustainable firms.

Keywords: Egyptian stock market, Financial performance, Profitability, Sustainability

1. Introduction
Recent evidence suggests that traditional financial statements do not incorporate all the factors that would have an impact on the business’s long term ability to create value. A great portion of this “value gap” can be linked to the management of environmental, social, and human aspects of business. Therefore, corporate reporting must include these aspects in addition to traditional financial statements to include the measurement and reporting of sustainability information leading to the enhancement of decision maker’s understanding of potential risks and opportunities.
As a result of the above, corporate sustainability captured the attention of a lot of researchers in the last two decades (Schaltegger et al., 2013). It is defined as the integration of financial benefit, environmental protection, and social responsibility into business operations and management (Lo, 2010). According to the Global Reporting Initiative (GRI, 2011) the social dimension of sustainability is related to the effect that the business may have on social systems in which it operates. While the economic dimension refers to the effects that the business may have on the economic conditions of its stakeholders and on local, national, and global economic systems.

Considering that accounting is an important measurement system of business activities, there is a growing amount of pressure imposed on professional accountants to better integrate sustainability into businesses’ decision making process to direct their decisions towards sustainable development. The role of accounting is becoming more crucial nowadays because of the inadequacy of natural resources and the social problems that are becoming more enormous for present and future generations (Caliskan, 2014). As the accounting profession is considered as a reflection of the economic, managerial, and societal developments that occur in its surrounding environment, the interest in sustainability accounting is growing internationally. More accountants are becoming aware of the triple bottom line (TBL) sustainability performance measurement model (Bremser, 2014), the three dimensions of the TBL model are interrelated and are referred to as the “three Ps” (profit, people, and planet).

Focusing on Egypt as an emerging economy, sustainability performance measurement is increasingly recognized as a serious concern. A considerable number of Egyptian companies disclose their environmental and social activities. In addition to that, the Egyptian Exchange (EGX) launched its S&P EGX ESG index in March 2010; the first & only ESG index in the Middle East and North Africa Region designed to track the performance of companies listed on EGX that demonstrate leadership in environmental, social and corporate governance (ESG) issues. This Index aims to raise the profile of those companies that perform well in the areas of environmental, social, and corporate governance responsibility when compared to their market peers (EGX, 2016).

This has drawn my attention to the question of this study; do sustainable firms achieve higher levels of financial performance as opposed to non-sustainable ones? More specifically, do they achieve higher levels of profitability?

2. Literature Review

The increased focus towards responsible and sustainable development has attracted the attention of both regulators and researchers, recent evidence suggests that there is a dominant movement by regulations from voluntary adoption of sustainability practices towards a more mandatory and strict application (Bodhanwala & Bodhanwala, 2018). On the side of researchers, a considerable amount of attempts have been made globally to analyze the association between sustainability and multiple variables including firm's performance.

Recently, researchers have shown increased interest in exploring the benefits that companies may obtain from being sustainability leaders; such as improved brand reputation, improved employee productivity, increased operating efficiency, gaining competitive advantage, and improved relations with regulators, society, and other stakeholders (Yu & Zhao, 2015; Asif et
al., 2011; Herzig & Schaltegger, 2011). In the same vein, (Reverte, 2009) found that corporate interest in sustainability reporting could result in a better competitive advantage, an increased level of public relations, and recognition of the efforts undertaken by the firm.

Referring to the triple bottom line (TBL) sustainability performance measurement model, sustainability practices include environmental, social, and economic aspects. As for the environmental aspect, the adoption of eco-efficient business strategies and environmental disclosures are found to be positively related to firm value (Henao, 2018; Moneva & Cuellar, 2009; Sinkin et al., 2008; Lo & Sheu, 2007). Although these studies are mainly about environmental performance and reporting, they represent a scientific background for sustainability accounting. However, environmental performance is just one of the various aspects of sustainability.

