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Understanding the Relationship Between CSR and CFP: Investigating the Influence of Slack
Resources

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ABSTRACT

The relationship between corporate social responsibility (CSR) and corporate financial performance (CFP) has long been debated in existing literature. With conflicting results and a lack of understanding what factors lead CSR to impact CFP, much is still unclear about the potential relationship and how companies can approach CSR initiatives from a strategic perspective. This study sought to identify the role of slack resources within companies that engage in CSR initiatives. Using the S&P Global ESG scores, this study sought to understand the role of slack resources used by companies defined as top performers in CSR. By understanding the role of slack resources in top performing companies, this study hoped to serve as a tool to help companies understand the importance of considering internal resources in determining CSR strategy.

Keywords: Corporate social responsibility, corporate financial performance, corporate social performance, corporate spare capacity, resource-based view, slack resource, strategic CSR, stakeholder theory

Dedication

This dissertation is dedicated to my son Lance. May you always have the persistence to go after your dreams no matter what roadblocks may occur along the way. I also dedicate this dissertation to my parents, who have supported me endlessly throughout my journey. Finally, I dedicate this dissertation to my very best friend. This dissertation would not be possible without the encouragement, “check-in’s,” laughs, and unwavering support of my “BFF.” You have helped me more through the final year of the dissertation process than I can even put into words.

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Chapter 1: Overview of the Study

Corporate social responsibility (CSR) has been an area of focus for companies for many years, with early discussions on the topic introduced by Bowen (1953), Davis (1960), McGuire (1963), and Carroll (1979). CSR has become an expectation of modern companies (Carroll & Olegario, 2020; Ubrežiová, Kurčová, & Horváthová, 2017) and the topic has gained more attention in recent years as having strategic implications. With noted strategic benefits (Jones, Harrison, & Felps, 2018), much focus has turned to questions related to the measurable value of CSR (Barnett, 2007; Daniel, 2018; Lim, 2017; Patterson Shirey, 2013). While studies suggest that many company leaders believe the business case for CSR exists (Hafenbraedl & Waeger, 2017), others suggest that conflicting findings mean that further understanding is needed (Wang, Dou, & Jia, 2016).

In recent years, CSR activities have become the expectation and the norm in companies of all sizes (Carroll & Olegario, 2020; Ubrežiová, Kurčová, & Horváthová, 2017). With benefits noted in marketing (Zafran, 2018), employee relations (Zahid et al. 2017), and overall competitive advantage (Jones, Harrison, & Felps, 2018), some will argue that CSR has proven its value (Jiang et al. 2020; Jones, Harrison, & Felps, 2018; Zafran 2018; Zahid, et al. 2017). However, the inherent profit motive of businesses (Bowen, 1953) suggests that CSR needs to be measured and tied to corporate financial performance (CFP). With existing literature producing conflicting outcomes related to the topic of quantifying the relationship between CSR and CFP (Barnett, 2007; Daniel, 2018; Lim, 2017; Patterson Shirey, 201), the debate surrounding the need to quantify the financial impact of CSR remains (Wang, Dou, & Jia, 2016). This debate suggests a need to further understand the relationship between CSR and CFP. Furthermore, the

inconsistent results found in existing literature suggests a need to not just understand if a relationship between CSR and CFP exists but also to what extent it is beneficial (Liang, 2020; Lim 2017). Does the benefit of CSR diminish at some point when additional activities with additional costs are pursued? Does the existence of spare resources contribute to the impact of CSR on financial performance? The existence of these spare resources, or slack resources, will be examined to understand their potential impact on financial performance. This study suggests that the questions raised are rooted in the concept of slack resources within firms and the ability of companies to commit resources to pursue CSR activities.

Background

The role of business in society has been debated in literature (Carroll, 1979; Freeman, 1984; Friedman, 1962). Friedman's (1962) profit-focused view is generally considered to be narrowly focused on shareholder concerns. As a starting point for what has become the stakeholder theory, Freeman (1984) argues that businesses need to consider the impact of their actions on all internal and external stakeholders of the company. The stakeholder theory is generally viewed as intertwined with models and concepts encompassed within the area of CSR (Meynhardt & Gomez, 2019; Toliver, 2013). While the stakeholder theory and the concept of CSR have been accepted as positive contributions to business strategy (Dembek, Singh, & Bhakoo, 2016; Freeman, 2010), the role of firm resources cannot be ignored as a factor in both business success and survival (Ashrafi et al. 2020; Branco & Rodrigues, 2006). The need for financial resources to pursue any strategy within a company is generally accepted and is not often disputed; however, the clear role of firm-level resources in the ability to benefit internal and external stakeholders is not yet fully understood in existing literature (Adamska, Dabrowski, & Grygiel-Tomaszewska, 2016; Ashrafi et al. 2020).

While stakeholder theory is viewed as acceptable theoretical support for CSR initiatives within companies (Ashrafi et al. 2020), support of the resource-based view as a foundation for CSR (Barnett, 2019; Branco & Rodrigues, 2006) points to a need to better understand the role of both theories as support for CSR strategy considerations within companies (Ashrafi et al. 2020; Wang, Dou, & Jia, 2016). Although engagement in CSR initiatives has become the expected of modern companies (Carroll & Olegario, 2020; Ubrežiová, Kurčová, & Horváthová, 2017), questions from the company perspective remain of how to make the best CSR decisions and how much to invest in those decisions (Barnett, 2019, Liang, 2020). These two questions are firmly rooted in a need to understand the resources available to the firm, the value of those resources, and to understand the role of various stakeholder groups (Barnett, 2019; Barnett, Henriques, & Husted, 2020). Without resource considerations, CSR initiatives may not be attainable or may not survive beyond implementation (Liang, 2020). Without stakeholder considerations, CSR initiatives may be misguided and may not benefit a company, falling short of the goals set for the initiatives (Barnett, 2019).

One of the primary questions related to CSR initiatives in terms of resources is the availability of CSR initiatives to contribute to a company's financial performance (McGuire, J., Sundgren, A., & Schneeweis. T., 1988; Wang, Dou, & Jia, 2016). Barney's (1991) attributes of heterogeneous firm resources establish a fit for which the value of firm-level CSR initiatives can create sustainable competitive advantage for a company. Using Barney's (1991) concepts, one driving question for this proposed study is if a company can use its CSR initiatives to create value in a way that makes the company unique and rare within its industry, then the CSR activities have the potential to produce lasting competitive advantage for the company.

While the creation of value conceptually exists, it is also important to be able to quantify financial performance and assess value (Adamska, Dabrowski, & Grygiel-Tomaszewska, 2016; Barney & Mackey, 2016; Kaufman, 2015). As noted in recent literature, the question of value remains (Barney & Mackey, 2016; Kaufman, 2015). Also, while the use of the resource-based view to explain the value of CSR initiatives (Adamska, Dabrowski, & Grygiel-Tomaszewska, 2016) and the role of social performance (Tate & Bals, 2018) has shown some growth in recent years, questions still linger as to the ability to provide strategic guidance to management about “how” and “to what extent” CSR initiatives provide value and contribute positively to the financial performance of a company (Barnett, 2019, Liang, 2020). Resource challenges may exist that raise questions as to the ability of a company to benefit stockholders who have financially invested in the company as well as various stakeholder groups that lack financial ties to the company (Barnett, 2019). The true challenge comes in finding balance which is unique to each firm (Barnett, 2007; Liang, 2020). While great strides have been made in current literature with roots in both the resource-based view and stakeholder theory (Adamska, Dabrowski, & Grygiel-Tomaszewska, 2016), more is needed to provide an effective management toolset for CSR-related strategy decisions (Liang, 2020).

Significance of the Problem

This study seeks to understand both the relationship between CSR and CFP and the role of a company’s slack resources in CSR and CFP. As noted by previous studies (Du, Bhattacharya, & Sen, 2011; Liang, 2020; Smith, 2003) the need exists to understand contingent factors that impact the overall success of CSR pursuits and the role of those activities in reaching strategic goals. Wojcik (2018) explains that the business case can be summarized as a situation where “doing good for society translates into doing well for a company (p.122).” It is further

noted in Wojcik's work that company benefits from CSR must outweigh the costs incurred by engaging in the activities and that disconnect still exists in understanding the existence and nature of the relationship between CSR and CFP. To accept the business case for CSR is important; however, this study seeks to both understand the relationship between CSR and CFP and gain a more in-depth understanding of how or why the business case for CSR exists. The need for CSR research to shift into the exploration of contingent factors is evident (Liang, 2020; Smith, 2003).

Conceptual Framework

The theoretical foundation for this study is rooted in the need to understand the role of businesses as producers of profitable investments for stockholders and additionally, the growing need for businesses to play a role in benefiting society. This fundamental need for companies to perform both roles has shaped the development of this study, which is influenced by corporate social responsibility (CSR) concepts and slack resource concepts. This focus on both drivers of CSR, which may be external to a company, and the availability of spare resources, which are internal to the company, is supported by two theoretical frameworks: stakeholder theory and the resource-based view.

Stakeholder theory has been widely accepted in modern business in recent years as it serves as a foundation for the role of business as a supporter of social and environmental causes. Since first established by Freeman (1984), the theory has both grown in popularity and been the focus of criticism (Freeman, Wicks, and Parmar, 2004). The key concerns of the stakeholder theory are one of the primary drivers for this study. One concern of the theory is that it does not provide a clear path for application of the theoretical concepts and that it implies that companies should solve problems that are larger than can be resolved by a single company (Stieb, 2009). Another concern with the stakeholder theory is that it detracts from the central idea that

businesses have a duty to produce profits (Stieb, 2009; Phillips, Freeman, and Wicks, 2009). Stieb (2009) also noted that the core concepts of the stakeholder theory take power away from stockholders and give it to stakeholders, who often do not have a financial stake in a company.

While the core concepts of the stakeholder theory support the push for companies to pursue CSR initiatives, the criticisms noted lead to a need to better understand the strategies used by companies when pursuing these initiatives. Do companies have the resources needed to support these activities while maintaining the profit responsibility to stockholders? This question is where the resource-based view becomes an important perspective to consider for companies as they make strategic decisions related to CSR. The resource-based view serves as support for the need for both theories to be considered as interconnected components of corporate strategy. The resource-based view provides the need for financial reconciliation of firm-level actions and overall strategy considerations. While participation in CSR activities has become expected behavior for companies (Carroll & Olegario, 2020; Ubrežiová, Kurčová, & Horváthová, 2017), the fact that there are still questions related to how companies should make the best CSR decisions and how much companies should invest in those decisions (Barnett, 2019, Liang, 2020), suggests that the resource-based view could provide important perspective. Strategic questions related to CSR suggest a need to understand the resources available to the firm and the value of those resources (Barnett, 2019). Based on recent work by Liang (2020), CSR initiatives may not survive beyond the early phases of implementation without consideration of the resources available.

Purpose and Goals

The purpose of this study was to further the understanding of the role of company resources in the relationship between CSR and CFP. Wojcik (2018) notes a recent change in the study of the business case for CSR in that scholars have shifted from aiming to understand the

impact of CSR on outcomes at a conceptual level to one that considers a multi-dimensional understanding that is unique to each organization. With that said, the understanding of the unique impact of CSR at an organizational level is largely disconnected in the literature (Wojcik, 2018).

The disconnected nature of existing literature pointed to a need for this study to look at the company-level availability of resources as a key part of understanding the unique CSR-CFP link within companies. One goal of this study was to examine if a relationship exists between CSR activities and CFP. By looking at the relationship found within top performing companies, this study can add to the findings of existing literature by showing how top performers in CSR can pursue CSR activities and be top financial performers. Another goal of this study was to identify the role of slack resources within these companies. As Wojcik (2018) pointed to a need to better understand the unique company-level factors that impact the relationship between CSR and CFP, this study aims to add to existing literature on slack resources by considering the availability of these resources in top performing companies. The goal of studying top performing companies was to illustrate company-level characteristics that can serve as benchmarks for other companies in the use of CSR as a strategic focus.

Research Questions & Hypotheses

Recent work by Liang (2020) suggests that contingent factors, including corporate spare capacity (CSC) and stakeholder absorptive capacity (SAC), impact financial returns and raise the question of the extent to which a company should invest in CSP activities to meet obligations like social expectations. Liang's (2020) study proposed that companies should consider the role of both internal slack resources and external stakeholder residual resources when making decisions to pursue social activities. While Liang's work has raised some important questions

related to the relationship between CSP and CFP and the role of slack resources and stakeholder residual resources, additional understanding is needed. To address the need to better understand the role of slack resources and impact of CSP on CFP, this study utilized segments of Liang's (2020) methodology while incorporating a multi-dimensional measure of slack introduced by George (2005). George's (2005) model builds on earlier concepts of Sharfman et al (1988) by addressing slack as a multi-dimensional concept that focuses on the importance of resource deployment as a component of strategy. George's (2005) measure of slack was used while examining the data of top CSP performers as defined by the S&P Global ESG ratings. Similar to Liang's (2020) work, this study addressed the following research question:

Does a relationship exist between CSR and CFP?

Does the availability of slack resources moderate the success of CSR activities and CFP?

This study addressed this need by taking an approach that focuses on top performing companies to understanding the relationship between CSR and CFP and the role of slack resources by looking at top performing companies in CSR. Liang (2020) proposed that the relationship between CSR and CFP follows an S-shaped model, which points to a need for companies to avoid both underinvestment and overinvestment in social activities.

Hypothesis 1: All else equal, there is a statistically significant, positive relationship between CSR and CFP.

Hypothesis 2: All else equal, slack resources moderate a statistically significant relationship between corporate social responsibility (CSR) and corporate financial performance (CFP) in top-performing companies in CSR.

Hypothesis 3: All else equal, the relationship between corporate social responsibility (CSR) and corporate financial performance (CFP) is S-shaped in top performing companies in CSR.

Definition of Terms

Corporate financial performance (CFP) – a concept of performance based on widely accepting accounting measures as indicators of company performance.

Corporate social performance (CSP) – the extent to which a firm meets stakeholders' social expectations and fulfills its social obligations which can be transformed into measurable variables (Beurden & Gossling, 2008)

Corporate social responsibility (CSR) - a broad concept that focuses on stakeholders and social issues specifically those focused on economic, legal, ethical, and philanthropic areas of concern (Carroll, 1979; Carroll, 1999; Carroll, 2016)

ESG Ratings – a framework based on publicly available information and company information made available via assessments designed to measure a company's resilience to long-term environmental, social and governance (ESG) risks as calculated by S&P Global ("S&P Global ESG Scores," n.d)

Organizational slack – actual or potential resources used by a company to respond to internal or external pressures for change in policy or to initiate changes in strategy (Bourgeois, 1981)

Overview of Methodology

To gain an understanding of the role of slack resources and other considerations in the CSR-CFP relationship, this study used existing data that is publicly available. The data for this study was taken from the Mergent Online database and the S&P Global ESG ratings (“S&P Global ESG Scores,” n.d.). The list of companies to be used are the ones included on the Russell 1000 Index, which is a subset of the Russell 3000 Index comprised of the largest 3000 U.S. companies (“Russell U.S. Indexes Construction and Methodology”, n.d.).

Using the research questions and hypotheses previously defined, this study used the data available to understand the relationship between CSR and CFP. The study also sought to understand if a significant difference exists in the relationship between CSR and CFP in top performing companies in CSR. Finally, the nature of the relationship between CSR and CFP was studied. This segment of the study examined both the role of slack resources and the potential existence of diminishing returns between CSR and CFP.

Significance of Study

The goal of this study is to contribute to the understanding of the role of company resources in the decisions related to CSR initiatives. The disconnect that exists between the CSR and CFP relationship is that current literature fails to decisively identify the tools managers need to make positive strategic decisions related to CSR. This study is significant in that it serves to fill the gap that exists in the current literature and provides insights that are of value to practitioners who are involved in these strategic decision-making processes.

Ethical Considerations

The research conducted in this study was conducted in accordance with the standards set by the Institutional Review Board (IRB). The study considered limited potential risks as the data was collected from secondary sources and did not have a direct impact on any of the company data sampled. The IRB application for exempt approval was deemed to be an appropriate fit for this study.

Limitations and Delimitations

While the goal of this study was to further the work of recent studies by adding to the depth of the understanding of the relationship between CSR and CFP, this study did have limitations. The data used included existing financial information reported by companies and reported to the SEC. While the data was strong in reliability given the nature of the independent audit process and reporting requirements inherent in the reports themselves, this data may not offer an in-depth look at the relationships identified. Another limitation was that the study considered only companies listed on the Russell 1000 Index. While these companies are considered strong financial performers, data from other companies outside of that index may provide different information or insights.

Summary and Organization of Dissertation

This study is presented in a way that provides both the historical context for the research and the results and discussion of the study. Chapter 2 includes the background on the conceptual framework and discusses the existing literature on CSR. Also included in Chapter 2 is an overview of existing literature on the relationship between CSR and CFP and the need to

understand the “business case” for CSR. Chapter 3 presents the research questions and hypotheses and explains the methodology used in analyzing the data collected. Chapter 4 includes the results of the study. The results provide descriptive statistics on the data collected and provide the results in terms of the hypotheses being rejected or not rejected. Finally, Chapter 5 provides the discussion of the results displayed in Chapter 4 and discusses the implication of those results. The study’s limitations and areas for future research are also highlighted.

Chapter 2: Literature Review

Both corporate social responsibility (CSR) and corporate financial performance (CFP) are critical components of modern business strategy. Existing literature on CSR has addressed many ambiguities related to the concept. Starting with differences in the definition of CSR itself, it is essential to understand the theoretical foundation for this study and CSR in general. From there, this study utilized existing literature to outline the status of the debate related to the ability of CSR to contribute to financial performance focusing on motivations for pursuing CSR, the discussion surrounding the relationship between CSR and CFP, and existing models for explaining the relationship between CSR and CFP. CSR and its ability to contribute to firm performance in other ways is also addressed.

Theoretical Foundation

Many fundamental theories and models have shaped companies' actions, strategies, and success throughout modern business history. Much has evolved from the early years of modern business theory to the present. However, one fundamental debate that still exists today in various forms is the role of business as a profit mechanism for stockholders versus the role of business as an entity that can benefit society. This fundamental question has shaped the development of this study which is influenced by corporate social responsibility (CSR) concepts, slack resource concepts, stakeholder theory, and the resource-based view. These concepts and theories, considered interconnected components of corporate strategy, support the need for financial reconciliation of firm-level actions and overall strategy considerations.

Stakeholder Theory

The stakeholder theory is widely viewed as a complex concept focused on defining and prioritizing groups that make up a company's business environment with a "stake" in the

company's existence. From early definitions by Freeman (1984), the theory became the foundation for the study of CSR. Somewhat contested in its exact definition (Miles, 2017), stakeholder theory addresses the assumption that values are a necessary part of a business (Freeman, Wicks, & Parmar, 2004). One of the contested narratives from different authors on the concept is the question of what a stakeholder is (Miles, 2017).

While some components of stakeholder theory are debatable, Freeman (1994) articulates the focus of stakeholder theory in two questions. The first question challenges managers to address the firm's purpose. This component of stakeholder theory focuses on forcing managers to understand the core values and what brings stakeholders together. Based on Freeman's idea of stakeholder theory, the second question requires managers to understand their responsibility to stakeholders. Research has noted that one of stakeholder theory's strong appeals is the injection of ethics and morality as a focus within a business (Harrison, Freeman, & Sá de Abreu, 2015). Freeman, Wicks, and Parmar (2004) note that the economic realities of business tend to overpower the concept of stakeholder theory. However, this push and pull between an economic focus and a focus on stakeholders suggests the need to understand further how the two concepts work together.

Understanding the current role of stakeholder theory requires reconsideration of the corporate objective. Freeman, Wicks, and Parmar's (2004) discuss the core concepts of stakeholder theory, noting that the theory is managerial in nature. This managerial nature makes the theory appealing in that it, in a sense, is not weighed down by a focus on theoretical concepts that may not be applicable in practice. Instead, based on the work of (Freeman, Wicks, & Parmar, 2004), the focus is, at the highest level, understanding the role of business but is also applicable at the firm-level by challenging practitioners to question the purpose of the firm and

what responsibility that firm's management has to its stakeholders from a macro-level perspective of company strategy. Another core part of the application of the stakeholder theory is understanding the ability for value creation (Freeman, Wicks, & Parmar, 2004; Freudenreich, Ludeke-Freund, & Schaltegger, 2020) which Freeman, Wicks, and Parmar (2004) explain as both stakeholder value and stockholder value. This view is decidedly in contrast to the critique of the stakeholder theory, that it ignores stockholder value (Stieb, 2009).

