CEO POWER AND ORGANIZATIONAL SLACK: AN EXAMINATION OF WHAT INFLUENCES COMPANY PERFORMANCE THROUGH THE LENS OF DIVERSITY AND THE BUSINESS ENVIRONMENT

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ABSTRACT

Business leaders have a fiduciary responsibility to act in the best interests of the organization and its shareholders. The decisions made by these leaders impact organizational performance. The power held by a CEO is not absolute because the board of directors has oversight responsibility. Depending on the level of governance, this creates a tension between the board and management. Beyond these two parties, there are a broad range of stakeholders who also exhibit influence and are increasingly socially conscious. This focus has made leaders more pressed to consider the need for initiatives related to corporate social responsibility (CSR), especially community engagement and diversity. As this study focused on CEO power and diversity, the research found support for the positive relationship between CEO power and select types of firm performance and the positive association between diversity and profitability.

The second study continued to focus on organizations but focused on politics, organizational slack, and financial indicators. The research explored how political representation at the federal level is connected to the setting of organizational slack, which comes in various categories such as human, potential, and available. The slack resources are defined as excess capacity located within or outside of the firm and accessible immediately or in the future. The study aimed to determine if there was a connection between slack and financial outcomes, specifically returns on equity and assets, and credit risk ratings. An interaction effect of CEO power was also investigated on the relationship between slack and profitability. This research identified support for the positive relationship between politics and human slack and that of potential slack and profitability indicators with a moderation effect.

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CHAPTER 1

MOTIVATION FOR RESEARCH

As a young person, I became fascinated by reading the business section of the newspaper to learn how large companies performed, merged, or went out of business. Specifically, I had a keen interest in consumer-facing organizations such as telephone companies, television networks, and consumer packaged goods organizations. Reading this coverage, I noticed that chief executive officers were presented as influential individuals who could shape the destiny of an organization. Several years later, I realized that the business media tended to cover some CEOs as powerful figures.

This realization shaped my decision to pursue business as an education and profession. My first real-world exposure to business was as a summer intern at The Chase Manhattan Bank, a predecessor of JPMorgan Chase. I had the opportunity to watch the CEO speak at a town hall meeting and was immediately struck by how masterfully he articulated the priorities and direction of the firm. I left that meeting with a glimpse of how the CEO possessed power.

Now that I have advanced in my career and worked in industries such as health care, financial services, and higher education, I have a more profound sense of how CEOs influence organizational performance. I now recognize that the role's scope is somewhat unique to the firm. I also witnessed the impact that firm leaders had on their respective organizations in the context of optimal and challenging operating environments. However, my current experience at New York City's public health care delivery system has been particularly informative and illustrative. In my eight-years of employment, the organization went through four CEOs, each of which had varying degrees of effectiveness. The current CEO, who started in January 2018, consolidated power by choosing not to replace the Executive Vice President and Chief Operating Officer role, removing corporate officers who had long tenures in the organization, and increasing the number of his direct reports to 32, an unsustainable and ineffective span of control. The organization also became less ethnically diverse at the corporate officer, department head, manager, and staff levels. The reduction in underrepresented minorities was noticeable and even commented on by minority professionals within the health system and members who belonged to the National Association of Health Services Executives, an organization that promotes the advancement and development of black health care leaders.

Observing the leadership actions and commitments to diversity at my employer informed the selection of my current research, which investigated how the power held by CEOs and diversity influence the financial performance of companies. I wanted to move beyond the vague notion of CEO power and identify ways to measure this variable quantifiably with secondary data. Beyond studying the impact, I also aimed to understand the presence of mitigating factors and indirect as well as intermediate variables. Some in the business community have heralded the effects of diversity on firm performance. As I reflected on my employer's diversity and inclusion situation, I felt that it was pertinent to examine diversity's role in operational performance. While some of these variables have quantifiable measures, they remain somewhat nebulous. There is some uncertainty surrounding the impact that diversity has on the financial performance of companies. It does, however, serve as an important area of study for a socially responsible and competitive business landscape.

The restructuring experience at the New York City Health and Hospitals Corporation also made me more aware of the impact of diminishing resources on operational success. As headcount was reduced and individuals with institutional knowledge left the organization, I saw an enterprise struggle to deal with initiatives that seasoned professionals previously managed successfully. The lack of internal and external financial resources for administration staff has had a deleterious effect on the enterprise. These circumstances contributed to my interest in the setting of organizational slack.

CHAPTER 2

STUDY ONE: CEO POWER AND FIRM PERFORMANCE

Literature Review

As the leader of a corporate enterprise, the CEO not only holds formal authority over but also exercises decisions pertaining to direction of the firm. The leader leverages power and this ability to compel actions requires an understanding of power as a construct and theory. An examination of power emphasizes that the principle requires the presence of two or more parties. The literature surrounding this theory concentrates on individual and organizational units of analysis. CEOs straddle both worlds because these individuals function in an organizational capacity. In consideration of these two seemingly different units of analysis, CEO power represents a culmination that necessitates further exploration as the focus of this study. The evaluation of CEO power acknowledges that these leaders are situated in a unique space in relation to other stakeholders and in the process of organizational goal attainment. For these reasons, the approach within this study first centers on power as a theory, makes a transition to individual and organizational units of analysis, and finally hones in on CEO power.

Power Theory

One of the earliest studies of power dates back to the 1920s when management theorist Mary Parker Follet examined and promoted the power dynamic within a cooperative context as opposed to authoritarianism (Melé & Rosanas, 2003). While Follet favored a move away from domination based on unequal power, she was not quite a champion of individuals who were evenly matched because of a belief that it would lead to unproductive conflict (Eylon, 1998). Instead, Follet articulated that two parties with various levels of power could collectively build power through a spirit of cooperation and needs-based interests (Eylon, 1998).

Building on the work of Mary Parker Follet, Deutsch et al. (2006) found that equal power individuals worked together or demonstrated rivalry based on high mutual reliance. In equal power relationships, it is believed that the power dynamic oscillates between parties and that the superior power position is determined by the particular issue (Wrong, 1968). Deutsch et al.'s findings were an important starting point in management literature focused on power. However, the theory did not capture certain complexities, especially in situations where individuals did not hold the same amount of power; interdependence was non-existent, low, or moderate; and circumstances could have called for a mix of cooperation and conflict. Nonetheless, the work set forth by Deutsch et al. (2006) establish a basic premise that individuals may be apt to pursue the seemingly at odds conditions of cooperation and conflict in response to the events that they face. The complexity of real-world situations, however, call for the selection of multiple strategies that model collaboration and goal incompatibility.

Unlike the works of Follet and Deutsch et al., Foucault (1995) reached an alternative position in stating that individuals can demonstrate the use of power without already having, maintaining, or taking ownership of it. This characterization is a departure from the existing literature, which likens power to a commodity. Foucault concentrates on the action as opposed to the possession, thereby avoiding discussion of the power dynamic, both actual and perceived. The study of power in this context exhibits certain flaws, most notably by discounting certain advantages that some individuals have. Foucault leaves the reader with the impression that actors operate on a level playing field. Furthermore, the author pursues a darker view of power as a means and within the context of inflicting physical pain, penalties, and obedience (Foucault, 1995). In that worldview, there is little room for exercising power to reach a cooperative stance. Competition and, more importantly, the victory associated with that activity remains vital.

French and Raven (1959, p. 156) initially delineated power according to the following five categories: “reward, coercive, legitimate, referent, and expert”. These categories remain recognized in contemporary literature (Twalh et al., 2016). A subsequent study into this area makes an important distinction between power derived from a person’s positional status and an individual’s inner nature (Yukl & Falbe, 1991). Other times, power is defined more narrowly as the ability to compel someone to act or the capability to prevent someone from achieving a goal (Ball, 1975; Emerson, 1962). Deterrence of goal attainment, in some cases, served to inflict retribution against another party (De Dreu, 1995; Mooijman et al., 2015). In these manifestations, power is seen as an active rather than passive force. Yet, Ball (1975) cautions against examining power through a narrow lens and identifies situations where individuals possess power but choose not to apply it.

Subsequent literature establishes a possible means of categorizing a power dynamic through three crucial parameters. First, the exercise of power cannot occur instantaneously because a time element is required so that chronological order is maintained; the more powerful party’s action takes place prior to the reaction of the less powerful actor (Dahl, 1957). Contemporary research has continued to validate the unequal power dynamic (Magee & Galinsky, 2008). This situation not only excludes the possibility that both parties maintain equal power but also adheres to an action and reaction model. Second, the parties must have some type of relationship for the power dynamic to hold (Dahl, 1957). The nature of the association is not explicitly defined, suggesting that ties can be either strong or weak. Finally, the command and control feature of power requires that the dominant party can get the other to perform an action that the more vulnerable party usually is resistant to take (Dahl, 1957). Because a party that is already agreeable to a particular activity before the other actor exerts influence or control is seen as cooperative, it does not meet the criteria of this model.

As research considers various ways to classify power, the literature that analyzes power uses various terms such as values and beliefs interchangeably, which could result in confusion. Coleman (2004) identified how values and beliefs are different because values are regarded as longer-term, whereas ideas are considered casual and more readily susceptible to change. This examination further elucidates this paradox by explaining that the distribution of power is limited to its assignment within a predetermined scope as opposed to a more expansive arrangement that provides the direct report with more independent authority (Coleman, 2004). The explanation demonstrates how power comes in multiple levels of intensity. It also highlights the challenge associated with defining a concept that is difficult to quantify. Beyond values and beliefs, there are other documented instances where power is closely associated and used interchangeably with persuasion and control (Dahl, 1957). These distinct attributes suggest that power is seen as a set of characteristics that are designed to arrive at the desired outcome.

Terminological precision facilitates a more optimal understanding of the components of power. Accordingly, further academic study into power utilizes a three-dimensional coordinate axis consisting of power in relation to the other party, the classification of the matter on a continuum ranging from cooperative to competitive, and the intensity level at which the parties are dependent on each other (Coleman et al., 2010; Coleman et al., 2013). The three-dimensional placement is designed to provide four possible strategic applications of power using a relative measurement scale. The research outcomes rely on unequal power dynamics to categorize the following power approaches: benevolence ("high power, cooperative, and high interdependence"), support ("low power, cooperative, and high interdependence"), dominance ("high power, competitive, and high interdependence"), appeasement ("low power, competitive, and high interdependence"), and autonomy ("low interdependence") (Coleman et al., 2013, pp. 1965–1966).

Consistent with the ability of power to move across a continuum (Coleman et al., 2013), Ocasio (1994) contended that an examination of historical literature reveals that power is viewed as a dynamic phenomenon. Because power was traditionally presented as an independent variable and usually ascribed to individuals, Hickson (1971) instead sought to observe it as a dependent variable and on an organizational level. This study departs from the previous relational dynamics that focus on the power between two parties, instead calling for the assessment of the position of an organizational component relative to its counterparts. The research hypothesized that the ability to deal skillfully with the unknown, a high level of interdependence, and the importance to the overall organization afforded specific departments with more power (Hickson, 1971).

Unlike traditional concepts of power that assume permanency, changing and dynamic conditions are observed to determine the impact on behavior (Hiemer & Abele, 2012) and the effectiveness of the sources of power (Shukla, 1982). This emphasis provides a more realistic assessment across the entire cycle of a power continuum. The research found that uneven conditions played a pivotal role as persons with low power as opposed to high power were more willing to act as a means of improving outcomes in a conflict (Hiemer & Abele, 2012). Therefore, the impetus compels individuals to make decisions that are in their self-interests. The researchers further explain how low power individuals see an opportunity for enrichment while high power individuals fear the potential loss (Hiemer & Abele, 2012).

High power individuals are not always predisposed to caution and restraint. Individuals who perceive that they have significant power over others experience delusions about their coalitions and erroneously believe that these associations are formidable (Brion & Anderson, 2013). In some cases, the positional status impacts cognition. High power individuals who have misbeliefs about coalition strength also tend to perform worse in securing better outcomes and joining new as well as existing alliances (Brion & Anderson, 2013). The findings from these studies run counter to existing beliefs that high-power status individuals are better positioned than low power individuals in goal attainment. They do, however, serve as a reminder of the importance of self-awareness. The importance of examining various levels of power at an individual level is central to classifying the degree of influence that CEOs have over others, particularly the top management teams and the boards of directors.

Organizational Power

While the earliest research into power applies the theory to how individuals interact, organizations constitute another unit of analysis where power dynamics are present. Both the degree of power differences and the extent that firms rely on one another impact the decision to contemplate and consummate mergers and acquisitions (Casciaro & Piskorski, 2005). Firms carefully consider and balance their positions and needs. The research cautions that vast power differentials inhibit firm combinations as the more powerful firm expresses hesitancy whereas the organization in a weaker stance would typically welcome the partnership to attain an uninterrupted connection to resources (Casciaro & Piskorski, 2005). The model suggests that the swinging of the metaphorical pendulum is an important determinant that can have significant implications. It underscores how heavily weighted interdependence functions as perhaps the only counterweight to move considerations from a competitive to a cooperative stance.

The relational dynamics in organizations are keenly important. Research supports the contention that managers who hold competitive values towards power in the workplace have a propensity to maintain a firm grip on it. In contrast, those who view it through a more benign orientation are inclined to embrace its distribution (Coleman, 2004). This finding strongly suggests that the preservation of power at the individual level is viewed as a means of maintaining status. The competitive nature likely signals to the individual that the division of power would make the individual worse off. Although it might seem contradictory, those who possessed competing beliefs, however, were more inclined to transfer power to subordinates (Coleman, 2004).

When considering control held by a CEO, power must be explored at an individual and organizational level simultaneously to reflect the nature of a corporation. The relationship that the individual has with, and in comparison to, others plays a pivotal role in informing the power dynamics. Certain personality traits and values also affect how CEOs perceive the overall landscape. The organizational dynamic creates an extra layer of complexity when evaluating CEO power, especially because chief executives must function in a corporate capacity and role. Moreover, the inclusion of organizational priorities and competitive factors into the decision-making process has implications for the operational and financial performance of companies. In considering the alignment and impact of these areas, the study of power is focused on chief executive officers because those individuals have a significant effect on the companies that they lead.

CEO Locus of Control

Prior to examining CEO power, it is helpful to explore how CEOs perceive that they can shape outcomes through a phenomenon known as locus of control. Having a strong belief in one's abilities can inform the power that others attribute to an individual and this has implications on how boards of directors and top management teams ascribe and respond to CEO power. Executives whose actions rather than environmental factors affect firm performance tend to initiate company-specific measures (Miller & Toulouse, 1982). The study goes on to posit that an internal locus of control could influence the state of the environment. This research suggests that top-level executives have far-reaching abilities that extend beyond their specific firms. Miller and Toulouse (1982) provided an alternative explanation that individuals who have an affinity toward an internal locus of control may opt for environments that are more amenable to these circumstances. Further research reveals certain complexities of a distinction between the actions undertaken by CEOs based on their personalities and situational factors, but identifies that it is difficult to distinguish between the two because they are sometimes intertwined (Boone & De Brabander, 1993). Nevertheless, situational factors inform how chief executive officers respond to the challenges at hand.

CEO Power

CEO power represents a complex and far-reaching phenomenon because it has domain over hierarchy, other sources of power, influence over a board of directors, persuasion on stronger counterparties, succession planning, single and dual CEO arrangements, personal characteristics and other demographic traits, political affiliations, mergers and acquisitions, accounting decisions, compensation structures, and financial performance. Capturing these broad categories is especially important because the concept of CEO power in this study aims to encapsulate them in an approached centered on power over others. This operational measure is accomplished by determining the amount of power held by a CEO as an inverse relationship to the governance rating associated with the board of directors. Therefore, the arrival of a CEO power metric provides a meaningful manner to synthesize control in a business landscape characterized by intricacy.

One way that research probes CEO power in an organization is through the study of formal hierarchies (Magee & Galinsky, 2008; Mahoney, 1979) and then examining power at various degrees of strength. The inclusion of rank and a subordinate structure makes power dynamics in an organization more complex. Using a broad categorization, workers will usually belong to a managerial or non-managerial classification. This study concentrates on the chief executive officer (CEO) level, the power associated with the role, and the financial implications. CEOs with significant power at publicly traded companies have more of an impact on economic indicators as these metrics exhibit a higher spread than that of leaders with low power (Adams, et al., 2005). This conclusion suggests CEOs with low power cannot move outcomes beyond a certain threshold. Adams et al. (2005) were careful to issue a disclaimer that a high-power CEO is neither beneficial nor harmful.

While hierarchy is one form of CEO power, there are other sources of power that impact company outcomes. Much like how French and Raven (1959) sought to categorize power, additional literature (Daily & Johnson, 1997, p. 98; Finkelstein, 1992, pp. 508–510) classified power held by CEOs into four key areas: "structural, ownership, expert and prestige". Research performed to identify a relationship between these categories and decreasing as well as increasing financial outcomes shows that changes are most pronounced when looking at expert power at the end of three and six-year time horizons (Chaganti et al., 2001). The results were more varied when assessing differences in the power dynamics by comparing the beginning and ending stages of positive and negative corporate changes (Chaganti et al., 2001). Interestingly, the research analysis differs from this study because it treats CEO power as a dependent variable and performance outcomes as the independent variable.

A manifestation of the various sources of CEO power is when the executive simultaneously holds the designation of chair of the board of directors. Research has shown that there is a positive relationship between CEOs who are board chairs and company outcomes in business climates that are characterized by scarce resources and uneven competitor capabilities (Boyd, 1995). These results imply that during these environments, unification of the chair and CEO roles is advisable. The combination of these roles may signal that there is enhanced decision making through a streamlined leadership structure. However, some studies warn against the deleterious effects on the company's earnings (Duru et al., 2016), and others point to a preference toward a person holding both roles simultaneously (Finkelstein & D'Aveni, 1994). Several studies measure CEO power by exploring how leaders consolidate and expand power by simultaneously possessing the rank of the chief operating officer or the president, sometimes at the expense of the firm's potential (Busenbark et al., 2016; Hambrick & Cannella, 2004; Marcel, 2009; Zhang, 2006).

Serving as chair of the board is not the only manner that CEOs exert influence on these oversight and governance entities. There is extant literature on the influence that CEOs have on the formation of the board of directors (Boyer, 2005; Shivdasani & Yermack, 1999). High power CEOs can govern the process on whose name is put forward to join the board and demonstrate considerable sway over the board's focus on more passive activities (Baldenius, Melumad, & Meng, 2014). CEOs with tremendous power have the autonomy to chart an organizational direction that differs from the company's competitors and peer groups (Tang et al., 2011). These actions enable the CEO to have free reign in managing without more substantial forms of interference and oversight from the board.

Literature also recognizes another way that CEOs can gain a stronghold in a company relative to the boards of directors. By embarking on incredibly intricate business activities that confer the CEO with cloistered information, the leader carves out a position that the board cannot easily intrude upon (Baldenius et al., 2014). Research shows that CEOs in failing companies had greater protections from terminations when more board members were nominated from internal rather than external sources (Boeker, 1992). Additional evidence demonstrates that CEOs who have power over their boards can stifle corporate restructuring by not being open to the positive skills and attributes of board members (Haynes & Hillman, 2010). Meanwhile, a docile board of directors does not necessarily mean that the CEO has the power dynamic swing in his/her favor because the accomplishment of goals can occur with minimal control (Withisuphakorn & Jiraporn, 2017). The focus on the oversight function of the board of directors is crucial to this study because it impacts how CEO power is conceptualized and captured as an operational measure.