The second aspect of sustainability is social performance. Berthelot et. al. (2012) found that sustainable development reports are often called “corporate social responsibility reports” and have been gradually replacing environmental reports issued by companies. The informative content of corporate social responsibility reports CSR was found to be valued by stock participants and showed improvements on stock prices (Jizi at al., 2016). Besides, long term investors consider corporate social and environmental behavior as material to investment decisions due to the competitive advantage CSR might give to the firm. (Aguilera et al., 2006)

Investigating other types of benefits that businesses may achieve by being committed to sustainability practices, a number of researchers have reported that firms that practice remarkable sustainable development strategies report higher profitability. Bodhanwala & Bodhanwala (2018) found that firms that engage in sustainability practices record higher values of return on invested capital, return on equity, return on assets, and earnings per share as compared to firms that show less interest in sustainability measures. Similarly, Semenova et al. (2010) concluded that companies with higher environmental and social performance tend to achieve higher returns, while companies with the lowest scores achieve lower ones. Additionally, in efficient markets, all disclosed information whether financial or nonfinancial, leads to reducing the degree of information asymmetry (Cho et al., 2013) which –in turn- enhances the firm’s ability to access finance in capital markets, reduces its cost of capital and returns volatility (Kothari et al., 2009; El Ghoul et al., 2011; Cheng et al., 2013).

Moreover, the integration of environmental and social responsibility into corporate strategies and practices reduce firm risk (Zahid & Ghazali, 2017; Jo & Na, 2012). Sustainability is becoming a vital instrument for minimizing conflicts among various stakeholders, resulting in less risky corporate behavior and stable growth (Godfrey et al., 2009). Sustainability in the organization is a unique process of how business operations are designed and conducted in such a way that lead to higher organizational performance and better decision making, which –in turn- leads to a better implementation of risk management framework. All of this will improve the overall economic value of the organization (Shad et. al., 2019).

It was also found that sustainable firms are partially rewarded for their sustainable development strategies. A number of researchers demonstrated that in terms of profitability, sustainable firms generally perform better that other firms, implying that the firm’s
sustainable strategy helps in generating profit given limited input resources (Xiao et. al., 2018; Ameer & Othman, 2012; Lo, 2010, Artiach et. al., 2010).

Overall, there seems to be some evidence that indicates a positive effect on a firm’s performance – on both financial and nonfinancial levels- if it chooses to engage in sustainability activities. However, Yu & Zhao (2015) found that the valuation premium for companies that are environmentally and socially responsible and well governed, is higher in countries with stronger investor protection. Furthermore, the premium is more pronounced for firms operating in higher financial transparency environments.

Looking at the other side, numerous researches have emerged offering contradictory findings about the relationship between corporate sustainability and firm performance measures. Some studies report inconclusive and mixed results which can be attributed to the period of the study, the region of application, or the methodology applied by researchers. A number of researches pointed out the firm’s social and environmental practices are likely to impose an additional cost that may have a negative effect on its profitability (Lopez, 2007; Wanger et al., 2002; Jaggi & Freedman, 1992). Another research attempts argued that there might not be a significant relation between corporate sustainability and its profitability levels. They found that firms that do not make efforts with regard to their social and environmental performance may have a better chance to offer their products and services at competitive prices. (Aras et. al., 2010; Garcia-Castro et. al., 2010; Surroca et. al., 2010; Abagail & Siegel, 2000; Mill, 2006; Murray et al., 2006)

This study fits into the above mentioned background and tries to offer a key to understanding the possible relationship between a corporate being sustainable and its level of profitability in emerging markets, using the Egyptian market as an example. It is expected that this study offer several contributions to the scientific debate. First, it enriches the existing literature on the potential improved performance of sustainable firms. Second, it contributes to filling the gap of existing literature about sustainability performance in emerging capital markets. In addition, so far there has been –to the best of my knowledge- no empirical studies that test the effect of sustainability performance on the firm’s profitability in Egypt, and that is what this study is trying to do.