Freeman, Wicks, and Parmar (2004) work raises ongoing questions related to the role of companies and the existence of stakeholder theory as a driving force in business strategy. They present the idea that stakeholder theory provides more resources for a company than contrasting views (Sundaram & Inkpen, 2004). Another core idea of Freeman, Wicks, and Parmar's (2004) work impacting the micro-level perspective of the firm is that stakeholder theory provides areas for competitive advantage through performance, customer service, and the ability to form strong supply chain commitments. Freudenreich, Ludeke-Freund, and Schaltegger (2020) also support the idea that the stakeholder theory allows for business models where stakeholders are co-creators of value which moves away from the traditional one-directional flow of value from the company to the customer.

While the practice of concepts tied to stakeholder theory has become the way of modern business, the theory established by Freeman (1984) and as addressed by Freeman, Wicks, and Parmar (2004), is not without criticism. The key criticisms of stakeholder theory drive the influence of this research proposal. One noted critique of Freeman's (1984) work and the stakeholder theory is Stieb's (2009) assessment of the theory, and the idea that stakeholder theory falls short in providing clear and applicable tools that can effectively bring about the change assumed possible from the theory. Stieb (2009) posed that stakeholder theory inherently

implies that a business needs to do too much. Companies are expected to bring about change in a society that is, in itself, flawed beyond what one company can change (Stieb, 2009). Central to his criticism is that stakeholder theory includes an implied concept of redistribution of wealth despite earlier clarification issued by Phillips, Freeman, and Wicks (2003) explaining what stakeholder theory is not, intending to dispel the idea. Stieb (2009) also criticized the rightness of the stakeholder theory in giving decision-making power to all stakeholders when they do not have a financial claim in the company as stockholders do. This idea was also addressed and labeled a “critical distortion” of the stakeholder theory in Phillips, Freeman, and Wicks’ (2003) earlier work.

The need to reconcile the positive impact on stakeholders with a company's financial performance leaves managers with questions related to applying the stakeholder theory in “real-life” company strategy (Freeman, Phillips, & Sisodia, 2020; Wang, Dou, & Jia, 2016). One of the lingering criticisms of stakeholder theory is the vagueness of the theory and that practical application of the theory is sometimes elusive due to the seemingly endless list of stakeholders that a company could identify (Fassin 2009; Podnar & Jancic, 2006; Perrault, 2017). Fassin (2009) suggests reworking the models related to stakeholder theory to build on Freeman’s (1984) original concepts but to remove the ambiguity of the identification and status of different stakeholder groups. Fassin (2009) introduces the concepts of “stakewatchers” and “stakekeepers” to recognize the ability of some stakeholder groups to apply a variety of pressures on a firm more than other stakeholder groups. Based on Fassin’s (2009) work, such forces can influence a company’s prioritization of stakeholder groups which could lead to strategic decisions that negatively impact the financial performance of the company for the sake of appeasing specific “stakewatcher” or “stakekeeper” groups. Fassin’s (2009) question of

mismatched prioritization and other concerns that primary stakeholders are prioritized (Barnett, 2019) suggests a need to understand better the impact of management decisions on company financial performance related to stakeholder groups. Perrault's (2017) recent work does seek to reconcile this issue by establishing five considerations of stakeholder and status connectedness to a firm, including the consideration of some stakeholders holding a dual role of both social and economic claim with a firm; however, this does not preclude the need for further study as noted by Barnett (2019) and Barnett, Henriques, & Husted (2020).

Resource Based View

Firm-level and industry-level resources have been argued to contribute to sustained competitive advantage in firms (Porter 1980, 1985; Rumelt, 1991). The resource-based view is a widely accepted theory in explaining how companies can attain competitive advantage (Barney, 1991). At the macro-level, the resource-based view has been a vital component of competitive advantage within industries and an important component of corporate strategy (Barney, 2020; Brahma & Chakraborty, 2011; Hitt, Xu, & Carnes, 2016; Pettus, 2001; Sodhi, 2015). At the micro-level within firms, the resource-based view has been valuable in identifying firm resources that contribute to or harm company performance related to logistics considerations (Pettus, 2001), operations (Sodhi, 2015), product innovation (Tatikonda & Montoya-Weiss, 2001), and CSR activities (Branco & Rodrigues, 2006). While the theory is not often considered to be the predominant support for corporate social responsibility, it has support in existing literature in explaining the role of CSR initiatives (Ashrafi et al. 2020; Branco & Rodrigues, 2006; Hart, 1995; Litz, 1996; Sharma & Vredenburg, 1998). Branco and Rodrigues (2006) noted the value of incorporating the resource-based view and the focus on internal resources as a means to pursue CSR initiatives which can have significant benefits to a company in the form of positive

corporate reputation. Ashrafi et al. (2020) identified key relationships between the resource-based view and CSR as support for why companies pursue CSR in that there are significant internal and external pathways to competitive advantage through CSR initiatives.

The study of the resource-based view has been primarily focused on its role in pinpointing strategies for sustained competitive advantage with solid support by scholars (Barney, 1991, 2001, 2020; Brahma & Chakraborty, 2011). Given its prominence in the study of the resource-based view, Barney's (1991) early work has been influential in establishing my research agenda. Barney (1991) notes that some views of competitive advantage stand that resource homogeneity exists among firms in a group or industry, making competitive advantage short-term at best. However, Barney argues that the resource-based view actually supports the reality that firms can control some resources and not others, leading to resource heterogeneity among groups of firms. He also argues that the resource-based view supports long-term competitive advantage because some resources are not transferrable across firms.

Barney's (1991) assumptions about the resource-based view have provided a solid foundation for the theory and its ability to explain the idea of sustained competitive advantage. Rooted in the idea that firm resources tend to be heterogeneous, he suggests four essential resource attributes: (1.) the resource must have value in its ability to develop opportunities and counteract threats, (2.) the resource must be rare when compared to competing firms, (3.) the resource must not be easy to imitate, and (4.) the resource must not have equivalent substitutes. The ability of firm resources to fit these four attributes signals the level of heterogeneity of those resources and the capacity of the resources to produce sustained competitive advantage.

While Barney's (1991) work is widely considered to be influential in the definition of and support for the theory of the resource-based view, it is not without criticism. An early critique of

the resource-based view by Priem and Butler (2001) gives credit to Barney's (1991) work for establishing a usable model. However, Priem and Butler (2001) suggest that the resource-based view lacks the key components of theory and leads to a "black box" where causation is simply left unanswered due to the insufficiency of parameters related to key concepts, including "rarity." Among their criticism of the model is that the role of resource value is left unaddressed. Barney (2001) has addressed many of these criticisms, arguing that the model introduced is specific enough to be tested empirically. A review of existing support and criticisms of the resource-based view also notes the prominent themes that the resource-based view lacks the ability to quantify value and that the theory only focuses on competitive advantage (Barney & Mackey, 2016).

Among the criticisms of the resource-based view is the idea that the theory focuses on competitive advantage without quantifying value or establishing a value for resources with the debate well-documented in existing literature (Barney & Mackey, 2016; Kaufman, 2015). Kaufman (2015) argues that the resource-based view fails to provide managers with tools to which they can assess the value of resources by neglecting critical decision rules. However, Barney and Mackey (2016) argue that the resource-based view does provide management with the tools to apply the theory by stressing the need to determine resource value. They also emphasize the mindset that a resource that has value at one point in time may not always have the same value, thus encouraging a management perspective of the need to critically assess value regularly.

The debate of value measurement within the literature (Barney & Mackey, 2016; Kaufman, 2015) is key to the idea that the resource-based view can support the effective implementation of CSR initiatives based on firm resources and the ability to quantify value

(Barney, 2020; Branco & Rodrigues, 2006). The value of reputation as a firm resource has been identified as a key component of explaining the role of CSR and financial performance (Adamska, Dabrowski, & Grygiel-Tomaszewska, 2016; Branco & Rodrigues, 2006). However, to explain this relationship between reputation, driven by CSR initiatives, and financial performance, it is necessary to be able to place a measurable value on firm reputation (Adamska, Dabrowski, & Grygiel-Tomaszewska, 2016).

Organizational Slack

Rooted in both agency theory and behavioral theory, the concept of slack resources has been a topic of debate for a number of years (Lee & Wu, 2016). Organizational slack has long been noted as a mechanism for insulating a company from the impact of environmental forces and other unplanned factors (Bourgeois, 1981; George, 2005; Thompson, 1967). While the role of slack resources as a buffer is generally accepted (Bourgeois, 1981; Sharfman et al., 1988), some aspects of the concept of slack resources have faced questions over time (Bourgeois, 1981; Lee & Wu, 2016). One side of the debate focuses on the potential positive outcomes that slack resources provide. The opposing view in the debate surrounding the existence of slack challenges is that slack is inherently a sign of inefficiency within an entity.

As noted, one issue related to slack resources is the debate related to the positive or negative views of the existence of slack within an entity. Bourgeois (1981) summarizes one view of slack resources as an enabler of success. While success can be defined in several ways, Bourgeois's (1981) summary notes innovation and strategy as positive areas where slack can be focused. Specifically, the availability of slack resources gives an organization a mechanism by which it can pursue innovation, an inducement for action within the organization (George, 2005), a promoter strategic creativity (Bourgeois, 1981), and a mechanism for catering to stakeholder

requests (Xiao et al., 2018). Early work by Hambrick and Snow (1977) suggests that slack resources allow for strategy experimentation. They suggest that if slack resources exist, an entity has presumably mastered their current strategy and can now focus on new strategy considerations.

An opposing view of slack resources is that it signals inefficiencies and leads to negative consequences, including diminishing financial returns (Bourgeois, 1981; Leyva-de la Hiz, Ferron-Vilchez, & Aragon-Correa, 2019). Bourgeois (1981) notes that this view of slack resources is a non-optimization issue where organizations will choose to relax strategic alternatives rather than innovate. The work further notes the phenomenon where management can create their own slack through intentional actions related to the distribution of profits.

Measuring Organizational Slack

Another area of question related to the concept of slack resources involves the measurement of slack within an organization (Bourgeois, 1981; George, 2005; Sharfman et al., 1988). Bourgeois' (1981) model for measuring slack resources included internal and external factors. This model is based on the idea that some factors contributing to slack are related to managerial actions within an entity while other factors are related to the external environment of the entity. The model considers changes in slack to be a function of changes in indicators, including retained earnings, dividend payout, general and administrative expenses, working capital as a percent of sales, debt as a percent of equity, credit rating, short-term loan interest compared to prime rate, and price/earnings ratio and is shown as:

$$\Delta \text{ Slack} = f \Delta (\text{RE, DP, G\&A, WC/Sales, D/E, CR, I/P, P/E})$$

While Bourgeois' (1981) model of slack resources considers multiple determinants of slack, Sharfman et al. (1988) proposed a model with three sets of conditions contributing to an organization's slack resources. The Sharfman et al. model suggests that organizational slack forms from environmental conditions, organizational characteristics, and the values and beliefs of management. This model also supports understanding several types of slack rather than only considering one total value for slack. Looking at both high discretion slack and low discretion slack, Sharfman et al. suggest that management is better informed in making decisions related to slack in that the costs associated with each type of slack differ. Simply measuring total slack is insufficient for strategy decisions and optimization.

George's (2005) builds on the earlier work of Sharfman et al. (1988) in that the measurement of slack is viewed as multi-dimensional. George notes the importance of resource deployment in that a firm's strategy and goals depend on how resources are distributed. Noting the positive impact on performance, George further proposes that it is critical to distinguish between and understand different forms of slack in order to understand the relationship of each form of slack on performance. Like Sharman et al. (1988), George's (2005) model stresses the critical importance of understanding multiple conditions that lead to slack resources and supports the need to measure low-discretion and high-discretion slack within publicly traded firms. George's (2005) model goes further to include transient slack, defined as "...excess resources available after resource demands for operations have been met" (p. 664). The concept is based on the separation of resource availability from resource demand. The value of this separation is found in that firms with high demand and low availability of slack resources may behave strategically different from firms with low demand but high availability of slack resources and that the strategic differences can impact overall performance.

Defining CSR

The concept of CSR has been widely regarded as ambiguous in nature. While several key models exist, a lack of consensus on one universal definition adds to confusion related to the concept. Early focus on CSR maintained the importance of the economic foundation of business with some focus on a company's role in society (Bowen, 1953; Davis, 1960; McGuire, 1963). Carroll (1979) introduced his initial model with a focus on four responsibilities which he called domains. The four domains form a continuum that allows companies to view responsibilities in the form of economic, legal, ethical, and discretionary areas of focus. Carroll (1999) later changed his model to form the CSR pyramid, which remains one of the more widely used definitions of CSR to date. The pyramid model (Figure 1) contains the same four domains as the original model, but the pyramid shape suggests that the economic aspects of business serve as a foundation for which legal, ethical, and philanthropic initiatives are built. Several other models of CSR have been introduced in modern literature; however, newer models including the concepts of corporate citizenship and corporate sustainability are often viewed as intertwined within Carroll's pyramid model (Carroll, 2016; Madрахimova, 2013).

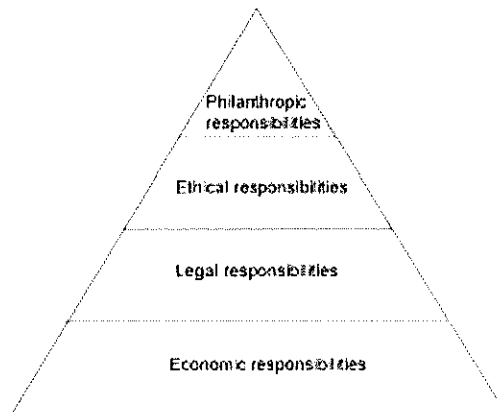


Figure 1: Carroll's (1991) Pyramid Model of CSR

While CSR definitions and models continue to evolve (Carroll, 2016; Wang, Dou, & Jia, 2016; Yadlapalli, Rahman, & Gunasekaran, 2020), it is clear that the concept is well-established in modern business (Carroll, 2016). By nature of the concept, CSR is viewed as a critical component of the betterment of society (Barnett, Henriques, & Husted, 2020). However, the true impact of CSR on society is not well understood (Ashrafi et al. 2020; Barnett, Henriques, & Husted, 2020). Existing literature has focused primarily on the firm-level impact of CSR and has focused little on the impact beyond the firm (Barnett, Henriques, & Husted, 2020; Bice, 2017). While some recent literature has attempted to measure the impact of CSR on society, particularly in emerging economies (Jiang et al. 2020) and in Europe (Maon, Swaen, & Lindgreen, 2017), little has been concluded to date. This void points to a need to consider the greater impact on society and focus attention to the impact of CSR beyond the firm-level (Barnett, Henriques, & Husted, 2020).

Despite the need to better understand the true impact, or value, of CSR beyond the firm-level, study of the impact at the firm-level is well documented in existing literature (Flammer & Luo, 2016; Jiang et al. 2020; Jones, Harrison, & Felps, 2018; Zafran 2018; Zahid et al. 2017). The positive impact of CSR has been noted in the areas of operations, human resources, marketing, and product innovation, among others (Flammer & Luo, 2016; Jiang et al. 2020; Jones, Harrison, & Felps, 2018; Zafran, 2018; Zahid et al. 2017). Zahid et al. (2017) looked at the role of CSR in influencing the strength of employee relationships, finding that entry preference, organizational commitment, and turnover intentions are each positively benefited by CSR activities within firms.

While much research has successfully identified positive implications of CSR within a company (Jiang et al. 2020; Jones, Harrison, & Felps, 2018; Zafran, 2018; Zahid et al. 2017), the

need to quantify the positive impact of CSR in terms of financial performance still eludes modern researchers (Wang, Dou, & Jia, 2016). Many studies have attempted to pinpoint the relationship between CSR and corporate financial performance (Barnett, 2007; Daniel, 2018; Lim, 2017; Patterson Shirey, 2013); however, existing studies have produced conflicting outcomes on that relationship (Wang, Dou, & Jia, 2016). A recent review of existing literature on the potential causal relationship between CSR and financial performance found that 42 studies of those reviewed suggest that CSR positively impacts financial performance (Wang, Dou, & Jia, 2016). While this review indicates that some variations of the CSR and financial performance relationship have been explained, further research is needed to understand the exact role of or extent to which CSR can produce positive financial results (Liang, 2020; Lim, 2017).

Motivations for CSR

To understand the role of CSR on financial performance or any other aspect of business strategy, it is also important to understand the role that motivation and CSR orientation play in a company's CSR strategy. Companies face both internal and external pressures that influence decisions related to stakeholders and CSR pursuits (Aguilera et al. 2007; Logsdon & Wood, 2002). Based on some views, the motivation to pursue CSR is derived from three different areas: 1.) instrumental, 2.) relational, and 3.) moral (Aguilera et al. 2007). Based on the view presented by Aguilera et al. (2007), the instrumental motive is short-term in nature and focuses on competitiveness and a need for control. The resource focus of this motivation is that power is derived from gathering scarce resources. Concern for stakeholder well-being and social cohesiveness is the focus of the relational motive. This motive also focuses on a "need to belong" and includes a long-term concern for identity. The moral motive holds that a company has a collective responsibility to do good and a need for motivational existence.

Another perspective of CSR motivation suggests that firms engage in CSR activities based on two different motives: 1.) practical and 2.) moral (Marom, 2006). Based on Marom's (2006) ideas, the practical motivation for engaging in CSR is focused on competition and short-term initiatives, similar to the instrumental motive of Aguilera et al. (2007). Maron's (2006) idea of the moral motive is that companies have an obligation to fix the social problems and environmental damage they cause.

Further study of CSR motivation concludes that a firm may engage in altruistic or strategic CSR (Husted & Salazar, 2006). In their study, Husted and Salazar (2006) note a key factor in understanding the CSR and CFP debate. They found that strategic CSR leads to profits surpassing an altruistic CSR approach. They argue that companies must create positive CSR outcomes by aligning business interests with social interests. They further propose that an altruistic approach that focuses on social well-being to the detriment of shareholders leads to overinvestment in CSR.

Relationship Between CSR and CFP – Debate & Models

CSR has long been a focus of companies of all sizes, and companies spend significant money annually to pursue CSR activities. However, much debate surrounds the impact of CSR activities and strategies on financial performance. Many recent studies have addressed this debate and provided insight into CSR's role in CFP (Barnett, 2007; Daniel, 2018; Lim, 2017; Patterson Shirey, 2013). From profitability to market value, research has attempted to decisively tie the levels of CSR activities to various measures of financial well-being (Fakoya & Chitepo, 2019; Freudenreich, Ludeke-Freund, & Schaltegger, 2020; Lewis, O'Donovan, & Willet, 2017).

While the concept of businesses helping society is shown to be beneficial in many ways, one lingering question surrounding the pursuit of CSR activities, or the degree to which a company pursues CSR activities, is that it violates the most fundamental principle of business. By very definition, a corporation exists to maximize profitability for stakeholders. That principle suggests that management has the responsibility, more than anything else, to maximize profits. Throughout the history of CSR, the underlying profit focus remains one of the primary arguments against CSR (Carroll, 1979; Carroll, 2016; Carroll & Shabana, 2010; Schwartz & Carroll, 2003; Shum & Yam, 2011). This concern contributes to the need to better understand the role played by CSR in firm financial performance.

Many have argued that, in theory, while a business exists to maximize profit, pursuing CSR activities has other positive outcomes that benefit companies despite the lack of a clear impact on profitability or other financial measures. Barnett, Henriques, and Husted (2020) suggest that the positive impact of CSR should be looked at beyond the firm level and instead consider the greater impact on society. Other recent research shows the importance of stakeholder management and CSR activities impacts firm-level innovation and overall economic development, particularly in emerging economies (Jiang et al. 2020). Kaplan (2020) suggests that forcing the “business case” for CSR may lead to moral struggles for those unable to support a positive financial gain. Jones, Harrison, and Felps (2018) acknowledge that stakeholder relationships are potentially costly to maintain; however, the unique contracts and focus on joint wealth creation are rare and difficult to imitate, thus providing a competitive advantage that has value to a firm.

