

Corporate Social Responsibility and its impact on Financial Performance

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Abstract: Purpose: Examine the relationship between Corporate Social Responsibility (CSR) and financial performance in Muscat Stock Exchange in the years 2020-2023.

Hypothesis:

H1: There is a positive linear relationship between a company's CSR performance and its accounting based financial performance (represented by ROA).

H2: There is a positive linear relationship between a company's CSR performance and its market based financial evaluation (represented by Tobin's Q).

H3: Industry moderates the relationship between CSR and financial performance

H4: Firm size moderates the relationship between CSR and financial performance.

Theoretical framework: CSR, Previous research

Methodology: Longitudinal study, Secondary analysis

Conclusion: Hypothesis 1 may be rejected. Hypothesis 2 may be rejected. Hypothesis 3 may be rejected. Hypothesis 4 may be rejected.

Keywords: Corporate Social Responsibility (CSR), financial performance, Muscat Stock Exchange.

1. INTRODUCTION

Corporate Social Responsibility or commonly known as CSR, referred to as Social Responsibility (SR), was discussed as early as the 1930's (Carroll, 1999). However, Carroll (1999) argues, it was not until the publication of Bowen's *Social Responsibilities of the Businessman* in 1953 that the concept became popularized and discussed in similar terminology as it is today. Bowen (1953) defines CSR as "(it) refers to the obligations of businessmen to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society" (Bowen, 1953, p 6). From this publication and through the research that has followed onwards, the true definition of what CSR entails has been heavily debated (Moon & Matten, 2008). Moura-Leite and Padgett (2011) discuss how the focus of CSR has shifted from acknowledgement of social interest to having become an important part of a many companies overall strategic approach. During the negotiations of the EU directive regarding the mandatory reporting of CSR activities in 2014, Claes Norberg, accounting expert at Svenskt Näringsliv, expressed concern that it could become nothing but a constraint and paradoxically hinder corporation's ability to excel in matters connected to social responsibility (Norberg, 2014).

1.1 Problem discussion

Since the popularization of the concept of CSR, there have been different opinions as to what CSR is intended to accomplish for a firm. One of the first influential public figures to air his opinion in the matter was renowned economist and debater Milton Friedman (1970) who claimed that the sole social responsibility of a business is oblige to the wills of its shareholders and increase its profits within the boundaries of laws and business ethics. Friedman (1970) further argues that firms should not focus on CSR unless it acts as a value creator and adheres to the wishes of the company's shareholders. Cheng et al.

(2014) argues that CSR can strengthen the relationship with a company's stakeholders and further adds that firms using CSR tend to lower its capital constraints through better access to bank loans which makes it easier to undertake strategic investments. Another factor which has been highlighted as a beneficial reason for corporations to work actively with CSR is the increased influence of various stakeholders (Grafström et al. 2008). Grafström et al. (2008) discusses how the traditional division of stakeholders (customers, citizens, institutions and/or media which are classified as to being directly or indirectly affected by the corporation) is in need of revision, partly due to the digitalization of the world and increased flow and access to information.

1.2 Purpose

Examine the relationship between Corporate Social Responsibility (CSR) and Financial Performance on the Muscat Stock Exchange (MSX) in the years 2020-2023.

2. LITERATURE REVIEW

2.1 CSR dimensions

How companies define and organizes its CSR activities varies, but a common practice is to utilize the Triple Bottom Line (TBL) framework (Shnayder et al., 2015). TBL refers to three different entities, people, planet and profit, sometimes referred to as the 3P's. *People* refers to how companies carries out its business in regard to the affected labour force, *Planet* attributes to how the company takes its responsibility towards environmental parameters and *Profit* refers to how the company's economically generates benefits to society (Shnayder et al., 2015). The TBL concept was established in the mid-1990s by economist John Elkington and has since been a frequently used term in the areas of CSR and sustainable development. An example of how the concept can be utilized in practice was when the petroleum company Shell was severely criticized for its drilling practices in Nigeria during the 1990s. In an attempt to improve its public image, the company hired consultants who based their proposals on the TBL framework as a mean to transform Shell's negative image to a more positive one (Tullberg, 2012). The 3P's have also been referred to social, environmental and financial dimensions of a company's CSR performance (Slaper & Hall, 2011). These three dimensions should, if properly evaluated, cover corporate sustainability and capital growth and meet the needs of a company's direct and indirect stakeholders (Dyllick & Hockerts, 2002).

2.1.1 Social dimension

Increasing pressure on companies to continuously manage its social responsibilities has forced companies to dedicate more time and resources on CSR activities in order to meet stakeholder expectations (Malsch, 2012; González-Rodríguez et al., 2015). With the increase of stakeholder awareness of a company's CSR activities, firms have become eager to promote its sustainable activities for marketing purposes (Bhattacharya & Sen, 2004; Lii & Lee, 2011). Examples of such CSR activities could be donations or subsidizing of medical drugs and vaccines by pharmaceutical companies to Third World nations or firms active in the manufacturing industry implementing internal norms or codes of ethics addressing issues regarding its environmental impact or working conditions (Hillman & Keim, 2001).