3. Research Design and Data Collection

3.1 Hypotheses Development

Traditionally, it has been argued that there is a direct effect of sustainability practices undertaken by firms and their market value (Greeves & Ladipo, 2004; Schadewitz & Niskala, 2010). According to (Cardamone et al., 2011) sustainability reports publication can also have an indirect impact on the firm’s stock price, because they are received by investors as a source of future information about the nature, composition, and trends of the traditional accounting measures.

According to the above considerations, and as this study is trying to explore the relationship between the firm being sustainable, and its potential to achieve higher levels of profitability, it is going to test the following hypothesis:

H1: Sustainable firms have higher market value of equity.
Recent evidence suggests that a firm’s environmental or social practices interact with stakeholders’ preferences, and finally induce financial gains to firms (Bodhanwala & Bodhanwala, 2018; Lo, 2010). Many empirical studies have uncovered a positive relationship between corporate sustainability practices and its financial benefits (King & Lenox, 2002; Schnietz & Epstein, 2005; Lo & Sheu, 2007). In the light of these findings, this study will test the following hypothesis:

H2: Sustainable firms have a higher level of return on equity.

One of the most important and controversial issues in corporate finance is answering the question of whether dividend changes gives information about future earnings and profitability. In this context, various studies have found that dividend changes are positively correlated with future profitability (Nassim & Ziv, 2001; John & Williams, 1985; Miller & Rock, 1985).

Taking into account the above, considering that this study aims to answer the question of whether corporate sustainability practices have an impact on corporate profitability, it will test the following research hypothesis:

H3: Sustainable firms pay more cash dividends to stockholders.

3.2 Data

This study examines whether corporate sustainability practices has an impact on corporate profitability or not. This is done using data of the 221 Egyptian corporations listed in the Egyptian stock market in the year 2015; these firms were classified into two groups according to the following criteria:

Group (1): are firms that are included in the S&P/EGX ESG Index that includes Egyptian companies with the highest score in terms of environmental, social and corporate governance responsibility. This index includes 30 stocks from the pool of 100 Egyptian companies screened annually, and uses an innovative score-weighting scheme. (EGX, 2016)