Further research indicates that employee relationships can be strengthened by a firm’s CSR activities (Zahid et al. 2017). These benefits can be tied to a positive relationship between

CSR and several areas of employee relations, including entry preference, organizational commitment, and employee turnover intentions. A firm's CSR activities can also influence consumer brand choice. In high-involvement products, CSR activities have been shown to have a considerable influence on consumer brand choice and some influence on brand equity (Zafran, 2018).

With research indicating a firm's CSR activities have multiple positive influences, the debate remains sounding the question of the cost of CSR activities. Without a direct tie to financial performance, whether or how much CSR a company should pursue becomes questionable. A recent review of literature related to 42 studies of CSR and CFP suggests a causal relationship between CSR and CFP (Wang, Dou, & Jia, 2016). However, additional research continues to raise questions about the exact role that CSR can play in financial performance. Lim's (2017) work attempts to connect various components of CSR to financial performance using return on assets (ROA) as a measure of financial well-being. His work showed mixed results, with some relationships identified between specific CSR activities and financial performance and in certain industries. With overall findings related to the relationship between CSR and CFP being inconclusive, he did note that community-related CSR did influence financial performance in the financial services sector and that product quality and employee relations did show an influence on financial performance healthcare sector. Daniel's (2018) energy industry study found that the overall relationship between CSR, sustainability, and financial performance was insignificant, considering both financial performance, measured by ROA, and market performance, measured by Tobin's Q. On the other hand, Patterson Shirey's (2013) study using multiple indicators of financial performance, including return on equity (ROE), return on assets (ROA), and profit margin, did indicate a positive relationship between

CSR and CFP based on some financial indicators. This leaves the question of the influence of CSR on CFP open to further debate and questions related to the financial indicators chosen and perhaps other characteristics of firms.

The “Business Case” for CSR

Looking at the concept of CSR and the desire to measure value, it is important to look carefully at Barnett’s (2007) key work establishing the need to understand the “business case” for CSR. In his work, Barnett explains the inevitability of variability in the financial gains a company might experience from CSR activities. His work also stresses the role a company’s history in influencing the potential financial returns from that company’s CSR activities, further noting that a specific measurement of financial reward from a specific CSR activity at a specific time is not highly predictable. The “business case” for CSR has not escaped criticism since Barnett’s work (2007), with Carroll and Shabana (2010) noting a need to consider a broad view of the concept that acknowledges complexities rather than a narrow view focused on direct benefit from specific activities.

In a later reevaluation of Barnett’s (2007) earlier work, Barnett (2019) notes that the “business case” has been established. However, the exact role of inherent complexities beyond the basic relationship still eludes scholars and managers. Barnett (2019) further poses that companies favor activities that directly impact primary stakeholders, leaving the question, does CSR strategy within a company truly benefit society as a whole, or does it mainly benefit the company by targeting a small group of primary stakeholders that directly influence a company’s survival? Barnett (2019) suggests the need for a “reorientation” of the “business case” for CSR in that modern literature lacks clarification on ways managers need to apply CSR in a way that

benefits society effectively. Acknowledging gaps in existing literature, Barnett, Henriques, and Husted (2020) challenge that future research should focus on “small data” to establish causation rather than a simple relationship related to understanding the true reach of CSR value. The need to establish a “business case” for the CSR-CFP relationship supports the need for hypothesis one of this study.

Hypothesis 1: All else equal, there is a statistically significant, positive relationship between CSR and CFP.

CSR-CFP Models

One concept tied to the impact of CSR on CFP is the idea that the positive influence of CSR activities could exist for a firm but only to a certain point. Some recent research has attempted to address how much CSR is beneficial and when CSR becomes a burden on CFP. Barnett (2019) addresses the “business case” for CSR, suggesting that, at some point, a constraint on resources inhibits the ability of a firm to profit from CSR. One view of CSR’s role in CFP is explained by Barnett and Salomon’s (2006) study on socially responsible investing (SRI). They suggest that combined portfolio theory and stakeholder theory provide the basis for a curvilinear model of the relationship between CSR and CFP. Their study suggests that different social screens within mutual funds can lead to superior financial performance, leading to the suggested curvilinear model and a complementary relationship between CSR and CFP. Their research notes that not all social screens lead to superior financial performance. They noted that community relations screens improved financial performance; however, environmental and labor relations screens decreased financial performance of the mutual funds studied. This research contributes to the need for further analysis of the impact of more CSR or direction of CSR within firms.

Other recent work has focused on the ideas introduced by Barnett (2007) and the idea that a company's financial performance can be enhanced through stakeholder influence capacity (SIC). SIC is a company's ability to use its social investment to improve stakeholder relationships to reach a level of profitability from those social influences. Barnett and Salomon's (2006) suggestion of a curvilinear or U-shaped model raises some questions in that it implies that the social benefits of a company continue indefinitely. The U-shaped curve, they suggest, means that at the point at which investment in CSR continues to increase, the positive financial performance also continues to increase to an infinite level. While the increase seems likely to an extent, it is the infinite level of benefits suggested by Barnett and Salomon's (2006) model that raises questions to other researchers (Liang, 2020; Wang, Choi, & Li, 2008) and supports the need to for additional research like this study.

Other research has also suggested a different link between CSR and financial performance. Some suggested that the U-shaped model noted by Barnett and Salomon (2006) is inaccurate and that an "inverted U-shaped" model for the relationship between corporate philanthropy and CFP (Wang, Choi, & Li, 2008). Marom (2006) suggests that the question is whether "more is better." Explained on the basis of marginal revenue and marginal costs, he discusses that the inverted U-shaped model is plausible because, at some point, marginal revenue will decrease to a level below marginal costs, making profits decrease and resulting in the inverted U because more is not always better. Both positive and negative relationships are more likely to exist between CSR and CFP than just positive relations, as suggested by a U-shaped model. Haans, Pieters, and He (2016) suggest that an imbalance between strategic initiatives can lead to an inverted U-shaped curve. Taking that a step further and applying that concept to the CSR-CFP relationship, Laplume et al. (2022) suggest that an imbalance in resources allocated to

CSR leads to negative effects across some stakeholder groups, leading to an inverted U-shaped curve for firm performance. This imbalance of more resources leading to negative impacts matches Marom's (2006) suggestion that more is not always better. The consideration of resources needed as part of the CSR-CFP relationship supports the need for hypothesis two of this study.

Hypothesis 2: All else equal, slack resources moderate a statistically significant relationship between corporate social responsibility (CSR) and corporate financial performance (CFP) in top-performing companies in CSR.

A third curve model is suggested by Liang (2020). This research suggests that the concept of indefinite benefits is unrealistic due largely to the need for firm slack resources and external stakeholder resources. This idea is based on scarcity and that the spare resources firms can dedicate to CSR are limited, further suggesting a diminishing benefit of CSR as spending increases beyond a certain point within a firm. Recent research has supported the idea that slack resources can be beneficial in firm strategy planning (Guo et al. 2020). Liang suggests that an S-shaped model of CSR better represents the existence and diminishing nature of CSR benefits within a firm (Figure 2).

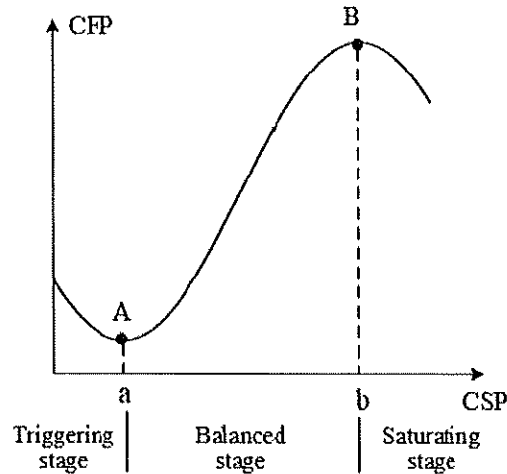


Figure 2: Liang's (2020) S-Shaped Model of CSR Benefit

Using concepts from the U-shaped and inverse U-shaped models, Liang's (2020) S-shaped model illustrates that a company can be in a phase where either too much or too little investment in CSR can harm financial performance. The Triggering phase presents a negative relationship between CSR and financial performance. Liang (2020) explains that this Triggering stage is a situation of underinvestment and that a company in the Triggering stage needs to progress to the Balance stage of the model by investing more in CSR. A company benefits during this stage of a positive relationship between CSR and CFP. The Saturating stage occurs when additional CSR spending can harm profitability, and the availability of future slack resources may be harmed. This stage represents a position of too much investment in CSR. Based on Liang's (2020) model of an S-shaped curve for the relationship between CSR and CFP, hypothesis three of this study considers the nature of the relationship and the resulting curve.

Hypothesis 3: All else equal, the relationship between corporate social responsibility (CSR) and corporate financial performance (CFP) is S-shaped in top performing companies in CSR.

The idea that both an underinvestment and an overinvestment in CSR can lead to a negative relationship with CFP points to the need to better understand the nature of the CSR-CFP relationship. While stakeholder theory supports the pursuit of CSR activities, the “business case” for CSR points to a need to understand the role of firm resources in the relationship between CSR and CFP. This study seeks to gain that understanding by considering the relationship between CSR and CFP, the nature of that relationship as illustrated by the curve illustrated by the data, and the role of being a top performer in CSR as part of the CSR-CFP relationship.

Chapter 3: Methodology

This study used quantitative methodology to determine the relationship between CSR and CFP and measure the role of slack resources as a factor in the relationship between CSR and CFP.

Overview of Problem and Purpose

This study sought to understand the role of a company's slack resources in CSR performance and CFP. Utilizing segments of Liang's (2020) work, this study focused on top-performing companies in CSR to understand the role of Liang's (2020) S-shaped model in explaining the relationship between CSR and CFP among top-performing companies in both CSR and CFP. As noted by previous studies (Du, Bhattacharya, & Sen, 2011; Liang, 2020; Smith, 2003), to determine the relationship between CSR performance and CFP, the need exists to understand contingent factors that impact the overall success of CSR pursuits and the role of those activities in reaching strategic goals. Accepting the business case for CSR is essential; however, this study sought to gain a deeper understanding of why the business case for CSR exists, focusing on the role of company resources. This study differs from Liang's (2020) work utilizing two forms of slack resources: corporate spare capacity (CSC) and stockholder absorptive capacity (SAC). Instead, this study utilized a multi-dimensional model of slack resources introduced by George (2005).

Research Questions and Hypotheses

Recent work by Liang (2020) suggests that these slack resources take on the form of corporate spare capacity (CSC) and stockholder absorptive capacity (SAC) and moderate the relationship between CSR and CFP. While Liang's work has raised critical questions about the

relationship between CSR and CFP and the role of slack resources, additional understanding is needed. To address the need to understand better the role of slack resources and the impact of CSR on CFP, this study compared top CSR performers as defined by the S&P Global ESG rating calculated for each company. This study addressed this need by taking a comprehensive approach to understanding the relationship between CSR and CFP and the role of slack resources by comparing top-performing companies in CSR. Additionally, this study utilized a multi-dimensional approach to slack resources rather than Liang's two-part construct of slack resources.

Research Questions

The following research questions were addressed:

Does a relationship exist between CSR and CFP?

Does the availability of slack resources moderate the success of CSR activities and CFP?

Hypotheses

Hypothesis 1: All else equal, there is a statistically significant, positive relationship between CSR and CFP.

Hypothesis 2: All else equal, slack resources moderate a statistically significant relationship between corporate social responsibility (CSR) and corporate financial performance (CFP) in top-performing companies in CSR.

Hypothesis 3: All else equal, the relationship between corporate social responsibility (CSR) and corporate financial performance (CFP) is S-shaped in top-performing companies in CSR.

Data and Sample

This study used secondary data made available through the Mergent Online Database, the EDGAR database, and other public information related to the financial statements of the companies included in the study. The study included the complete list of companies from the Russell 1000 Index. The CSR rating for each company was acquired from the most recently published ESG rating published by S&P Global (“S&P Global ESG Scores,” n.d.). The S&P Global ESG scores are based on publicly available information and verified information provided by each company, media and stakeholder analysis, and an in-depth company engagement. The Russell 1000 Index is a subset of the Russell 3000 Index, comprising the largest 3000 U.S. companies (“Russell U.S. Indexes Construction and Methodology,” n.d.).

To better understand the role of CSR in determining financial performance, two groups were analyzed from the Russell 1000 Index. Group 1 consisted of the firms in the top 50 percent of the ESG scores collected. Ranking within the top 50 percent will define Group 1 as the top CSR performers. Group 2 consisted of firms ranking in the bottom 50 percent of ESG scores based on the S&P Global ESG scores.

Groups 1 and 2 were categorized by firm size and industry as control variables. Given that some industries are subjected to greater regulatory requirements that may require CSR activities, this analysis helped to determine any industry patterns related to CSR and related CFP.

Study Variables

Dependent Variable

This study utilized CFP as a dependent variable. Two accounting measures and two market measures were used to study actual performance. Aliabadi, Dorestani, and Balsara (2013) note the value of using both accounting measures and market measures in that accounting measures focus on historical information while market measures use current information. For this study, the accounting metrics used were ROA and EBITDA. Based on the analysis by Liang (2020), ROA and EBITDA were chosen as the accounting measures for this study. Liang (2020) and others (Aliabadi, Dorestani, & Balsara, 2013; Michelin et al., 2013; Orlitzky et al., 2003) have noted several reasons for using these measures. A benefit of using EBITDA is that it is less subject to management manipulation and is tied directly to earnings (Michelon et al., 2013; Orlitzky et al., 2003). ROA was chosen based on common usage as a measure of profitability (Aliabadi, Dorestani, & Balsara, 2013).

The long-term nature of CSR activities also requires consideration in selecting dependent variables. Shiu and Yang (2017) suggest that CSR activities are often long-term and that charitable programs should be pursued for three to five years before expecting positive effects. Since CSR activities may be either short-term or long-term in nature, the impact on CFP might not be fairly represented in financial performance in a one-year time frame. For this reason, ROA and EBITDA were calculated using a 3-year moving average to better capture the long-term impact of CSR activities.

Market performance has been measured using different metrics throughout existing literature. Recent studies (Daniel, 2018; Liang, 2020) use Tobin's Q as a measure of market performance. While this metric is commonly used in management research, Bartlett and Partnoy

(2018) caution against using Tobin's Q as a measure of market performance due to the simplified calculation that is commonly used. Some studies have also raised concerns about Tobin's Q as a measure of market performance in that it may overlook unique aspects of specific industries (Bertocco, 2011) and may be subject to errors related to research and development expenses (Baum & Thies, 1999).

Due to the concerns associated with Tobin's Q, this study also used the market-to-book value ratio as recommended in Gentry and Shen's (2010) study. Aliabadi, Dorestani, and Balsara (2013) also note that the market-to-book value ratio is one of the most extensively used measures of market performance. They suggest calculating the ratio of the firm's total market value divided by its total asset value. The study determined CFP by accounting and market measures separately based on Gentry and Shen's caution that accounting and market measures should not be combined to indicate performance but should instead be viewed as two entirely different performance outcomes.

Independent Variables

Placement in the top 50 percent of ESG scores based on the S&P Global ESG scores ("S&P Global ESG Scores," n.d.) serves as the measurement of "top performer" in CSR for Research Question Two. Those companies that are part of the Russell 1000 Index that are not placed in the top 50 percent of scores based on the S&P Global ESG scores are not top performers in CSR. The "top performer" variable will be quantitative in nature, with the ESG score published by S&P Global as the value assigned. Research Question One used the quantitative value based on the ESG score published for the entire data set.

Moderating Variables

Slack resources have been noted in the literature as potential sources of funding for firm strategic planning and, more specifically, CSR activities (Guo et al. 2020; Zhang et al. 2017). The calculation of slack resources varies in the literature. Bourgeois (1981) introduced a model for slack focusing on internal and external factors. Bourgeois's (1981) model has been widely used in studies as it considers multiple types of slack resources, which have been found to have both positive and negative effects on companies (Orland, Renzi, & Sancetta, 2016). Other research has favored measuring slack resources using a multi-dimensional approach, including a look at transient slack, which compares resource availability to resource demand (George 2005).

Slack Resources

Given the value of understanding slack resources as a component of CSR activity and CFP and the value of including transient slack in this analysis, this study used the methodology found in George's study. Resource availability was calculated by taking permanent capital (owner's equity plus debt) less fixed assets and other noncurrent assets. Resource demand was calculated as an estimate of cash needed (five days' worth of sales) plus accounts receivable and inventory less accounts payable. In addition to transient slack, this study included measurements of high- and low-discretion slack (George, 2005). High-discretion slack was measured using the level of cash reserves in a given year. Low-discretion slack was measured using the debt-to-equity ratio.

Firm Size – Value

Firm size in terms of value was included as a moderator to gain insight into the influence of distinct size groups on the relationship between CSP and CFP. Categorical variables are common to identify groups within the data based on market standards in capital stock markets.

The three categories Liang (2020) used are small-cap, mid-cap, and large-cap. These categories are defined as companies with a market capitalization of less than \$2 billion classified as small-cap, those with a market capitalization between \$2 billion to \$10 billion classified as mid-cap, and those with a market capitalization above \$10 billion as large-cap. While the categorical classification of market capitalization can be insightful, this study utilized the methodology commonly suggested when continuous variable data is available (Segerstrom, 2019), as it is with market capitalization. Other studies have also favored continuous data measurements of firm size over categorical measurements (Patterson Shirey, 2013). Using market capitalization as a measure of firm size also maintains consistency throughout this study in using continuous variable data whenever available.

Control Variables

Firm size and industry classification were also included as control variables, as the potential to influence the data cannot be ignored. While firms included on the Russell 1000 index are large companies, some differences in firm size could influence the other variables considered. Firm size for the control variable was measured by taking the natural log of the number of employees (expressed in thousands). This measure has been noted in other studies as an accepted measure (Liang, 2020; Waddock & Graves, 1997) and is commonly used as a form of variable transformation in regression analysis that can reduce errors and promote linearity in data (Sellers, 2022). Industry was also treated as a control variable as industry differences, including regulatory requirements, could have some influence on the data. The industry variable will be categorical in nature and based on the industry classifications used for the S&P Global ESG scores.

Data Analysis and Rationale

This study took a comprehensive approach to understanding the relationship between CSP and CFP and the role of slack resources by investigating top-performing companies in CSP. A variety of methods were used to test the hypotheses proposed. Descriptive statistics were analyzed to identify patterns in the data and to illustrate essential characteristics found in the data, such as measures of central tendency and skewness. According to Burns and Burns (2012), skewness can be used to assess the existence of factors that have biased the data. It is important to examine this data characteristic to understand other factors that may impact the statistical analysis performed.

The correlation between CSP and CFP was also examined in this study. Using a correlational approach, one can examine the relationship between two variables. In this study, examining the correlation between CSP and CFP was important. While correlation can indicate that variables share something in common, it does not allow for the conclusion that a relationship between the variables exists (Burns & Burns, 2012). This study utilized additional statistical methods to determine the existence of relationships between variables.

As an initial method of analysis, a t-test was performed to identify differences between means of the two groups of CSR rankings; those noted as “top performers” and those not. This statistical test was used to determine if the two groups differ significantly or not (Burns & Burns, 2012) in CFP. T-tests were performed to determine if differences were significant between the two groups based on accounting measures and based on market measures. An independent t-test was also used to determine if significant differences exist in the availability of slack resources between the two groups.

As Liang's (2020) work suggested, the ordinary least squares (OLS) method was considered the statistical method to be used. Equation (1) includes the CFP as a linear function of a set of control variables (vector X) for the company *i* at time *t*, including an error term u_{it}

$$CFP_{it} = \beta_0 + \beta_1 X_{it} + u_{it} \quad (1)$$

Liang (2020) also utilized a fix-effects model instead of a random-effects model to account for unobservable individual effects within the data. This type of model assumes that these unobservable individual effects are fixed over time and only account for individual within-group effects.