Dyllick and Hockerts (2002) discuss the importance of widening the interpretation of the company's CSR activities within the three dimensions, as companies nowadays need to view their CSR activities in a long-term perspective. For companies to be able to generate positive long-term results, the company needs to listen not only to its shareholders but also to its customers and other stakeholders. Therefore, it is difficult to discuss the societal dimension without considering the opinions of a company's end-consumers (Löhman & Steinholtz, 2003). Company's stakeholders often cover a large group of individuals and as information travels faster and is more accessible through the Internet, news regarding companies activities spread fast, which has increased people's awareness of how companies manage its social responsibilities (Grafström et al., 2008).

Mohr et al. (2001) discusses consumers' purchasing behavior and how it relates to companies social responsibilities. The authors claim that the pressure on companies to participate in solving problems related to its communities, such as donating to charities or actions to protect the environment, is increasing. Societal marketing is explained as conducting business in a manner that maintains and improves both the society's and the customer's well-being in form of minimizing any harmful effects and maximizing the company's long-term beneficial impact on the society (Kotler, 1991; Mohr et al., 2001). Mohr et al.'s (2001) research results shows a majority of surveyed consumers already do or would consider rewarding companies working actively with charitable giving's and philanthropy.

2.1.2 Environmental dimension

Humans' negative impact on the environment has been frequently discussed in the global forum for the past several decades, and Hart (1995) discusses how human activities and consumption of natural resources has sharply accelerated the last 40 years. Other concerns relate to the proceeding growth of the earth's population and its potential effect on the planet's ecological systems. As a consequence, the environmental impact of companies has come under increased scrutiny (Hart, 1995). Considering the increase in public interest in terms of company's environmental impact, it becomes more important for companies to consider the environmental consequences of its actions (Chatterji et al, 2009).

2.1.3 Financial dimension

During the past decades, companies CSR activities have increased simultaneously with the rising of stakeholders' demands (González-Rodríguez et al., 2015; Malsch, 2012). The scenarios are described as:

- If financial performance and CSR increase at the same time, it results in a win-win situation, regardless of governmental or ethical input towards the activities.
- If both financial performance and CSR fall at the same time, it results in a lose-lose scenario, where governmental input is likely to occur in order to counteract the unwanted situation.
- If financial performance increases when CSR decreases, public aversion towards companies can occur since environmental or social harm leads to increased profits for the companies.
- If financial performance decreases while CSR increases, it creates a conflict in contrast to the previous example where companies become unwilling to invest in CSR activities because of the decline in financial performance. This could also be caused by CSR investments requiring significant expenditure which may results in short term economic loss. (Windsor, 2006)

2.2 Stakeholder Theory

According to Murray and Vogel (1997), the practical definition of a stakeholder is any entity, typically outside the firm, that the organization aims to influence and that has an impact on the organization. The most commonly mentioned stakeholders of an organization include customers, government, competitors, regulatory agencies and political activist groups which have long been recognized as having a significant influence on the viability of an organization (Dill, 1958; Murray & Vogel, 1997). The values and norms held by stakeholders can concern issues which apply to those individuals or organizations themselves or extend to matters which do not directly influence their own well-being, for instance the case of a company utilizing child labor in a foreign country. As such, Maignan et al. (2005) argues that the marketing and operations of organizations have excelled from a narrow customer orientation to managing benefits and relationships with a variety of stakeholders.

Up until recent decades, the sole objective of companies has been perceived by many to be generating profits and oblige to the demands of its shareholders (Friedman, 1970). This perception is gradually changing and profits can no longer be considered to be the only objective of a firm as success is increasingly affected by stakeholder relationships, which covers a wide range of interests, the most pivotal of which being how the organization works with social and environmental issues (Russo & Perini, 2010). This stakeholder approach to CSR suggests that the needs of shareholders cannot be met without satisfying the needs of other stakeholders. As such, it has turned organizations attention away from focusing solely on profit maximization (Jamali, 2008). With this approach, the inherent challenge for organizations lies in determining whom they are responsible towards and how far that scope of that responsibility extends (O'Riordan & Fairbrass, 2008).

According to Murray and Vogel (1997), it has been suggested that how an organization is evaluated and viewed by stakeholders underpins all subsequent interactions. As such, it is of managerial interest to value how the organization is perceived in terms of ethical and social responsibility as CSR represents an important barter and cooperation between the organization and its stakeholders (Murray & Vogel, 1997).