Unlike the previous circumstances, the CEO might not always have direct power over the board of directors when effective governance techniques are employed; there remains alternative means to influence the board indirectly. There is evidence to suggest a corporate governance practice towards having all members of the board of directors, with the exception of the CEO, as independent outsiders when any of the following conditions exist: the majority of the board is loyal to management and the CEO has significant control over the board as well as the company (Joseph et al., 2014). The impetus for these changes suggests that the CEO initially had control over the board of directors. It, therefore, seems highly unlikely that the CEO would willingly reduce control over the board without an intervening measure (i.e., a strong response from shareholders) to compel such a change. Other research has revealed that the board can wield substantial influence in selecting a CEO who possesses the same attributes as the board, and these occurrences are prevalent during times of internal turbulence (Westphal & Zajac, 1995; Zajac & Westphal, 1996). Research provides other ways that leaders can accomplish their goals. One study points to evidence where chief executives can practice persuasion techniques aimed at the board of directors such as taking advantage of professional associations, controlling how the leader is viewed, regulating knowledge, and preserving one’s positional status (Maitlis, 2004).

An area of involvement, which has future power implications, by the board and potentially the existing CEO is a succession plan to search for and name a new leader. Existing research tends not to dwell on how the individual immediately became the CEO. One study identified evidence showing that corporate strategic change management is heavily influenced by the prior time that the then CEO candidate was designated and received special treatment for the top role as well as particular manifestations of power such as the CEO’s incentive pay, knowledge in a variety of crucial areas, academic training from highly ranked institutions, and the ratio of the board of directors representation that comes from independent sources (Bigley & Wiersema, 2002). The findings propose that CEOs with decreased “heir apparent experience” will embark upon greater “corporate strategic refocusing” (Bigley & Wiersema, 2002, pp. 717–719). The lack of an elevated status may make a new CEO more amenable to change because certain levels of confidence and self-awareness appear within the realm of normalcy instead of highly inflated. At some point, the newly appointed CEO will become a seasoned veteran who will face a transfer of power to a new chief executive. In this case, existing CEOs with high power weaken the ability of a presumed successor attaining the top leadership position (Cannella Jr. & Shen, 2001).

A leadership transition also calls for consideration of the chief executive structure, namely the distinction between a sole and co-CEO model. Traditional research finds that a single CEO is the typical structure in most organizations (Dennis et al., 2009). However, some companies have adopted a co-CEO model where two people share the rank. Research into this area suggests that a power differential between the two CEOs results in a better financial outcome (Krause et al., 2015). Another study found similar results for co-CEOs who had abilities, backgrounds, and skills considered “complementary” (Arena et al., 2011, p. 395). These findings imply that an exact power-sharing arrangement based on equality is not in the organization’s best interests. Constant equal power is also likely not realistic, as prior research indicates that power differentials naturally occur over time (Wrong, 1968). Therefore, when one of the co-CEOs has power over his/her counterpart, the company produces improved results. Co-CEOs with equal power might create an environment of intense rivalry that places the company in the crossfire. That research supports one of the contentions that the equal power dynamic leads to rivalry (Deutsch et al., 2006). Internal squabbling tends to destabilize the senior management team by forcing leaders to align themselves with one of the co-CEOs or remain neutral parties.

Beyond the CEO structure, careful attention is paid to the leader’s individual characteristics because they affect how companies perform. Research provides support for the hypothesis that as CEOs get older, the amount of money invested in research and development falls (Barker & Mueller, 2002). This finding might indicate that older age might be associated with a decrease in risk-taking (Hambrick & Mason, 1984) and the need to use age as a control variable. A CEO who is closer to retirement age may also opt to reduce research and development (R&D) expenditures as a means to maximize incentive compensation. That same study found evidence to show that an increase in the equity stake held by a CEO is met with a proportional increase in R&D (Barker & Mueller, 2002).

Taken together, these variables constitute some of the overarching power dynamics based on status. Perhaps most surprising is the finding from one study that provides evidence that extreme and excessive overconfidence leads other stakeholders to believe in the power of the CEO and that in turn has a positive effect on the company (Phua et al., 2018). Other research counters that when CEOs have unrealistic beliefs in their abilities, it places the company in jeopardy because the leader will commit the business' internal resources to unsound initiatives (Malmendier & Tate, 2005).

Analysis by Berson et al. (2008) suggests that the link between a CEO's guiding characteristics and corporate performance is not direct because organizational culture helps to mediate the connection between the two categories. The CEO can impact the company through the tangible and intangible nature of corporate culture. This realization has a profound effect on the behavior, processes, and values, which in turn play a significant role in corporate operations and results. Research findings show evidence that CEOs influence how their senior managers act, reach determinations, and feel about resolve (Carmeli et al., 2011).

So far, some studies on CEO power have been confined to various individual characteristics (Araujo-Cabrera et al., 2017; Chatterjee & Pollock, 2017; Kaplan et al., 2012), but they do not consider prior military service. The research implies that CEOs with a military background are more risk-averse and have better corporate results in periods of chaos and instability (Benmelech & Frydman, 2015). Because the CEOs in the study left the military as junior officers and then embarked on a corporate career (Benmelech & Frydman, 2015), it suggests that such a transition for individuals with significant military service as senior officers may prove difficult.

An expansion of CEO power analysis recognizes that individual traits and prior careers are not the only consideration. The political party affiliations and corresponding values of the chief executive also affect the company. Research into this area supported the hypothesis that CEOs with greater liberal values are most likely to commit to corporate social responsibility, but that it is dependent on the CEO's level of influence within the organization and somewhat on financial performance (Chin et al., 2013). The personal values held by CEOs would seem to extend to professional life and corporate actions. Therefore, political affiliations could be viewed as a hybrid between characteristics and values.

Similar to a decision on whether to embark on corporate social responsibility initiatives based on political ideology, CEOs also choose whether to retain cash resources or transfer some of them to the shareholders. CEO power plays a pivotal role in the decision-making process. One study provided credence to the notion that CEOs with significant power are less apt to distribute cash to shareholders in the form of dividends (Chintrakarn et al., 2018). The findings suggest that powerful CEOs are more eager to use the resources generated by the company for growth opportunities. The paying out of dividends might represent a deterioration of firm performance because it leaves the company with fewer resources. Similarly, related research points to chief executives with substantial power that tend to avoid debt financing (Jiraporn et al., 2012) and reduce exposure to risk (Pathan, 2009). However, when CEOs with high power increase leverage, the research presents evidence that credit holders require more onerous terms, which impact the firm's borrowing and financial standing (Liu & Jiraporn, 2010) and the CEO's viability.

The business decisions that CEOs encounter are not solely related to cash distribution, but also involve expansion. In considering a study on the impact of CEO power on the likelihood that the purchase of another company will be finalized, the results support the belief that structural, expertise, and prestige power make the leader discount the overall investor community's contention that such business combinations should not go through (Chikh & Filbien, 2011). Power may make a CEO less responsive to third party input. The hypothesis presumes that high power CEOs at an acquirer versus a target have more influence than the board (Dutta et al., 2011). Further research into the acceptance of advice identifies evidence that individuals who consider power an obligation rather than an opportunity place greater apparent emphasis on the counsel and are therefore likelier to follow through with the guidance (De Wit et al., 2017). The mindset of the CEO is relevant to determining how that person will respond.

Decisions made by CEOs are not undertaken in a vacuum because external factors enter the dynamics. For this reason, the study of CEO power and its influence on company performance cannot be viewed in isolation. The nature of the business environment, ranging from steadiness to constant change, influences the strength of the relationship between CEO power and the financial outcome of companies that find themselves in a turnaround situation (Abebe et al., 2011). This moderator demonstrates that any analysis requires the careful weighing of other variables. An increase in CEO power leads to a decrease in how well a company performs in an unstable environment; the opposite result is found in a stable climate (Abebe et al., 2011). These findings differ from previous research (Boyd, 1995), which did not find a statistically significant relationship between CEO power and firm performance in highly unstable environments.

A particularly disruptive business environment has profound consequences. Times of upheaval are especially important in assessing the impact that a CEO has on a company relative to the market and the overall economy. Studies have identified strong support for instances when high power CEOs have an adverse outcome across a wide variety of company environments, specifically those that are dynamic, maintain intense rivalry, and provide leaders with substantial latitude, during the undesirable phase of the business cycle (Gupta et al., 2016). The level of power enjoyed by a CEO in these circumstances points towards a lack of discipline. A low power CEO might prove beneficial as that person might exhibit an openness to work cohesively with the board of directors and the senior management team.

The study of the business environment also requires the consideration of historical context because modern-day companies do not face the same challenges as organizations from a different period. CEOs with high power fared better in terms of corporate financial performance prior to the passage of the Sarbanes-Oxley regulatory reform act because these leaders had more considerable influence over accrual-based rather than the current real earnings management accounting adoption (Baker et al., 2019). This conclusion proposes, however, that there was the potential for and presence of the manipulation of earnings. While some might contend that such actions therefore do not represent legitimate earnings, there was no indication that these practices were extremely pervasive except for a few notable companies, which received significant scrutiny and attention from the public. It is noteworthy to point out that research supported the theory that organizations that were alleged to have engaged in financial impropriety were found to have CEOs with high power and excessive pride (Cormier et al., 2016). Not all errors in the financial reports are for nefarious reasons as research provides an alternative explanation resulting from extreme bullishness without pragmatism on the part of the CEO (Schrand & Zechman, 2012).

Whereas CEO power has considered various criteria, a growing amount of literature focuses on the association between CEO power and compensation (Choe at al., 2014; Gerwin Van, 2010; Hill et al., 2016; Tien, Chen, & Chuang, 2013; van Essen et al., 2015) and some research uses compensation as a proxy for CEO power (Lee et al., 2014). Some research supports the hypothesis that CEOs with high power will select performance-based compensation goals that require less effort and are more readily attainable (Abernethy et al., 2015). Other studies show that high power CEOs tend to negotiate a compensation structure that maximizes personal earnings regardless of the business climate whereas low power CEOs do not have this level of influence (Amzaleg et al., 2014).

Further examination into compensation has illustrated support for the role that the board of directors' compensation committee has on aligning incentive pay with corporate goals, especially when the board members are not beholden to the CEO (Capezio et al., 2011). These findings show examples where compensation contracts and their corresponding goals are subject to manipulation so that they suit the needs of the individual rather than the organization. Yet, one study does not provide support for the belief that compensation is closely linked to the impression that the CEO is skilled in carrying out tasks (Miller & Wiseman, 2001). This study will eschew from exploring compensation dynamics because that topic has been sufficiently covered in the literature; instead, it will concentrate on the impact that other forms of CEO power have on company outcomes.

The exploration of CEO power in this paper is done in a way that is designed to illustrate the connection to financial outcomes. The existing literature provides evidence that supports the relationship between CEO power or a variation of it and firm performance indicators (Abebe et al., 2011; Adams et al., 2005; Boyd, 1995; Carmeli et al., 2011; Chikh & Filbien, 2011; Chintrakarn et al., 2018; Duru et al., 2016; Finkelstein, 1992; Gupta et al., 2016; Krause et al., 2015; Lee et al., 2014; Liu & Jiraporn, 2010; Tang et al., 2011; Tien et al., 2013). Certain articles have found evidence that the following moderators affect the relationship between CEO power and firm performance: business climate (Abebe et al., 2011; Boyd, 1995), board power (Tang et al., 2011), innovation, rivalry, and leadership decision making (Gupta et al., 2016). Other times, the literature set CEO compensation as a mediator (Tien et al., 2013). Carmeli et al. (2011) identified that the senior management’s actions and means for attaining future state ambitions were the variables that explain the relationship between CEO power and firm performance while personal insight into the unknown business climate influences the strength between goal attainment and firm performance. Meanwhile, Tang et al. (2011) presented the departure from a typical strategy as the mediating variable between CEO dominance and performance extremes with board power serving as a moderator of the independent and mediator variables.

The establishment of CEO power as a construct and independent variable and company financial performance as the dependent variable aims to show a relationship. The environmental factors (i.e., munificence, dynamism, and complexity) have affected the strength of the relationship between CEO power and firm performance (Boyd, 1995). The key findings of the research revealed the specific environmental circumstances whereby CEO power is positively related to firm performance. The implications of this research are valuable to the business community, especially when evaluating the level of power that CEOs should and do hold within an organization.

Diversity

Research establishes a relationship between the behavioral approaches of CEOs and company commitments to diversity with a firmer connection for those executives who utilize motivation and values inspired goals rather than leaders who focus on traditional management based on responsibilities and established rules (Ng & Sears, 2012). While the study focuses on transforming and transactional leadership as a means of facilitating diversity, the ability of the CEOs to implement programs requires that the leaders have power and influence. Therefore, the research explicitly identifies that CEOs play an essential role in setting the diversity agenda and implementation within their respective firms. An earlier study finds that the CEO is vital to an organization's dedication to diversity and its ultimate success (Gilbert & Ivancevich, 2000). The observation distinguishes between companies that truly embrace diversity and those who exhibit trivial gestures. In the former, CEOs are known for driving the organizational push for diversity and doing so in a way that promotes sustainability.

The rationale for diversity management is explored in research conducted by Hobby (2008) because underrepresented minorities do not have the same opportunities as individuals in the majority. These disparities have a detrimental impact on several facets of life including employment. In considering the unfairness associated with these conditions, it provides an impetus for corrective measures aimed at the promotion of equality and inclusion. An important consideration is an approach taken by an organization and its leadership. Slater et al. (2008) contended that diversity management requires moving beyond viewing it as a standalone initiative and considering it as part of the fabric of organizational culture. Yet, not all stakeholders will show acceptance toward diversity strategies while others will call for its implementation (Dass & Parker, 1999). Gilbert et al. (1999) expanded the literature on diversity by tying the construct to business implications, mainly the ability to sell products and services to an increasingly multicultural customer base. The study suggests that a diverse workforce has unique insights into being better able to forge connections and understand the needs and wants of customers who share similar traits.

Hypotheses

The research question into the power phenomenon is as follows: Under what circumstances and conditions is CEO power, the most (or least) advantageous (or detrimental) to firm performance given the presence of diversity? The conceptual model (Figure 1) is developed to illustrate the role that CEOs have on influencing and setting priorities related to diversity. The model depicts the main hypotheses proposed in this study. CEO power, the independent variable, captures the various means that leaders influence, demonstrate control over, preserve authority, or submit to the will of other parties (Adams et al., 2005; Boyer, 2005; Chaganti et al., 2001; Daily & Johnson, 1997; Finkelstein, 1992; Joseph et al., 2014; Krause et al., 2015; Magee & Galinsky, 2008; Mahoney, 1979; Maitlis, 2004; Shivdasani & Yermack, 1999). Based on the goals of this study, CEO power will be operationalized by assessing the context surrounding the CEO's position (Daily & Johnson, 1997; Finkelstein, 1992).

CEO power will also incorporate the control that the leader has over other members of the management team (Busenbark et al., 2016; Hambrick & Cannella, 2004; Marcel, 2009; Zhang, 2006). While some of the variables found in the previous literature are repeated in this conceptual model, the quantitative measures selected differ significantly. They are further detailed in the data description section of the study.

Diversity as a Mediator

CEOs influence the approach that companies take on diversity strategies for the workforce and the senior management team. Research has identified evidence that indicates that the involvement and commitment level of the CEO is critical to the viability of a firm's diversity initiatives (Gilbert et al., 1999; Gilbert & Ivancevich, 2000; Ng & Sears, 2018). The manner that a CEO sets out to accomplish goals also influences diversity. The literature demonstrates the relationship between "transformational and transactional leadership" and a firm's diversity approach with the former being fully supported and the later supported only when the leader is older and possesses strong societal values (Ng & Sears, 2012, p. 47).

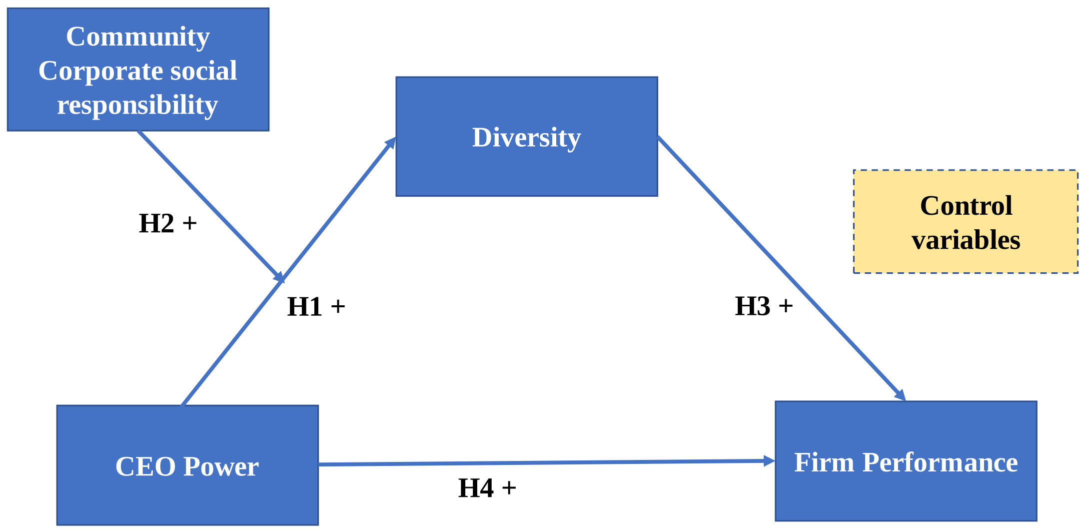

Figure 1. Conceptual Model of CEO Power

A low power CEO may not see diversity as a pressing issue given the existence of other challenges. Likewise, they also may not be able to convince the organization to commit to a diversity agenda as a business strategy. Consequently, a high power CEO might have the control and influence to convince top managers and the board to embrace a diversity strategy. A high power CEO also can effect change on the organizational culture and how the company handles recruitment and retention.

Evidence supports the contention that diversity within the senior management ranks leads to an increase in firm performance and that this relationship is positively influenced by how long the management team is in existence, the business environment, and geographic expansion passed national borders with a localized focus (Nielsen &

Nielsen, 2013). Research on racial diversity has found that it positively impacts corporate performance when there is intense company rivalry in the market (Andrevski et al., 2014). Hollowell (2011) found that organizations with a more diverse workforce achieved better and more sustainable financial results. Additional inquiry into this matter has found that a comprehensive approach to diversity and inclusion promoted broad enhancements in how the organization operates and achieves goals (Armstrong et al., 2010).