Fixed-Effects Model Equations

Liang's (2020) work notes static equations for each hypothesis. Similar equations will be utilized for this study as well. Hypothesis 1 tests the positive relationship between CSR and CFP (Hayes, 2017; Liang, 2020).

$$CFP_{it} = \beta_0 + \beta_1 CSR_{it} + \beta_2 X_{it} + u_{it} \quad (2)$$

Hypothesis 2 tests the moderating effect of slack (S) on the positive relationship between CSR and CFP (Hayes, 2017; Liang, 2020).

$$CFP_{it} = \beta_0 + \beta_1 CSR_{it} + \beta_2 S_{it} + \beta_3 CSR_{it} * S_{it} + \beta_4 X_{it} + u_{it} \quad (3)$$

Hypothesis 3 tests the cubic relationship between CSP and CFP. The cubic equation for the S-shaped model is written as follows (Cohen, West, & Aiken, 2014; Liang, 2020):

$$CFP_{it} = \beta_0 + \beta_1 CSR_{it} + \beta_2 CSR_{it}^2 + \beta_3 CSR_{it}^3 + \beta_4 X_{it} + u_{it} \quad (4)$$

Where $\beta_3 < 0$ and $\beta_1 \neq 0$ or $\beta_2 \neq 0$.

Limitations and Strengths

This study did have limitations. Using existing quantitative data presents some noted benefits in that the data is based on financial information reported by companies and reported to the SEC. However, this data also presents limitations in that it may not offer an in-depth look at the relationships identified that could be acquired by collecting data from each company for the unique purpose of the study. Another limitation is that the study only considered companies listed on the Russell 1000 Index. Other companies outside that index may provide different insights into the relationship between CSR and CFP.

The study did exhibit some strengths. One strength is that the data gathered is subject to the exact reporting requirements set by the SEC for the reports filed. This allows the data to have some consistencies that might otherwise be absent. Another strength is that the CSR behaviors of large companies can be important benchmarks for smaller companies. By providing the insights gathered by this study focused on some of the best-performing large companies that could have value in that it could highlight certain firm characteristics that contribute to strong performance in CSR and financially. This strength could have a positive impact on both scholarly study as well as in practice.

Chapter 4: Data Analysis and Presentation

Introduction

This chapter presents the quantitative research findings of this study using data collected via the Mergent Online Database and the ESG rating information published by S&P Global (“S&P Global ESG Scores,” n.d.) from the 1,000 companies found on the Russell 1000 Index. The goal of this study was to understand the relationship between companies’ pursuit of CSR activities and the financial performance of those companies. The study addressed the three research questions presented below.

The analysis of the data and presentation of results include an explanation of (1) organization of data analysis, (2) descriptive statistics, (3) correlation analysis, (4) independent t-Tests, (5) statistical assumptions, (6) regression analysis, and (7) summary.

Organization of Data Analysis

Data collected for this study were analyzed using SPSS v.29. The software was used to perform descriptive and inferential statistics on the research variables included in the study. Tests of regression assumptions were used in the study. Examining linear relationships, multicollinearity, and homoscedasticity were also tested as regression assumptions. The correlation was reviewed to determine if the variables share some things in common. An independent t-test was used as an initial analysis to examine differences between the means of the two groups, those identified as “top performers” in CSR and those not. An independent t-test was also used to examine if differences exist in the availability of slack resources between the

group of “top performers” and those not. Hypotheses were tested using multiple regression analysis.

Research Questions and Hypotheses

The following research questions and hypotheses were addressed:

RQ1: Does a relationship exist between CSR and CFP?

Ha: All else equal, there is a statistically significant, positive relationship between CSR and CFP.

Ho: All else equal, a statistically significant, positive relationship does not exist between CSR and CFP.

RQ2: Does the availability of slack resources moderate the success of CSR activities and CFP?

Ha2a: All else equal, slack resources moderate a statistically significant relationship between corporate social responsibility (CSR) and corporate financial performance (CFP) in top-performing companies in CSR.

Ho2a: All else equal, slack resources do not moderate a statistically significant relationship between corporate social responsibility (CSR) and corporate financial performance (CFP) in top-performing companies in CSR.

Ha2b: All else equal, the relationship between corporate social responsibility (CSR) and corporate financial performance (CFP) is S-shaped in top-performing companies in CSR.

Ho2b: All else equal, the relationship between corporate social responsibility (CSR) and corporate financial performance (CFP) is not S-shaped in top-performing companies in CSR.

Data Collection and Final Data Set

The data for this study consists of secondary data made available through the Mergent Online Database, the EDGAR database, and other public information related to the financial statements of the companies included in the study. The data included the complete list of

companies from the Russell 1000 Index, a subset of the Russell 3000 Index (“Russell U.S. Indexes Construction and Methodology,” n.d.). Each company’s CSR rating was collected from the most recently awarded ESG rating published by S&P Global (“S&P Global ESG Scores,” n.d.). The S&P Global ESG scores are based on publicly available information and verified information provided by each company, media and stakeholder analysis, and an in-depth company engagement.

While the data set included the entire Russell 1000 Index for 2021, it is natural that some missing data did exist. The final data set consisted of ESG scores from S&P Global (“S&P Global ESG Scores,” n.d.) and publicly available financial data from the Mergent Online Database. S&P Global makes many ESG scores available online free of charge; however, the list does not include all companies, and some companies from the Russell 1000 Index are missing from the S&P Global database of ESG calculations. In total, 102 ESG scores are missing from the data set for this study. Eliminating any observations of missing data, the final data set included 800 companies. The Russell 1000 Index consists of companies from multiple industries and of differing sizes. Using the industry classifications from S&P Global’s ESG score data (“S&P Global ESG Scores,” n.d.), the data set consisted of companies from 60 different industry classifications. The industry classifications are displayed in Table 1. To clarify the data analysis for this study, the 60 industry classifications were divided into six industry groups based on similarities among the different classifications. The six groupings used were healthcare, household goods, manufacturing, natural resources and utilities, professional services and real estate, and technology. The frequency of each of the groupings is displayed in Table 2. Market capitalization and number of employees can be used as indicators of company size. The market capitalizations of the companies included in the Russell 1000 index consist of

small-, mid-, and large-cap based on a standard classification system of companies with less than \$2 billion in market value being small-cap, between \$2 billion and \$10 billion as mid-cap, and greater than \$10 billion as large-cap. The market capitalizations used in this study are presented in Table 3. The number of employees was used as an additional indicator of size, summarized in Table 3. In this study, the mean number of employees is 32,743, and the mean market capitalization is \$41,052,949,731. Companies on the Russell 1000 list tended to have fewer employees; with 71.9 percent (n=575) having less than 25,000 employees, but market capitalizations exceeded \$10 billion (60.1% or n=481).

Table 1

Frequencies for Industry Classifications

Industry	Frequency	Percent
AIR Airlines	5	0.6
ALU Aluminum	3	0.3
ARO Aerospace & Defense	17	2.1
ATX Auto Components	5	0.6
AUT Automobiles	4	0.5
BLD Building Products	12	1.5
BNK Banks	30	3.8
BTC Biotechnology	22	2.8
BVG Beverages	9	1.1
CHM Chemicals	22	2.8
CMT Communications Equipment	7	0.9
CNO Casinos & Gaming	6	0.7
COM Construction Materials	2	0.2
CON Construction & Engineering	3	0.4
COS Personal Products	2	0.2
CSV Diversified Consumer Services	7	0.9
CTR Containers & Packaging	11	1.4
DHP Household Durables	4	0.5
DRG Pharmaceuticals	12	1.5
ELC Electric Utilities	20	2.5
ELQ Electrical Components & Equipment	12	1.5
FBN Diversified Financial Services and Capital Markets	49	6.1
FDR Food & Staples Retailing	4	0.5
FOA Food Products	19	2.4
FRP Paper & Forest Products	1	0.1
GAS Gas Utilities	2	0.2
HEA Health Care Providers & Services	21	2.6
HOM Homebuilding	6	0.7
HOU Household Products	5	0.6
ICS Commercial Services & Supplies	8	1.0
IDD Industrial Conglomerates	4	0.5
IEQ Machinery and Electrical Equipment	25	3.1
IMS Interactive Media, Services & Home Entertainment	9	1.1
INS Insurance	36	4.6
ITC Electronic Equipment, Instruments & Components	15	1.9
LEG Leisure Equipment & Products and Consumer Electronics	6	0.7
LIF Life Sciences Tools & Services	17	2.1
MXN Metals & Mining	4	0.5
MTC Health Care Equipment & Supplies	31	3.9
MUW Multi and Water Utilities	10	1.3
OGR Oil & Gas Refining & Marketing	2	0.2
OGX Oil & Gas Upstream & Integrated	12	1.5
OIE Energy Equipment & Services	4	0.5
PIP Oil & Gas Storage & Transportation	4	0.5
PRO Professional Services	12	1.5
PUB Media, Movies & Entertainment	25	3.1
REA Real Estate	57	7.1
REX Restaurants & Leisure Facilities	8	1.0
RTS Retailing	34	4.4
SEM Semiconductors & Semiconductor Equipment	26	3.3
SOF Software	45	5.6
STL Steel	4	0.5
TCD Trading Companies & Distributors	5	0.6
TEX Textiles, Apparel & Luxury Goods	10	1.3
THQ Computers & Peripherals and Office Electronics	6	0.8
TLS Telecommunication Services	3	0.4
TOB Tobacco	2	0.2
TRA Transportation and Transportation Infrastructure	14	1.8
TRT Hotels, Resorts & Cruise Lines	9	1.1
TSV IT services	31	3.9
Total	800	100.0

Table 2

Frequencies for Industry Groups

	Frequency	Percent
Group 1 - Healthcare	81	10.1
Group 2 - Household Goods	153	19.1
Group 3 - Manufacturing	91	11.4
Group 4 - Natural Resources & Utilities	109	13.6
Group 5 - Professional Services & Real Estate	196	24.5
Group 6 - Technology	170	21.3
Total	800	100.0

Table 3

Frequencies for Firm Size

	Frequency	Percent
Number of Employees		
Less than 25,000	575	71.9
25,000 - 49,999	101	12.6
50,000 - 74,999	41	5.1
75,000 - 99,999	29	3.6
100,000 or more	54	6.8
Total	800	100.0
Market Capitalization		
Small-Cap	18	2.3
Mid-Cap	301	37.6
Large-Cap	481	60.1
Total	800	100.0

Descriptive Statistics

Descriptive statistics were performed for each dependent and independent variable utilized in the study.

Descriptive Analysis – Dependent Variable

This study utilized CFP as the dependent variable. The variable was measured using two accounting measures and two market measures. ROA and EBITDA were analyzed as accounting metrics. ROA and EBITDA were calculated using a 3-year moving average to capture the long-term impact of CSR activities that might need to be adequately captured using ROA and EBITDA for just one year. Market performance was measured using a market-to-book value ratio and Tobin’s Q. Accounting measures and market measures were viewed as two separate indicators of performance and not combined, as suggested in a previous study (Gentry & Shen, 2010).

Table 4 displays the minimum, maximum, mean, and standard deviation for ROA (3-year average), EBITDA (3-year average), the market-to-book value ratio, and Tobin’s Q.

Table 4

Descriptive Statistics for Accounting & Market Dependent Variables

	N	Minimum	Maximum	Mean	Std. Deviation
ROA (3-year average)	800	(0.52)	3.80	0.10	0.18
EBITDA (3-year average)	800	(3,241,666,667)	104,562,333,333	3,326,461,677	8,880,694,039
Market-to-Book Value Ratio	800	(1,102.87)	1,525.24	8.42	81.51
Tobin's Q	800	0.00	20.88	1.84	2.07

The ROA (3-year average) had a mean of 10.4 and a median of 9.6, which is positive considering that ROA has been found to be a valuable accounting measure (Aliabadi et al., 2013) and the higher the ROA, the greater return, or value, indicated. As another widely accepted accounting measure of value (Aliabadi et al., 2013). EBITDA (3-year average) had a mean of \$3,326,461,677 and a median of \$1,070,319,333, indicating a positive value associated with the companies included in the study. The market-to-book value ratio had a mean of 8.42 and a median of 3.36. While the median of 3.36 indicates a reasonable value for the ratio, which measures the stock price relative to the company's book value, the mean of 8.42 is high enough to suggest that some companies included in the data set may be over-valued regarding stock price. However, assumptions related to value should be used sparingly as industry differences and other factors related to specific companies may cause non-typical market-to-book value ratios that are justified (Aliabadi et al., 2013). The standard deviation of 81.51 illustrates substantial variability in this value across the data set. Tobin's Q had a mean of 1.84 and a median of 1.22. Both values indicate that some companies may be overvalued with a Tobin's Q of greater than 1. However, the minimum value of 0.0000077 does suggest that other companies are undervalued based on Tobin's Q.

Descriptive Analysis – Independent Variable

This study utilized a company's designation of "top performer" in CSR activities as an independent variable for research question two; in contrast, research question one considered the quantitative value of the ESG score for each company, ignoring the level of performance and top-performing companies. Using the S&P Global ESG scores, companies found on the Russell 1000 Index were sorted and divided into two groups based on placement in the top 50 percent of ESG scores or placement in the bottom 50 percent of ESG scores based on the published scores.

The “top performer” variable was quantitative in nature based on the assigned value associated with the ESG score published by S&P Global. Those companies that are part of the Russell 1000 Index that did not in the top 50 percent of scores based on the S&P Global ESG scores were not top performers in CSR. The descriptive statistics for the independent variable in this study examined the population mean, standard deviation, skewness, and kurtosis.

To determine the group of top-performing companies in CSR, the 800 overall ESG scores collected from S&P Global’s ESG data were separated into those placing at the 50th percentile and above and those scoring below the 50th percentile. The scores above the 50th percentile were assigned a 1 for analysis purposes, indicating placement as a top performer. Those scores below the 50th percentile were given a 0 for analysis purposes. A total of 412 companies fell at the 50th percentile and higher. Table 5 shows the descriptive statistics for the complete data set and the top performers. With a minimum ESG score of 29 for the top performers, compared to the minimum ESG score of 5 for the complete data set, it is evident that there is a notable difference in the ESG performance of those companies that are top performers. The group of top-performing companies based on ESG also produced a smaller standard deviation in ESG scores at 15.54 and a higher mean of 48.01, compared to the standard deviation of 18.72 for the full data set and a mean of 33.89. The differences in means and overall distribution of scores are also shown in histograms for the full data set (Figure 3) and top-performing companies (Figure 4).

Table 5

Descriptive Statistics for ESG Independent Variable

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
ESG Score - Full Data Set	800	5	88	33.89	18.72	0.87	(0.10)
ESG Score - Top Performers Only	412	29	88	48.01	15.54	0.66	(0.71)

Figure 3

Histogram of ESG Scores – Full Data Set

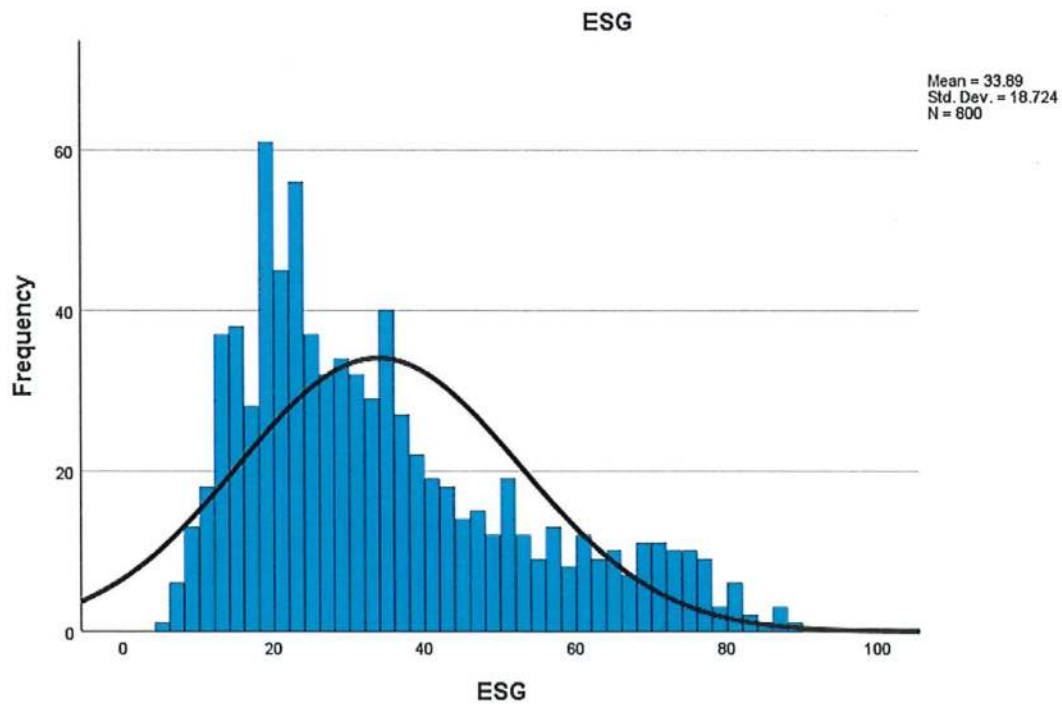
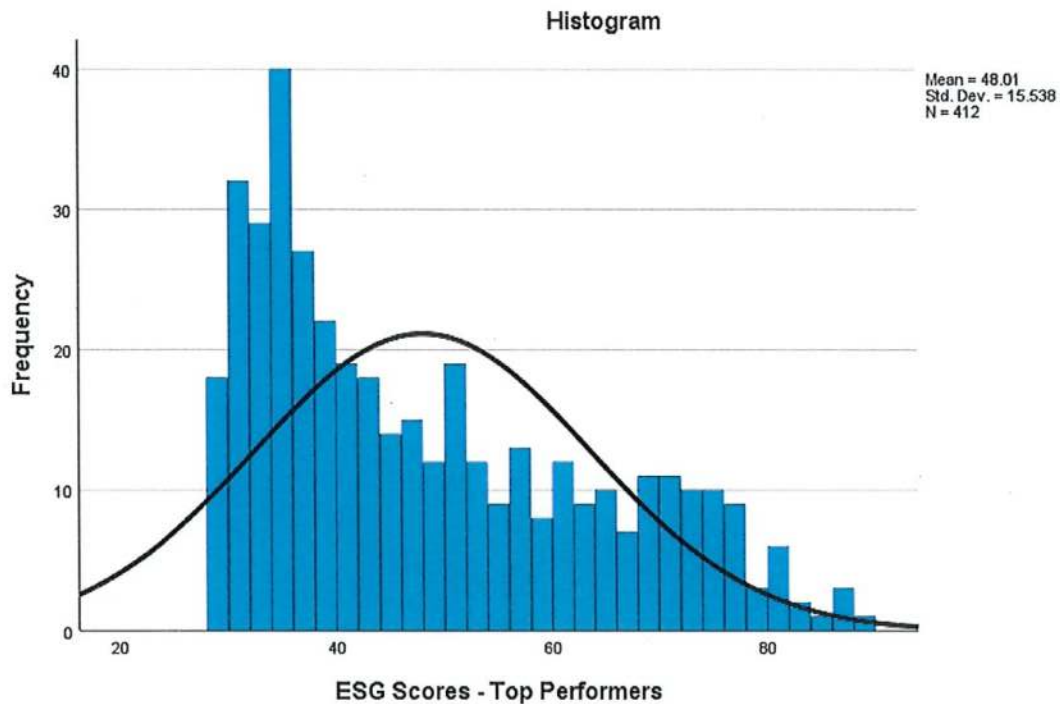


Figure 4

Histogram of ESG Scores – Top Performers



The descriptive statistics of the two groups of ESG scores are shown in Table 6. Looking at the descriptive statistics, the mean for each of the three dependent variables is more favorable for top performers in CSR than for those companies that are not top performers in CSR. The mean for top performers in CSR for ROA (3-year average) is higher than the mean for those, not top performers. EBITDA (3-year average) also produced a higher mean for top performers in CSR over those that are not top performers. For both ROA and EBITDA, the higher values are more favorable. Also, the mean market-to-book value ratio for top performers in CSR is lower than the mean for those, not top performers. A lower value for the market-to-book value ratio is more favorable. Tobin's Q suggests a higher value indicates a company may be overvalued.