2.2.1 Stakeholder Pressure

Acting individually or collectively, formally or informally, stakeholders have the potential to negatively or positively affect operations of an organization (Murray & Vogel, 1997). Murray and Vogel (1997) argue that many executives assumes, mistakenly, that stakeholders are interfering with what should be considered the organization's private affairs and as a result, less progressive firms may choose to ignore being responsive to public issues. In contrast, more progressive firms may

choose to implement well-managed CSR-programs to bring company practices at par with public expectation at an early stage of issue development. This approach consists of managers identifying key issues which threaten and/or are of mutual interest for the organization and its stakeholders in order to avoid future discontent (Murray & Vogel, 1997). One example of such discontent is the case in which Greenpeace's exerted pressure on Nestlé's use of palm oil in its products. Palm oil is crucial ingredient in many consumer products but the increased world demand of the product has been linked with extensive deforestation of rainforests for palm oil production. In 2009, Greenpeace published an infomercial on YouTube in which the organization encouraged a boycott for KitKat chocolate bars, a Nestlé product, to put pressure on the company to adopt a more sustainable supply chain in terms of the company's sourcing of palm oil used in the product. Similar eye-catching examples include Apple and the use of sweatshops and Nike's connection to child labor (Wolf, 2014). As a result, many organizations strive to go beyond the basic regulatory requirements of its operations and actively contribute to stakeholder needs (Maignan et al., 2005).

2.3 The relationship between CSR and Financial performance

Ever since the subject of CSR became popularized in the 1970's, the concepts and its possible linkage to financial performance has been of increased interest of practitioners and researchers alike. In one of the first published articles in the field, Alexander and Buchholz (1978) argued that the concept can be viewed from two different standpoints, the first being that a socially aware management also possesses the skill to run a superior company which is likely to result in better financial results and the second being that the cost incurred from increased CSR expenditure induces a competitive disadvantage.

In their research, Alexander and Buchholz (1978) utilized a reputation index as the basis of evaluating CSR performance, a method which came to be criticised by Cochran and Wood (1984) for the subjective nature of evaluation and not necessarily mirroring a company's actual CSR performance. In subsequent years, researchers continued debating the various approaches used by researchers in measuring both CSR performance and financial performance, not even in present day reaching a consensus which has hindered the possibility of generalizing results (Martinez-Ferrero & Valeriano, 2015). One reason for the problematic situation is the existence of a vast number of variables and that the researcher's selection of which variables to include in a study can have major implications on its eventual results (McGuire et al., 1988).

2.3.1 Influential factors

Other than the measuring of CSR and financial performance, researchers investigating the relationship have acknowledged that there are several other factors which can influence the relationship and should to be taken into consideration (Brammer & Millington, 2008).

According to McWilliams and Siegel (2000), each company is different in how it incorporates CSR, if at all, in its business structure. This, they argue, is determined by a variety of factors such as company size, industry environment, business culture and exposure to risks. Depending on the characteristic of the individual firm it can choose to focus heavily on one area of CSR, such as human rights or environmental aspects, or alternatively aim to integrate a wider range of CSR aspects into its organization (McWilliams & Siegel, 2000). Griffin and Mahon (1997) reach a similar conclusion and reiterate the suggestion that research investigating the CSR and financial performance relationship should separate companies by industry because of the dissimilarity in environmental and social related concerns, stakeholder engagement and activism. Further, separating industries would also increase the internal validity of the research (Griffin & Mahon, 1997).

3. METHODOLOGY

In order to test the association between CSR and financial performance in this research two main hypotheses are set:

H1: There is a positive linear relationship between a company's CSR performance and its accounting based financial performance (represented by ROA).

H2: There is a positive linear relationship between a company's CSR performance and its market based financial evaluation (represented by Tobin's Q).

In accordance with previous researchers' suggestions to include control variables which have been observed to moderate the relationship between CSR and financial performance (McWilliams & Siegel, 2000), two additional sub hypotheses are set:

H3: Industry moderates the relationship between CSR and financial performance.

H4: Firm size moderates the relationship between CSR and financial performance. 13

3.1 Research approach

This study utilizes a quantitative and deductive approach. A quantitative approach is considered suitable as the purpose of the study is to examine the relationship between CSR and financial performance from a statistical perspective regarding publicly traded companies on the MSX stock exchange. Further, a quantitative approach is commonly applied in research when working with statistical figures (Bryman & Bell, 2011). A deductive approach is considered most suitable as the research is based on existing theory and the results of previous research. The empirical result is tested and compared to previous research, hence it can be considered a deductive approach (Saunders et al., 2009).

3.2 Research design

This study utilizes correlational research design. Since the aim of this study focuses on examining the relationship between CSR and financial performance it was considered to be the most suitable research design.

3.3 Data sources

This study uses only secondary data which is gathered through MSX's 30 share Index and the sampled companies' annual reports. Using an already existing database can save both time and resources while also allowing the researchers to be able to focus more on the interpretation and analysis of data than the data collection itself (Bryman & Bell, 2011).

3.4 Research strategy

This study utilizes a longitudinal research strategy aimed at investigating the relationship between CSR and financial performance in publicly traded MSX companies over the course of four years, 2020 through 2023.

3.5 Data collection method

In this study, a secondary data analysis method is used for the collection of data. The choice of method was chosen due to the availability of CSR data provided by the MSX and its Index of Corporate Social Responsibility. It offers the advantage of providing CSR-evaluations for 90 companies on the Large-, Mid- and Small Cap stock exchange (on the MSX stock exchange market) during all four years examined in this research.