Corporate Social Responsibility as a Moderator

The deliberation on whether there is an association between corporate social responsibility and firm performance remains unresolved as evidence exists to support both contentions (Mackey et al., 2007). However, the literature increasingly suggests a linkage. One study found additional support that corporate social responsibility initiatives have an enhancing effect on how companies perform financially (Kang et al., 2016). During times of economic turbulence and financial upheaval, investments in corporate social responsibility have been found to instill confidence within the investment community and produce superior business results (Lins et al., 2017).

Empirical evidence also shows an inverse relationship between corporate social responsibility and the confidence level held by a CEO. The study explains how overly optimistic CEOs have difficulties identifying risk and developing corresponding mitigation strategies, making these leaders believe that they do not need to rely on corporate social responsibility initiatives. There is also a reverse curvilinear relationship between a firm's corporate social responsibility programs, specifically the social and environmental domains, and the level of diversity found in organizational staffing

(Sharma et al., 2018). In aligning the connection that corporate social responsibility has to financial performance and diversity, one study noted that organizations that face difficulties recruiting and retaining a diverse workforce do not fare well and produce lackluster market results (Bird et al., 2007). That same study showed that investors do not hold the community-focused initiatives in high regard and the assessment that these stockholders have of the companies suffers.

The subsequent hypotheses are as follows:

Hypothesis 1: There is a positive relationship between CEO power and diversity.

Hypothesis 2: Community-focused corporate social responsibility moderates the positive relationship between CEO power and diversity.

Hypothesis 3: There is a positive relationship between diversity and firm performance.

Hypothesis 4: There is a positive relationship between CEO power and firm performance.

Data Collection

This study relies on the methodology employed by previous research focused on the relationship between CEO power and firm performance (Adams et al., 2005; Boyd, 1995). The data is derived from the Fortune 500 list (Adams et al., 2005) and is focused on publicly traded companies that have headquarters in the United States (Boyd, 1995). The timeframe is from 2015 to 2018. Unlike the data restriction set by Boyd (1995), financial services firms and energy companies will remain in the sample dataset.

This study explored the association between CEO power and firm performance. CEO power, the predictor variable, was operationalized using corporate social responsibility data from CSRHub. The board category measured the effectiveness of governance at each company. In applying a mutually exclusive construct, this study presumed that governance came at the expense of power held by chief executive officers. This result is consistent with research that finds that the board plays an enforcement mechanism and curbs the ability of a CEO to expand his or her power (Baldenius et al., 2014). Accordingly, the board rating was subtracted from 100 to arrive at an inverse measurement and a proxy for CEO power on a calendar year basis from 2015 to 2018. The mediator (diversity) and the moderator (community) also were obtained from the CSRHub database. The diversity data from CSRHub is a somewhat imperfect measure because it includes labor rights. However, the data provider does not separate these two variables so it will be used with an acknowledgement of the limitations. The monthly corporate social responsibility data from CSRHub was averaged to obtain yearly figures.

CSRHub provides a detailed dictionary for each category. The board rating relates to the effectiveness and independence of a company's board of directors. The community category consists of the following subcategories: community development and philanthropy, product, and human rights and supply chain. The diversity rating captures the company's commitment to an inclusive environment and safeguarding policies that impact employment. A more detailed description of these ratings is located in Appendix A. The ratings from CSRHub are on a scale ranging from 0 to 100.

Following guidance from previous research, the performance indicators, starting with return on assets (ROA) (Abebe et al., 2011; Adams et al., 2005; Duru et al., 2016;

Tang et al., 2011; Tien et al., 2013) and return on equity (ROE) (Daily & Johnson, 1997; Duru et al., 2016; Krause et al., 2015; Tien et al., 2013). This study selected additional parameters. The financial performance information (enterprise value multiple, net profit margin, operating profit margin before depreciation, gross profit margin, return on assets, return on equity, and return on capital employed) was derived from the Financial Ratios Suite by WRDS in an annualized format. Considering a potential lag effect for CEO actions to impact performance, this study analyzed CEO power starting from 2015 to 2018 using 2018 performance measures. The control variables of CEO tenure, company employee headcount size, age of the firm, and market value were selected from Compustat and Capital IQ.

The original sample size consisted of the top 184 publicly traded companies with United States headquarters from the 2018 Fortune 500 list. To achieve a meaningful comparison, only companies with the same CEO actively serving from 2015 to 2018 were considered. This approach reduced the sample size to 122 companies. The remaining companies had two or three CEOs during this time horizon and were excluded from the sample.

Data Analysis

This study utilized SPSS to perform statistical analysis on the data set. Table 1 depicts the summary statistics such as the range, minimum, maximum, mean, and standard deviation from the sample of 122 companies. The mean for CEO power was consistent for calendar years 2015–2017 with a resulting power rating between 48 and 49. Calendar year 2018 showed a departure from the previous three years with a CEO power mean of approximately 44. The board of directors and the top management teams of the companies found in the sample might have strengthened governance practices, which would account for the decline in the mean for the CEO power variable. Given that the data methodology calls for having CEOs in the sample that were present and in those roles for the full four years, this excludes an alternative explanation that a change in the chief executive led to the hiring of a leader with less power than his or her predecessor.

Moreover, the CEO power range for each of the four years is quite extensive with a low of 34 and a high of 40 points. These values suggest that CEOs hold varying degrees of power in their respective companies. The skewness values for all four years indicate that the histogram is not perfectly normally distributed (Figures 2 - 5). Calendar years 2015 and 2018 are slightly positive, which signifies that the distribution is skewed right and that the right tail is longer compared to the left tail. Calendar years 2016 and 2017 are marginally negative. The distribution for the CEO power measurements in these two years is skewed in that the left tail is longer than the right tail. However, when considering the kurtosis levels of 3.1 and 2.9, respectively, the CEO power measurements for 2016 and 2017 are closest to a normal distribution.

Beyond CEO power, the diversity score for calendar year 2018 has a mean of 60 (Table 2), which is the highest for the core variables found in the conceptual model. The range of 42 points also indicates that companies have various commitment levels to this domain. The maximum score of 76 suggests that this corporate social responsibility initiative is taken very seriously. However, the minimum score of 34 is indicative of a company that has not fared well in this area and likely requires additional resources. This reality is further apparent by the negative skewness in Figure 6, which demonstrates that most companies fall on the left-hand side of the tail and have lower scores in diversity. The standard deviation of 8.45 serves to highlight how the scores are not centered closely to the mean relative to the other operational measures.

Table 1

Descriptive Statistics for CEO Power

		CEO Power 2015	CEO Power 2016	CEO Power 2017	CEO Power 2018
N	Valid	122	122	122	122
	Missing	0	0	0	0
Mean		49.0500	48.8967	48.2591	43.7468
Median		48.2458	48.4725	48.4108	43.3346
Std. Deviation		5.71933	5.92086	4.99113	6.03500
Skewness		1.017	-.072	-.413	.438
Std. Error of Skewness		.219	.219	.219	.219
Kurtosis		2.041	3.111	2.857	1.394
Std. Error of Kurtosis		.435	.435	.435	.435
Range		34.01	43.13	36.77	40.00
Minimum		37.34	23.43	27.07	25.50
Maximum		71.35	66.55	63.83	65.50

The community score has the smallest range (25) in the model (Table 2). In considering the standard deviation of 5.20, which is the lowest in the conceptual model, there is evidence of a greater level of consistency and uniformity in how companies demonstrate their pledges to this area. The skewness for the community rating is only slightly negative with a -0.097 value. A visual assessment of Figure 7 confirms these findings and shows a distribution that is close to normal. Descriptive statistics and histograms were also performed in Appendices B, C, D, and E for the control variables and financial performance measures.

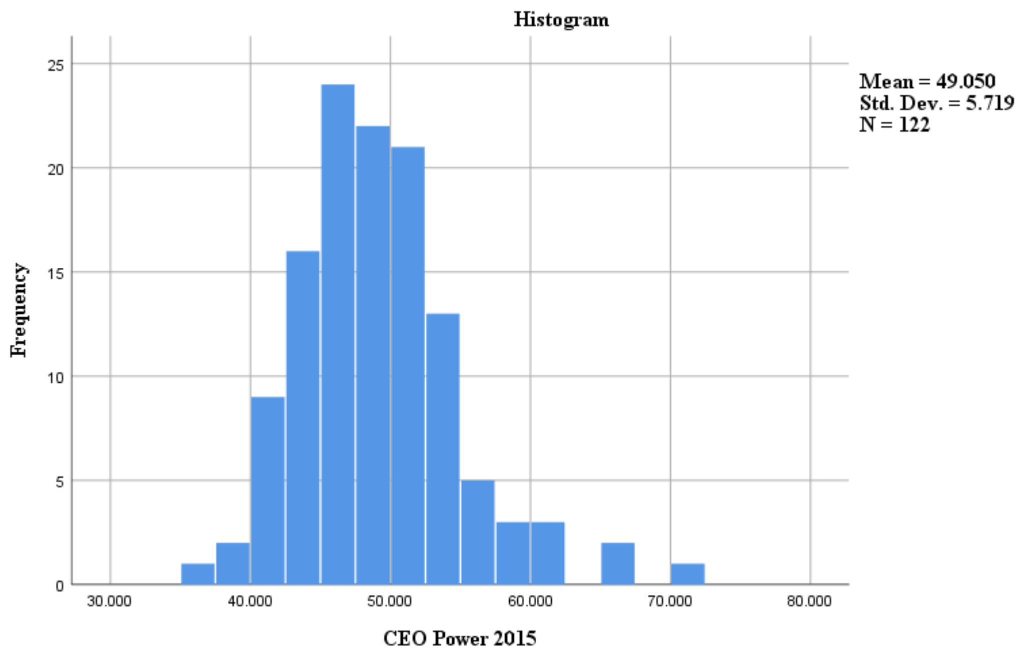

Figure 2. Histogram of CEO Power in Calendar Year 2015

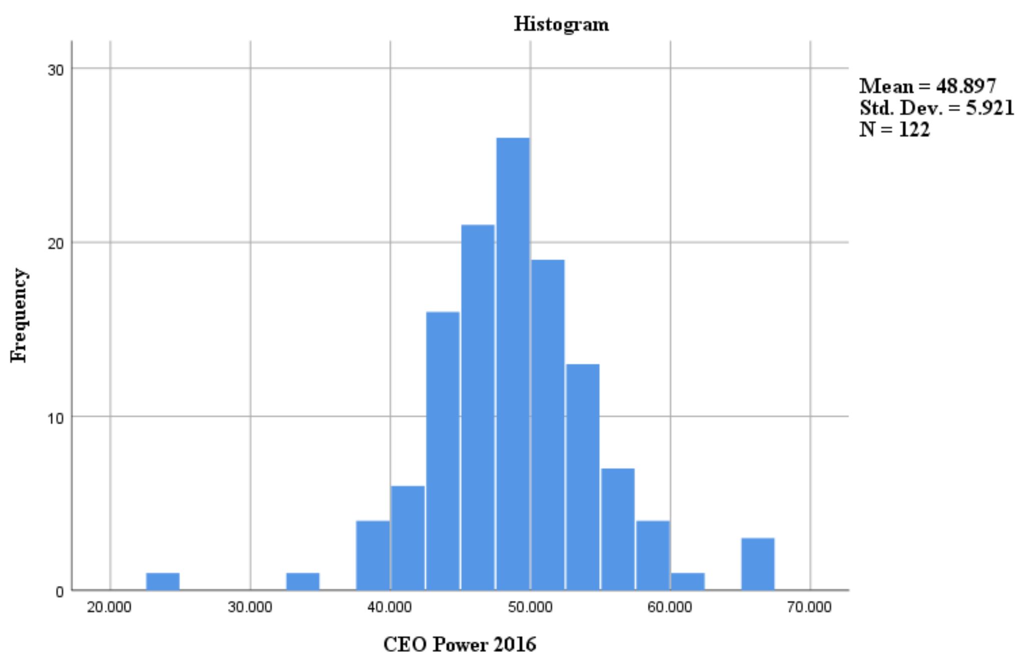

Figure 3. Histogram of CEO Power in Calendar Year 2016

Because the model had one predictor variable (CEO power), it was not possible to perform a test to conduct a multicollinearity test, which requires the presence of multiple independent variables (Blalock Jr, 1963). A variance inflation factor calculation (Hair et al., 1995) would therefore not serve as the appropriate statistical tool. Correlation analysis (Field, 2018) was excluded for similar reasons. Whereas the data does not allow for an assessment of multicollinearity and correlation, other statistical techniques were performed.

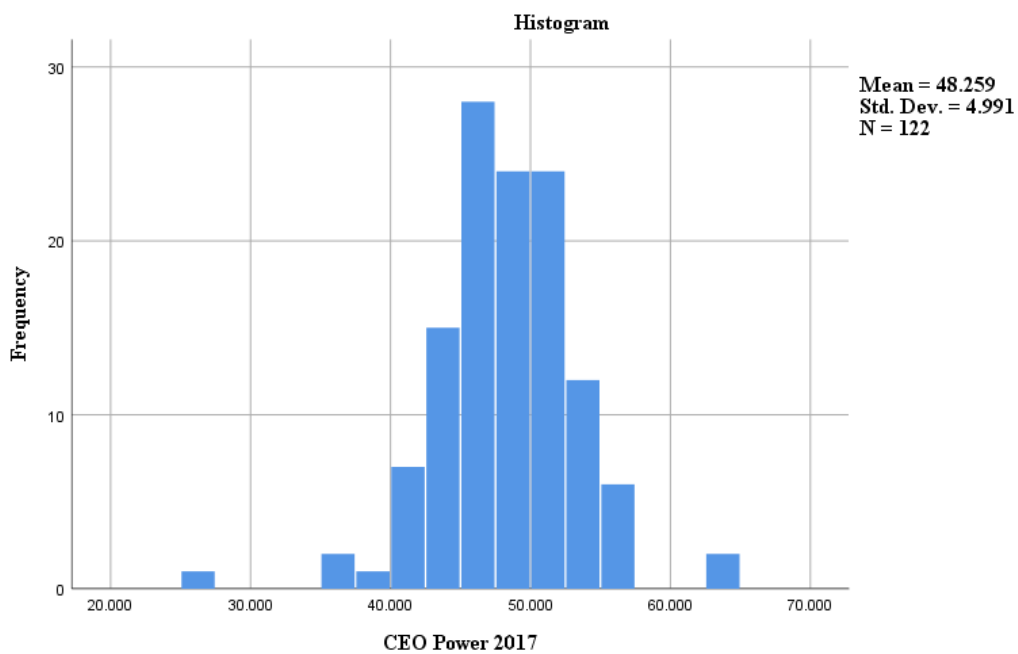

Figure 4. Histogram of CEO Power in Calendar Year 2017

Following Osbourne and Waters (2002), residual scatter plots were created to determine if the relationship between the independent and dependent variables is linear or curvilinear. The scatter plots in Appendix F were generated using SPSS for CEO power from calendar years 2015 to 2018 and compared against the calendar year 2018 measures of firm performance: enterprise value multiple, net profit margin, operating profit margin before depreciation, gross profit margin, return on assets, return on equity, and return on capital employed. A visual assessment of the residual scatter plots conforms to a linear relationship. Osbourne and Waters (2002) caution that the application of linear regression to a curvilinear relationship runs the risk of not capturing an accurate relationship and leads to under-estimation.

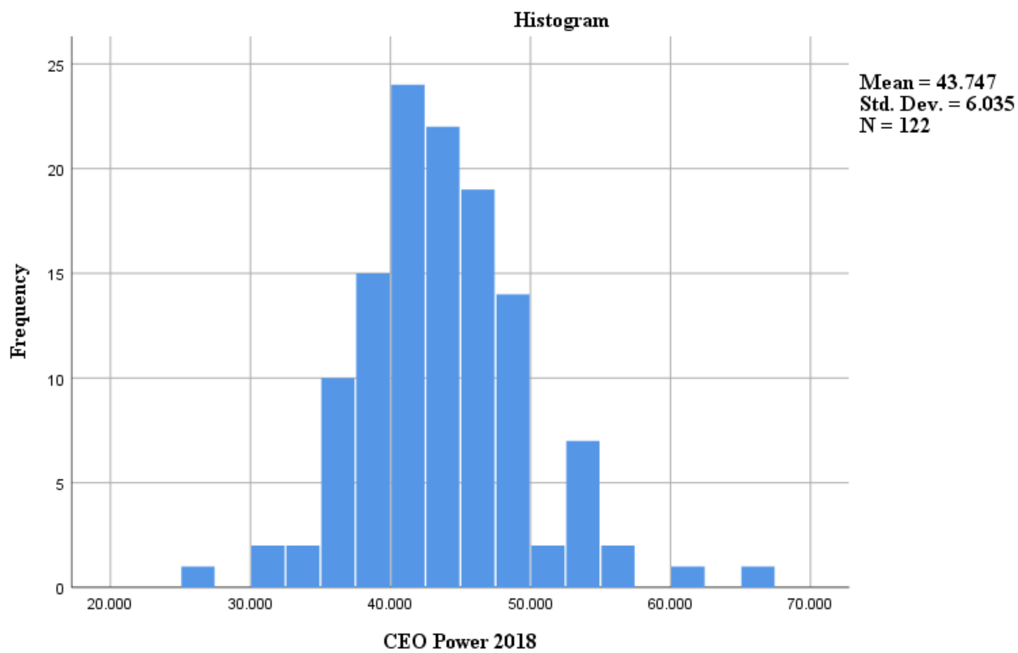

Figure 5. Histogram of CEO Power in Calendar Year 2018

The dataset was also analyzed to determine if there were violations of homoscedasticity. In accordance with guidance by Osbourne and Waters (2002), the presence of heteroskedasticity can alter findings in a suboptimal manner because the residuals are not uniformly found around the regression line. Accordingly, an SPSS macro developed by Ahmad Daryanto was utilized to perform the Koenker test (Koenker,

1981) and the p-values are reflected in Table 3. This test determines the presence of homoskedasticity and heteroskedasticity. The latter is found when the p-value is below .05 and then requires the use of a statistical software package to make an adjustment for a more accurate analysis. Heteroskedasticity was present in the interaction between CEO power in calendar year 2015 and the two-calendar year 2018 performance measures: operating margin before depreciation and gross profit margin.

Table 2

Skewness and Kurtosis for Diversity and Community Ratings

		Diversity 2018	Community 2018
N	Valid	122	122
	Missing	0	0
Mean		60.1572	50.8586
Median		61.9021	50.9028
Std. Deviation		8.44501	5.20454
Skewness		-.576	-.097
Std. Error of Skewness		.219	.219
Kurtosis		-.338	.063
Std. Error of Kurtosis		.435	.435
Range		41.69	25.61
Minimum		34.31	37.22
Maximum		76.01	62.83

Once the data was assessed for the presence of homoskedasticity and heteroskedasticity, the study utilized the process macro developed by Andrew Hayes to perform ordinary least squares regression (OLS) within SPSS. Model number 7 was selected because it matched the study's conceptual model, which contains mediation and moderation (Hayes, 2017). Mean centering was applied so that the coefficients were relevant. A heteroskedasticity consistent standard error estimator (Hayes, 2007) was applied for the cases where the Koenker test revealed p-values less than .05. The OLS regressions are found in Tables 4 to 11.