With a mean for top performers in CSR lower than the mean for those companies that are not top performers, the data suggests that top performers in CSR are more accurately valued than those companies that do not perform as well.

Table 6

Descriptive Statistics for Top Performers in CSR

	N	Mean	Std. Deviation
ROA (3-year average)			
Top Performer in CSR	412	0.12	0.21
Not Top Performer in CSR	388	0.09	0.12
EBITDA (3-year average)			
Top Performer in CSR	412	4,909,325,920	10,407,905,743
Not Top Performer in CSR	388	1,645,688,306	6,502,791,173
Market-to-Book Value Ratio			
Top Performer in CSR	412	6.99	73.25
Not Top Performer in CSR	388	9.93	89.52
Tobin's Q			
Top Performer in CSR	412	1.69	1.85
Not Top Performer in CSR	388	2.00	2.28

Descriptive Analysis – Moderating Variables

The moderating variables in this study are slack resources and firm size in terms of value. Slack resources are a multi-dimension concept in this study and include the examination of transient slack, high-discretion slack, and low-discretion slack. Transient slack is further divided into resource availability and resource demand. Firm size based on value is continuous in nature and based on the market capitalization reported for each company.

Table 7 shows the descriptive statistics for the moderating variables considered in the study. The key descriptive statistics are included for high discretion slack, low discretion slack, and transient slack. Transient slack consists of resource demand and resource availability. Each slack value was calculated for the full data set, and the minimums and maximums were included. Firm size, based on value, is included as a moderator. Each company provided the value for market capitalization. Interestingly, the minimum of 159,630 and the maximum of 2,366,739,647,040 noted in Table 7 for market capitalization illustrate that all three levels of market capitalization classification are present in the data set. The presence of small-cap, mid-cap, and large-cap companies adds depth to the study in that not all companies included are large companies, as may be assumed by the inclusion on the Russell 1000 Index.

Table 7

Descriptive Statistics – Moderating Variables

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
Resource Availability	800	-339,647,000,000.00	329,873,000,000.00	-1,733,744,341.06	34,974,819,089.57	1.24	56.22
ESG*RA Slack	800	-26,152,819,000,000.00	15,811,680,000,000.00	-108,981,176,909.60	1,693,752,878,248.63	-2.16	98.82
Resource Demand	800	-222,365,849,315.07	121,796,410,958.90	-923,977,808.16	20,463,227,759.05	-5.77	49.08
ESG*RD Slack	800	-14,009,048,506,849.30	3,745,757,876,712.33	-54,669,797,135.05	1,019,287,887,822.64	-8.21	87.77
Slack - High Discretion	800	0.00	1,201,386,000,000.00	4,757,566,198.75	44,523,576,685.55	24.72	656.65
ESG*HD Slack	800	0.00	75,687,318,000,000.00	225,001,120,484.23	2,739,175,757,478.06	26.39	723.95
Slack - Low Discretion	800	0.00	312.50	1.82	11.45	25.20	680.07
ESG*LD Slack	800	0.00	4,062.50	55.74	195.71	13.81	245.58
Market Cap	800	159,630.00	2,366,739,647,040.00	41,052,949,730.54	125,465,399,062.89	12.26	193.36
ESG*Market Cap	800	5,427,420.00	99,053,546,329,400.00	1,734,830,381,401.68	5,599,107,110,231.44	11.92	184.65

Research Question One

To further develop an understanding of the value of CSR, the first research question asked if a relationship exists between CSR and CSP. This research question contains one hypothesis and utilizes the entire data set, ignoring each company's CSR performance level. The results of that hypothesis are presented below:

Hypothesis One

H1₀: All else equal, a statistically significant, positive relationship does not exist between CSR and CFP.

H1_a: All else equal, a statistically significant, positive relationship exists between CSR and CFP.

Correlation

The relationship between the variables was analyzed using correlation as a means by which to understand the directionality and strength. Burns and Burns (2008) noted that correlation is a valuable measure in that it allows for discovering that "two things are systematically connected." In correlation analysis, the value of r^2 allows the study of the percent of variance explained by the model.

Hypothesis one includes analysis of the full data set and the data set including only top performers in CSR. The results were not surprising for the correlation among the regression variables when considering ROA (3-year average) and EBITDA (3-year average) as the dependent variables. Table 8 illustrates the correlation between the four dependent variables and ESG, along with the control variables included in the study. With an $r^2 = .101$, $p < 0.01$, the results show a significant but weak positive relationship between ROA and ESG. This suggests that ROA increases as ESG increases. A similar result is evident for EBITDA (3-year average)

with a significant positive relationship $r^2 = .173$, $p < 0.01$, indicating that EBITDA increases as ESG increases.

While the correlation between the two accounting measures and ESG was as expected, the results were surprising for the two financial measures. For the market-to-book value ratio, the correlation is not significant. Also, the correlation $r^2 = -.013$ for the market-to-book value ratio suggests that as ESG increases, the market-to-book value ratio decreases. This result could be viewed as an important relationship between these variables due to the interpretation of a lower market-to-book value ratio as an indicator that a company trades at a higher value than the value of assets. The correlation for Tobin's Q, $r^2 = -.079$, $p < 0.05$, is significant and negative. Similar to the interpretation of the market-to-book value ratio, a decreasing Tobin's Q can be interpreted as a sign that the company is undervalued and may be more attractive to investors.

Table 8

Correlation – Full Data Set – Hypothesis One Variables

	Correlations											
	1	2	3	4	5	6	7	8	9	10	11	12
ROA - Avg	1	.095**	0.009	.220**	.101**	.134**	0.018	0.064	0.030	-.099**	-.090*	.080*
EBITDA - Avg		1	0.030	-0.020	.173**	.351**	-0.017	0.036	-0.040	-0.013	0.010	0.010
Market-to-Book			1	.070*	-0.013	-0.047	0.019	-0.024	-0.018	-0.023	0.021	0.020
Tobins Q				1	-.079*	-0.051	.130**	-0.023	-0.008	-.092**	-.233**	.254**
ESG					1	.303**	0.025	-.132**	0.030	.134**	0.002	-0.030
Number of Employees						1	0.053	.187**	.149**	-.126**	-.299**	.085*
Group Healthcare							1	-.163**	-.120**	-.133**	-.191**	-.174**
Group Household								1	-.174**	-.193**	-.277**	-.253**
Group Manufacturing									1	-.142**	-.204**	-.186**
Group Resources										1	-.226**	-.206**
Group Services											1	-.296**
Group Technology												1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

The relationship between variables was also considered for the data set, which included only top performers in CSR. The results, as illustrated in Table 9, were surprising in that the

relationship between the four dependent variables and ESG was found to be not significant for any of the dependent variables. These results suggest that limiting the data set to only top performers in CSR may not capture the true relationship between financial performance and CSR activities.

Table 9

Correlation – Top Performers Only – Hypothesis One Variables

	Correlations											
	1	2	3	4	5	6	7	8	9	10	11	12
ROA - Avg	1	0.065	0.021	.267**	0.015	0.055	-0.009	0.056	-0.013	-0.062	-.129**	.168**
EBITDA - Avg		1	0.042	0.042	0.054	.329**	-0.003	0.053	-0.070	-0.030	-0.037	0.083
Market-to-Book			1	.116*	0.007	-0.022	0.064	0.009	-0.016	-0.021	-0.036	0.015
Tobins Q				1	-0.023	0.025	.134**	-0.045	-0.018	-.102*	-.224**	.295**
ESG					1	.175**	0.067	-0.043	-0.012	.119*	-0.084	-0.020
Number of Employees						1	.118*	.199**	.170**	-.199**	-.354**	.163**
Group Healthcare							1	-.139**	-.130**	-.146**	-.197**	-.164**
Group Household								1	-.164**	-.184**	-.247**	-.206**
Group Manufacturing									1	-.173**	-.232**	-.194**
Group Resources										1	-.261**	-.218**
Group Services											1	-.293**
Group Technology												1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Independent t-Test

An independent t-test was performed to identify differences between the means of top performers in CSR and those who are not top performers. The independent t-test results indicate varied results for the four dependent variables, as illustrated in Table 10. Looking first at Levene’s Test for Equality of Variances for ROA (3-year average), the results of F=0.301 and p=0.584 indicate that equal variances can be assumed. Based on the resulting p=0.004, we can reject the null hypothesis and conclude that the difference in means in ROA (3-year average) of

top performers in CSR is significantly different from that of companies that are not top performers in CSR.

Utilizing Levene's Test for Equality of Variances for EBITDA (3-year average), the results of $F=36.416$ and $p<0.001$ illustrated in Table 10 indicate that equal variances cannot be assumed. Based on the resulting $p<0.001$, we can reject the null hypothesis and conclude that the difference in means in EBITDA (3-year average) of top performers in CSR is significantly different from that of companies that are not top performers in CSR.

Levene's Test for Equality of Variances was also conducted for the market-to-book value ratio. The results of $F<0.001$ and $p=1.000$ illustrated in Table 10 indicate that equal variances can be assumed. Based on the resulting $p=0.611$, we cannot reject the null hypothesis, and we conclude that the difference in means for the market-to-book value ratio of top performers in CSR is not significantly different from that of companies that are not top performers in CSR.

Levene's Test for Equality of Variances for Tobin's Q produced results of $F=5.459$ and $p=0.020$, illustrated in Table 10, indicating that equal variances cannot be assumed. Based on the resulting $p=0.039$, we can reject the null hypothesis and conclude that the difference in means in Tobin's Q of top performers in CSR significantly differs from that of companies that are not top performers in CSR.

Table 10

Independent t-test for Top Performers in CSR

	Levene's Test for Equality of Variances		t-test for Equality of Means	
	F	p	t	p
ROA (3-year average)	0.301	0.584	2.878*	0.004*
EBITDA (3-year average)	36.416	<0.001	5.352**	<0.001**
Market-to-Book Value Ratio	<0.001	1.000	(0.509)*	0.611*
Tobin's Q	5.459	0.020	(2.070)**	0.039**

*Equal variances assumed

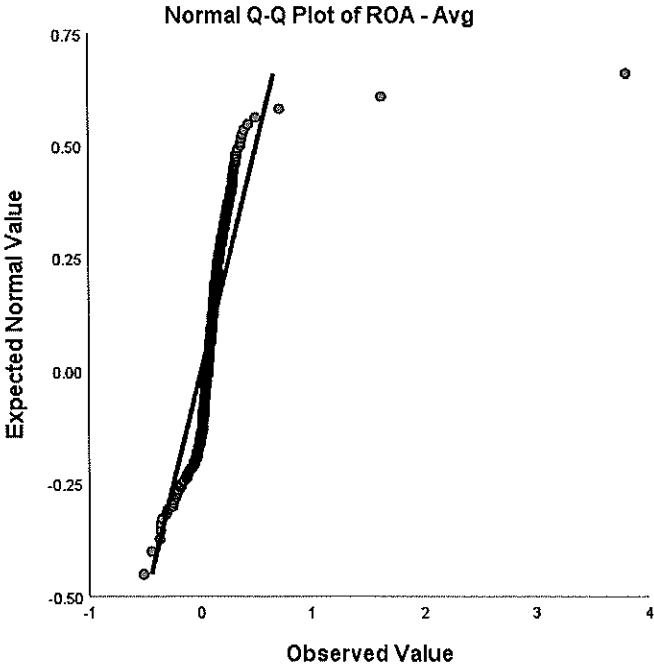
**Equal variances not assumed

Statistical Assumptions

Before performing the planned regression analysis for this study, it was important to address specific statistical assumptions that must be considered to ensure the reliability of the results found. These underlying assumptions must be present and addressed for any regression analysis. The assumptions are linearity, normality, multicollinearity, independence, and homoscedasticity. The assumptions of linearity and homoscedasticity can be tested using a graph of the bivariate plot of the predicted values against residual values. The resulting graph should indicate that the independent and dependent variables exhibit a linear relationship if the assumption of linearity holds true. The assumption of homoscedasticity can be tested using the same graph. Homoscedasticity implies that all of the random variables have the same variance. While the scatterplot illustrates a linear pattern, the points do not indicate a specific pattern. Analysis of the scatterplots for all four dependent variables suggests that the assumptions of linearity and homoscedasticity both hold true.

Normality is another assumption that must be considered for regression analysis. The normality assumption can be tested using a Q-Q plot of the residual values. A Q-Q plot illustrating that the residuals follow a diagonal straight line indicates that the normality assumption is met. We can look at the Q-Q plot of the residual values for ROA (3-year average) illustrated in Figure 5. The Q-Q plot shows that the residuals for the variable roughly form a straight diagonal line, indicating that the normality assumption is met for ROA (3-year average). Figure 3. Q-Q plots for EBITDA (3-year average) and the market-to-book value ratio also produced similar results, indicating that the normality assumption is met for both variables.

Figure 5
Q-Q Plot – ROA (3-Year Average) as Dependent Variable

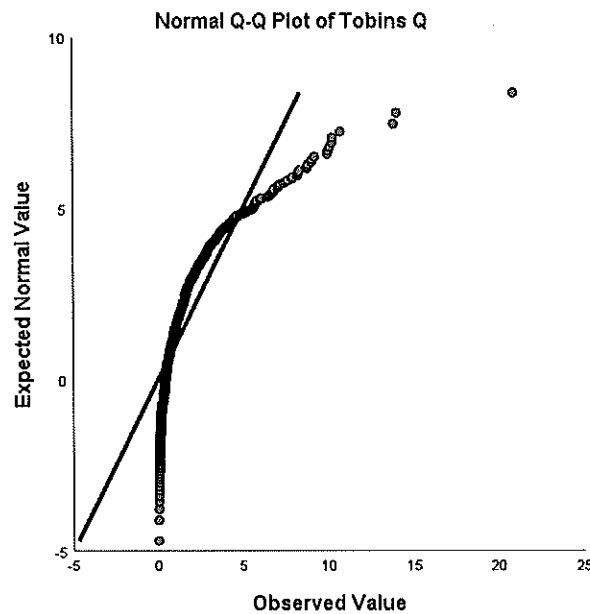


The Q-Q plot of the residual values for Tobin’s Q is illustrated in Figure 6. The Q-Q plot shows that the residuals for the variable deviate from the desired straight diagonal line, indicating that the normality assumption is likely not met for Tobin’s Q. Using the Shapiro-Wilk

test to examine normality more precisely, the same conclusion is met. With $p < 0.001$ for the Shapiro-Wilk test, the null hypothesis that normality exists is rejected. While the assumption of normality is not met for Tobin's Q, per the central limit theorem, the sampling distribution of large sample sizes, such as the one for this study, is always normal regardless of how the values are distributed.

Figure 6

Q-Q Plot – Tobin's Q as Dependent Variable



The assumption that no multicollinearity exists among the predictor variables was also considered for the analysis of hypothesis one. Burns and Burns (2008) explain that high correlations between independent variables should be avoided for multiple regression analysis. The Variance Inflation Factor (VIF) measures the impact of collinearity. Looking at the VIF for

the model used for hypothesis one, we see in Table 11 that the VIF values are all between 1 and 2, so the assumption of no multicollinearity is met. Burns and Burns note that a VIF greater than 10.0 is a concern.

Table 11

Hypothesis One – VIF Values for Independent Variables

<u>Model</u>	<u>VIF</u>
ESG	1.193
Number of Employees	1.339
Group 1 - Healthcare	1.324
Group 2 - Household Goods	1.661
Group 3 - Manufacturing	1.411
Group 4 - Natural Resources & Utilities	1.359
Group 6 - Technology	1.584

The assumption of independence was also considered for this study. The independence assumption considers the existence of a correlation between residuals. A Durbin-Watson test was used in this analysis to determine if autocorrelation exists. Based on tests of all dependent and independent variables, the independence assumption was met based on the Durbin-Watson values.

Regression Analysis – Hypothesis One

Relationships were analyzed using the four separate dependent variables, two accounting measures and two market measures.

Table 12

Hypothesis One - Regression Analysis – Full Data Set

Model	ROA	EBITDA	Market-to-Book Value Ratio	Tobin's Q
(Constant)	-0.009	-15,527,625,826.936***	31.985	2.661***
ESG	0.001**	24,732,910.918	0.018	-0.002
Number of Employees	0.006	2,156,885,671.274***	-2.516	-0.190***
Group - Healthcare	0.029	-2,996,947,533.634**	4.449	1.861***
Group - Household	0.047*	-2,513,836,782.172**	-3.289	1.013***
Group - Manufacturing	0.031	-4,432,888,572.150***	-3.275	1.089***
Group - Resources	-0.024	-1,330,751,067.328	-6.873	0.440
Group - Technology	0.049**	-2,338,780,572.176**	2.918	2.066***
F	4.840***	19.779***	0.470	17.754***
R	0.203	0.386	0.064	0.368

Note: *p < .05; ** p < .01; *** p < .001

Regression analysis was conducted using the ESG scores for the entire data set and ROA (3-year Average) as the dependent variable, controlling for firm size and industry. The analysis concluded that this was a statistically significant relationship between ESG scores and ROA with F=4.840 and p<0.001, as illustrated in Table 12. This indicated enough evidence to reject the null hypothesis and support the alternative hypothesis that CSR has a statistically significant effect on CFP.

The following analysis used the second accounting measure as the dependent variable. Regression analysis was conducted using the ESG scores for the entire data set and EBITDA (3-year average) as the dependent variable, controlling for firm size and industry. The analysis concluded that this was a statistically significant relationship between ESG scores and EBITDA with F=19.779 and p<0.001, as illustrated in Table 12. This indicated enough evidence to reject

the null hypothesis and support the alternative hypothesis that CSR has a statistically significant effect on CFP.

Analysis using the market measure market-to-book value ratio was conducted. Again, regression analysis was performed using the ESG scores for the entire data set and the market-to-book value ratio as the dependent variable, controlling for firm size and industry. The analysis concluded there was no statistically significant relationship with $F=0.470$ and $p=0.856$, as illustrated in Table 12. This indicated insufficient evidence to reject the null hypothesis that CSR does not have a statistically significant effect on CFP.

Analysis using the market measure market-to-book value ratio was conducted. Regression analysis was performed using the ESG scores for the entire data set and Tobin's Q as the dependent variable, controlling for firm size and industry. The study concluded no statistically significant relationship with $F=17.754$ and $p<0.001$, as illustrated in Table 12. This indicated enough evidence to reject the null hypothesis and support the alternative hypothesis that CSR has a statistically significant effect on CFP.

Overall, three of the four models were found to be statistically significant. ROA, EBITDA, and Tobin's Q as dependent variables each produced statistically significant models with $p<0.001$, as illustrated in Table 13. When the market-to-book value ratio was used as the dependent variable, the overall model was not significant, along with each of the variables individually, as indicated in Table 12.

Table 13

Hypothesis One - Regression Summary – Full Data Set

	F	p	Result
ROA (3-year average)	4.840	<0.001	Significant
EBITDA (3-year average)	19.779	<0.001	Significant
Market-to-Book Value Ratio	0.470	0.856	Not Significant
Tobin's Q	17.754	<0.001	Significant

Regression analysis was conducted using only the data corresponding to top performers in CSR to isolate and analyze the potential effect of a company being a top performer in CSR.

Table 14

Hypothesis One - Regression Analysis – Top Performers Only

Model	ROA	EBITDA	Market-to-Book Value Ratio	Tobin's Q
(Constant)	0.093	-18,228,194,008.627***	23.227	2.266
ESG	0.000	-8,370,142.816	0.066	-0.001
Number of Employees	-0.004	2,614,356,560.267***	-2.713	-0.138
Group - Healthcare	0.044	-3,306,119,595.370	22.301	1.655
Group - Household	0.081*	-2,412,090,711.711	10.653	0.734
Group - Manufacturing	0.045	-5,393,625,473.805**	5.834	0.838
Group - Resources	0.016	-600,394,521.481	1.263	0.312
Group - Technology	0.123***	-1,378,836,017.810	10.587	2.000
F	2.531*	8.863***	0.468	9.830***
R	0.205	0.365	0.09	0.381

Note: *p < .05; ** p < .01; *** p < .001

Starting with ROA (3-year Average) as the dependent variable, the analysis concluded that this was a statistically significant relationship between ESG scores and ROA with $F=2.531$ and $p=0.015$, as illustrated in Table 14. This indicated enough evidence to reject the null hypothesis and suggests that CSR has a statistically significant effect on CFP.