3.5.1 Financial data

The financial data utilized in this research is collected from participating companies' annual reports which includes data which enables calculations of the dependent variables of ROA and Tobin's Q. This particular use of secondary data considered by the researchers to be in line with what Saunders et al. (2009) consider to be reliable data. The publication of an annual report is mandatory for publicly traded MSX Companies to which joint-stock company has the obligation to report its financial performance each fiscal year (bolagsverket, 2015). As this longitudinal research stretches between the years of 2020-2023 the annual reports for each of these years are needed for all companies in the sample.

3.6 Operationalization

3.6.1 Measuring CSR

During the course of the past several decades, a large number of researchers have chosen to apply methods which attempt to measure overall CSR performance of firms, such as the KLD Index. The KLD Index (nowadays known as MSCI ESG Research) evaluates companies CSR performance based on eight different attributes (Waddock & Graves, 1997; McWilliams & Siegel, 2000; Tang et al., 2012; Pätäri et al., 2014). Whilst this method of measuring CSR performances has been applied by numerous researchers, some have criticized it for not being comprehensive enough or cover large enough samples (Simpson & Kohers, 2002) and that it is limited to measuring companies which are trading on the US Stock Exchange (Peng & Yang, 2014).

In this study, data from the MSX will be utilized and act as the measurement of companies CSR performance. In the case of MSX, the measurement of CSR is based on two attributes; human rights and environmental performance (Folksam, 2009). The main areas of evaluating human rights are; employee rights, the company's action in a societal context and the consideration of human rights in the supply chain. Main areas evaluated regarding environmental performance are; environmental management and environmental impact (Folksam, 2009). In order to address the purpose and hypotheses set for this particular study, the environmental and human right scores are combined to form a joint index of a corporation's CSR performance.

3.6.2 Measuring the financial performance

Cochran & Wood (1984) notes that there is no real consensus in the researching community when it comes to selecting which parameter to use as indicators of financial performance. The method which researchers commonly have utilized when evaluating financial performance can be divided into three categories. The first is using accounting and profitability based measures, such as Return on Assets (ROA) (Aupperle et al., 1985; Russo & Fouts, 1997; Tang et al., 2012; Moon et al., 2014) or combinations of various accounting variables (Cochran & Wood, 1984; Waddock & Graves, 1997; Preston & O’Brannon, 1997; Lee et al., 2009; Cavaco & Crifo, 2014; Saeidi et al., 2015). The second method is to use market based measures such as stock market performance (Alexander & Buchholz, 1978; Brammer et al., 2006) or market value (Martinez-Ferrero & Valeriano, 2015). The third approach is to use a combination of accounting based and market based measures (McGuire et al., 1988; Pätäri et al., 2014; Akisik & Gal, 2014). According to McGuire et al (1988) and Orlitzky et al. (2003), CSR is more strongly correlated with accounting based measures than market based measures.

3.7 Financial measurement

3.7.1 Tobin’s Q

Tobin’s Q was introduced by James Tobin in 1968 (Wang et al., 2014). The practical use of Tobin’s Q is measuring a firm’s market based financial performance (Horvathova, 2010). Essentially, Tobin’s Q aims to evaluate how effectively a firm exploits its assets and assesses if investments in that firm should be made on that basis. This method has become widely used in measuring a firm’s market based financial performance (Wang et al, 2014).

Approximation of Tobin’s Q = $(MVE + PS + DEBT)/TA$ 20

MVE = the firm’s share price multiplied by its common stock shares outstanding

PS = the firm’s liquidating value of outstanding preferred stock

DEBT = the firm’s short term liabilities and net of short term assets + the value of the long term debts

TA = the firm’s total assets

3.7.2 Return on assets

Return on assets (ROA) is a measure commonly utilized when estimating a firm’s economic performance and profitability (Belu & Manescu, 2013). Compared to a market based measure such as Tobin’s Q, ROA is a measure of which represents the financial performance within the firm (Guenster et al, 2011). According to Russo and Fouts, (1997), this type of measure is generally considered to be representing a firm’s financial performance. Moreover, a large body of previous research has utilized ROA when examining the relationship between CSR and financial performance (Tang et al., 2012). Russo and Fouts, (1997) used ROA as a measure in order to see if environmental performance were positively related with a firm’s financial performance. In another research made by (Moon et al., 2014) utilize ROA to see if companies participating in voluntary environmental programs experienced a positive effect on its financial performance. As ROA is a well-known and generally accepted measure when examining the relationship between CSR and financial performance, this study will utilize ROA as an accounting based financial measure. The formula used for calculating ROA is inspired by Hackston and Milne (1996) who calculated a firm’s ROA as the firm’s net profit divided by total asset:

ROA = Net Profit/Total Assets

3.8 Models used in this research

3.8.1 Simple linear regression

This study utilizes a simple linear regression model in the program SPSS in order to examine the relationship between CSR and the two dependent financial variables. A simple linear regression is commonly used as a statistical method to measure the relationship between one dependent variable and one independent variable (Yan & Su, 2009). It can also evaluate the direction (positive/negative) and the strength of the relationship between the two variables (Nolan & Heinzen, 2014). The direction of the variables is represented by the Beta value which describes how much the independent variable changes the dependent variable. A Beta value of 0, 01 represents 1% (Nolan & Heinzen, 2014). In turn, the strength of the relationship is explained by the R squared value, which tells how much the independent variable explains the relationship with the dependent variable. An R squared value of 0, 01 represents 1% (Malhotra & Birks, 2003). In order for the relationship between the independent and dependent variable to considered reliable, common practice is to only consider results reliable

when the P-value be no less than 0.05 (Nolan & Heinzen, 2014). There is however instances in which researchers allow a more relaxed lower boundary set at 0.1 (Waddock & Graves, 1997; Wang et al. 2014).