Table 1. S&P/EGX ESG Index constituents and their weights

<table>
<thead>
<tr>
<th>ISIN Code</th>
<th>COMPANY</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGS60121C018</td>
<td>Commercial International Bank (Egypt) S.A.E.</td>
<td>4.24%</td>
</tr>
<tr>
<td>EGS69101C011</td>
<td>Egyptian Financial Group-Hermes Holding Company</td>
<td>3.68%</td>
</tr>
<tr>
<td>EGS74081C018</td>
<td>Global Telecom Holding</td>
<td>3.66%</td>
</tr>
<tr>
<td>EGS42051C010</td>
<td>Egyptian Transport (EGYTRANS)</td>
<td>3.63%</td>
</tr>
<tr>
<td>EGS65851C015</td>
<td>Six of October Development &amp; Investment (SODIC)</td>
<td>3.56%</td>
</tr>
<tr>
<td>EGS95001C011</td>
<td>Orascom Construction Limited</td>
<td>3.54%</td>
</tr>
<tr>
<td>EGS694A1C018</td>
<td>Porto Group Holding</td>
<td>3.51%</td>
</tr>
<tr>
<td>EGS73541C012</td>
<td>Citadel Capital Corp</td>
<td>3.47%</td>
</tr>
<tr>
<td>EGS3C001C016</td>
<td>Arabian Cement Company</td>
<td>3.46%</td>
</tr>
<tr>
<td>EGS69082C013</td>
<td>Egyptian Kuwaiti Holding</td>
<td>3.42%</td>
</tr>
<tr>
<td>EGS675S1C011</td>
<td>Amer Group Holding</td>
<td>3.38%</td>
</tr>
<tr>
<td>EGS673Y1C015</td>
<td>Emaar Misr for Development</td>
<td>3.38%</td>
</tr>
<tr>
<td>EGS690C1C010</td>
<td>Raya Holding For Technology And Communications</td>
<td>3.33%</td>
</tr>
<tr>
<td>EGS380S1C017</td>
<td>Sidi Kerir Petrochemicals</td>
<td>3.30%</td>
</tr>
<tr>
<td>EGS655L1C012</td>
<td>Palm Hills Development Company</td>
<td>3.30%</td>
</tr>
<tr>
<td>EGS3C071C015</td>
<td>El Ezz Ceramics &amp; Porcelain</td>
<td>3.25%</td>
</tr>
<tr>
<td>EGS65571C019</td>
<td>Medinet Nasr Housing</td>
<td>3.25%</td>
</tr>
<tr>
<td>EGS3G0Z1C014</td>
<td>El sewedy Electric company</td>
<td>3.23%</td>
</tr>
<tr>
<td>EGS3C181C012</td>
<td>Suez Cement</td>
<td>3.22%</td>
</tr>
<tr>
<td>EGS380P1C010</td>
<td>Alexandria Mineral Oils Company</td>
<td>3.22%</td>
</tr>
<tr>
<td>EGS69182C011</td>
<td>Naem Holding</td>
<td>3.21%</td>
</tr>
<tr>
<td>EGS3C251C013</td>
<td>Ezz Steel</td>
<td>3.20%</td>
</tr>
<tr>
<td>EGS42111C012</td>
<td>Alexandria Containers and Goods</td>
<td>3.18%</td>
</tr>
<tr>
<td>EGS673T1C012</td>
<td>GB Auto</td>
<td>3.12%</td>
</tr>
<tr>
<td>EGS691S1C011</td>
<td>Talaat Moustafa Group Holding</td>
<td>3.09%</td>
</tr>
<tr>
<td>EGS305I1C011</td>
<td>Edita Food Industries S.A.E</td>
<td>3.07%</td>
</tr>
<tr>
<td>EGS33041C012</td>
<td>Oriental Weavers</td>
<td>3.07%</td>
</tr>
<tr>
<td>EGS48031C016</td>
<td>Telecom Egypt</td>
<td>3.06%</td>
</tr>
<tr>
<td>EGS38311C014</td>
<td>Paint &amp; Chemicals Industries (Pachin)</td>
<td>3.06%</td>
</tr>
<tr>
<td>EGS67221C019</td>
<td>Arab Moltaka Investments</td>
<td>2.94%</td>
</tr>
</tbody>
</table>

Group (2): contains the remaining 191 firm.

For each company in both groups –after excluding the companies with missing data- 4 types of data is collected. First, a dummy variable is assigned to the company to show whether it is sustainable or not: 1 if sustainable (included in the EGX ESG ) & 0 if not. Secondly, market value of equity will be calculated as the company’s annual average market price of shares multiplied by its number of outstanding shares. Thirdly, return on equity is calculated as net
income divided by stockholders’ equity. Lastly, cash dividends paid to shareholders will be obtained from the company’s financial statements.

4. Empirical Analysis

Because this study uses the data of the entire population of the Egyptian corporations listed in the Egyptian stock market in the year 2015, it doesn’t depend on statistical tests to answer its question. Rather, it tries to answer the research question through comparing sustainable and non-sustainable firms in terms of their average market value of equity, return on equity, and cash dividends paid to stockholders. These three variables were collected/calculated for the entire population of 221 companies, after companies with missing data were excluded; descriptive data were generated for the three variables as the following table shows:

Table 2. Descriptive statistics of research variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market value of equity</td>
<td>17,711</td>
<td>49,668,707</td>
<td>2,054,374</td>
<td>5,410,333</td>
</tr>
<tr>
<td>Return on equity</td>
<td>0</td>
<td>55.7</td>
<td>11.57</td>
<td>12.48</td>
</tr>
<tr>
<td>Cash dividends</td>
<td>0</td>
<td>1,563,646</td>
<td>77,403</td>
<td>200,521</td>
</tr>
</tbody>
</table>

As for the first hypothesis and after dividing the population to sustainable and non-sustainable firms, the average of the market value of equity is calculated for each group, the result is shown in the following figure:

Figure 1. Market value of equity in sustainable versus non-sustainable firms

This figure shows that sustainable firms have a much higher market value of equity as opposed to non-sustainable ones. The average market value of equity for sustainable firms is 4,863,034 L.E. -which is more than twice the population average (2,054,374) - while for non-sustainable firms it is 1,560,731 L.E. only. So, the first hypothesis is accepted, sustainable firms do have higher market value of equity.
If we now turn to the second hypothesis, the population was divided to sustainable and non-sustainable firms, and then the average return on equity was calculated for each group, the result is shown in the following figure:

![Figure 2. Return on equity in sustainable versus non-sustainable firms](image)

As this figure shows, sustainable firms have a much higher return on equity percentage in comparison with non-sustainable ones. The average return on equity for sustainable firms is 12.5% -which is slightly above the population average (11.57%) - while for non-sustainable firms it is 4.8% only. Considering that, the second hypothesis is also accepted, sustainable firms do have higher return on equity.

In the final part of this study, the third hypothesis was tested by collecting the data about cash dividends paid to stockholders for both sustainable and non-sustainable firms, and then the average cash dividends was calculated for each group, the result is shown in the following figure:

![Figure 3. Cash dividends paid to stockholders in sustainable versus non-sustainable firms](image)

Looking at this figure, sustainable firms paid a much higher amount of cash dividends than the non-sustainable firms did. The average amount of cash dividends paid by sustainable firms is 138,245 L.E. -which is significantly above the population average (77,403 L.E.) - while for non-sustainable firms it is only 67,982 L.E. According to this result, the third
hypothesis is accepted; sustainable firms do pay larger amounts of cash dividends to stockholders.

Taken together, these results suggest that there is an association between the firm being engaged in sustainability practices and its level of profitability.

5. Discussion and Conclusion

The purpose of the current study was to investigate the association between adopting sustainability practices by Egyptian companies and their level of profitability. I tested three hypotheses, the first concerned whether sustainable firms achieve higher levels of market value of equity than non-sustainable firms, the second involved whether sustainable firms have higher levels of return on equity compared to non-sustainable ones, and the last was about the amount of cash dividends paid by sustainable firms to their stockholders as opposed to non-sustainable ones.

To answer these questions, I used the population of Egyptian companies listed in the Egyptian stock market in the year 2015. In my models, being sustainable was accounted for by a dummy variable equal to 1 if the company is included in the EGX/ESG index or 0 otherwise, market value of equity and return on equity were calculated for all the tested companies, and data about cash dividends was obtained from companies’ financial statements. Egyptian companies that were tested were 221 companies divided into two groups: 30 sustainable firms and 191 non-sustainable ones.

The descriptive statistics showed that market value of equity, return on equity, and cash dividends are higher in sustainable firms, these results demonstrate that –all other factors being equal- sustainability practices are associated with higher level of both market value of equity and return on equity. Furthermore, cash dividends paid to stockholders are proven to be higher for sustainable firms.

These findings are consistent with those of other studies that concluded that engaging in sustainability activities contributes to the firm’s current and potential level of profitability. They are also consistent with those of other studies that suggested that sustainability practices lead to higher levels of returns and improved performance in terms of profitability ((Bodhanwala& Bodhanwala, 2018; Semenova et al, 2010; Lo, 2010)

However, these results differ from some other studies (Aras et. al., 2010; Garcia-Castro et. al., 2010; Surroca et. al., 2010; Murray et al., 2006; Mill, 2006; Wanger et al., 2002) which didn’t define a clear association between sustainability practices and profitability indicators. It is difficult to explain this contradiction, but it might be related to the high level of costs associated with sustainability practices which may have a negative impact on the firm’s level of profitability.

These results are unique to the Egyptian market in which this study was implemented. It is an emerging and less well established market than those of developed countries. Therefore, these results are not applicable to all stock markets, and more research on this topic needs to be
undertaken before the association between sustainability practices and profitability is more clearly understood.

References


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