The following analysis used EBITDA (3-year average) as the dependent variable. Regression analysis was conducted using the ESG scores for only the data corresponding to top performers in CSR and EBITDA (3-year average) as the dependent variable and controlling for firm size and industry. The analysis concluded that this was a statistically significant relationship between the ESG scores of top performers and EBITDA with $F=8.863$ and $p<0.001$, as illustrated in Table 14. This indicated enough evidence to reject the null hypothesis and suggests that CSR has a statistically significant effect on CFP.

The regression results were similar for the market measure, market-to-book value ratio. The analysis was conducted using the ESG scores for only the data corresponding to top performers in CSR and market-to-book value as the dependent variable. The analysis concluded that this was not a statistically significant relationship between the ESG scores of top performers and the market-to-book-value with $F=0.468$ and $p=0.858$, as illustrated in Table 14. This indicated insufficient evidence to reject the null hypothesis that CSR does not have a statistically significant effect on CFP.

The following analysis used Tobin's Q as the dependent variable. Regression analysis was conducted using the ESG scores for only the data corresponding to top performers in CSR and Tobin's Q as the dependent variable and controlling for firm size and industry. The analysis concluded that this was a statistically significant relationship between the ESG scores of top performers and Tobin's Q with $F=9.830$ and $p<0.001$, as illustrated in Table 15. This indicated

enough evidence to reject the null hypothesis and suggests that CSR has a statistically significant effect on CFP.

Based on the data set, including only top performers in CSR, three of the four models were found to be statistically significant. ROA, EBITDA, and Tobin's Q as dependent variables each produced statistically significant models, as illustrated in Table 15. The model using ROA as the dependent variable was significant at the $p < 0.05$ level, while EBITDA and Tobin's Q were significant with $p < 0.001$. When the market-to-book value ratio was used as the dependent variable, the overall model was not significant, along with each of the variables individually, as indicated in Table 14.

Table 15

Hypothesis One - Regression Summary - Top Performers in CSR

	F	p	Result
ROA (3-year average)	2.531	0.015	Significant
EBITDA (3-year average)	8.863	<0.001	Significant
Market-to-Book Value Ratio	0.468	0.858	Not Significant
Tobin's Q	9.830	<0.001	Significant

The results of the analysis of both the entire data set and the top performers in CSR produced similar results. In both sets of research, both accounting measures of financial performance were found to be impacted by the ESG scores. However, only one of the market measures was found to be significant. These results are exciting and suggest that the role of CSR

in company financial performance may be more evident in direct financial performance and financial statement aspects rather than in the company's market performance. However, the indication of a statistically significant relationship between CSR and Tobin's Q suggests that CSR's role is evident in market performance as well, depending on the selected market indicator. Interestingly, both Tobin's Q and the market-to-book value ratio consist of similar calculations, with the primary difference being that Tobin's Q considers the value of assets as a key part of the calculation. In contrast, the market-to-book value ratio deducts liabilities from assets.

Research Question Two

The second research question asked if a relationship exists between CSR and CSP, with the availability of slack resources being a moderator. This research question contains two hypotheses. The results of that hypothesis are presented below:

Hypothesis Two

H1₀: All else equal, slack resources do not moderate a statistically significant relationship between corporate social responsibility (CSR) and corporate financial performance (CFP) in top-performing companies in CSR.

H1_a: All else equal, slack resources moderate a statistically significant relationship between corporate social responsibility (CSR) and corporate financial performance (CFP) in top-performing companies in CSR.

For hypothesis two, relationships were again analyzed using the four separate dependent variables, two accounting measures and two market measures. Regression analysis was first conducted using the ESG scores for the entire data set and ROA (3-year Average) as the dependent variable. Control variables for firm size in terms of the number of employees and industry were also included in the analysis. The multi-dimensional approach to measuring slack

resources used in this study produced four moderating variables for this analysis: resource demand, resource availability, high discretion slack, and low discretion slack. Firm size, based on market capitalization, was also included as an additional moderating variable.

Correlation

Hypothesis two includes analysis of the full data set and the data set including only top performers in CSR. Table 16 illustrates the correlation between the four dependent variables and ESG, the moderating slack variables, market capitalization as a moderator, and the control variables included in the study. Looking at the addition of the moderating variables for hypothesis two, some notable relationships are shown. The moderator variable for resource availability as a component of transient slack does not appear to have a significant relationship with any of the four dependent variables. With an $r = 0.075$, $p < 0.05$, the results indicate a significant but weak positive relationship between ROA and the moderating variable for resource demand as a component of transient slack. The moderating variable for resource demand also appears to have a significant and positive relationship with Tobin's Q, with $r = 0.102$ and $p < 0.01$. High discretion slack as a moderator does seem to have a significant and positive relationship with EBITDA, with $r = 0.233$ and $p < 0.01$. The moderator for low discretion slack appears to have a significant and positive relationship with the market-to-book value ratio, with $r = 0.611$ and $p < 0.01$.

The moderating variable for firm size has a significant relationship with three of the four dependent variables. With an $r = 0.102$, $p < 0.01$, the results show a significant and positive relationship between ROA and market capitalization. Market capitalization also appears to have a significant and positive relationship with EBITDA and Tobin's Q.

Some of the relationships that were expected but appeared not to exist were also surprising. The results related to the relationships between the four categories of slack resources and the four dependent variables contained some surprises. A relationship appears to exist between the dependent variables and only one of the forms of slack; however, that one form of slack varies for each dependent variable. ROA appeared to have a significant relationship with resource demand as a component of transient slack. However, EBITDA appeared to have a significant relationship with high discretion slack. A relationship with the market-to-book value ratio was only evident with low discretion slack, and a relationship with Tobin's Q was only apparent with resource demand as a component of transient slack.

The results of the correlation analysis for the data set containing only the top performers in CSR were similar to the results of the correlation analysis with the full data set. The results are illustrated in Table 17. The moderator variable for resource availability as a component of transient slack does not appear to have a significant relationship with any of the four dependent variables. With an $r = 0.154$, $p < 0.01$, Tobin's Q and the moderating variable for resource demand as a component of transient slack appears to have a significant and positive relationship. Unlike the full data set, the moderating variable for resource demand does not appear to have a significant relationship with ROA. High discretion slack as a moderator does appear to have a significant and positive relationship with EBITDA, with $r = 0.248$ and $p < 0.01$. The moderator for low discretion slack appears to have a significant and positive relationship with the market-to-book value ratio, with $r = 0.283$ and $p < 0.01$.

Summarizing the results for the four dependent variables, some interesting relationships, or lack of relationships, are present. For the data set containing only top-performing companies in CSR, ROA appears to have no significant relationship with the moderator variables for the

four types of slack. EBITDA and high discretion slack have a significant and moderate positive relationship. Tobin's Q was only significantly related to resource demand, and the market-to-book value ratio is significantly related to low discretion slack with a moderate positive relationship, as noted in Table 17. As a potential moderator, market capitalization did not exhibit a significant relationship with all four of the dependent variables. A significant and moderate positive relationship was noted between market capitalization and EBITDA and between market capitalization and Tobin's Q. While the results found with the data set containing only top performers are somewhat surprising in that some expected relationships were not significant when compared to the findings for hypothesis one, the limited relationships seem consistent with the correlation results for the hypothesis one model that appeared to point to a need to use the entire data set for the most informative analysis.

Table 17

Correlation – Top Performers Only – Hypothesis Two Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
RGA - Avg	1	0.065	0.021	.267**	0.015	-0.090	-0.033	.098*	-0.020	-0.028	-0.028	-0.028	-0.028	-0.028	-0.028	-0.028	-0.028	-0.028	-0.028	-0.028	-0.028	-0.028
EBITDA - Avg		1	0.042	0.042	0.054	.115*	0.048	-0.020	-0.013	.287**	.248**	-0.051	-0.056	.809**	.796**	.329**	-0.003	0.053	-0.013	-0.010	-0.027	.168**
Market-to-Book			1	.116*	0.007	0.019	0.018	0.023	0.021	0.016	0.011	.315**	.283**	0.040	0.043	-0.022	0.064	0.009	-0.018	-0.021	-0.036	0.015
Tabitas Q				1	-0.023	-0.033	-0.011	.163**	-.154**	-0.053	-0.051	0.018	0.010	.268**	.277**	0.025	.134**	-0.045	-0.018	-.102*	-.224**	.295**
ESG					1	-0.085	-.138**	0.003	0.003	0.045	0.060	0.011	.138**	0.026	.144**	.175**	0.067	-0.043	-0.012	.119*	-.094	-0.020
Resource Availability						1	.558**	-.339**	-.313**	.358**	.323**	-0.003	-0.015	-0.005	-0.019	-0.025	-0.014	-0.052	-0.009	-.187**	.279**	-0.065
ESG+PA Slack							1	-.330**	-.322**	.398**	.367**	-0.003	-0.023	-0.008	-0.032	-0.051	-0.009	-0.053	-0.005	-.172**	.258**	-0.083
Resource Demand								1	.574**	-.289**	-.261**	0.032	0.033	0.054	0.065	-0.010	0.087	0.089	0.091	0.083	-.354**	0.091
ESG+HD Slack									1	-.306**	-.301**	0.031	0.033	0.056	0.068	-0.009	0.088	0.079	0.082	0.080	-.336**	0.090
ESG+HD Slack										1	.957**	-0.012	-0.007	.160**	.183**	.113*	-0.023	-0.006	-0.025	-0.037	.089*	-0.029
ESG+HD Slack											1	-.001	-0.005	.134**	.163**	.107*	-0.020	-0.011	-0.024	-0.031	0.092	-0.028
ESG+HD Slack												1	.961**	-0.027	-0.040	0.002	0.075	0.031	-0.030	-0.002	-0.062	0.013
ESG+HD Slack													1	-0.035	0.024	0.026	0.091	0.030	-0.024	-0.009	-0.069	-0.007
ESG+HD Slack														1	.965**	-.024	0.014	0.020	-0.038	-0.024	-0.099	.136**
ESG+HD Slack															1	.272**	0.023	0.011	-0.037	-0.015	-.110*	1.40**
ESG+HD Slack																1	.118*	-.199**	.170**	-.199**	-.354**	1.63**
ESG+HD Slack																	1	-.139**	-.130**	-.146**	-.197**	-.156**
ESG+HD Slack																		1	-.164**	-.139**	-.247**	-.206**
ESG+HD Slack																			1	-.173**	-.232**	-.194**
ESG+HD Slack																				1	-.761**	-.218**
ESG+HD Slack																					1	-.253**

** Correlation is significant at the 0.01 level (2-tailed).
 * Correlation is significant at the 0.05 level (2-tailed).

Independent t-Test

An independent t-test was performed to identify differences between the means of top performers in CSR and those who are not top performers, as previously noted in the discussion of hypothesis one. The results of the independent t-tests indicate varied results for the four dependent variables, as reviewed for hypothesis two and illustrated in Table 18. A difference in means between the full data set and the data set containing only top performers in CSR was found to be significant in three of the four dependent variables.

Table 18

Independent t-test for Top Performers in CSR

	t-test for Equality of Means		Difference in Means
	t	p	
ROA (3-Year Average)	2.878*	0.004*	Significant
EBITDA (3-Year Average)	5.352**	<0.001**	Significant
Market-to-Book Value Ratio	(0.509)*	0.611*	Not Significant
Tobin's Q	(2.070)**	0.039**	Significant

Statistical Assumptions

The underlying statistical assumptions were examined for hypothesis two. As with hypothesis one, the assumptions of linearity, normality, no multicollinearity, independence, and homoscedasticity were examined. Linearity and homoscedasticity can be assessed using a scatterplot of the regression variables. Analysis of the scatterplots for all four dependent variables indicates that the assumptions of linearity and homoscedasticity both hold true for hypothesis two.

Normality must be considered for regression analysis. The assumption of normality was tested for hypothesis two using a Q-Q plot of the residual values. Based on the Q-Q plot of the residual values for all variables for hypothesis two, the normality assumption is met for all variables with the exception of Tobin's Q. As previously discussed in the assumptions for hypothesis one, a Shapiro-Wilk test was then used to examine normality more precisely for the Tobin's Q variable. With $p < 0.001$ for the Shapiro-Wilk test, the null hypothesis that normality exists is rejected. However, per the central limit theorem, the sampling distribution of a large sample size, such as the one for this study, is always normal regardless of how the values are distributed.

The assumption that no multicollinearity exists among the predictor variables was also considered for the analysis of hypothesis two. As previously discussed for hypothesis one, the Variance Inflation Factor (VIF) measures the impact of collinearity. The VIF for the model used for hypothesis two is less than 10.0, so the assumption of no multicollinearity is met. This assumption is based on Burns and Burns's (2008) consideration of a VIF greater than 10.0 to be a concern.

A final assumption for hypothesis two is independence. For the assumption of independence, a Durbin-Watson test was used to analyze the hypothesis two variables to determine if autocorrelation exists. Based on tests of all dependent and independent variables, the independence assumption was met based on the Durbin-Watson values.

Regression Analysis – Hypothesis Two

The analysis concluded that the model using the full data set produced a statistically significant relationship for each of the four dependent variables when ESG scores were the independent variable. The full regression results are illustrated in Table 19.

Table 19

Hypothesis Two – Regression Models – Full Data Set

Model	ROA	EBITDA	Market-to-Book Value Ratio	Tobin's Q
(Constant)	-0.003	-4,996,147,079.229***	21.728	3.077***
ESG	0.001**	4,749,412.037	0.114	-0.002
Resource Availability	0.000	0.126***	0.000	0.000
ESG*RA Slack	0.000	-0.003***	0.000	0.000
Resource Demand	0.000	0.072**	0.000	0.000
ESG*RD Slack	0.000	-0.001**	0.000	0.000
High Discretion Slack	0.000	0.768***	0.000**	0.000**
ESG*HD Slack	0.000	-0.012***	0.000**	0.000**
Low Discretion Slack	0.001	30,447,087.210	4.638***	0.001
ESG*LD Slack	0.000	-2,217,862.086	0.020	0.000
Market Cap	0.000	0.016**	0.000	0.000**
ESG*Market Cap	0.000	0.001***	0.000	0.000
Number of Employees	0.006	674,056,362.006***	-3.820*	-0.239***
Group - Healthcare	0.019	-820,256,726.181	13.675	1.795***
Group - Household	0.038	-878,807,190.077	4.103	0.994***
Group - Manufacturing	0.023	-1,676,308,994.695**	7.967	1.090***
Group - Resources	-0.034	-158,216,960.985	1.596	0.412
Group - Technology	0.039*	-1,280,694,650.490**	12.618	1.962***
F	2.557***	178.985***	44.650***	10.499***
R	0.229	0.892	0.702	0.431

Note: *p < .05; ** p < .01; *** p < .001

Using ROA as the dependent variable produced values of $F=2.557$ and $p<0.001$. This indicated there was enough evidence to reject the null hypothesis and support the alternative hypothesis that CSR, moderated by slack resources, does have a statistically significant effect on CFP. However, looking specifically at the moderating variables, none of the variables were individually significant. While the four slack resource variables were not individually significant as moderating variables, they were found to contribute to a significant overall model.

The next potential model used the full data set and EBITDA as the dependent variable. The analysis concluded that this model was also found to be statistically significant. The full regression results are illustrated in Table 19. Using EBITDA as the dependent variable produced values of $F=178.985$ and $p<0.001$. This indicated there was enough evidence to reject the null hypothesis and support the alternative hypothesis that CSR, moderated by slack resources, does have a statistically significant effect on CFP. Looking specifically at the moderating variables, two slack variables were individually significant as moderators. Resource availability as a component of transient slack was significant with $p<0.001$, and high discretion slack was significant with $p<0.001$. As measured by market capitalization, firm size was individually significant as a moderator with $p<0.001$.

The next potential model used the full data set and market-to-book value ratio as the dependent variable. The analysis concluded that this model was also found to be statistically significant. The full regression results are illustrated in Table 19. Using the market-to-book value ratio as the dependent variable produced values of $F=44.650$ and $p<0.001$. This indicated there was enough evidence to reject the null hypothesis and support the alternative hypothesis that CSR, moderated by slack resources, does have a statistically significant effect on CFP. For

this model, only one of the moderator slack variables was individually statistically significant, with high discretion slack having $p=0.008$.

The final potential model used the full data set and Tobin's Q as the dependent variable. The analysis concluded that this model was also found to be statistically significant. The full regression results are illustrated in Table 19. Using Tobin's Q as the dependent variable produced values of $F=10.499$ and $p<0.001$. This indicated there was enough evidence to reject the null hypothesis and support the alternative hypothesis that CSR, moderated by slack resources, does have a statistically significant effect on CFP. Looking at the moderating variables, only the moderating variable for high discretion slack was found to be individually significant with $p=0.002$.

After finding the overall models for the four dependent variables to be significant for the entire data set and multiple moderating variables individually significant, further analysis was completed to specifically address hypothesis two, which focused on the top-performing companies in CSR. Using only the top performers in CSR, the four separate dependent variables, two accounting measures and two market measures were tested.

Table 20

Hypothesis Two - Regression Models – Top Performers in CSR Only Data Set

Model	ROA	EBITDA	Market-to-Book Value Ratio	Tobin's Q
(Constant)	0.075	-5,049,906,717.056**	9.540	2.757***
ESG	0.001	-15,139,287.110	0.241	-0.003
Resource Availability	0.000	0.148***	0.000	0.000
ESG*RA Slack	0.000	-0.003***	0.000	0.000
Resource Demand	0.000	0.073	0.000	0.000
ESG*RD Slack	0.000	-0.001	0.000	0.000
High Discretion Slack	0.000	0.61***	0.000	0.000*
ESG*HD Slack	0.000	-0.009***	0.000	0.000*
Low Discretion Slack	0.017	76,436,480.796	13.018**	-0.003
ESG*LD Slack	0.000	-3,381,337.339	-0.137	0.000
Market Cap	0.000	0.023***	0.000	0.000
ESG*Market Cap	0.000	0.000**	0.000	0.000
Number of Employees	-0.004	830,888,078.911***	-3.236	-0.184**
Group - Healthcare	0.030	-1,208,237,200.398	16.441	1.495***
Group - Household	0.069	-766,738,645.988	6.309	0.672*
Group - Manufacturing	0.034	-2,472,802,000.21**	6.449	0.789*
Group - Resources	0.004	-255,665,082.525	-0.862	0.240
Group - Technology	0.106**	-1,754,854,480.542*	6.540	1.777***
F	1.344	95.102***	3.114***	7.236***
R	0.234	0.897	0.344	0.488

Note: *p < .05; ** p < .01; *** p < .001

The first potential model consisted of the ESG scores for the top performers as the independent variable and ROA (3-year Average) as the dependent variable, with four categories of slack resources and market capitalization as moderating variables. Using ROA (3-Year Average) as the dependent variable produced values of F=1.344 and p=0.162, as illustrated in Table 20. This indicated insufficient evidence to reject the null hypothesis and that CSR,

moderated by slack resources, does not have a statistically significant effect on CFP when considering only top-performing companies in CSR. Additionally, none of the four moderator slack resource variables were individually significant as moderating variables. The firm size moderating variable, as measured by market capitalization, was also found to be not individually significant.

The following calculations for hypothesis two consisted of regression analysis using the ESG scores for the top performers as the independent variable and EBITDA (3-year Average) as the dependent variable. This model using EBITDA (3-Year Average) as the dependent variable produced values of $F=95.102$ and $p<0.001$, as illustrated in Table 20. This indicated there was enough evidence to reject the null hypothesis and that CSR, moderated by slack resources, does have a statistically significant effect on CFP when considering only top-performing companies in CSR. Looking specifically at the moderating variables, only two of the slack variables were found to be individually significant as moderators. Resource availability, as a component of transient slack, was statistically significant with $p<0.001$. High discretion slack was also individually significant with $p<0.001$. Firm size, as measured by market capitalization, was also found to be individually significant as a moderator with $p=0.003$.

Regression analysis was also conducted using the ESG scores for the top performers as the independent variable and market-to-book value as the dependent variable. This model using the market-to-book value ratio as the dependent variable produced values of $F=3.114$ and $p<0.001$, as illustrated in Table 20. This model indicated there was enough evidence to reject the null hypothesis and that CSR, moderated by slack resources, does have a statistically significant effect on CFP when considering only top-performing companies in CSR. None of this model's moderator slack variables were statistically significant.