Linear regression has been utilized as method in previous research when investigating in the relationship between CSR and financial performance (Simpson & Kohers, 2002) and will also be included in this research. The dependent variables used in the simple regression model are ROA or Tobin's Q, the independent variable is represented by the CSR score provided by the MSX.

3.8.2 Moderated regression analysis

In classical validation models, the degree of association between two or more variables is measured. While this method has proven useful in many instances, there is uncertainty whether this method accurately describes a phenomenon and provides complete understanding regarding certain relationships (Sharma et al., 1981). In order to address this uncertainty, some researchers include additional, moderator variables in calculations which have been found to influence or strengthen the relationship examined (Sharma et al., 1981). In this research, the moderator variables firm size and industry are included in accordance with suggestions from several previous researchers of the CSR and financial performance relationship (Ullmann, 1985; Waddock & Graves 1997; McWilliams & Siegel 2000). In contrast, Orlitzky (2001) do not find evidence which would indicate that firm size generates smaller or greater positive effects on the relationship.

In order to test the hypothesis regarding the moderating effect of industry set for this research, the researchers followed the proposed division of industries set by MSX. After the exclusion of companies which do not fill the requirements necessary to perform this research, the number of companies in nine of the original 15 industry categories is considered too small to offer representative results of an industry. To minimize the possibility of misleading results, the researchers set a minimum requirement of 14 companies in a certain industry. After applying this requirement, six industries remain: Various Industries (20), Real Estate (4), Consumer Goods (14), Health Services (20), Finance (18) and IT (14), a total of 90 companies.

In order to evaluate the possible moderating effect of firm size, this research utilizes the division made in the MSX where companies are separated based on the Market Cap (short for market capitalization) segments they are listed on at the MSX Stock Exchange. This division leads to three groupings regarding firm size, Small Cap (market value below OMR 150 million), Mid Cap (market value between OMR 150 million and OMR 1 billion) and Large Cap (market value exceeding OMR 1 billion) (Swedbank, 2015).

3.9 Sample

In this section the sampling process for this study is presented as well as the sampling frame. The purpose of sampling techniques is, by deploying a variety of methods, to narrow down a population to identify a suitable sample where the related data needed is accessible and for it to be as suitable or targeted as possible to satisfy the study's purpose (Saunders et al., 2009). Bryman and Bell (2011) describe the process as narrowing the entirety of a population, consisting of companies, people or regions etc. through different samplings methods to generate a sample which is as accurate and representative as possible in order for research to answer its purpose. In the case of this research, the MSX provides the researchers with the entire population of companies in the MSX Stock Exchange's three largest Market Caps and the accompanying data needed to investigate the subject of interest.

3.9.1 Selection of participants

Folksam has performed and published the MSX since 2020 with annual reporting's being published between 2020-2023 and biannual reports from 2020 and onwards. The index consists of three sections, one where companies are divided by industry, one where companies are divided based on Market Cap (related to companies' turnover) and one where all companies are compared regardless of industry and size. Further, companies with broken fiscal years have to be excluded because of the inaccuracy it causes in terms of data consistency. Lastly, companies with annual reports lacking the financial variables needed to calculate Tobin's Q are excluded.

Original population of 113 companies examined between 2020-2023 by MSX: 23 companies excluded due to not being scored each year, broken fiscal year(s), and insufficient financial figures in annual report(s).

Remaining sample size: 90 from MSX and 77 non-listed firms in Oman in the field of SMEs.

3.10 Ethics in research

The most common considerations researchers need to consider during data collection is if there is any potential harm of participants, a risk of privacy invasion or any form of deception or lack of informed consent (Bryman & Bell, 2011). The ethical issues concerning the use of secondary data, as in this research, is considered to be difficult to determine as it concerns more of collective quality of the data (Saunders et al., 2009). A potential ethical issue that can occur through the use of secondary data is that it could end up being used in a way which it was not initially meant to or raise questions regarding the legal rights of utilizing the data (Bryman & Bell, 2011). The ethical issues connected to the use of secondary data in this research is considered to be minimal seeing as the MSX and financial reports of publicly traded companies are published through the websites of the respective owners of that information and it being dedicated or meant for public review.