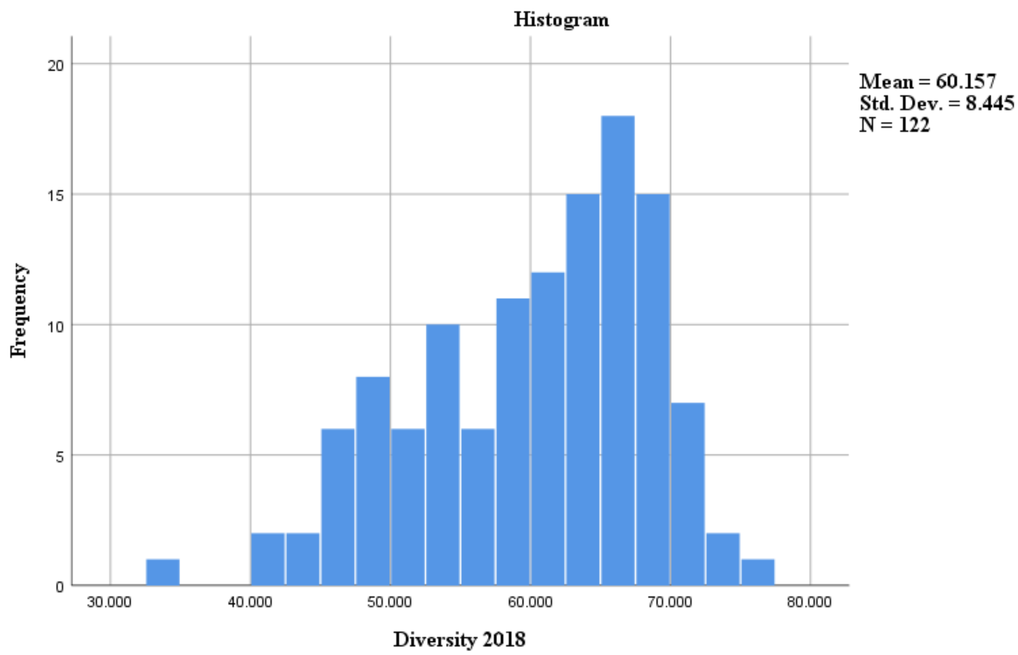

Figure 6. Histogram of Diversity in Calendar Year 2018

The OLS regressions indicates that the hypotheses were typically not supported. In a few cases, certain conditions that pertain to hypotheses 3 and 4 for net profit margin, operating profit margin before depreciation, and gross profit margin were strongly supported. The interpretation establishes support for diversity being positively related to firm performance and CEO power positively associated with firm performance. For every unit increase in CEO power and diversity when the p-value is statistically significant in hypotheses 3 and 4, there is an increase in the amount of the corresponding coefficient for the specific firm performance measurement. Given the shareholder focus of financial performance, return on equity is a compelling measure because it is indicative of profitability as it relates to invested capital. Operating profit before depreciation is also a meaningful measure because it looks at continuing operations related to the core business. This study will concentrate on these two measures accordingly.

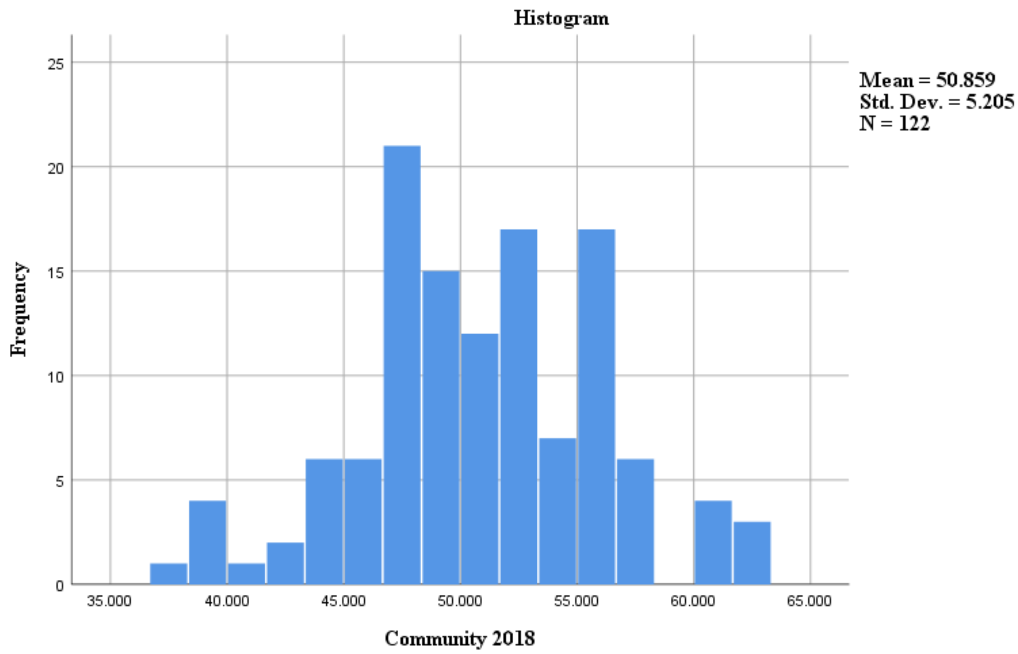

Figure 7. Histogram of Community in Calendar Year 2018

Table 3

Homoskedasticity and Heteroskedasticity Analysis

CEO Power	Enterprise Value Margin	Net Profit Margin	Operating Profit Margin Before Depreciation	Gross Profit Margin	Return on Assets	Return on Equity	Return on Capital Employed
2015	0.295	0.199	**0.037**	**0.048**	0.312	0.565	0.874
2016	0.124	0.395	0.265	0.574	0.557	0.340	0.298
2017	0.291	0.565	0.972	0.693	0.680	0.676	0.168
2018	0.887	0.956	0.352	0.398	0.326	0.421	0.308

p value less than .05 indicates the presence of heteroskedasticity

Table 4

OLS Regression: Outcome Variable - Diversity

Model 1						
R	R-sq	MSE	F	df1	df2	p
0.7974	0.6358	27.5663	28.4350	7.0000	114.0000	0.0000
Variable	coeff	se	t	p	LLCI	ULCI
Constant	57.1661	1.1835	48.3029	0.0000	54.8216	59.5106
CEO Power 2015	0.0503	0.1051	0.4785	0.6332	-0.1579	0.2585
Community 2018	1.1612	0.1120	10.3637	0.0000	0.9393	1.3832
Interaction Effect	0.0114	0.0134	0.8502	0.3970	-0.0152	0.0380
CEO Tenure	-0.0140	0.0785	-0.1779	0.8591	-0.1695	0.1416
Headcount	-0.0011	0.0022	-0.5012	0.6172	-0.0054	0.0032
Market Value	0.0000	0.0000	0.5231	0.6019	0.0000	0.0000
Company Age	0.0371	0.0094	3.9537	0.0001	0.0185	0.0557
Model 2						
R	R-sq	MSE	F	df1	df2	p
0.7965	0.6344	27.6727	28.2632	7.0000	114.0000	0.0000
Variable	coeff	se	t	p	LLCI	ULCI
Constant	57.0886	1.1847	48.1885	0.0000	54.7417	59.4355
CEO Power 2016	-0.0040	0.0946	-0.0423	0.9663	-0.1915	0.1835
Community 2018	1.1547	0.1101	10.4878	0.0000	0.9366	1.3728
Interaction Effect	0.0071	0.0120	0.5904	0.5561	-0.0167	0.0309
CEO Tenure	-0.0105	0.0790	-0.1324	0.8949	-0.1670	0.1460
Headcount	-0.0010	0.0022	-0.4610	0.6457	-0.0053	0.0033
Market Value	0.0000	0.0000	0.6025	0.5480	0.0000	0.0000
Company Age	0.0366	0.0094	3.9017	0.0002	0.0180	0.0552
Model 3						
R	R-sq	MSE	F	df1	df2	p
0.7970	0.6352	27.6142	28.3575	7.0000	114.0000	0.0000
Variable	coeff	se	t	p	LLCI	ULCI
Constant	56.9542	1.2184	46.7467	0.0000	54.5407	59.3678
CEO Power 2017	-0.0204	0.1097	-0.1860	0.8527	-0.2377	0.1969
Community 2018	1.1586	0.1043	11.1070	0.0000	0.9519	1.3652
Interaction Effect	0.0116	0.0152	0.7641	0.4464	-0.0185	0.0417

CEO Tenure	-0.0018	0.0812	-0.0219	0.9826	-0.1627	0.1591
Headcount	-0.0009	0.0022	-0.4341	0.6651	-0.0053	0.0034
Market Value	0.0000	0.0000	0.6603	0.5104	0.0000	0.0000
Company Age	0.0370	0.0094	3.9462	0.0001	0.0184	0.0556
Model 4						
R	R-sq	MSE	F	df1	df2	p
0.8147	0.6637	25.4534	32.1474	7.0000	114.0000	0.0000
Variable	coeff	se	t	p	LLCI	ULCI
Constant	56.4615	1.1460	49.2680	0.0000	54.1913	58.7317
CEO Power 2018	-0.2379	0.0876	-2.7167	0.0076	-0.4114	-0.0644
Community 2018	1.0624	0.1009	10.5300	0.0000	0.8625	1.2622
Interaction Effect	0.0192	0.0117	1.6395	0.1039	-0.0040	0.0425
CEO Tenure	0.0675	0.0782	0.8638	0.3895	-0.0873	0.2224
Headcount	-0.0008	0.0021	-0.3976	0.6917	-0.0050	0.0033
Market Value	0.0000	0.0000	0.8069	0.4214	0.0000	0.0000
Company Age	0.0366	0.0090	4.0616	0.0001	0.0187	0.0544

Table 5

OLS Regression: Outcome Variable - Enterprise Value Multiple

Model 1						
R	R-sq	MSE	F	df1	df2	p
0.4104	0.1685	16.8841	3.8830	6.0000	115.0000	0.0014
Variable	coeff	se	t	p	LLCI	ULCI
Constant	10.3538	3.0605	3.3830	0.0010	4.2914	16.4161
CEO Power 2015	0.0758	0.0748	1.0136	0.3129	-0.0723	0.2239
Diversity	0.0114	0.0517	0.2211	0.8254	-0.0910	0.1138
CEO Tenure	-0.0022	0.0607	-0.0358	0.9715	-0.1223	0.1180
Headcount	-0.0017	0.0017	-0.9729	0.3327	-0.0050	0.0017
Market Value	0	0	4.2840	0.0000	0.0000	0.0000
Company Age	0.0049	0.0077	0.6344	0.5271	-0.0104	0.0202
Model 2						
R	R-sq	MSE	F	df1	df2	p
0.4034	0.1628	17.0001	3.7258	6.0000	115.0000	0.0020
Variable	coeff	se	t	p	LLCI	ULCI
Constant	11.5825	3.0696	3.7734	0.0003	5.5023	17.6627
CEO Power 2016	-0.0344	0.0709	-0.4860	0.6279	-0.1748	0.1059
Diversity	-0.0129	0.0518	-0.2499	0.8031	-0.1156	0.0897
CEO Tenure	0.0198	0.0607	0.3266	0.7445	-0.1004	0.1401
Headcount	-0.0015	0.0017	-0.8828	0.3792	-0.0049	0.0019
Market Value	0.0000	0.0000	4.5459	0.0000	0.0000	0.0000
Company Age	0.0045	0.0077	0.5845	0.5601	-0.0108	0.0198
Model 3						
R	R-sq	MSE	F	df1	df2	p
0.4056	0.1645	16.9651	3.7730	6.0000	115.0000	0.0018
Variable	coeff	se	t	p	LLCI	ULCI
Constant	11.5230	2.9961	3.8460	0.0002	5.5883	17.4576
CEO Power 2017	-0.0573	0.0833	-0.6884	0.4926	-0.2222	0.1076
Diversity	-0.0135	0.0507	-0.2669	0.7900	-0.1139	0.0868
CEO Tenure	0.0246	0.0613	0.4010	0.6892	-0.0969	0.1461
Headcount	-0.0014	0.0017	-0.8007	0.4250	-0.0048	0.0020

Market Value	0.0000	0.0000	4.5614	0.0000	0.0000	0.0000
Company Age	0.0049	0.0077	0.6358	0.5261	-0.0104	0.0203
Model 4						
R	R-sq	MSE	F	df1	df2	p
0.4041	0.1633	16.9891	3.7406	6.0000	115.0000	0.0020
Variable	coeff	se	t	p	LLCI	ULCI
Constant	10.5716	3.1560	3.3497	0.0011	4.3201	16.8230
CEO Power 2018	0.0411	0.0737	0.5574	0.5784	-0.1049	0.1871
Diversity	0.0071	0.0539	0.1327	0.8947	-0.0996	0.1139
CEO Tenure	0.0025	0.0619	0.0398	0.9684	-0.1201	0.1250
Headcount	-0.0016	0.0017	-0.9352	0.3516	-0.0050	0.0018
Market Value	0.0000	0.0000	4.5099	0.0000	0.0000	0.0000
Company Age	0.0043	0.0077	0.5586	0.5775	-0.0110	0.0197

Table 6

OLS Regression: Outcome Variable - Net Profit Margin

Model 1						
R	R-sq	MSE	F	df1	df2	p
0.363	0.1318	0.0139	2.9087	6.0000	115.0000	0.0112
Variable	coeff	se	t	p	LLCI	ULCI
Constant	-0.0913	0.0879	-1.0392	0.3009	-0.2654	0.0827
CEO Power 2015	0.0035	0.0021	1.6486	0.1020	-0.0007	0.0078
Diversity	0.0027	0.0015	1.8131	0.0724	-0.0002	0.0056
CEO Tenure	0.0002	0.0017	0.0951	0.9244	-0.0033	0.0036
Headcount	-0.0001	0.0000	-1.5283	0.1292	-0.0002	0.0000
Market Value	0.0000	0.0000	2.7647	0.0066	0.0000	0.0000
Company Age	0.0001	0.0002	0.3991	0.6905	-0.0004	0.0005
Model 2						
R	R-sq	MSE	F	df1	df2	p
0.3880	0.1506	0.0136	3.3974	6.0000	115.0000	0.0040
Variable	coeff	se	t	p	LLCI	ULCI
Constant	-0.1059	0.0869	-1.2187	0.2255	-0.2779	0.0662
CEO Power 2016	0.0046	0.0020	2.3073	0.0228	0.0007	0.0086
Diversity	0.0030	0.0015	2.0282	0.0449	0.0001	0.0059
CEO Tenure	-0.0001	0.0017	-0.0361	0.9713	-0.0035	0.0033
Headcount	-0.0001	0.0000	-1.5592	0.1217	-0.0002	0.0000
Market Value	0.0000	0.0000	2.9093	0.0043	0.0000	0.0000
Company Age	0.0001	0.0002	0.3591	0.7202	-0.0004	0.0005
Model 3						
R	R-sq	MSE	F	df1	df2	p
0.3812	0.1453	0.0137	3.2587	6.0000	115.0000	0.0054
Variable	coeff	se	t	p	LLCI	ULCI
Constant	-0.0823	0.0851	-0.9671	0.3355	-0.2510	0.0863
CEO Power 2017	0.0051	0.0024	2.1410	0.0344	0.0004	0.0098
Diversity	0.0027	0.0014	1.8499	0.0669	-0.0002	0.0055
CEO Tenure	-0.0002	0.0017	-0.0946	0.9248	-0.0036	0.0033
Headcount	-0.0001	0.0000	-1.7335	0.0857	-0.0002	0.0000
Market Value	0.0000	0.0000	2.9764	0.0036	0.0000	0.0000

Company Age	0.0000	0.0002	0.1864	0.8525	-0.0004	0.0005
Model 4						
R	R-sq	MSE	F	df1	df2	p
0.3778	0.1428	0.0137	3.1920	6.0000	115.0000	0.0062
Variable	coeff	se	t	p	LLCI	ULCI
Constant	-0.1169	0.0898	-1.3021	0.1955	-0.2947	0.0609
CEO Power 2018	0.0043	0.0021	2.0563	0.0420	0.0002	0.0085
Diversity	0.0032	0.0015	2.0906	0.0388	0.0002	0.0062
CEO Tenure	-0.0002	0.0018	-0.1282	0.8982	-0.0037	0.0033
Headcount	-0.0001	0.0000	-1.5374	0.1269	-0.0002	0.0000
Market Value	0.0000	0.0000	3.0854	0.0025	0.0000	0.0000
Company Age	0.0000	0.0002	0.2182	0.8277	-0.0004	0.0005

Table 7

OLS Regression: Outcome Variable - Operating Profit Margin Before Depreciation

Model 1						
R	R-sq	MSE	F	df1	df2	p
0.5351	0.2863	0.0141	4.3591	6.0000	115.0000	0.0005
Variable	coeff	se	t	p	LLCI	ULCI
Constant	-0.1394	0.0938	-1.4849	0.1403	-0.3252	0.0465
CEO Power 2015	0.0034	0.0026	1.3091	0.1931	-0.0017	0.0085
Diversity	0.0058	0.0017	3.2949	0.0013	0.0023	0.0092
CEO Tenure	-0.0014	0.0022	-0.6386	0.5244	-0.0057	0.0029
Headcount	-0.0001	0.0006	-0.2314	0.8174	-0.0012	0.0010
Market Value	0.0000	0.0000	1.3747	0.1719	0.0000	0.0000
Company Age	-0.0001	0.0002	-0.3833	0.7022	-0.0006	0.0004
Model 2						
R	R-sq	MSE	F	df1	df2	p
0.5418	0.2935	0.0139	7.9630	6.0000	115.0000	0.0000
Variable	coeff	se	t	p	LLCI	ULCI
Constant	-0.1469	0.0878	-1.6731	0.0970	-0.3209	0.0270
CEO Power 2016	0.0039	0.0020	1.9183	0.0575	-0.0001	0.0079
Diversity	0.0059	0.0015	3.9810	0.0001	0.0030	0.0088
CEO Tenure	-0.0015	0.0017	-0.8627	0.3901	-0.0049	0.0019
Headcount	-0.0001	0.0000	-2.6426	0.0094	-0.0002	0.0000
Market Value	0.0000	0.0000	4.4629	0.0000	0.0000	0.0000
Company Age	-0.0001	0.0002	-0.4638	0.6437	-0.0005	0.0003
Model 3						
R	R-sq	MSE	F	df1	df2	p
0.5464	0.2986	0.0138	8.1589	6.0000	115.0000	0.0000
Variable	coeff	se	t	p	LLCI	ULCI
Constant	-0.1319	0.0855	-1.5425	0.1257	-0.3012	0.0375
CEO Power 2017	0.0051	0.0024	2.1300	0.0353	0.0004	0.0098
Diversity	0.0058	0.0014	3.9820	0.0001	0.0029	0.0086
CEO Tenure	-0.0017	0.0018	-0.9989	0.3199	-0.0052	0.0017
Headcount	-0.0001	0.0000	-2.8383	0.0054	-0.0002	0.0000
Market Value	0.0000	0.0000	4.5237	0.0000	0.0000	0.0000