The last regression analysis used the ESG scores for the top performers as the independent variable and Tobin's Q as the dependent variable. This model using Tobin's Q as the dependent variable produced values of $F=7.236$ and $p<0.001$, as illustrated in Table 20. This model indicated there was enough evidence to reject the null hypothesis and that CSR, moderated by slack resources, does have a statistically significant effect on CFP when considering only top-performing companies in CSR. Looking at the moderating variables, only the moderator variable for high discretion slack was individually significant at $p=0.024$.

The results above detailed regression analysis using ESG as an independent variable and four different measures of financial performance and market performance as the dependent variables. For some analyses, the entire data set was considered; for others, only the ESG top performers were used. Each potential model used the series of moderating and control variables defined earlier. A summary of those results is illustrated in Table 21.

Table 21

Hypothesis Two - Summary of Potential Models - Regression Results Summary

	F	p	Overall Model	Moderating Slack Resource Variables
Dependent Variable: ROA (3-year average) Independent Variable: ESG (Full Data Set)	2.557	<0.001	Significant	None
Dependent Variable: EBITDA (3-year average) Independent Variable: ESG (Full Data Set)	178.985	<0.001	Significant	Resource Availability Resource Demand High Discretion Slack
Dependent Variable: Market-to-Book Value Ratio Independent Variable: ESG (Full Data Set)	44.650	<0.001	Significant	High Discretion Slack
Dependent Variable: Tobin's Q Independent Variable: ESG (Full Data Set)	10.499	<0.001	Significant	High Discretion Slack
Dependent Variable: ROA (3-year average) Independent Variable: ESG (Top Performers)	1.344	0.162	Not Significant	None
Dependent Variable: EBITDA (3-year average) Independent Variable: ESG (Top Performers)	95.102	<0.001	Significant	Resource Availability High Discretion Slack
Dependent Variable: Market-to-Book Value Ratio Independent Variable: ESG (Top Performers)	3.114	<0.001	Significant	None
Dependent Variable: Tobin's Q Independent Variable: ESG (Top Performers)	7.236	<0.001	Significant	High Discretion Slack

The analysis results indicate that companies that perform well in CSR see a benefit in terms of financial performance. Analysis using three of the four dependent variables was found to be statistically significant when using either the entire data set or using the top-performing companies in CSR. Overall, considering the goal of hypothesis two to understand the role of slack resources as a moderator and ESG of top performers, the potential models that proved to be significant utilized either accounting measures or market measures as the dependent variable. Also, comparing these results to those found for hypothesis one, the potential models using the market measure market-to-book value ratio only became significant for the ESG of both the full data set and the top performers when the moderating role of slack resources was included for hypothesis two.

Hypothesis Three

H1₀: All else equal, the relationship between corporate social responsibility (CSR) and corporate financial performance (CFP) is not S-shaped in top-performing companies in CSR.

H1_a: All else equal, the relationship between corporate social responsibility (CSR) and corporate financial performance (CFP) is S-shaped in top-performing companies in CSR.

For hypothesis three, relationships were analyzed using the four separate dependent variables, two accounting measures and two market measures used in hypotheses one and two. However, the goal was to understand the nature of the relationship between CSR and CFP in top-performing companies in CSR. The analysis included a look at correlation, consideration of t-tests, analysis of regression assumptions, and statistical analysis based on regression calculations.

Correlation

An initial analysis of correlation was conducted for hypothesis three. Hypothesis three includes analysis of the full data set and the data set including only top performers in CSR. Looking at the full data set, Table 22 illustrates the correlation between the four dependent variables and ESG, the second order of ESG, the third order of ESG, and the control variables included in the study. Looking at the addition of the second and third-order variables for hypothesis three, there are some surprising relationships shown. An $r^2 = .088$, $p < 0.05$ for the relationship between the second order of ESG and ROA (3-year average), and $r^2 = .154$, $p < 0.01$ for the relationship between the second order of ESG and EBITDA (3-year average) indicate that significant but weak positive relationships exist between ESG² and the two accounting measures of financial performance. Similar results were found for ESG³ in that significant but weak positive relationships were noted between ESG³ and two accounting measures. While the relations found were expected, it was surprising that significant relationships did not exist based on the data for the second and third order of ESG and the two market performance measures. When only the top performers in CSR were included in the data set, as illustrated in Table 23, no significant relationships were present between the four dependent variables and the second and third order of ESG.

Table 22

Correlation – Full Data Set – Hypothesis Three Variables

	Correlations													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
ROA - Avg	1	.095**	0.009	.220**	.101**	.088*	.080*	.134**	0.018	0.064	0.030	-.099**	-.090*	.080*
EBITDA - Avg		1	0.030	-0.020	.173**	.154**	.132**	.351**	-0.017	0.036	-0.040	-0.013	0.010	0.010
Market-to-Book			1	.070*	-0.013	-0.010	-0.006	-0.047	0.019	-0.024	-0.018	-0.023	0.021	0.020
Tobins Q				1	-.079*	-0.064	-0.050	-0.051	.130**	-0.023	-0.008	-.092**	-.233**	.254**
ESG					1	.973**	.918**	.303**	0.025	-.132**	0.030	.134**	0.002	-0.030
ESG ²						1	.984**	.276**	0.033	-.110**	0.031	.131**	-0.020	-0.031
ESG ³							1	.248**	0.038	-.095**	0.027	.126**	-0.035	-0.027
Number of Employees								1	0.053	.187**	.149**	-.126**	-.299**	.085*
Group Healthcare									1	-.163**	-.120**	-.133**	-.191**	-.174**
Group Household										1	-.174**	-.193**	-.277**	-.253**
Group Manufacturing											1	-.142**	-.204**	-.186**
Group Resources												1	-.226**	-.206**
Group Services													1	-.296**
Group Technology														1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Table 23

Correlation – Top Performers Only – Hypothesis Three Variables

	Correlations													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
ROA - Avg	1	0.065	0.021	.267**	0.015	0.024	0.030	0.055	-0.009	0.056	-0.013	-0.062	-.129**	.168**
EBITDA - Avg		1	0.042	0.042	0.054	0.047	0.042	.329**	-0.003	0.053	-0.070	-0.030	-0.037	0.083
Market-to-Book			1	.116*	0.007	0.008	0.008	-0.022	0.064	0.009	-0.016	-0.021	-0.036	0.015
Tobins Q				1	-0.023	-0.017	-0.011	0.025	.134**	-0.045	-0.018	-.102*	-.224**	.295**
ESG					1	.991**	.967**	.175**	0.067	-0.043	-0.012	.119*	-0.084	-0.020
ESG ²						1	.992**	.169**	0.069	-0.047	-0.011	.122*	-0.089	-0.015
ESG ³							1	.161**	0.070	-0.050	-0.011	.123*	-0.093	-0.010
Number of Employees								1	.118*	.199**	.170**	-.199**	-.354**	.163**
Group Healthcare									1	-.139**	-.130**	-.146**	-.197**	-.164**
Group Household										1	-.164**	-.184**	-.247**	-.206**
Group Manufacturing											1	-.173**	-.232**	-.194**
Group Resources												1	-.261**	-.218**
Group Services													1	-.293**
Group Technology														1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Independent t-Test

As previously discussed for hypotheses one and two, an independent t-test was performed to identify differences between the mean of top performers in CSR and those who are not. A difference in means between the full data set and the data set containing only top performers in CSR was found to be significant in three of the four dependent variables. The difference was not significant when the market-to-book value ratio was used as the dependent variable.

Statistical Assumptions

Specific assumptions were considered to understand the nature of the relationship, suggested by hypothesis three. However, the nature of the assumptions is notably different from the analysis for hypotheses one and two due to the introduction of cubic and quadratic variables for hypothesis three. Given the large sample size used for hypothesis three, the normality assumption would not be violated. Other assumptions previously discussed for hypotheses one and two would also be met, except for the linearity assumption. The polynomial regression used for hypothesis three would knowingly violate the assumption of linearity.

Regression Analysis – Hypothesis Three

Relationships were again analyzed using the four separate dependent variables, two accounting measures and two market measures. However, the goal was to understand the nature of the relationship between CSR and CFP in top-performing companies in CSR. Specifically, the analysis focused on understanding the potential cubic relationship between CSP and CFP. The cubic equation for the S-shaped model is written as follows (Cohen et al., 2014; Liang, 2020):

$$CFP_{it} = \beta_0 + \beta_1 CSR_{it} + \beta_2 CSR^2_{it} + \beta_3 CSR^3_{it} + \beta_4 X_{it} + u_{it} \quad (4)$$

Where $\beta_3 < 0$ and $\beta_1 \neq 0$ or $\beta_2 \neq 0$.

Using the four separate dependent variables and analysis using both the full data set and only top-performing companies in CSR, potential models were considered based on hypothesis three test for an S-shaped relationship using the third order of ESG.

Table 24

Hypothesis Three - ROA (3-Year Average) as the Dependent Variable – Full Data Set

	Model	Model
	3rd Order	2nd Order
	B	B
(Constant)	-0.0100	-0.0340
Number of Employees	0.0048	0.0050
Group 1 - Healthcare	0.0322	0.0320
Group 2 - Household Goods	0.0539*	0.0510*
Group 3 - Manufacturing	0.0368	0.0340
Group 4 - Natural Resources & Utilities	-0.0236	-0.0230
Group 6 - Technology	0.0503*	0.0511**
ESG	0.0099**	0.0029*
ESG ²	-0.0002*	0.0000
ESG ³	0.0000	
R	0.217	0.208
R ²	0.047	0.043
F	4.345***	4.469***

Note: *p < .05; ** p < .01; *** p < .001

The results for the full data set using ROA (3-year average) as the dependent variable indicate that an S-shaped curve is not evident. The results are illustrated in Table 24 for the third-order model. Based on Liang's (2020) work, an S-shaped relationship would be apparent when the model indicates a significant relationship between the coefficient for the third order and dependent variables. This would include ESG³ as the third-order variable and ROA (3-year average) as the dependent variable for this analysis. The results indicate a relationship exists for

the overall model with $p < 0.001$, the coefficients of $B = 0.0099$ for ESG, $B = -0.0002$ for ESG^2 , and $B = 0.000001$ for ESG^3 ; however, the regression coefficient of $B = 0.000001$ does not indicate that an S-shaped relationship exists as it is not significant. The significant negative regression coefficient for ESG^2 supports an inverse U-shaped relationship for the second-order variable, as Liang (2020) notes, suggesting diminishing returns for CSR. Analysis of a model including the first and second order variables for ESG produced a coefficient of $B = 0.0029$ for ESG and $B = -0.00002$ for ESG^2 , with only the first order variable being significant at $p < 0.05$; however, the second order variable was found to be not significant in this model, with the overall model significant at $p < 0.001$. This finding suggests that the second-order model does not support Liang's (2020) indication of an inverse U-shaped relationship when only the second order for ESG is included.

Table 25

Hypothesis Three - EBITDA (3-Year Average) as the Dependent Variable – Full Data Set

	Model	Model
	3rd Order	2nd Order
	B	B
(Constant)	-13,925,540,855***	-16,094,918,948***
Number of Employees	2,153,236,632***	2,138,221,607***
Group 1 - Healthcare	-2,929,849,250**	-2,926,841,090**
Group 2 - Household Goods	-2,514,128,920**	-2,421,181,587*
Group 3 - Manufacturing	-4,456,515,202***	-4,370,942,840***
Group 4 - Natural Resources & Utilities	-1,268,247,630	-1,296,947,158
Group 6 - Technology	-2,263,565,654*	-2,290,554,481*
ESG	-158,472,269	67,259,795
ESG ²	5,575,801	-498,919
ESG ³	-46,689	
R	0.388	0.386
R ²	0.151	0.149
F	15.592***	17.343***

Note: *p < .05; ** p < .01; *** p < .001

Next, an analysis of the full data set using EBITDA (3-year average) as the dependent variable was completed. The results indicate that an S-shaped curve is not evident and is illustrated in Table 25 for the third-order model. This analysis includes ESG³ as the third-order variable and EBITDA (3-year average) as the dependent variable. The results indicate a relationship exists for the overall model with $p < 0.001$, the coefficients of $B = -158,472,269$ for ESG, $B = 5,575,801$ for ESG², and $B = -46,689$ for ESG³; however, the regression coefficient for ESG³, $B = -46,689$, does not indicate that an S-shaped relationship exists as it is not significant. The regression coefficient for ESG² is also not significant, with $B = 5,575,801$. These results would indicate that the relationship between the second order of ESG and the dependent variable

EBITDA (3-year average) does not support Liang’s (2020) idea that an inverse U-shaped relationship could exist with a second-order model.

The indication of an inverse U-shaped model is also not evident when analyzing a model with the first and second-order variables for ESG. This model produced a coefficient of B = 67,259,795 for ESG and B = -489,919 for ESG²; however, neither regression coefficients were significant. This finding further suggests that the second-order model does not support Liang’s (2020) indication of an inverse U-shaped relationship when the second order ESG is included.

Table 26

Hypothesis Three – Market-to-Book Value Ratio as the Dependent Variable – Full Data Set

	Model 3rd Order	Model 2nd Order
	B	B
(Constant)	32.163	34.591
Number of Employees	-2.447	-2.430
Group 1 - Healthcare	4.131	4.127
Group 2 - Household Goods	-3.610	-3.714
Group 3 - Manufacturing	-3.464	-3.559
Group 4 - Natural Resources & Utilities	-7.060	-7.028
Group 6 - Technology	2.666	2.696
ESG	0.075	-0.177
ESG ²	-0.005	0.002
ESG ³	0.000	
R	0.065	0.065
R ²	0.004	0.004
F	0.377	0.422

Note: *p < .05; ** p < .01; *** p < .001

The following analysis included the full data set with the market-to-book value as the dependent variable. The results indicate that an S-shaped curve is not evident and is illustrated in Table 26 for the third-order model. This analysis includes ESG³ as the third-order variable and the market-to-book value ratio as the dependent variable. The results indicate that a relationship does not exist for the overall model. Also, the regression coefficient for ESG³, $B = 0.00005$, does not suggest that an S-shaped relationship exists, as it is not significant. The indication of an inverse U-shaped model is also not evident when analyzing a model with the first and second-order variables for ESG; the overall model was found not significant. This model produced a coefficient of $B = -0.177$ for ESG and $B = 0.002$ for ESG²; however, neither regression coefficients were significant. This finding further suggests that the second-order model does not support Liang's (2020) indication of an inverse U-shaped relationship when the second order ESG is included.

Table 27

Hypothesis Three – Tobin's Q as the Dependent Variable – Full Data Set

	Model	Model
	3rd Order	2nd Order
	B	B
(Constant)	2.726***	2.803***
Number of Employees	-0.186***	-0.185***
Group 1 - Healthcare	1.843***	1.843***
Group 2 - Household Goods	0.993***	0.990***
Group 3 - Manufacturing	1.076***	1.073***
Group 4 - Natural Resources & Utilities	0.431	0.432
Group 6 - Technology	2.053***	2.054***
ESG	-0.005	-0.013
ESG ²	0.000	0.000
ESG ³	0.000	
R	0.369	0.369
R ²	0.136	0.136
F	13.837***	15.581***

Note: *p < .05; ** p < .01; *** p < .001

The analysis of the full data set using Tobin's Q as the dependent variable was next completed. The results indicate that an S-shaped curve is not evident and is illustrated in Table 27 for the third-order model. This analysis includes ESG³ as the third-order variable and Tobin's Q as the dependent variable. The results indicate a relationship exists for the overall model with $p < 0.001$, the coefficients of $B = -0.005$ for ESG, $B = -0.00009$ for ESG², and $B = 0.000002$ for ESG³; however, the regression coefficient for ESG³, $B = 0.000002$, does not indicate that an S-shaped relationship exists as it is not significant. The regression coefficient for ESG² is also not significant, with $B = -0.00009$. These results indicate that the relationship between the second

order of ESG and the dependent variable Tobin’s Q does not support Liang’s (2020) concept that an inverse U-shaped relationship could exist with a second-order model.

The indication of an inverse U-shaped model is also not evident when analyzing a model with the first and second-order variables for ESG. While the overall model is significant at $p < 0.001$, neither regression coefficient was significant. This model produced a coefficient of $B = -0.013$ for ESG and $B = 0.0001$ for ESG^2 . This finding further suggests that the second-order model does not support Liang’s (2020) indication of an inverse U-shaped relationship when the second-order variable for ESG is included.

For hypothesis three, it was important to consider the analysis of the top performers in CSR only and use each of the four dependent variables to see if hypothesis three holds true for top performers in CSR.

Table 28

Hypothesis Three – ROA (3-Year Average) as the Dependent Variable – Top Performers

	Model 3rd Order	Model 2nd Order
	B	B
(Constant)	0.944*	0.238
Number of Employees	-0.002	-0.003
Group 1 - Healthcare	0.040	0.042
Group 2 - Household Goods	0.080*	0.080*
Group 3 - Manufacturing	0.040	0.043
Group 4 - Natural Resources & Utilities	0.012	0.013
Group 6 - Technology	0.121***	.121***
ESG	-0.050	-0.006
ESG^2	0.001	0.000
ESG^3	0.000	
R	0.229	0.214
R^2	0.053	0.046
F	0.009**	2.410*

Note: * $p < .05$; ** $p < .01$; *** $p < .001$

This analysis included using the third-order variable and ROA (3-Year Average) as the dependent variable. The results indicate that an S-shaped curve is not evident and is illustrated in Table 28 for the third-order variable. This analysis includes ESG³ as the third-order variable and ROA (3-Year Average) as the dependent variable. The results indicate a relationship exists for the overall model with $p=0.009$, the coefficients of $B = -0.050$ for ESG, $B = 0.001$ for ESG², and $B = 0.000$ for ESG³; however, the regression coefficient for ESG³, $B = 0.000$, does not indicate that an S-shaped relationship exists as it is not significant within the model. The regression coefficient for ESG² is also not significant, with $B = 0.001$. These results indicate that the relationship between the second order of ESG and the dependent variable ROA (3-Year Average) does not support Liang's (2020) concept that an inverse U-shaped relationship could exist with a second-order model.

The indication of an inverse U-shaped model is also not evident when analyzing a model with the first and second-order variables for ESG. While the overall model is significant at $p=0.015$, neither the first order nor second order ESG regression coefficients were significant. This model produced a coefficient of $B = -0.006$ for ESG and $B = 0.000$ for ESG². This finding further suggests that the second-order model does not support Liang's (2020) indication of an inverse U-shaped relationship when the second order ESG is included.

Table 29

Hypothesis Three – EBITDA (3-Year Average) as the Dependent Variable – Top Performers

	Model	Model
	3rd Order	2nd Order
	B	B
(Constant)	-36,088,371,417	-21,937,265,956***
Number of Employees	2,582,005,846***	2,601,812,079***
Group 1 - Healthcare	-3,208,467,147	-3,239,861,601
Group 2 - Household Goods	-2,382,411,150	-2,394,709,616
Group 3 - Manufacturing	-5,292,347,202**	-5,345,576,692**
Group 4 - Natural Resources & Utilities	-524,800,195	-548,522,601
Group 6 - Technology	-1,316,429,574	-1,313,174,439
ESG	1,026,749,100	149,302,099
ESG ²	-18,338,464	-1,483,320
ESG ³	102,230	
R	0.368	0.366
R ²	0.135	0.134
F	6.987***	7.803***

Note: *p < .05; ** p < .01; *** p < .001

This analysis used the third order ESG variable and EBITDA (3-Year Average) as the dependent variable. The results indicate that an S-shaped curve is not evident and is illustrated in Table 29 for the third-order model. This analysis includes ESG³ as the third-order variable and EBITDA (3-Year Average) as the dependent variable. The results indicate a relationship exists for the overall model with $p < 0.001$, the coefficients of $B = 1,026,749,100$ for ESG, $B = -18,338,464$ for ESG², and $B = 102,230$ for ESG³; however, the regression coefficient for ESG³, $B = 102,230$, does not indicate that an S-shaped relationship exists as it is not significant within the model. The regression coefficient for ESG² is also not significant, with $B = -18,338,464$. These results indicate that the relationship between the second order of ESG and the dependent

variable EBITDA (3-Year Average) does not support Liang’s (2020) concept that an inverse U-shaped relationship could exist with a second-order model.