3.11 Quality criteria

3.11.1 Reliability

According to Bryman and Bell (2011), reliability in research is related to whether the results of the study would be consistent if the study would be repeated with the same data and method. Reliability is of certain interest in quantitative researches as it is more noticeable if the measurements are stable or not. In this particular research, the CSR scores are taken from a large organization (Folksam) and companies published financial reports which adds reliability, as secondary data of this sort is often very reliable (Saunders et al., 2009). Bryman and Bell (2011) states three key terms of what reliability in research consists of: stability, internal reliability and inter-observer consistency. Stability concerns how stable the measurement is over time. Internal reliability describes whether or not the indicators of the index are consistent. Inter-observer consistency relates to if observations of the data are affected by any subjective input.

3.11.2 Validity

Validity is another aspect which researchers have to consider to ensure the trustworthiness of a research. The validity of a research is focused on the included measurements and that the research instrument actually measure what it is suppose to measure (Saunders et al., 2009). According to Houston (2004), the use of reliable secondary data within the field of economics and finance is commonly preferred to the use of self-generated data.

3.11.3 Internal validity

Internal validity is also related to the trustworthiness of the study but differs in that it is more focused on the researcher's observation and if the dependent variables vary because of the independent variable and not because of some other variable (Gay, 1992). The measures also need to be consistent in order to create a valid result throughout the research (Saunders et al., 2009). In this research, the dependent variables ROA and Tobin's Q were calculated and controlled before entered into a data spread sheet. Regarding significance in relationships between variables, researchers traditionally test relationships and consider those producing a P-value below 0.05 to be significant. In this research, a more relaxed boundary of 0.1 is set in accordance with previous research in this field of study (Waddock & Graves, 1997; Wang et al, 2014).

3.11.4 External validity

External validity refers to the possibility of drawing generalizable conclusions of results and it reflects how well the study's results are applicable to other organizations or companies (Saunders et al., 2009). Researchers often strive to reach a result that can be considered to represent a larger sample than what has been investigated. Therefore, the concern within quantitative studies is especially focused on selecting as a representative sample as possible to be able to apply the result on even larger scales (Bryman & Bell, 2011). The sample in this study consists of publically traded companies on the three largest Market Caps of the MSX Stock Exchange in order to cover the broadest possible sample of large companies in Sweden.

4. RESULTS

In this chapter, results of the empirical investigation are presented. The data regarding the sample is presented in descriptive terms before being tested for statistical significance regarding the relationship between CSR and the financial variables included. Further, the results of two moderator regression analyses are presented concerning the moderator variables firm size (represented by Market Caps) and industry. The results are all based on models created in the statistical program SPSS.

4.1 Descriptive Statistics

Table 1: Descriptive statistics

Variable:	Mean	Median	Std D	Min	Max	N
CSR	1,98	1,51	1,53	0,00	5,71	167
ROA	0,05	0,079	0,18	-0,73	0,58	167
Tobin's Q	2,70	1,90	2,58	0,78	18,54	167
CSR	2,07	1,72	1,45	0,00	5,57	167
ROA	0,06	0,068	0,13	-0,46	0,61	167
Tobin's Q	2,29	1,59	2,68	0,27	27,91	167
CSR	2,14	1,82	1,41	0,00	5,56	167
ROA	-0,01	0,04	0,26	-1,70	0,36	167
Tobin's Q	1,52	1,17	1,14	0,52	10,42	167
CSR	2,16	1,89	1,39	0,00	5,56	167
ROA	0,00	0,034	0,25	-2,05	0,56	167
Tobin's Q	1,99	1,40	1,91	0,16	13,90	167

In *table 1* above, the descriptive statistics of the entire sample are listed the sampled companies' CSR, ROA and Tobin's Q data is presented. A total of 167 companies remain after companies missing financial data and companies which were not present on the MSX Stock Exchange during the entire time period are excluded.

The statistics indicates that the mean and median CSR score increases in each year observed in the study. The financial variables, ROA and Tobin's Q, display a less predictable pattern in terms of rises and falls. The ROA mean value in 2020 is 5% compared to 6% in 2021, -1% in 2022 and 0 in 2023. The median value of ROA remained higher than the mean in each observed year which indicates a negative skewedness of the distribution of data, meaning that there are fewer low values in the sample. The mean value of Tobin's Q falls between 2020 and 2021 before decreasing heavily in 2022 and recovering slightly in 2023. There is a considerable difference between the minimum and maximum Tobin's Q values in the observed time period, the largest being 27, 91 in 2022 and the smallest being 0, 16 in 2023.

4.2 Regression Results

Table 2: Regression Results

ROA	P-value	Not sig	Not sig	0,043**	0,079*
	Beta	0,015	0,008	0,029	0,024
	R Squared	0,009	0,003	0,019	0,013
	N	167	167	167	167
Tobin's Q	P-value	Not sig	Not sig	Not sig	Not sig
	Beta	-0,108	-0,143	0,027	-0,106
	R Squared	-0,002	0	-0,005	0
	N	167	167	167	167

* => 10 %, ** => 5%, Not Sig = Not significant

In *table 2*, the regression results for the entire sample are presented. In terms of ROA, the years 2020 and 2021 do not present a significant relationship between CSR and ROA. In 2022, the p-value is below 0,05 which indicates a relationship between the variables where the Beta is 0,029 and the R squared value is 1,9%. Data from 2022 also indicates a relationship between the variables although not as strongly with a p-value slightly below 0.1. The Beta this year is 0,024 and the R squared is 1,3%. The regression results for Tobin's Q do not indicate a statistically significant relationship between the variables in any of the observed years.