Company Age	-0.0001	0.0002	-0.6303	0.5297	-0.0006	0.0003
Model 4						
R	R-sq	MSE	F	df1	df2	p
0.5697	0.3246	0.0133	9.2119	6.0000	115.0000	0.0000
Variable	coeff	se	t	p	LLCI	ULCI
Constant	-0.1952	0.0883	-2.2105	0.0290	-0.3701	-0.0203
CEO Power 2018	0.0062	0.0021	3.0238	0.0031	0.0022	0.0103
Diversity	0.0069	0.0015	4.5580	0.0000	0.0039	0.0099
CEO Tenure	-0.0023	0.0017	-1.3280	0.1868	-0.0057	0.0011
Headcount	-0.0001	0.0000	-2.7527	0.0069	-0.0002	0.0000
Market Value	0.0000	0.0000	4.7104	0.0000	0.0000	0.0000
Company Age	-0.0001	0.0002	-0.6619	0.5093	-0.0006	0.0003

Table 8

OLS Regression: Outcome Variable - Gross Profit Margin

Model 1						
R	R-sq	MSE	F	df1	df2	p
0.5832	0.3402	0.0345	5.1298	6.0000	115.0000	0.0001
Variable	coeff	se	t	p	LLCI	ULCI
Constant	-0.2208	0.1560	-1.4159	0.1595	-0.5298	0.0881
CEO Power 2015	0.0040	0.0041	0.9727	0.3327	-0.0041	0.0121
Diversity	0.0096	0.0028	3.3996	0.0009	0.0040	0.0151
CEO Tenure	-0.0039	0.0032	-1.2403	0.2174	-0.0102	0.0023
Headcount	-0.0001	0.0005	-0.2359	0.8140	-0.0011	0.0009
Market Value	0.0000	0.0000	1.2410	0.2171	0.0000	0.0000
Company Age	-0.0003	0.0004	-0.8252	0.4109	-0.0011	0.0004
Model 2						
R	R-sq	MSE	F	df1	df2	p
0.5783	0.3344	0.0348	9.6287	6.0000	115.0000	0.0000
Variable	coeff	se	t	p	LLCI	ULCI
Constant	-0.1998	0.1389	-1.4385	0.1530	-0.4749	0.0753
CEO Power 2016	0.0020	0.0032	0.6110	0.5424	-0.0044	0.0083
Diversity	0.0091	0.0023	3.9036	0.0002	0.0045	0.0138
CEO Tenure	-0.0035	0.0027	-1.2886	0.2001	-0.0090	0.0019
Headcount	-0.0001	0.0001	-1.4816	0.1412	-0.0003	0.0000
Market Value	0.0000	0.0000	5.4719	0.0000	0.0000	0.0000
Company Age	-0.0003	0.0003	-0.9279	0.3554	-0.0010	0.0004
Model 3						
R	R-sq	MSE	F	df1	df2	p
0.5834	0.3404	0.0345	9.8900	6.0000	115.0000	0.0000
Variable	coeff	se	t	p	LLCI	ULCI
Constant	-0.2036	0.1351	-1.5068	0.1346	-0.4711	0.0640
CEO Power 2017	0.0045	0.0038	1.1916	0.2359	-0.0030	0.0119
Diversity	0.0094	0.0023	4.0971	0.0001	0.0048	0.0139
CEO Tenure	-0.0041	0.0028	-1.4672	0.1450	-0.0095	0.0014
Headcount	-0.0001	0.0001	-1.6156	0.1089	-0.0003	0.0000
Market Value	0.0000	0.0000	5.4842	0.0000	0.0000	0.0000

Company Age	-0.0004	0.0003	-1.0176	0.3110	-0.0010	0.0003
Model 4						
R	R-sq	MSE	F	df1	df2	p
0.6116	0.3741	0.0327	11.4536	6.0000	115.0000	0.0000
Variable	coeff	se	t	p	LLCI	ULCI
Constant	-0.3112	0.1385	-2.2462	0.0266	-0.5855	-0.0368
CEO Power 2018	0.0090	0.0032	2.7721	0.0065	0.0026	0.0154
Diversity	0.0114	0.0024	4.8099	0.0000	0.0067	0.0161
CEO Tenure	-0.0054	0.0027	-1.9966	0.0482	-0.0108	0.0000
Headcount	-0.0001	0.0001	-1.6327	0.1053	-0.0003	0.0000
Market Value	0.0000	0.0000	5.6720	0.0000	0.0000	0.0000
Company Age	-0.0004	0.0003	-1.1149	0.2672	-0.0011	0.0003

Table 9

OLS Regression: Outcome Variable - Return on Assets

Model 1						
R	R-sq	MSE	F	df1	df2	p
0.3720	0.1384	0.0058	3.0779	6.0000	115.0000	0.0079
Variable	coeff	se	t	p	LLCI	ULCI
Constant	0.2192	0.0567	3.8659	0.0002	0.1069	0.3315
CEO Power 2015	-0.0012	0.0014	-0.8423	0.4014	-0.0039	0.0016
Diversity	-0.0009	0.0010	-0.9618	0.3381	-0.0028	0.0010
CEO Tenure	-0.0020	0.0011	-1.7635	0.0805	-0.0042	0.0002
Headcount	0.0000	0.0000	0.8213	0.4132	0.0000	0.0001
Market Value	0.0000	0.0000	2.5052	0.0136	0.0000	0.0000
Company Age	-0.0003	0.0001	-2.1189	0.0363	-0.0006	0.0000
Model 2						
R	R-sq	MSE	F	df1	df2	p
0.3718	0.1382	0.0058	3.0740	6.0000	115.0000	0.0079
Variable	coeff	se	t	p	LLCI	ULCI
Constant	0.2189	0.0567	3.8628	0.0002	0.1067	0.3312
CEO Power 2016	-0.0011	0.0013	-0.8302	0.4082	-0.0037	0.0015
Diversity	-0.0009	0.0010	-0.9558	0.3412	-0.0028	0.0010
CEO Tenure	-0.0020	0.0011	-1.7798	0.0777	-0.0042	0.0002
Headcount	0.0000	0.0000	0.8114	0.4188	0.0000	0.0001
Market Value	0.0000	0.0000	2.4611	0.0153	0.0000	0.0000
Company Age	-0.0003	0.0001	-2.0941	0.0384	-0.0006	0.0000
Model 3						
R	R-sq	MSE	F	df1	df2	p
0.3660	0.1339	0.0058	2.9639	6.0000	115.0000	0.0100
Variable	coeff	se	t	p	LLCI	ULCI
Constant	0.2095	0.0555	3.7738	0.0003	0.0995	0.3195
CEO Power 2017	-0.0005	0.0015	-0.3412	0.7335	-0.0036	0.0025
Diversity	-0.0007	0.0009	-0.7925	0.4297	-0.0026	0.0011
CEO Tenure	-0.0021	0.0011	-1.8528	0.0665	-0.0044	0.0001
Headcount	0.0000	0.0000	0.8097	0.4198	0.0000	0.0001
Market Value	0.0000	0.0000	2.4054	0.0177	0.0000	0.0000

Company Age	-0.0003	0.0001	-2.0518	0.0425	-0.0006	0.0000
Model 4						
R	R-sq	MSE	F	df1	df2	p
0.3880	0.1505	0.0057	3.3969	6.0000	115.0000	0.0040
Variable	coeff	se	t	p	LLCI	ULCI
Constant	0.1753	0.0579	3.0294	0.0030	0.0607	0.2900
CEO Power 2018	0.0021	0.0014	1.5391	0.1265	-0.0006	0.0048
Diversity	0.0000	0.0010	-0.0470	0.9626	-0.0020	0.0019
CEO Tenure	-0.0027	0.0011	-2.4162	0.0173	-0.0050	-0.0005
Headcount	0.0000	0.0000	0.6991	0.4859	0.0000	0.0001
Market Value	0.0000	0.0000	2.3803	0.0189	0.0000	0.0000
Company Age	-0.0003	0.0001	-2.1814	0.0312	-0.0006	0.0000

Table 10

OLS Regression: Outcome Variable - Return on Equity

Model 1						
R	R-sq	MSE	F	df1	df2	p
0.2113	0.0447	0.3576	0.8960	6.0000	115.0000	0.5004
Variable	coeff	se	t	p	LLCI	ULCI
Constant	-0.2907	0.4454	-0.6527	0.5152	-1.1730	0.5915
CEO Power 2015	0.0027	0.0109	0.2441	0.8076	-0.0189	0.0242
Diversity	0.0101	0.0075	1.3461	0.1809	-0.0048	0.0250
CEO Tenure	-0.0072	0.0088	-0.8179	0.4151	-0.0247	0.0103
Headcount	0.0003	0.0002	1.1999	0.2327	-0.0002	0.0008
Market Value	0.0000	0.0000	0.4244	0.6721	0.0000	0.0000
Company Age	-0.0007	0.0011	-0.5954	0.5528	-0.0029	0.0016
Model 2						
R	R-sq	MSE	F	df1	df2	p
0.2108	0.0444	0.3577	0.8911	6.0000	115.0000	0.5040
Variable	coeff	se	t	p	LLCI	ULCI
Constant	-0.2826	0.4452	-0.6347	0.5269	-1.1645	0.5993
CEO Power 2016	0.0018	0.0103	0.1772	0.8596	-0.0185	0.0222
Diversity	0.0100	0.0075	1.3259	0.1875	-0.0049	0.0248
CEO Tenure	-0.0071	0.0088	-0.8015	0.4245	-0.0245	0.0104
Headcount	0.0003	0.0002	1.2067	0.2300	-0.0002	0.0008
Market Value	0.0000	0.0000	0.4564	0.6490	0.0000	0.0000
Company Age	-0.0007	0.0011	-0.6041	0.5469	-0.0029	0.0015
Model 3						
R	R-sq	MSE	F	df1	df2	p
0.2147	0.0461	0.3570	0.9266	6.0000	115.0000	0.4787
Variable	coeff	se	t	p	LLCI	ULCI
Constant	-0.2961	0.4346	-0.6813	0.4970	-1.1570	0.5648
CEO Power 2017	0.0059	0.0121	0.4852	0.6284	-0.0181	0.0298
Diversity	0.0104	0.0074	1.4160	0.1595	-0.0042	0.0250
CEO Tenure	-0.0079	0.0089	-0.8863	0.3773	-0.0255	0.0097
Headcount	0.0003	0.0002	1.1356	0.2585	-0.0002	0.0008
Market Value	0.0000	0.0000	0.4412	0.6599	0.0000	0.0000

Company Age	-0.0007	0.0011	-0.6382	0.5246	-0.0029	0.0015
Model 4						
R	R-sq	MSE	F	df1	df2	p
0.2137	0.0456	0.3572	0.9168	6.0000	115.0000	0.4856
Variable	coeff	se	t	p	LLCI	ULCI
Constant	-0.3291	0.4576	-0.7192	0.4735	-1.2356	0.5774
CEO Power 2018	0.0045	0.0107	0.4230	0.6731	-0.0166	0.0257
Diversity	0.0109	0.0078	1.3943	0.1659	-0.0046	0.0264
CEO Tenure	-0.0078	0.0090	-0.8736	0.3842	-0.0256	0.0099
Headcount	0.0003	0.0002	1.1957	0.2343	-0.0002	0.0008
Market Value	0.0000	0.0000	0.4671	0.6413	0.0000	0.0000
Company Age	-0.0007	0.0011	-0.6289	0.5307	-0.0029	0.0015

Table 11

OLS Regression: Outcome Variable - Return on Capital Employed

Model 1						
R	R-sq	MSE	F	df1	df2	p
0.2067	0.0427	0.0176	0.8551	6.0000	115.0000	0.5303
Variable	coeff	se	t	p	LLCI	ULCI
Constant	0.1562	0.0989	1.5787	0.1172	-0.0398	0.3521
CEO Power 2015	-0.0015	0.0024	-0.6078	0.5445	-0.0063	0.0033
Diversity	0.0011	0.0017	0.6777	0.4993	-0.0022	0.0044
CEO Tenure	-0.0023	0.0020	-1.1622	0.2475	-0.0062	0.0016
Headcount	0.0000	0.0001	0.1132	0.9101	-0.0001	0.0001
Market Value	0.0000	0.0000	0.7695	0.4432	0.0000	0.0000
Company Age	-0.0003	0.0002	-1.1753	0.2423	-0.0008	0.0002
Model 2						
R	R-sq	MSE	F	df1	df2	p
0.2296	0.0527	0.0175	1.0668	6.0000	115.0000	0.3866
Variable	coeff	se	t	p	LLCI	ULCI
Constant	0.1731	0.0984	1.7598	0.0811	-0.0217	0.3679
CEO Power 2016	-0.0029	0.0023	-1.2608	0.2099	-0.0074	0.0016
Diversity	0.0008	0.0017	0.4821	0.6307	-0.0025	0.0041
CEO Tenure	-0.0020	0.0019	-1.0253	0.3074	-0.0058	0.0019
Headcount	0.0000	0.0001	0.1396	0.8892	-0.0001	0.0001
Market Value	0.0000	0.0000	0.7917	0.4302	0.0000	0.0000
Company Age	-0.0003	0.0002	-1.1707	0.2441	-0.0008	0.0002
Model 3						
R	R-sq	MSE	F	df1	df2	p
0.2370	0.0562	0.0174	1.1408	6.0000	115.0000	0.3433
Variable	coeff	se	t	p	LLCI	ULCI
Constant	0.1623	0.0959	1.6925	0.0933	-0.0277	0.3524
CEO Power 2017	-0.0038	0.0027	-1.4197	0.1584	-0.0091	0.0015
Diversity	0.0009	0.0016	0.5524	0.5818	-0.0023	0.0041
CEO Tenure	-0.0018	0.0020	-0.9153	0.3619	-0.0057	0.0021
Headcount	0.0000	0.0001	0.2800	0.7800	-0.0001	0.0001
Market Value	0.0000	0.0000	0.7731	0.4410	0.0000	0.0000

Company Age	-0.0003	0.0002	-1.0599	0.2914	-0.0008	0.0002
Model 4						
R	R-sq	MSE	F	df1	df2	p
0.2012	0.0405	0.0177	0.8086	6.0000	115.0000	0.5652
Variable	coeff	se	t	p	LLCI	ULCI
Constant	0.1514	0.1018	1.4870	0.1398	-0.0503	0.3530
CEO Power 2018	-0.0008	0.0024	-0.3192	0.7501	-0.0055	0.0039
Diversity	0.0012	0.0017	0.7054	0.4820	-0.0022	0.0047
CEO Tenure	-0.0024	0.0020	-1.1910	0.2361	-0.0063	0.0016
Headcount	0.0000	0.0001	0.0911	0.9276	-0.0001	0.0001
Market Value	0.0000	0.0000	0.6777	0.4993	0.0000	0.0000
Company Age	-0.0003	0.0002	-1.1300	0.2608	-0.0008	0.0002

Conclusion

The literature points to a complex dynamic whereby a chief executive officer has control and influence over others, most notably subordinates and the board of directors at times. Yet even CEOs who serve as board chairs face checks and balances in the form of governance. Power comes in various strength levels based on several factors such as the individual, company, environment, and timing. As the current environment seemingly favors community engagement and diversity initiatives aligned with corporate social responsibility, these are important considerations for CEOs and boards of directors. The theoretical linkage of these variables is presented, but further scrutiny and application of real-world data is needed to determine whether these associations remain in all contexts.

The conceptual model designed in this study serve as a compilation of closely related research to build upon the knowledge put forth by other researchers. It also sought to determine the use of operational measures that differed from prior research for the following variables: CEO power, community, and diversity. At the same time, this study preserved many of the operational measures used for financial performance while adding new measures that were aligned with company outcomes. The conceptual model and corresponding hypotheses sought to provide answers to the research question concerned with the association of CEO power and business outcomes.

Sound and robust statistical techniques were employed to test the study's four hypotheses. Care was taken to determine and substantiate that the residual plots conformed to a linear pattern, thereby allowing the use of SPSS and OLS regression. The analysis also examined the presence of homoskedasticity as well as heteroscedasticity and applied the appropriate corrective measures for the latter. The findings did not support the first two hypotheses concerning the positive relationship between CEO power and diversity, and community-focused corporate social responsibility mediating the positive relationship between CEO power and diversity. However, the findings selectively supported the positive relationship between diversity and firm performance (specifically net profit margin, operating profit margin before depreciation, and gross profit margin). Statistical significance was also identified for the positive relationship between CEO power and firm performance (specifically net profit margin, operating profit margin before depreciation, and gross profit margin). Therefore, the results support the narratives that CEOs have some influence over how firms operate financially and that diversity plays a key role in positively affecting value.

CHAPTER 3

STUDY TWO: ORGANIZATIONAL SLACK

Introduction

The previous study examined several relationships: the direct association of power held by chief executive officers and financial performance, the inclusion of diversity as a mediating variable, and the placement of corporate social responsibility community scores as a moderating variable. While the results have illuminated key managerial implications that inform professional practice, the design of the conceptual model did not explicitly consider other actions taken by leaders and top management teams. Instead, there was an implicit assumption that the impact of CEO actions was represented through the outcome variable of firm performance. The decisions enacted by CEOs require more detailed scrutiny. They also underscore the need for a more intricate and interconnected framework to understand how the setting of internal and external resources—organizational slack—demonstrates the connection between management purview and the broader landscape.

The association between CEO power and diversity underscores a commitment by the leader to implement, execute, and sustain this organizational priority. While a CEO's actions are explicit in this model, the funding mechanism remains implicit. Resources in the form of finances and people are required to manage diversity within a firm. Some organizations may already allocate these resources within an existing operating budget. Other companies may rely on excess resources to fund diversity commitments. The consideration of these funds is aligned with organizational slack since the setting of the numerical value of this variable impacts the strategic choices that companies make.

The proposed study aims to explore organizational slack as the mechanism that leaders set to determine resource levels and how the intersection of these variables affect financial performance and corporate risk. This research selects organizational slack as the focal construct, which is readily measurable and quantifiable. The study also integrates the previous chapter's concepts of CEO power and firm performance. In order to differentiate this study from existing research, new variables are included to reflect the broader landscape of the political environment and CEO decision making. Politics is selected and adapted to serve as an influencing variable of organizational slack. Moreover, in this context, politics is closely associated with the economic climate which businesses rely on to understand and make decisions. The study also moves beyond firm performance to assess a closely related parameter: credit risk. This variable not only categorizes the creditworthiness of business organizations, but also serves as a potential assessment of the strategies set forth by top management teams.

Literature Review

Organizational slack is defined as unencumbered resources that fall under the control and will of management (Dimick & Murray, 1978). Non-human resources that are currently in use and committed to a specific purpose are excluded from this definition. The research does not distinguish between resources that are in a temporary state of idleness and those that are permanently so. In such circumstances, it could be difficult to categorize the resources appropriately. The second condition to satisfy the definition of organizational slack is important. Slack, on its own, cannot be utilized for a specific purpose. Human involvement in the form of management is necessary to bring these resources to bear. Likewise, measurement of organizational slack resources is vital as management seeks to quantify this construct. An earlier study used the mean profit over five years as a proxy for organizational slack (Dimick & Murray, 1978). The authors maintain that this variable can be measured differently.