When considering an inverse U-shaped model, the analysis included the first and second-order variables for ESG. An inverse U-shaped model is also not evident when analyzing this model. While the overall model is significant at $p < 0.001$, neither the first order nor second order ESG regression coefficients were significant. This model produced a coefficient of $B = 149,302,099$ for ESG and $B = -1,483,320$ for ESG^2 . This finding further suggests that the second-order model does not support Liang’s (2020) indication of an inverse U-shaped relationship when the second order ESG is included.

Table 30

Hypothesis Three – Market-to-Book Value Ratio as the Dependent Variable – Top Performers

	Model 3rd Order	Model 2nd Order
	B	B
(Constant)	21.523	23.237
Number of Employees	-2.715	-2.713
Group 1 - Healthcare	22.314	22.300
Group 2 - Household Goods	10.655	10.653
Group 3 - Manufacturing	5.840	5.834
Group 4 - Natural Resources & Utilities	1.266	1.263
Group 6 - Technology	10.587	10.587
ESG	0.172	0.066
ESG^2	-0.002	0.000
ESG^3	0.000	
R	0.090	0.090
R^2	0.008	0.008
F	0.952	0.916

Note: * $p < .05$; ** $p < .01$; *** $p < .001$

This analysis included the third order ESG variable and the market-to-book value ratio as the dependent variable. The results indicate that an S-shaped curve is not evident and is illustrated in Table 30 for the third-order model. This analysis includes ESG³ as the third-order variable and the market-to-book value ratio as the dependent variable. The results indicate a relationship does not exist for the overall model with $p=0.952$, the coefficients of $B = 0.172$ for ESG, $B = -0.002$ for ESG² and $B = 0.00001$ for ESG³. Additionally, the regression coefficient for ESG³, $B = 0.00001$, does not indicate that an S-shaped relationship exists, as it is not significant. The indication of an inverse U-shaped model is also not evident when analyzing a model with the first and second-order variables for ESG as the overall model was found not significant with $p=0.916$. This model produced a coefficient of $B = 0.066$ for ESG and $B = 0.000004$ for ESG²; however, neither regression coefficients were significant. This finding further suggests that the second-order model does not support Liang's (2020) indication of an inverse U-shaped relationship when the second order ESG is included.

Table 31

Hypothesis Three – Tobin's Q as the Dependent Variable – Top Performers

	Model	Model
	3rd Order	2nd Order
	B	B
(Constant)	2.640	2.742*
Number of Employees	-0.137*	-0.137*
Group 1 - Healthcare	1.647***	1.647***
Group 2 - Household Goods	0.732*	0.731*
Group 3 - Manufacturing	0.832**	0.832**
Group 4 - Natural Resources & Utilities	0.306	0.306
Group 6 - Technology	1.991***	1.992***
ESG	-0.015	-0.022
ESG ²	0.000	0.000
ESG ³	0.000	
R	0.382	0.382
R ²	0.146	0.146
F	7.640***	8.616***

Note: *p < .05; ** p < .01; *** p < .001

This analysis included using the third order ESG variable and Tobin's Q as the dependent variable. The results indicate that an S-shaped curve is not evident and is illustrated in Table 31 for the third-order model. This analysis includes ESG³ as the third-order variable and Tobin's Q as the dependent variable. The results indicate a relationship exists for the overall model with p<0.001, the coefficients of B = -0.015 for ESG, B = 0.00007 for ESG², and B = 0.0000007 for ESG³; however, the regression coefficient for ESG³, B = 0.0000007, does not indicate that an S-shaped relationship exists as it is not significant within the model. The regression coefficient for ESG² is also not significant, with B = 0.00007. These results indicate that the relationship

between the second order ESG and the dependent variable EBITDA (3-Year Average) does not support Liang's (2020) concept that an inverse U-shaped relationship could exist with a second-order model.

When considering an inverse U-shaped model, the analysis included the first and second-order variables for ESG. An inverse U-shaped model is also not evident when analyzing this model. While the overall model is significant at $p < 0.001$, neither the first order nor second order ESG regression coefficients were significant. This model produced a coefficient of $B = -0.022$ for ESG and $B = 0.0002$ for ESG^2 . This finding further suggests that the second-order model does not support Liang's (2020) indication of an inverse U-shaped relationship when the second order ESG is included.

Table 32

Hypothesis Three - Summary of Regression Results

	Overall Model p	Overall Model Result	EGG ³ p	ESG ³ Coefficient Result	Indication of S-Shaped Curve
Dependent Variable: ROA (3-year average)					
Full Data Set	<0.001	Significant	0.072	Not Significant	No
Top Performers Only	0.009	Significant	0.089	Not Significant	No
Dependent Variable: EBITDA (3-year average)					
Full Data Set	<0.001	Significant	0.221	Not Significant	No
Top Performers Only	<0.001	Significant	0.465	Not Significant	No
Dependent Variable: Market-to-Book Value Ratio					
Full Data Set	0.946	Not Significant	0.890	Not Significant	No
Top Performers Only	0.952	Not Significant	0.991	Not Significant	No
Dependent Variable: Tobin's Q					
Full Data Set	<0.001	Significant	0.853	Not Significant	No
Top Performers Only	<0.001	Significant	0.976	Not Significant	No

Hypothesis three investigated the idea of an S-shaped curve existing for the relationship between the dependent variables and the ESG third-order variable. Liang's (2020) work suggests that an S-shaped curve indicates that firms experience diminishing marginal benefits of pursuing CSR initiatives and also experience increasing marginal costs. However, the results of this study do not support the existence of an S-shaped curve for the relationship between CSR and CFP. As shown in Table 32, while some overall models using the first, second, and third-order variables for ESG were found to be significant, the regression coefficients for ESG² and ESG³ indicated that an s-shaped curve does not define the relationship.

Summary

This chapter presents the quantitative findings of this study investigating the relationship between CSR and CFP. Results for the three hypotheses are presented with an explanation of significant results related to each hypothesis. Overall, the findings illustrate an important relationship between CSR and CFP; however, as explained in the following chapter, the significance of that relationship varies based on the indicator being studied as a measure of financial performance. While evident, the role of slack resources in moderating the CSR-CFP relationship also varies and will be explained in terms of potential relevance in Chapter 5.

Chapter 5: Discussion and Implications

Overview

The purpose of this study was to gain a better understanding of the support for pursuing CSR initiatives within companies. This understanding was facilitated by analyzing the relationship between CSR activities pursued and CFP. This analysis was the goal of the first research question. The second research question aimed to gain deeper understanding of this relationship by considering the role of slack resources.

This chapter provides a discussion of the study results. The first sections of this chapter discuss the results from the context of the total data set and from the top performing companies in CSR only. The implication of the study's findings will be discussed in an additional section. The remaining sections of the chapter will consider limitations research, suggestions for areas of future research, and overall conclusions.

Discussion

Research Question One

The goal of research question one was to establish the basic nature of the relationship between CSR and CFP. While much research has focused on this relationship in recent years (Barnett, 2007; Daniel, 2018; Liang, 2020; Lim, 2017; Patterson Shirey, 2013), this study sought to understand the relationship from the standpoint of CSR performance. Does being a top performer in CSR matter?

Hypothesis one was included to address research question one and this essential concept of the relationship between CSR and CFP. The focus of hypothesis one was to determine if a positive relationship exists between CSR and CFP. Separate analysis was completed using two financial performance measures and two market performance measures as dependent variables

using the entire data set collected. With ROA (3-year average) and EBITDA (3-year average) as the two financial performance measures as separate dependent variables, the relationship between CSR, as indicated by ESG ratings, and CFP was confirmed for both ROA and EBITDA. These results were expected as a positive relationship has been indicated by previous studies (Liang, 2020; Lim, 2017; Patterson Shirey, 2013).

Results were mixed when analysis was completed using the market measures, Tobin's Q and market-to-book value ratio. Other recent studies (Daniel, 2018; Liang, 2020) have used Tobin's Q as a dependent variable in understanding the CSR-CFP relationship so the confirmation of that relationship by the data collected for this study was not surprising. However, hypothesis one was rejected when using the market-to-book value ratio as the dependent variable.

The rejection of market-to-book value ratio as a dependent variable indicates a potential need to understand the role of debt and other liabilities in companies as a moderator for CFP when CSR is being analyzed. This need is based on the difference in the formulas for Tobin's Q and the market-to-book value ratio. The primary difference between the two calculations is that the market-to-book value ratio deducts liabilities from the companies' assets as part of the calculation. However, Tobin's Q uses assets without reducing the value by associated liabilities.

The results for hypothesis one for the entire data set does support a positive relationship between CSR and CFP and does further the understanding of that relationship based on differing financial performance and market performance measures. However, an important part of research question one for this study was to understand if being a "top performer" in CSR as defined by being in the top 50 percent of ESG scores for the companies found on the Russell 1000 Index, supports the idea that a positive relationship exists between CSR and CFP.

With support for hypothesis, one indicated for the full data set for three of the four dependent variables, it was not surprising that similar results were indicated for the data set containing only the top performers in CSR. Like the full data set, the relationship between CSR and CFP was confirmed for both ROA and EBITDA as dependent variables. The data set of top performers also indicated mixed results for the market performance measures. Also, like the full data set, the CSR-CFP relationship was confirmed for Tobin's Q as the dependent variable. Hypothesis one was rejected for the market-to-book value ratio for top performers in CSR. These results raise the same question as discussed previously that the role of debt and other liabilities may be significant in understanding the CSR-CFP relationship in greater depth.

Research Question Two

Research question two focused on understanding the CSR-CFP relationship in greater depth by considering the role of slack resources as a moderator in the CSR-CFP relationship. Grounded in the resource-based view, the need to understand the "business case" for CSR activities still exists, with some researchers suggesting that the pursuit of CSR activities beyond a certain level becomes a moral dilemma for companies as the ability to help society may harm the company (Barnett, 2019 & Liang, 2020).

Hypothesis Two

To address this need to better understand the impact of CSR activities on companies, research question two focused on two hypotheses. Hypothesis two sought to confirm a relationship between slack resources, CSR, and CFP in top performing companies in CSR. To analyze this relationship, the same four separate dependent variables used for hypothesis one was studied for hypothesis two. The analysis also included use of the full data set and the data set using only top performers in CSR. Slack resources included four separate measures of slack as defined by George (2005). George defined slack as high discretion slack, low discretion slack,

and transient slack. Transient slack consists of two components: resource availability and resource demand.

The relationship between slack resources, CSR, and CFP was confirmed for all four dependent variables for the full data set. While these results were very similar to hypothesis one in that the relationship between slack resources, CSR, and CFP was confirmed when ROA, EBITDA, or Tobin's Q was used as the dependent variable, when slack was also included as moderator, the relationship between slack resources, CSR, and CFP was also confirmed when the market-to-book value ratio was used as the dependent variable.

While the relationship between slack resources, CSR, and CFP is of value from the perspective of the overall model, it is the role of specific slack resources as a moderator in the CSR-CFP relationship that is most valuable. One interesting outcome is that none of the slack resource variables were individually significant when ROA was used as the dependent variable.

Throughout this study, ROA has consistently been significant until the slack resource variables were considered in a moderating role. Another interesting outcome is that high discretion slack was found to be individually significant for three of the four dependent variables for the full data set. This points to the potential value of considering slack resources, and in particular high discretion slack, as a moderator when evaluating the CSR-CFP relationship.

Confirmation of the relationship between slack resources, CSR, and CFP with the market-to-book value ratio was an interesting finding. As noted previously, the calculation for market-to-book value ratio requires the deduction of company liabilities from the value of assets. This deduction of liabilities could be viewed as a reduction of resources and was enough to cause hypothesis one to be rejected. However, when the availability of slack resources is taken into consideration for hypothesis two, a statistically significant relationship exists. While further

research is needed to fully understand this relationship and the role of each variable considered, it certainly adds credibility to the idea that slack resources should be considered from a management perspective.

While the analysis of the full data set was interesting and was an important starting point in understanding the relationships that exist between variables, the focus of hypothesis two was the role of slack resources as a moderator in the CSR-CFP relationship for top performing companies in CSR. When the data set of top performers in CSR was used, some differing conclusions were reached from that of the entire data set. The relationship between slack resources, CSR, and CFP was confirmed for top performing companies in CSR when EBITDA, the market-to-book value ratio, and Tobin's Q were used as distinct dependent variables. Like the full data set, the conclusion that a statistically significant relationship exists between slack resources, CSR, and CFP with the market-to-book value ratio is used as a dependent variable is of particular importance from the standpoint of the application of the study results because the consideration of slack resource produced a statistically significant relationship that did not exist when slack resources were not utilized in the model.

When analyzing the importance of the slack resource variables as moderators in the CSR-CFP relationship, it was interesting to find some differences between the data set only including the top performers in CSR and the full data set. For the top performers, none of the slack resource variables were found to be moderators for both ROA and the market-to-book value ratio. However, one interesting conclusion is that high discretion slack was found to be individually significant again for the EBITDA and Tobin's Q as dependent variables. Again, this suggests value to practitioners to consider the role of slack resources, and particularly high discretion slack, when considering CSR initiatives and the impact on CFP.

Hypothesis Three

Hypothesis three was based on the need to gain a better understanding of when CSR is beneficial and when the costs may outweigh the benefits. Barnett and Salomon's (2006) suggestion of a curvilinear, or U-shaped model for the CSR-CFP relationship suggests that the benefits of CSR continue indefinitely for a company. Liang's (2020) study suggested the relationship instead reach a point of diminishing return and that a point of overinvestment in CSR exists. While Liang's (2020) data did indicate that an S-shaped curve exists for the CSR-CFP relationship, this study found different results.

To understand if an S-shaped relationship exists between CSR and CFP, the third order of ESG was used in the model using the four separate measures of financial and market performance. Also, for hypothesis three, both the full data set and the data set consisting of only top performers in CSR were utilized. For the full data set, the third order ESG variable was found to be not statistically significant for all four dependent variables; ROA, EBITDA, Tobin's Q, and the market-to-book value ratio, indicating that an S-shaped curve does not exist in the relationship between CSR and CFP. The same results were found using the data set consisting only of top performers in CSR. For the data set of top performers in CSR, the third order ESG variable was found to be not statistically significant for all four dependent variables; ROA, EBITDA, Tobin's Q, and the market-to-book value ratio, indicating that an S-shaped curve does not exist in the relationship between CSR and CFP.

It is interesting that the results varied from Liang's (2020) results indicating the existence of an S-shaped curve. While the cause of these differing results is not clear, it raises questions for further research. The idea that diminishing returns for CSR exist for a company could have

significant management relevance in that it points to a need to understand when overinvestment occurs.

Implications

The results of this study have several implications for the further study of CSR and for management decision-making. As noted in the discussion, this study certainly contributes to the understanding of the CSR-CFP relationship by supporting that the relationship exists but not without further consideration of other factors. The fact that the relationship was found to not exist for the market-to-book value ratio until slack resources were introduced to the models points to the need for further research to better understand the role of firm debt and other additions or reductions of firm resources.

Another important consideration for future research is the need to focus on the idea of overinvestment in CSR. This study contributed to the existing body of knowledge in that it contradicted the findings of Liang's (2020) study, which suggested that there are diminishing returns to investment in CSR and that a point of overinvestment can occur. While Liang's (2020) suggestion that a point of overinvestment exists is certainly important from perspective of management, the fact that this study did not find that relationship to exist shows that an important gap exists in the literature and points to a need for future study.

This study also has significant implications for application in management decision-making. The study's support of the "business case" for CSR through the CSR-CFP relationship adds to the body of literature that provides justification for companies to pursue CSR activities. This study also raises important questions for management to consider when implementing CSR strategy. One implication for management and CSR strategy is that this study supports the idea that slack resources play an important role in the CSR-CFP relationship. The support of this

concept is important in that it points to a need for managers to consider company resources when making CSR decisions. Another implication for management from a strategy perspective is that the findings of this study suggest that greater understanding of concept of a point of overinvestment is still needed.

Limitations

All studies have some limitations associated with the findings. This study is no exception. One limitation is that some companies found on the Russell 1000 Index have missing data associated with the financial calculations or ESG scores. While S&P Global publishes a comprehensive list of ESG ratings for many companies, the ratings are dependent on the existence of all necessary publicly available information and verified information provided by each company, media and stakeholder analysis, and an in-depth company engagement (“S&P Global ESG Scores,” n.d.). Given the nature of the rating calculations, ESG ratings were not accessible for all companies on the Russell 1000 Index. This resulted in some companies to be dropped from the data set.

Another limitation is that this study focused only on the companies found on the Russell 1000 Index. The Russell 1000 Index is a subset of the Russell 3000 Index, which is made up of the largest 3000 U.S. companies (“Russell U.S. Indexes Construction and Methodology”, n.d.). While this index provides a list of companies representing numerous industries and sizes, as indicated by levels of market capitalization, and accessible financial data and ESG ratings, the findings from these large companies may not be representative of the results found if smaller companies were studied.

A third limitation of this study is that, while industry groupings were used as a control variable in the models, it is clear from the data that industry consideration may be important in

fully understanding the existence of and role of slack resources. Industry differences including debt levels, existence, or lack of significant fixed assets; and levels of capital spending may lead to different strategic decisions in different industries. Studying industry differences more precisely may lead to varied results.

An additional limitation of this study is the cross-sectional nature of the data used. Cross-sectional data was chosen due to the annual updates made to the Russell 1000 Index list of companies. However, longitudinal data would potentially produce a more robust set of results. Longitudinal data would remedy issues related to financial or market information that was unusual or uncharacteristic for each company. Additionally, the findings related to Hypothesis Three and the nature of the CSR-CFP relationship fitting an S-shaped curve may be different if the study had used longitudinal data. Cross-sectional data is effective at capturing what happened at one point in time. However, the desire to understand the nature of the CSR-CFP relationship in terms of potential diminishing returns may be better captured using multi-year data.

Suggested Areas for Future Study

The results of this study and the limitations suggest that areas exist for future study on this topic. One area of future study, as suggested in earlier discussion, is to apply the research questions and hypotheses used in this study to a data set of small companies to see if similar results exist. In the study of CSR, it is important to understand the role of slack resources and the relationship between CSR and CFP in companies of all sizes. While the study of larger companies paves the way for a better understanding of the questions raised in this study, it is

important, from a management perspective, to understand the role of firm resources for strategy decisions in small companies as well.

Another area of future study, as noted in previous discussion, is to focus more in-depth on the role of slack resources by considering each type of slack resource individually. This would help to provide insight into the questions raised about the role of debt in the market-to-book value ratio calculation. Similarly, the limitation of industry focus in this study suggests that key industry differences may exist in slack resources available, making strategy considerations varied for companies in some industries. Future studies could focus on specific industries to better understand if the findings in this study can be universally applied across industries.

Discussion

The purpose of this study was to contribute to the existing literature focused on understanding the relationship between a company's pursuit of CSR activities and financial performance. The quantitative study sought to understand both the basic relationship between CSR and CFP and dig further into areas in which gaps appear to exist.

One of the existing gaps is understanding what makes CSR related to CFP. While some literature has attempted to further the understanding from differing theories and perspectives, the role of internal resources is an area that still needs further study. Using the resource-based perspective of the role of slack resources within companies, this study found that slack resources do contribute to the relationship between CSR and CFP. This understanding has important implications for managers and strategic decision-making within companies.

Another gap that this study sought to focus on is the nature of the relationship between CSR and CFP. While previous studies have debated the nature of the relationship, this study focused on the idea that an S-shaped relationship may exist. While that relationship was not indicated in this study's results, it points to a need for future research to further develop this understanding as the results may have significant impact on management decision-making and strategy.

Summary

This study addressed some of the questions related to the relationship between corporate social responsibility and corporate financial performance. While the desire to link CSR activities to a positive financial outcome has existed for many years, the intricacies of this relationship are still not fully understood. This study contributed to the understanding of the CSR-CFP relationship in that it considered slack resources as a potential factor and provided direction for future research related to the role of slack resources in the CSR-CFP relationship.

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