4.3 Descriptive Statistics – industry

Table 3: Industry Specs

Variable:	Various industries	Real Estate	Consumer goods	Health Service	Finance	IT
CSR	1,99	2,18	2,32	1,61	0,92	0,8
ROA	0,09	0,09	0,07	-0,15	0,11	0
Tobin's Q	2,50	1,11	3,48	4,92	1,89	2,5
CSR	2,17	2,22	2,56	1,56	0,93	1,29
ROA	0,08	0,07	0,10	-0,06	0,79	0,03
Tobin's Q	2,02	0,94	4,28	3,56	1,3	2,05
CSR	2,21	2,32	2,26	1,58	1,08	1,4
ROA	0,05	-0,02	0,10	-0,06	-0,21	-0,05
Tobin's Q	1,35	0,89	1,89	2,66	1,14	1,27
CSR	2,19	2,29	2,28	1,62	1,07	1,44
ROA	0,03	0,02	0,08	-0,16	0,08	0
Tobin's Q	1,66	0,88	2,56	4,44	1,19	1,65
N	28	14	14	20	18	23

In table 3, the sample has been divided into its industry categories with each industry including a minimum of 14 companies in each industry and year. This leads to a classification where the highest number of companies can be found in Various Industries (28) and the smallest amount in Real Estate and Consumer Goods (14). In terms of CSR score, it can be observed that companies in the Consumer Goods industry receive consistent high scores compared to other industries (only receiving a lower mean score than companies in the Real Estate industry in 2020 and 2021). At the other end of the spectrum, it can be observed that companies in the Finance and IT industries receive lower scores than other industries, where the mean CSR scores of IT companies are consistently lower than 1,44. The mean CSR scores in the IT industry are considerably lower than those of Various Industries, Real Estate and Consumer Goods throughout the observed time span.

When comparing ROA means of the industries, it can be observed that companies in the Various Industries and Consumer Goods categories have a mean ROA greater than zero throughout the observed time period. The mean ROA for companies in the Health Service industry is never greater than 0 while Companies in the Real Estate, Finance and IT industries have a mean ROA which fluctuates across the time span. In terms of Tobin’s Q, Consumer Goods and Health Services companies produce the highest values. Companies in the Real Estate industry have an average Tobin’s Q less than zero in three of the observer years and companies in the Finance Industry have a Tobin’s Q which is slightly above 1.

4.4 Regression Analysis – industry

In this section, regression results are presented after the division of companies based on industry. In four of the six industries, the p-value exceeded 0.1 in terms of the relationship between CSR and ROA and Tobin’s Q respectively in all of the observed years and are therefore not further examined. The other two industries, Various Industries and Health Services, produced a p-value below 0.1 regarding some of the relationships between CSR and ROA or Tobin’s Q during the observed time span and these industries’ respective results are presented in table 4.

Table 4: Regression – various industries

ROA	P-value	0,053*	Not sig	Not sig	0,075*
	Beta	-0,026	0,01	0,016	0,037
	R Squared	0,103	0,017	0,014	0,083
	N	28	28	28	28
Tobin's Q	P-value	0,065*	Not sig	Not sig	0,036**
	Beta	-0,45	-0,162	-0,092	-0,252
	R Squared	0,092	0,019	0,031	0,125
	N	28	28	28	28

* => 10 %, ** => 5%, Not Sig = Not significant

The sample in the Various Industries group consists of 28 companies and the regression results are presented in table 4. In 2020 and 2021, neither of the relationships between CS and ROA or Tobin’s Q indicated statistical significance with p-values above 0.1. In 2020 and 2021 significant relationships can be observed both in terms of the CSR-ROA and CSR-Tobin’s Q relationships. In terms of ROA, the Beta in 2020 indicates that the relationship is negative with an R squared value of 0,103 whereas in 2021 the Beta is positive with an R squared value of 0,083.

The statistical significance regarding the relationship between CSR and Tobin’s Q in 2020 and 2021 are 0,065 and 0,036 respectively. The Beta values are negative in both 2020 and 2021 and the R squared value in 2020 is slightly lower than in 2023, 0,092 and 0,125 respectively.

Table 5 Regression – Health Industry

ROA	P-value	Not sig	Not sig	Not sig	Not sig
	Beta	0,074	0,027	0,037	0,088
	R Squared	0,024	-0,025	-0,025	0,002
	N	20	20	20	20
Tobin's Q	P-value	0,011**	Not sig	0,0032***	Not sig
	Beta	2,06	0,923	1,285	0,95
	R Squared	0,268	0,062	0,361	0,008
	N	20	20	20	20

** = > 5%, *** = > 1%, Not Sig = Not significant

The second industry in which certain p-values were below 0.1 in certain instances was Health Services. The CSR and ROA relationship does not produce a p-value below 0.1 in any of the four years observed whereas the CSR and Tobin’s Q relationship in 2020 and 2021 are below 0.05. In these years, Beta values are positive and the R squared figures are 0,268 and 0,361 in 2020 and 2022 respectively.