A later study expands the boundaries of organizational slack. Specifically, organizational slack consists of personnel and financial resources (Nohria & Gulati, 1995). The addition of human labor implies that the workforce is not a dedicated resource. In applying the same standard to labor, workers are sometimes considered a variable expense. While fixed inputs of human labor could dispel such a determination, salaried employees are known to work on a variety of projects and have excess capacity at times. The financial metrics, which serve as indicators of organizational slack, are consistent with the earlier literature. Beyond the broader definition of organizational slack, it is further delineated. Singh (1986) described two kinds of organizational slack, absorbed and unabsorbed. The former differs from the generalized definition and is characterized as existing expenses (i.e., selling, general, and administrative costs and working capital). The latter is aligned more closely with the broader definition of organizational slack and the examples provided include resources that are easily converted to cash.

The specific placement of organizational slack is explored in research. According to Geiger and Cashen (2002), organizational slack exists both within and outside of the firm. This framework provides a new way to conceptualize organizational slack. Slack that is internal to the firm is considered absorbed and unabsorbed (Geiger & Cashen, 2002). Meanwhile, slack that is external to the firm consists of outside resources and is primarily considered debt. External organizational slack recognizes that companies do not always have the capabilities that they need. In these situations, going to outside financial markets connects firms with the capital required to facilitate goal attainment. Geiger and Cashen (2002) set an additional condition and parameter whereby organizational slack is under the direction of leaders who set policy and directives.

So far, the research on organizational slack has focused on particular subsets of the variable, while sometimes eschewing the holistic and encompassing nature of the construct. Some studies chose to concentrate on slack as a financial measure within and outside the firm (Dimick & Murray, 1978; Singh, 1986; Geiger and Cashen, 2002; Lee, 2015, Guha, 2016; Wefald et al., 2010b; Bourgeois III, 1981; Su, Xie, & Li, 2009; Peng et al., 2010), whereas other studies consider organizational slack as a human resource (Nohria & Gulati, 1995; Mishina et al., 2004). These approaches might be because the research designs aligned with specific operational metrics.

However, early research subscribed to a far more holistic and encompassing view of organizational slack. One study found that organizational slack takes on many functional forms that include “(1) as an inducement for organizational actors to remain within the system, (2) as a resource for conflict resolution, (3) as a buffering mechanism in the workflow process, or (4) as a facilitator of certain types of strategic or creative behavior within the organization.” (Bourgeois III, 1981, p. 31). An interpretation of this construct indicates that organizational slack provides managers with the ability to maintain a purpose within the organization and its corresponding policies and procedures.

When there is conflict because of goal incompatibility, organizational slack provides for a means of generating a solution that is aided by the allocation of resources. The buffering mechanism referred to in the literature manifests itself as a contingency plan, creating the capacity to deal with unplanned consequences. Finally, organizational slack is the conduit that firms employ to embark on strategic priorities and align staff actions accordingly.

For the purposes of this study, the description of organizational slack will adhere to the one put forth by Bourgeois III (1981). It is important to understand the association between this variable and how organizations perform in the marketplace. The presence of several studies exists that support the relationship between organizational slack and improved company performance (Lee, 2015). This discovery casts organizational slack in a positive light without any bounds. The results of the study did not find that a curvilinear relationship existed between the two variables (Lee, 2015). Notably, the study on the relationship between organizational slack and innovation of firms in Korea did not find support for this association (Lee, 2015). The location of the study is informative as there may be limited generalizability to other developed nations.

Yet, an examination of publicly traded firms in China showed an association between unabsorbed organizational slack and growth as companies navigate a changing economy that becomes more sophisticated (Su et al., 2009). These findings point to variability within Asia, but Korea and China represent two very different types of economies; the former is a developed nation, and the latter is an emerging market. Both conditions could also be valid depending on firm and market characteristics. The two countries did share similarities to the research studies. They did not identify a U-shaped relationship between the two variables for firms in China (Su et al., 2009).

The research further analyzed the role of the environment and its economic implications. In climates with significant resources, the association between organizational slack and financial outcomes was found to be even more diminished when compared to settings with low munificence (Su et al., 2009). Environments characterized by an abundance of resources are likely to provide organizations with a robust set of opportunities. Likewise, firms that operate in a scarce resource environment lack certain business prospects and must rely on organizational slack to create additional value. Consequently, business climates characterized by greater vibrancy were found to have a stronger association between organizational slack and company growth (Su et al., 2009).

In another study of publicly traded firms in China, there is a strong relationship between overall organizational slack and financial outcomes (Peng et al., 2010). The findings show broader support for the association. Unlike previous research that concentrates on the private marketplace (Su et al., 2009), this study examines the role of the public sector. CEO duality was found to have opposite effects, decreasing for state-owned enterprises and increasing for privately owned enterprises, on the relationship between organizational slack and financial results (Peng et al., 2010). For CEOs who are also the Chairpersons of the board of directors in the private sector, they are likely to have greater discretion. Leaders in state-owned enterprises are not expected to have the same level of autonomy. The controlling nature of the government explains this restriction and the dampening impact on slack and performance.

A survey of state-owned enterprises in one sector situated in Northern China revealed that discretionary funds and debt financing, which are forms of unabsorbed slack, have been associated with positive financial outcomes (Tan & Peng, 2003). By going into the market to secure resources, firms can deploy capital towards revenue-producing activity. It also demonstrates that state-owned enterprises operate like private companies in this regard. However, the research found empirical evidence that supports the hypothesis that absorbed slack has a deteriorating impact on financial outcomes (Tan & Peng, 2003). A potential explanation for this observation is that absorbed slack is already included in the cost structure and therefore has greater constraints. Absorbed slack was not seen as being completely detrimental to performance.

Beyond the studies of organizational slack in Korea and China, findings from Brazil demonstrate how organizational slack has a performance-based association. Through the use of an inductive case study focusing on manufacturing firms, the research found that various forms of organizational slack allowed the companies to pursue geographic dispersion (Carneiro et al., 2018). The diversification of an organization’s geographic footprint not only has an impact on revenue, but also can serve as an effective risk management strategy. It is important to note that these firms performed exceptionally well in the domestic market of Brazil and the expertise gained there, coupled with the limitations of growth at home, led the firms to pursue an international strategy (Carneiro et al., 2018). Organizations that lack economic viability may not have the capacity to pursue an expansion strategy. Moreover, companies that do not hold leadership positions in their home markets may not have sufficient organizational slack capabilities. Similar to Brazil, an examination of publicly traded firms in Taiwan showed support for the positive relationship between organizational slack and geographic diversification and expansion in terms of speed, extent, and unevenness (Lin, 2014).

In publicly traded United States-based firms, robust financial slack was found to mitigate the tendency of curbing acquisitions and lessening the desire to sell off parts of the organization when the company did not perform well (Kuusela et al., 2017). Market forces would normally place constraints on companies. Slack appears to defy shareholders' expectations by encouraging companies to pursue growth strategies. In these situations, slack provides organizations with the ability to resist certain pressures. The research, however, does not indicate a time horizon whereby financial slack provides organizations with indefinite immunity. The protections offered by slack may, therefore, be fleeting. These actions may not represent the best interests of companies and shareholders. Early research on organizational slack indicates that it is associated with ineffective business practices and places companies at a disadvantage in terms of qualifying for government funding through economic development entities (Paul & Ebadi, 1987).

There are occasions when companies eschew remaining the same or increasing size for a variety of reasons. When companies opt to reduce their size and do so after going through business changes, there is a strong correlation with absorbed slack from the previous period (Love & Nohria, 2005). This finding establishes the relationship between slack and the fundamental structure of organizations. Slack is also positioned as a leading indicator before businesses make changes. Absorbed slack from the previous period is associated more with fluctuations in businesses tied to smaller and focused reductions than larger and more encompassing rightsizing (Love & Nohria, 2005). These observations set parameters and strongly indicate that modest adjustments are set to occur. Likewise, past absorbed slack is correlated more with company reductions that are in response to unforeseen situations (Love & Nohria, 2005). This finding suggests that organizational slack takes on a reactive characteristic.

While previous research suggests that companies may pursue acquisitions because of slack (Kuusela et al., 2017), alternative empirical evidence did not support the notion that organizational slack (predictor variable) leads a company to branch out into new areas through purchases (outcome variable) during adverse business climates prior to the commencement of a recessionary climate (Alessandri et al., 2014). This situation is not necessarily a contradictory finding. The alignment between the two studies would suggest that firms in financial trouble could focus on potential acquisitions in areas that the company already has a business presence. Accordingly, firms may concentrate on maintaining their current size. Research by Alessandri et al. (2014) placed an additional parameter, namely the introduction of an economic downturn as a control variable. It is possible that this condition may have curtailed support for a company embarking on mergers and acquisitions.

One study addresses the issue of timing and makes a distinction between failure and success. There is a differential in available organizational slack levels among firms, specifically the chemical and allied products industry, in failing health and those that can sustain longevity with more pronounced reductions in slack in the five-year period that proceeds bankruptcy (Guha, 2016). The findings would seem to indicate that higher levels of slack are correlated with a firm's ability to endure. The limitations of these observations are that they correspond to specific industries and may not be representative of the overall business landscape. Caution is required so as not to infer that slack automatically leads to superior financial performance and the avoidance of failure such as bankruptcy.

The role of human slack should not be discounted because it has its place within the relationship between organizational slack and firm performance. The research found support for organizational slack occurring when information asymmetry is present in favor of the manager and when managers do not face the consequences of failure because the firm lacks effective monitoring and enforcement measures (Antle & Eppen, 1985). Having perfect information asymmetry is not a commonplace occurrence. One party usually has more information relative to the other, resulting in a power imbalance. Furthermore, unless blatantly obvious, both parties might not have the awareness level that information is not evenly held. The organizational culture and the way that the company handles missteps is a significant consideration. In the situation where the firm lacks the proper internal mechanisms, managers who do not face retribution because of or despite this are well-positioned to create and utilize organizational slack.

There is competing research that establishes empirical evidence that effective use of human resources promotes an aversion to organizational slack. A model on employee ownership of companies puts forth that staff engagement (predictor variable) leads to more productive business results (mediating variable) and in turn the reduction of organizational slack (outcome variable) (Paul & Ebadi, 1987). A distinction in this research is that employee shareholders tend to function like other investors with the aim of maximizing the equity value of the company. Employees may therefore view organizational slack as waste, discounting its potential long-term implications. Such an approach would call for employee ownership to favor a reduction in excess capacity and idle resources.

The behavior and motivations of CEOs, managers, and employees and the corresponding association on organizational slack has so far been explored in the literature. Organizational slack in the form of working capital and expenses was not only positively correlated with a propensity toward risk in terms of pricing decisions, but also considered a credible indicator of human behavior in a strategic business context (Moses, 1992). This type of slack is deemed absorbed because it is already within the existing structure of the organization. The pursuit of slack in these conditions suggests an inclination to leverage revenue-producing opportunities. Moreover, the research explicitly points to human actions aligned with business goals. This interconnection portrays the intent as purposeful rather than reactionary or haphazard. In interpreting this research, rationality is assumed on the part of the business organization.

Slack and financial results show inconsistent findings. A study of 359 companies over an eight-year period did little to settle this debate (Wefald et al., 2010b). Limited support was found for the hypothesis that an inverse U-shaped relationship exists between available slack and company performance measures, specifically return on assets. Empirical evidence exists for the association between absorbable slack and average worker productivity. When industry is considered, the association between available slack and company outcomes is present for average worker productivity (retailing of consumer goods and computer & software manufacturing) and return on investment as well as return on equity (consumer goods manufacturing). An examination of absorbable slack identified empirical results for average worker productivity (retailing of consumer goods and computer & software manufacturing).

A separate study finds that organizational slack is positively correlated with financial improvement performance in lines of business, controllers (finance professionals) who concentrate on supporting the managerial choice selection process, and the previous period's slack levels (Indjejikian & Matejka, 2006). This research demonstrates the critical intersection between organizational slack and the human actor, who operates in a managerial and leadership capacity. A more granular look at the components of organizational slack revealed a supported association between superior firm outcomes and absorbed and unabsorbed organizational slack (Singh, 1986). These findings imply that there is not a meaningful distinction between resources that are encumbered or available. This study found support for absorbed slack as a mediator for performance and decisions based on risk.

Considering environmental factors could also result in varying findings. One study found support for the correlation between organizational slack (independent variable) and company financial outcomes (dependent variable) when the environment is unexpectedly in a state of flux and conventional approaches do not hold (Wan & Yiu, 2009). Research showed that outside of this period, there is a negative relationship. Beyond a direct connection, organizational slack also functions as a moderator that increases the strength of the interaction between the firms' purchasing activity and financial outcomes during the "environmental jolt" period (Wan & Yiu, 2009, pp.794–795).

Finally, when contemplating research on organizational slack, there are important considerations to keep in mind. Researchers should take care to think about the impact that extreme data points have on skewing statistical analysis (Wefald et al., 2010a). This process requires a level of scrutiny to ensure that those measures do not distort the interpretations. Controlling for these outliers is critical. Moreover, research into firms that have similar and dissimilar traits demonstrates that there are performance-based differences and points to a positive relationship between higher slack and enhanced performance (Marlin & Geiger, 2015). This research serves as a cautionary tale that even firms have a certain level of uniqueness, some of which are detailed in quantitative and secondary data and others of which are found in qualitative analysis (Appendix G). It documents the various ways that measures are defined and calculated within the literature. For this study, the preferable measures are identified within the data collection section.

Hypotheses

There are further delineations of the different types of organizational slack and specific types of operational measures commonly associated with financial outcomes. The antecedents such as politics, CEO power, and risk inform the approach taken on organizational slack. The combination identifies an ecosystem to examine the interactions among these variables and draws management implications.

Politics

Research on corporate political strategies focuses on how companies respond to the announcement as well as enactment of government policies. Hillman (2003) puts forth that government is critical to the success of business and industry because of the ability to shape the landscape and develop an atmosphere that affects growth. This dynamic suggests that government and policymakers can influence decisions made by corporations. In turn, the study shows that companies are indeed susceptible to the government induced business environment and respond accordingly (Hillman, 2003). Another theory indicates that the unique attributes of the firm will affect its political strategy. The study goes on to identify the United States as a pluralist society where companies differ on their approaches to political strategy and have divergent interests. An important consideration is that some industries will care about and be effected by politics more so than other sectors.

While the relationship between government action its effect on business is documented (Hillman & Hitt, 1999), companies deal with government in different ways ranging from a case-by-case strategy to the development of ongoing engagement. This dynamic would submit that companies seek to have a bidirectional relationship with the government to influence policies. In some cases, the relational approach aims to shape the government's proposed policies so that businesses have regulatory environments that are favorable to their self-interests. Meanwhile, Hillman et al. (2004) identify the connection between organizational slack and politics with specific observations that companies with minuscule slack levels are more engaged in the political realm because they do not have the resources to embark on other strategies. The study also reveals that the importance of the issue will determine adoption and the intensity level of countermeasures.

This study will rely on the operational measures and approaches (Hillman & Hitt, 1999; Hillman et al., 2004) that characterize politics as the control by a political party and its influence on business. The evolution of politics from internal political behavior within a company to the federal government authority held by elected officials from major political parties informed the development of the research question. The research by Hillman and Hitt (1999) and Hillman et al. (2004) is aligned with this study's focus on the impact of government on industry at an organizational level. Through prior research, the connection is made that policies enacted by politicians affect businesses. The literature also demonstrates that companies acknowledge that government actions impact their business models. Given the predominantly two-party system, this study will concentrate on the Democratic and Republican parties.

This study will aim to address the following research question (Figure 8):

Research Question 1: Is politics related to an increase in organizational slack?

Figure 8. Conceptual Model for Research Question

Organizational Slack and Firm Performance

Early research (Dimick & Murray, 1978) characterized organizational slack, operationalized as company profits, as available resources controlled by executives. Subsequent studies found that organizational slack exists internally and externally (Geiger & Cashen, 2002). Beyond this designation, organizational slack expanded beyond traditional financial measures and included human resources such as labor (Nohria & Gulati, 1995). As a concept, organizational slack is designed to promote participation, solve goal incompatibilities, regulate processes, and modify behavior (Bourgeois III, 1981).

Evidence supports the connection between organizational slack and financial performance (Peng et al., 2010; Lee, 2015). The relationship was deemed positive. This relationship, albeit at a weaker level, remains active even environments that have varying levels of resources (Su et al., 2009). While research maintains the relationship between slack and financial outcomes, unabsorbed rather than absorbed slack was found to have a stronger positive association with performance (Tan & Peng, 2003). The positive relationship between organizational slack and profitability ratios such as return on equity was supported, but only in certain industries (Wefald et al., 2010b).

The hypothesis (Figure 9) is as follows.

Hypothesis 1: An increase in organizational slack is associated with an increase in firm performance.

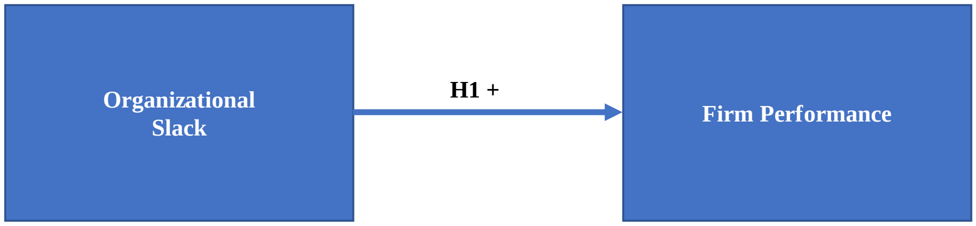

Figure 9. Conceptual Model of Organizational Slack and Firm Performance

CEO Power

While prior research points to a positive relationship between organizational slack and financial performance (Tan & Peng, 2003; Su et al., 2009; Peng et al., 2010; Wefald et al., 2010b), it does not account for the impact that an executive would have on this association. CEO duality, which is when a CEO serves as the Chair of the board of directors, functions as an operational measure of CEO power (Peng et al., 2010). The research found that CEO control had a harmful effect for state-owned enterprises and a beneficial effect on private enterprises. It was found to have an interaction effect on the relationship between organizational slack and company performance (Peng et al., 2010). The explicit premise contained in this research is that chief executive officers have control over a firm's slack resources. The actions of the CEO may not solely conform to a fiduciary responsibility, leaving the possibility that leaders may act out of personal self-interest. The separation of the chairperson of the board of directors and the chief executive officer roles as a governance measure could provide certain protections. In contrast, the unification of these positions could very well facilitate unchecked aspirations. However, the decision to allocate resources falls principally in the purview of leadership. Further research into the decision-making process with respect to resource setting reveals a multifaceted view that there is variability across firms, decisions remain highly people-centric, and the complexity of the firm plays a role (Graham et al., 2015).

Research on the association between CEO duality and organizational slack is not clear. Peng et al. (2010) studied two types of businesses, state-owned enterprise and private-owned enterprise, in China and have arrived at diverging findings. CEOs with greater power were likely to exercise their prerogatives and embark on decisions that set slack levels (Graham et al., 2015). That research indicated that complexity and market forces of environmental factors were taken into account. The amount of focus and subject matter expertise that the CEO possesses will influence the choice to retain or delegate decision-making related to financial matters such as organizational slack. Singh (1986) demonstrated support for the association between increased organizational slack and decisions made through a decentralized process. Decentralization was used to signify decisions made largely by the CEO versus other members of the management team. Considering that CEO power as defined in this study serves as a substitute for CEO duality, there is existing theory to base the development of hypothesis 2 (Figure 10).

Another manifestation of CEO power is in the form of supermajority voting rights. DeAngelo & DeAngelo (1985) described the scenario where CEOs and founders have disproportionate voting abilities relative to actual ownership because of a special class of shares. The allocation of these shares may serve as a mechanism for management to maintain control against the whims of investors. While this may shield a company from a short-term focus, it also could make management less immune to the profit maximization expectations. Even without the presence of supermajority voting rights, founders who hold the CEO designation while a company goes public tend to have greater ownership than their peers who are not founders (Nelson, 2003).

Hypothesis 2: CEO power positively affects the association between organizational slack and firm performance.

Risk

Singh (1986) found a partial association between organizational slack (specifically, absorbed slack) and risk. The study had broad management implications and some counterintuitive findings. Empirical evidence suggested that the presence of absorbed slack is correlated with optimal financial performance. Subsequent research (Moses, 1992) upholds the association between these two variables. In the defense industry, organizational slack, mainly in the form of working capital and costs, was correlated with a pricing strategy that was deemed risky (Moses, 1992). One possible explanation is that the amassing of excessive resources may serve as a protection mechanism that an organization adopts to pursue a risky course of action.

Certain interpretations explain the association between risk taking and organizational slack. Because unabsorbed slack is more noticeable, executives are likely to pursue strategies that rely on absorbed slack since these resources are less likely to raise suspicion (Singh, 1986). Absorbed slack tends to encourage risk-taking. This finding would suggest that there is a corporate mechanism in the form of the board of directors, investors, and financial controls that triggers risk mitigation measures and compels greater accountability. Resources that fall within the absorbed slack category provide company executives with flexibility and a time horizon to execute. Singh (1986) makes the connection between high risk and low levels of internal and external slack. That same research has revealed that unabsorbed slack is not directly correlated with risk; absorbed slack has been found to hold the association.

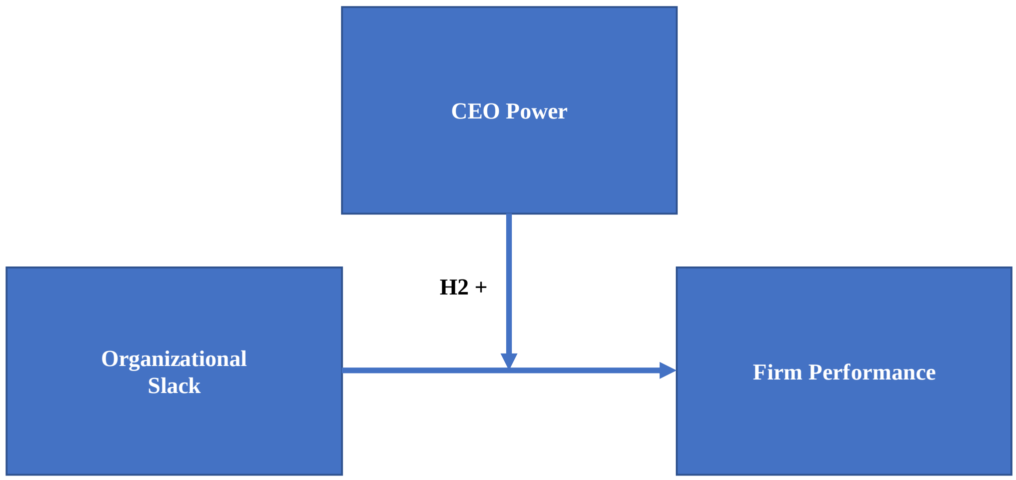

Figure 10. Conceptual Model of CEO Power, Organizational Slack, and Firm Performance

Standard and Poor’s (S&P) acknowledged that slack informs the issuance of credit ratings and is considered a positive indicator of a company’s ability to prosper (Bendig et al., 2017). Earlier research by Horrigan (1966) found a similar relationship for certain types of organizational slack, specifically in property, plant, and equipment. Because credit ratings are concerned with a company’s ability to cover debt obligations, the attention paid to slack could raise the potential that excess resources are not in the interest of equity holders (Kovach et al., 2015). The evidence (Horrigan, 1966; Standard and Poor’s, 2015) tied the concept of risk to credit rantings, which is a departure from prior research that considered risk in terms of pricing (Moses, 1992) and corporate actions (Singh, 1986).

The hypothesis (Figure 11) is as follows.

Hypothesis 3: Organizational slack is associated with an increase in credit ratings.

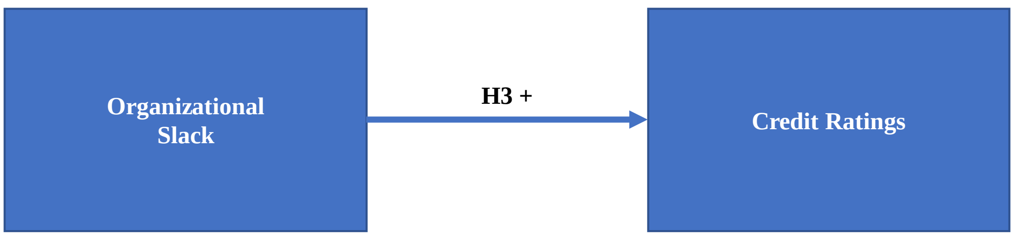

Figure 11. Conceptual Model of Organizational Slack and Credit Ratings

Data Collection

Following guidance from Adams et al. (2005), this study utilizes the Fortune 500 list of publicly traded companies and further reduces the sample size to 198 companies. The data collection relies on operational measures that are aligned with the study's conceptual model. These measures originate from secondary data for the variables of politics, organizational slack, CEO power, firm performance, and credit risk. For the politics antecedent variable that focuses on the identification of the political party that controlled the legislative and executive branches of the federal government, the United States Congress (House of Representatives, n.d.; Senate, n.d.) and the White House (n.d.) provide this historical information for the period of this study. The operationalization of politics in this study is consistent with the collection method established by Quinn and

Shapiro (1991), which focused on the federal government. Entries for Democrats and Republicans in the executive and legislative branch were converted to a numerical form, specifically 1 and 0, respectively.

The use of databases such as Capital IQ, Compustat, and Financial Ratios Suite by WRDS captures the financial statement and employee headcount data that informs internal and external organizational slack calculations. The moderating variable of CEO power comes from the corporate social responsibility ranking provider, CSRHub, which identifies a board rating. The inverse of this rating serves as a proxy for the influence held by corporate leaders. Firm performance, specifically profitability measures, are collected from the Financial Ratios Suite by WRDS database. Finally, the Compustat Ratings database contains the credit risk outcome variable from S&P in the form of ratings and a numerical representation. Relying on guidance from Peng et al. (2010), the control variables selected in this study include industry, the age of the company, dual class shares, and firm size.

Data Analysis

Following the approach conducted by Su et al. (2009), this study focuses on publicly traded companies. This allows for the consistent collection of company information and avoids the non-disclosable or sometimes hidden nature of information associated with private companies. Previous research excluded firms in the financial services industry because the debt and equity structure affected the measurement of organizational slack (Su et al., 2009). Similarly, other research did not include health care organizations (Rosner, 1968) when analyzing the data. This study did not make such exclusions because of the smaller sample size and the financial measures included returns on equity and assets.

The control variables are calculated in several ways and identified through WRDS. Unlike using R&D costs as a proxy for firm size (Geiger & Cashen, 2002), market capitalization serves as the measurement for this variable. The coding for the industry that each company operates in relies on a 2-digit SIC designation (Adams et al., 2005). Company age is displayed in years. The Institutional Shareholder Services governance data identify the presence of supermajority voting status, specifically dual class stock, for each company. The use of regression analysis tests the strength of relationships and indicates the presence of statistical significance.

Su et al. (2009) elevated the importance of return on assets on a time lag by selecting it as the operational measure for firm performance. An additional measure of firm performance will be utilized in the form of return on equity (Wan & Yiu, 2009). Whereas Su et al. (2009) examined the role of dynamism and munificence as moderators, this study has opted to select CEO power as a moderator. The CEO power variable is derived from the CSRHub corporate social responsibility rating provider. The board measure, which is a reflection of control that the board of directors has over the CEO, is subtracted from 100 to arrive at an operational measure for CEO power. This variable is used as an alternative to CEO duality (Peng et al., 2010) to signify power through control.

A time horizon is an important consideration and is set at five years from 2013 to 2017. This modification is a departure of the ten years utilized by Geiger and Cashen (2002) but is consistent with the time horizon set in the previous study that examined the relationship between CEO power and firm performance. The selection of calendar years

2013 to 2017 avoids certain events such as the aftermath of the recession of 2008 and the activation of the Trump administration's policies (i.e. 2018 and beyond). Geiger and Cashen (2002) measured available slack through the quick ratio. Lee (2015) demonstrates a preference for the quick over the current ratio because of the latter's inability to make inventory into a liquid asset. Therefore, the quick ratio is incorporated into this study. Moving beyond financial slack, another kind of measurement expands the boundaries of organizational slack and deserves to be contemplated as part of this study. A proxy for human slack is calculated by taking the aggregate number of staff and dividing it by the company's total sales (Mishina et al., 2004).

Singh (1986) and Moses (1992) established a relationship between organizational slack and risk. However, several adaptations have since taken place. Singh (1986) identified risk through a qualitative questionnaire whereas Moses (1982) used pricing strategies as a proxy for the risk variable. This study explores more direct and quantifiable measures of risk, namely credit risk ratings. Given the variation or risk categories, the designations are converted into numerical values for statistical analysis. The conscious decision to distinguish between financial results and risk attempts to ascertain the existence of a difference. Moreover, by utilizing a risk metric provided by a credit rating agency, this study minimizes the amount of subjectivity found in questionnaires and surveys.

This study views politics in a business and economic capacity and through the measurement of the political environment. Research (Quinn & Shapiro, 1991) finds support for a correlation between the controlling political party—specifically at the presidential level because of the significant control in setting tax policy—and concludes that Democrats are linked with higher corporate taxes and Republicans are known for reduced business taxes. Following the methodology set forth by Quinn and Shapiro (1991), Democratic and Republican presidents are coded as 1 and 0, respectively. Assigning binary numbers to the two political parties might set a condition where one party is associated with positive business performance.

A financial study provided evidence that the stock market preferred an executive branch controlled by a Republican but this predilection is fleeting and does not extend to the long term (Riley Jr., & Luksetich, 1980). The tax cuts announced in 2017 by the Republican controlled government led to companies publicly expressing their intent to pursue share buy backs (Olorunnipa, 2017). Gup and Nam (2001) found that companies engaged in share buybacks achieved superior financial returns than organizations that declined to perform this practice, especially when considering economic value added. This situation has important implications on the relationship between politics and organizational slack because the decision to engage in stock buy backs are likely to reduce or eliminate slack resources.

The prior research (Quinn & Shapiro, 1991) also utilized control variables for majority control in the Senate but excluded the House of Representatives. In this study, both houses of the United States Congress are included in the analysis and considered central to the political power index. Because these branches are co-equal as outlined in the United States Constitution, they are weighted the same. For example, Democratic and Republican control receive a binary number of 1 and 0, respectively. In the case of divided government between the House of Representatives and the Senate, a mean is taken of the sum. The executive and legislative scores are averaged to arrive at a total political power index. Unlike conditions found in the research by Quinn and Shapiro (1991), which principally considered data from 1954 to 1979, the current environment requires the acceptance of Congress to modify tax policy.

In consideration of the aforementioned methodologies pertaining to politics, organizational slack, financial performance, and credit risk; the operational measures for the antecedent, construct, moderator, and outcomes are summarized in Table 12.

Table 12

Summary of Organizational Slack Variables, Operational Measures, and Data Sources

Variable	Operational Measure	Data source
Politics	Code 1 for Democratic control and 0 for Republican control	Websites for House of Representatives, Senate, and White House
Available slack	Quick ratio	Compustat
Potential slack	Debt to equity ratio	Compustat
Human slack	Total employees / sales	Compustat, Capital IQ
CEO Power	100 – Board rating	CSRHub
Financial performance	Return on equity Return on assets	Financial Ratios Suite by WRDS
Credit risk	S&P credit ratings	Compustat Ratings

This study relies on EViews to perform fixed effects regressions on panel data that contains a cross section identification and date series (Agung, 2013; Aljandali & Tatahi, 2018). According to EViews (2019), the program's approach to fixed effects regression is "handled using orthogonal projections" followed by a series of steps that consists of "…removing cross-section or period specific means from the dependent variable and exogenous regressors, and then performing the specified regression using the demeaned data." A key advantage of fixed effects regression is that it "discards the between variation and infers the causal effect from the within variation only" (Brüderl & Ludwig, 2015, p. 331). Because the presence of heteroskedasticity produces unreliable standard errors and p-values (Hill, et al., 2018), cluster robust standard errors address this issue through the application of the White period coefficient covariance method in EViews (Griffiths & Hill, 2019); this approach, which is considered a routine practice (Abadie et al., 2017), is suggested by Griffiths and Hill (2019), but remains problematic because it can produce biased results (Moody, et al., 2018). A comparison of the effect on the p-values between the two approaches are found in Appendix H.

Because the top 198 publicly traded companies constitute a sample size from the 2018 Fortune 500 list for a five year period from 2013 to 2017, there are total of 990 observations in the data set. Not all observations contain data. Some companies were not publicly traded during the entire time horizon. Other newly formed organizations were the products of mergers and acquisitions that occurred sometime during the time horizon. Meanwhile, the vendor sources through the Wharton Data Research Services (WRDS) platform and CSRHub did not have data for all 990 observations. In these situations, alternative data sources were utilized within WRDS to manually calculate the operating measures for organizational slack, return on equity, and return on assets. The Compustat Ratings database only contained S&P ratings for a subset of the sample size.

EViews accounts for these data limitations and performs the statistical analysis of the observations that contain numerical data. The reductions in these observations are noted in two critical areas of the data analysis output: cross-sections and total panel observations. There are between 196 and 197 companies that have observations ranging from 947 to 969 for the regressions that identify return on equity and return on assets, respectively, as dependent variables. Similar statistical analysis that considers credit risk ratings as the response variable encompass data for 180 companies and 873 to 875 observations. This discrepancy highlights that there are fewer companies that have credit risk scores in the database relative to the financial measures of ROE and ROA. The companies within the sample might not have all taken on debt as part of their capital structures and therefore do not have a credit rating. Since the database used to identify credit risk scores solely has information from S&P, it is also possible that companies with liabilities are evaluated by other ratings agencies such as Moody’s and Fitch.

For the period between 2013 and 2017, there are 990 observations (Figure 12) of political control of the executive and legislative branches of the federal government. Democratic and Republican control was coded as one and zero, respectively. The data range is from zero to 0.75 during this five year period. A more detailed breakout identifies 198 observations when there was unified government in 2017. Republicans controlled the White House, House of Representatives, and the Senate. The 396 observations of 0.5 and 396 observations of 0.75 represent divided government from 2013 and 2016. Democrats controlled the White House and the Senate in the first two years of this study. Divided government continued from 2015 to 2016 as each political party controlled one branch of government. Democrats held the presidency while Republicans had a majority in Congress. The skew of the distribution is slightly negative at -0.913, which is indicative of an elongated tail to the left.

The slack variables consist of human slack, potential slack, and available slack. The 982 observations (Figure 13) of human slack have a mean and median of 0.003 and 0.002, respectively. The positive skew of 2.834 points to the distribution’s right tail. Accordingly, the kurtosis of 14 indicates the presence of a rather sharp peak. The small standard deviation of 0.003 shows the values of human slack are close to the mean. Unlike human slack, potential slack (Figure 14) and available slack (Figure 15) differ in that the standard deviations are 358 and 24, respectively. The values are further away from the mean as evidenced by the distribution. The range for potential slack is 10,084. The quick ratio has a range of 467. Like human slack, both peaks of the distribution are considered sharp. However, the peaks for potential slack and the quick ratio are much higher. The other less frequent values are barely noticeable in the histogram.

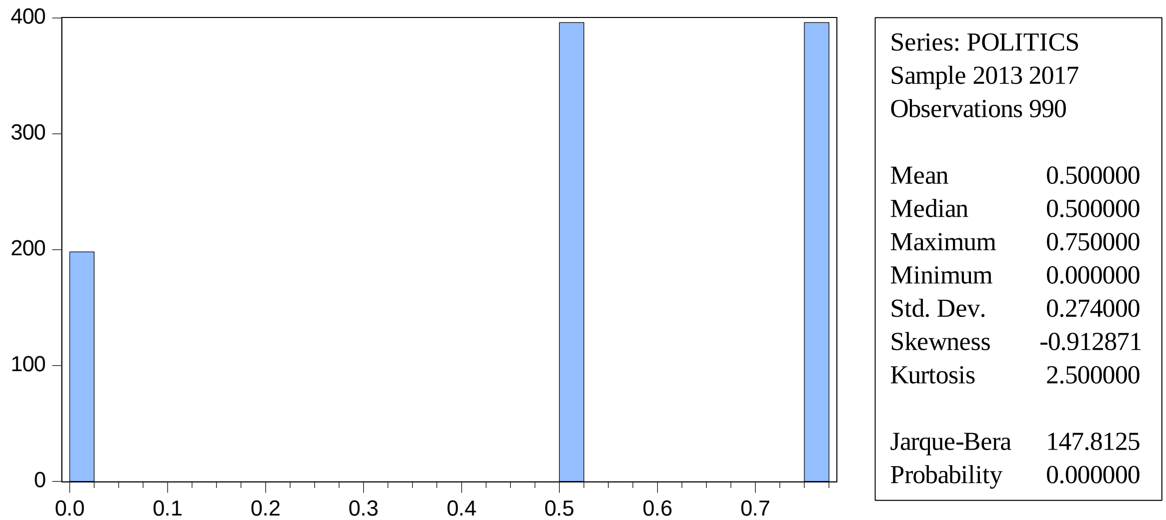

Figure 12. Political Control of the Federal Government

The moderating variable of CEO power consists of 966 observations (Figure 16). While the mean and median are similar, 46.662 and 46.475, respectively, the data depicts a wide range of 55.8325; the maximum value for CEO power is 81.69 whereas the minimum value for this measurement is 25.858 points. CEO power has a scale from 0 to 100 and the data reveals that chief executive officers neither have absolute power nor an absence of control. The data is fairly symmetrical because the mean and median are nearly identical and the skewness has a value that is close to zero. The standard deviation of 7.587 shows that the distribution values are close to and clustered around the mean. The kurtosis value, 5.489, indicates the presence of an elongated left tail. Because the kurtosis exceeds 3, the CEO power distribution has a heavier tail and sharper peak.