4.5 Moderating Effect of industry

Table 6 Moderating Effect Industry

ROA	Not sig	Not sig	Not sig	Not sig
Tobin's Q	0,027**	Not sig	0,029**	Not sig

** = > 5%, Not Sig = Not significant

Table 7 Descriptive Statistics Mean Values

Variable	Small Cap	Mid Cap	Large Cap
CSR	1,17	1,78	3,15
ROA	-0,01	0,05	0,1
Tobin's Q	2,79	2,67	2,6
CSR	1,34	1,92	3,12
ROA	0,02	0,06	0,09
Tobin's Q	2,46	2,03	2,3
CSR	1,41	1,94	3,21
ROA	-0,08	-0,04	0,03
Tobin's Q	1,46	1,44	1,65
CSR	1,47	1,9	3,25
ROA	-0,08	0,03	0,06
Tobin's Q	1,94	2,17	1,9
N	68	45	54

ROA	0,017**	0,089*	Not sig	Not sig
Tobin's Q	0,082*	Not sig	0,052*	Not sig

* = > 10% ** = > 5%, Not Sig = Not significant

In *table 7*, the descriptive statistics for the sample are displayed when the sample is divided based on their respective Market Cap on the OMX stock exchange. In terms of CSR scores, the different Market Caps display a similar pattern in that the mean score of companies is successively increasing every year throughout the observed time period (with the sole exception of Large Cap in 2021). Another aspect that can be observed is that the CSR score mean is highest for companies in the Large Cap while companies in the Mid cap segment receive higher scores than companies in the Small Cap segment.

Regarding ROA, Large Cap companies have a mean value which is positive in all of observed years whilst Mid Cap companies have a negative ROA mean in 2020 and ROA mean for the Small Cap companies is negative in three of the four observed years. The Tobin's Q mean value is above 1 in all Market Caps throughout the observed time period with the highest overall mean value being 2,79 for the Small Cap segment in 2020.

5. DISCUSSIONS

H1: In the regression results for the entire sample in *table 2*, it can be observed that the relationship between ROA and CSR produced different levels of significance (p-value) during the four intervals measured. In 2020 and 2021 the p-values appear to exceed 0.1, whereas in 2022 and 2023 it is 0,043 and 0,079 respectively. The R squared values for 2020 and 2023, in which results indicate statistical significance, are 1,9% and 1,3% which indicates that although a relationship can be observed between the variables ROA and CSR, the movement is only explained by 1,9% and 1,3% respectively. These figures indicate that even when a relationship is detected, R squared values on this level are very low and thus hinder the possibility of drawing too wide-spread conclusions from. It can further be inferred that there are other factors which have a significantly larger impact on a company's ROA than its CSR performance. Hypothesis 1 is therefore rejected.

H2: In *table 2* the results of the regression analysis of the relationship between CSR and Tobin's Q is examined for the entire sample. In contrast to the analysis of the CSR and ROA relationship, these results do not produce statistical significance in any of the observed years and therefore it is difficult to discuss the Beta and R squared values and what they may represent. Because of the lack of significance throughout the timespan in this research, Hypothesis 2 is rejected.

H3: In the regression analysis, four of the industries examined failed to produce significant results regarding the relationship between CSR and ROA/Tobin's Q. In two of the industries, Various Industries and Health Services, some significance can be observed. Hypothesis 3 cannot be accepted. Even though there are certain industries that display some statistical significance, the overall moderating effect of industry in terms of its effect on the CSR and financial performance relationship occurs sporadically and only to a small extent. Based on these results, Hypothesis 3 is rejected.

H4: The Beta values are consistently negative in all years which indicate that the market punishes investments in CSR made by Small Cap companies in terms of ROA. These finding could also indicate that CSR investments can incur short-term economic loss due to investments made in CSR activities (Windsor, 2006). The mean scores of CSR for companies in the Small Cap are consistently lower than those in the Mid or Large Caps which is in line with Waddock and Graves (1997) suggestions that smaller companies tend to invest less significantly in CSR activities than larger companies. Hypothesis 4 is therefore rejected.

6. CONCLUSION

Reviewing the research result of investigating the relationship between CSR and financial performance in large Swedish publicly traded companies it can be concluded that no significant relationship can be observed for the sample. Even though tendencies can be observed, as in the case of the negative relationship between Tobin's Q and CSR in the Small Cap market, the regression analysis moderated by Market Cap displayed no significance in terms of its moderating effect on the CSR and Tobin's Q relationship. Considering that very few of the regression analyses in this research produced P-values lower than 0,05 attests to the lack of significance in the relationship between CSR and financial performance regarding the sample examined.

7. SUGGESTIONS

The use of more financial variables could offer a wider scope of insight into how CSR performance affects different financial parameters. Further, future research could perform similar testing's in more recent years to investigate if the relationship is more significant than in the time span investigated in this study. Another suggestion for future research is to utilize a larger sample than the one observed in this research.

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