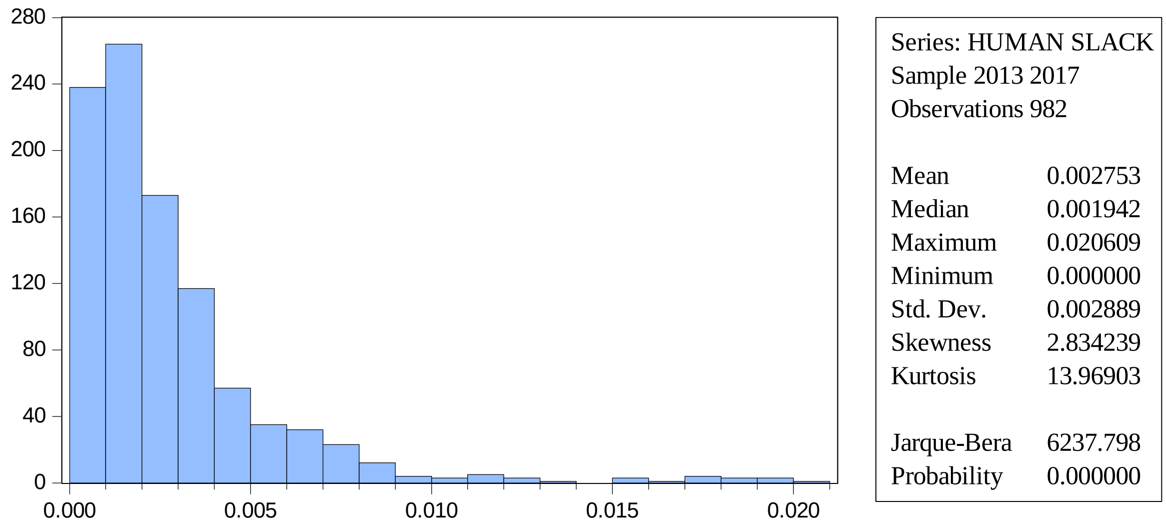

Figure 13. Organizational Slack: Human Slack

The financial response variables of return on equity (Figure 17) and return on assets (Figure 18) each have 982 observations. Although not perfect, the distributions are relatively symmetrical. ROE has a mean and median of 0.183 and 0.139, respectively. A mean of 0.14 and median of 0.13 for ROA is indicative of symmetry. A key difference in these two measures is the presence of positive skewness for return on equity and negative skewness for return on assets. Both measures share similarity in that the large kurtosis value represents sharp peaks in the distributions. ROA has less variation than ROE as demonstrated by standard deviations of 0.198 and 1.763, respectively.

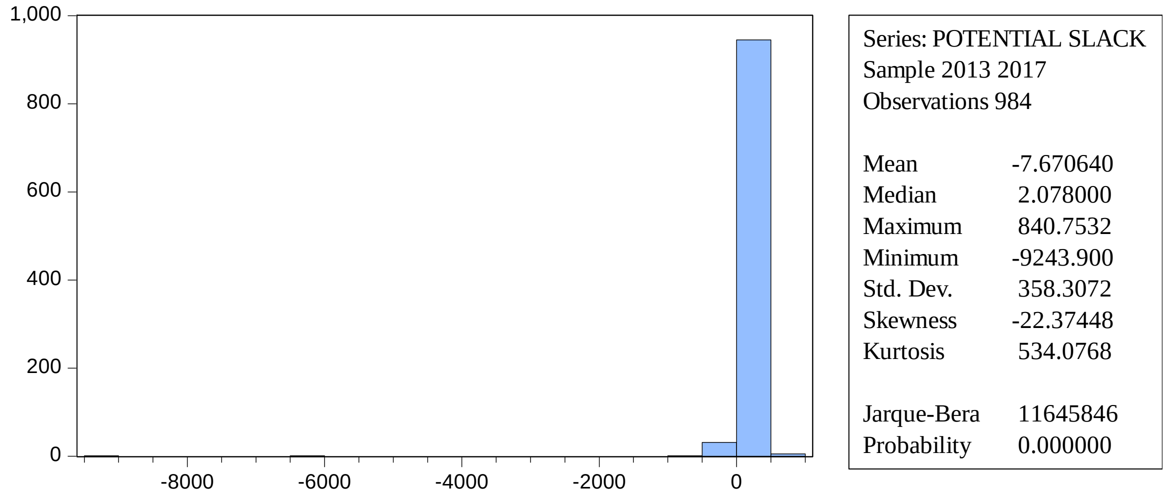

Figure 14. Organizational Slack: Potential Slack

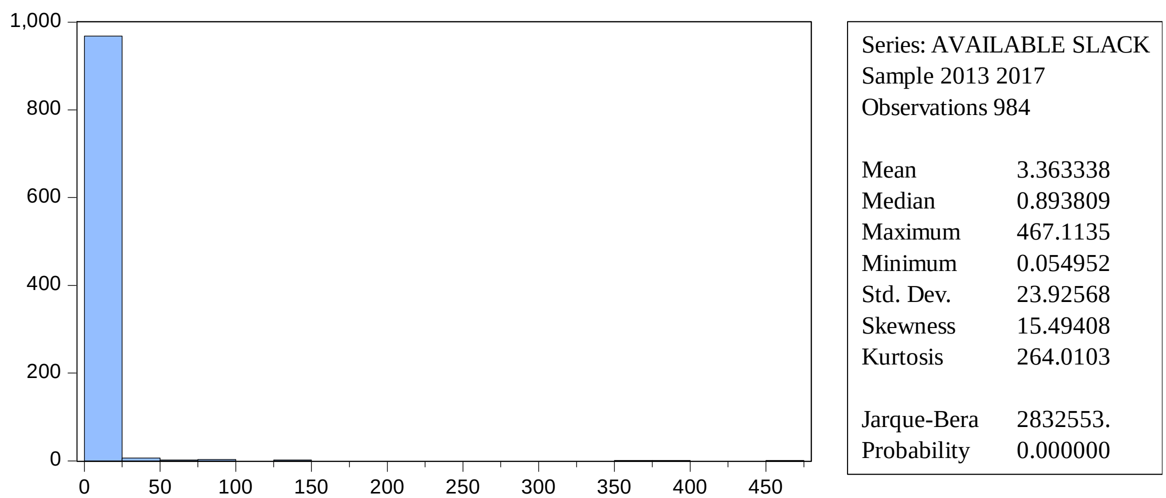

Figure 15. Organizational Slack: Available Slack (Quick Ratio)

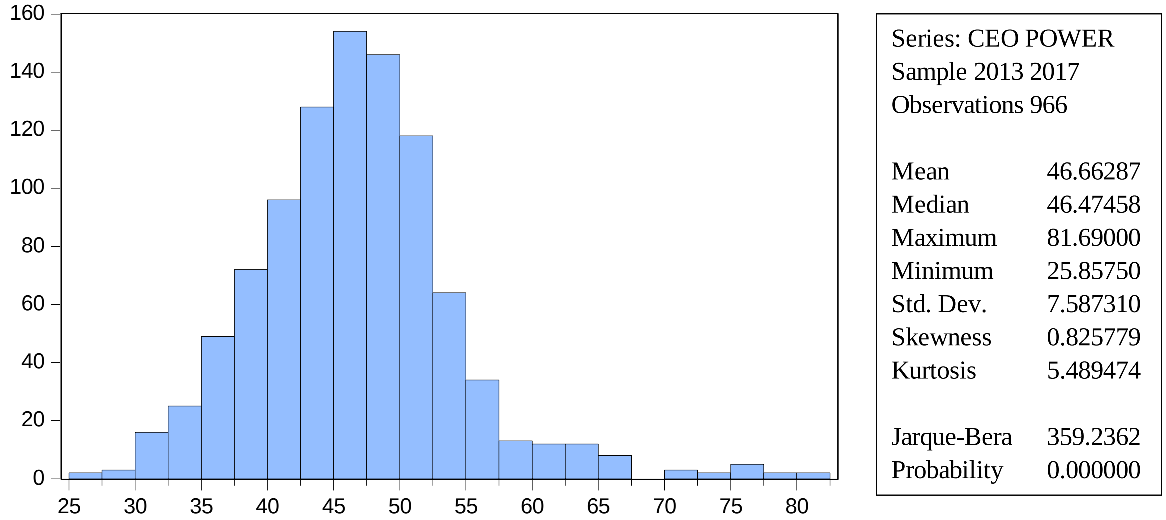

Figure 16. CEO Power

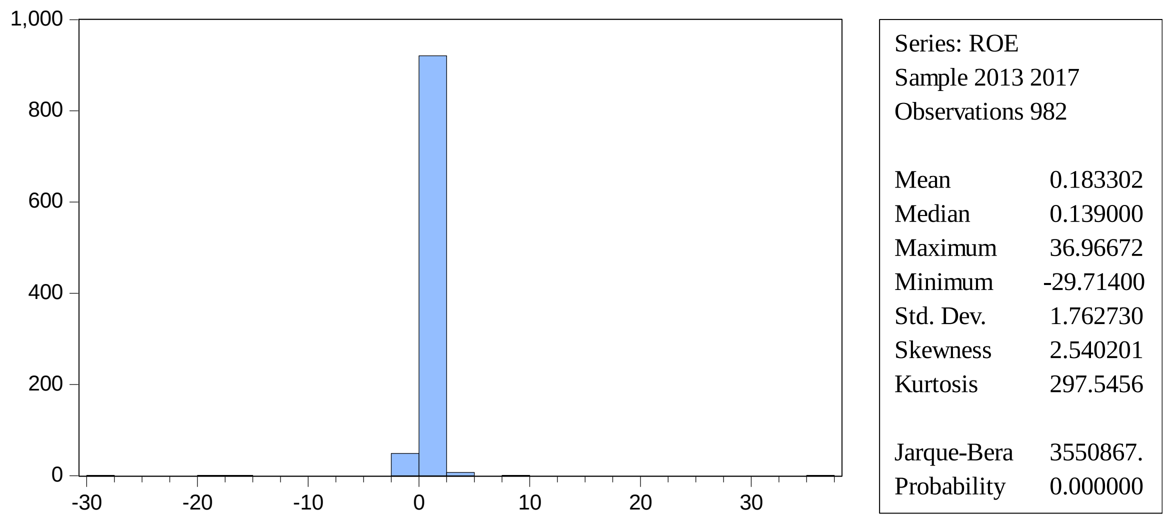

Figure 17. Return on Equity

An analysis of company ratings (Figure 19) in the sample identifies the mean and median as 7.75 and 7, respectively. Based on the numerical conversion factor (Appendix I), the companies in this sample have an average A- rating. This score is indicative of investment grade quality and low credit risk. The skewness is close to zero, which suggests a normal distribution. The kurtosis value of 3 also points to symmetry as the shape of the graph does not produce an excessive right or left tail. When considering a standard deviation that is close to 3, the credit ratings between BBB- and AA- fall within one standard deviation above and below the mean.

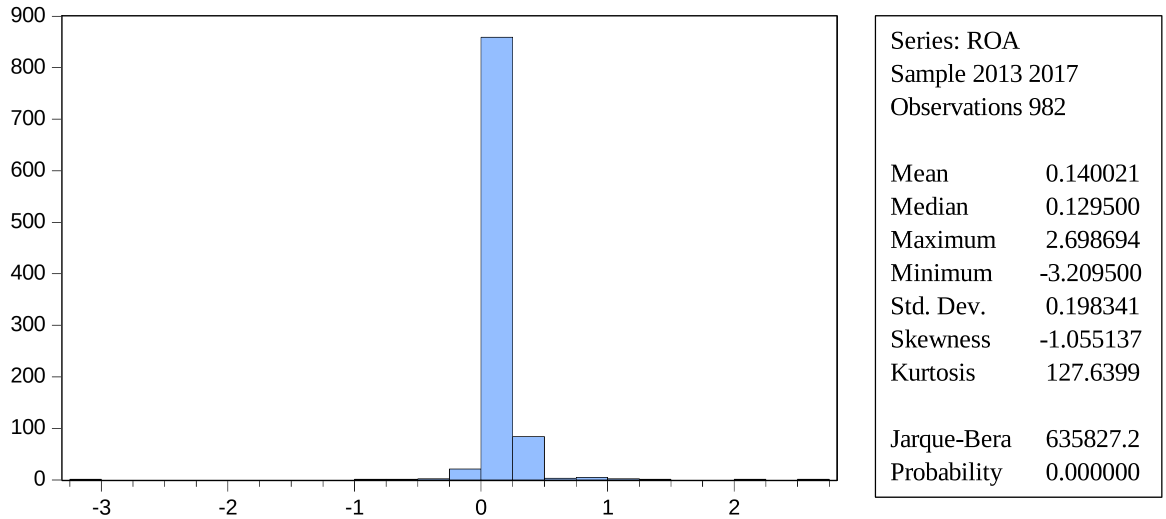

Figure 18. Return on Assets

In evaluating the nature of the data, it is longitudinal because of repeated measurements in a given period (Hsiao, 2014). The study follows 198 companies staring from calendar years 2013 to 2017 and examines the variables of politics, organizational slack, CEO power, financial performance, and credit risk scores. Within the EViews statistical software package, the data is converted into panel data through the application of the time series (calendar year) and cross-sectional (company) data for 990 observations. A requirement is that the data is structured sequentially so that the repeated measures are found in the same column (Brüderl & Ludwig, 2015). This deviates from the traditional approach of capturing data horizontally rather than vertically.

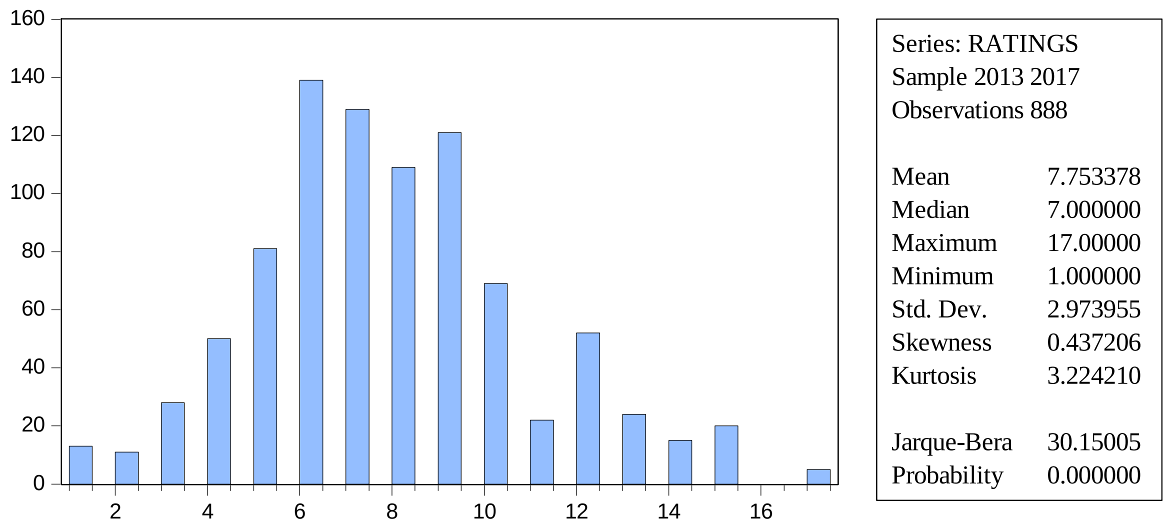

Figure 19. Ratings

The approach set forth in this study called for the inclusion of five control variables: company age, market value, number of employees, two-digit SIC code, and the presence of dual-class shares. When performing the fixed effects regression model, the EViews software identified a near singular matrix error. The company advises checking the data for multicollinearity; an analysis of the variables did not find this issue as the independent and control variables were not highly correlated according to the variance inflation factor (Table 13). There are other possibilities for the error in EViews as discussed within the program user’s guide that requires examining which variables are contributing to the problem. The removal of the SIC code and dual-class shares control variables, which were time invariant, allowed the statistical program to proceed with the fixed effects regressions. The regression analyses determine the extent of support for the research question and three hypotheses.

Table 13

Variance Inflation Factor

Coefficients						
	Unstandardized Coefficients	Std. Error	t	Sig.	Collinearity Statistics	
	B				Tolerance	VIF
(Constant)	-1.138	22.922	-0.050	0.960		
Age	-0.004	0.225	-0.019	0.985	0.990	1.010
Employees	0.011	0.067	0.159	0.873	0.923	1.083
Market Value	0.000	0.000	-0.837	0.403	0.917	1.090

After analyzing the independent and control variables for the presence of multicollinearity, the subsequent assessment is geared towards the specific regression employed in this study. Thomsen et al. (2013) advise that the near singular matrix error necessitates identifying and eliminating the variables that prevent the EViews program from running the fixed effects regression. The variables considered problematic have this designation because they are constant (Thomsen et al., 2013). The removal of these specific time invariant variables enables the program to produce the desired data analysis.

Research Question 1: Is politics related to an increase in organizational slack?

The results provided evidence that the answer to the research question is yes. The relationship between politics and human slack was statistically significant (Tables 14 and 15); politics increases human slack. The reported R-squared does raise concern. The presence of serial correlation contributes to an excessively high R-squared (Pindyck & Rubinfeld, 1988). For this reason, it is an area of exploration identified by Aljandali and Tatahi (2018). The Durbin Watson statistic (Hill et al., 2018) and the residuals plot

(Appendix J) reported suggest that serial correlation may be an issue that will require further remediation in future studies. The relationship between politics and potential slack (Tables 16 and 17) was not supported. Similar findings were found between the association between politics and available slack (Tables 18 and 19).

Hypothesis 1: An increase in organizational slack is associated with an increase in firm performance.

This hypothesis was supported for potential slack and return on equity (Table 20). Moreover, the relationship is positive. That relationship was not supported when cluster robust standard errors were applied (Table 21). The association between potential slack and return on assets is statistically significant and also has a positive coefficient (Table 22). However, clustering the standard errors did not result in a supported relationship (Table 23). The relationship between human slack and return on equity (Tables 24 and 25) was not supported. An association between human slack and return on assets (Table 26 and 27) was also not found. Likewise, a relationship between available slack and the profitability ratios (Tables 28 to 31) was not present.

Table 14

Relationship between Politics and Human Slack in 1,000s

Dependent Variable: HUMAN SLACK
Method: Panel Least Squares
Date: 04/01/20 Time: 22:27
Sample: 2013 2017
Periods included: 5
Cross-sections included: 197
Total panel (unbalanced) observations: 969

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.618452	2.498375	-1.048062	0.2949
POLITICS	0.000364	0.000155	2.354268	0.0188
AGE	0.053956	0.030129	1.790845	0.0737
EMPLOYEES	0.010502	0.000927	11.33411	0.0000
MARKET VALUE	-3.22E-06	8.46E-07	-3.808855	0.0002

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	0.502018	R-squared	0.969938
Mean dependent var	2.781470	Adjusted R-squared	0.962110
S.D. dependent var	2.896912	S.E. of regression	0.563898
Akaike info criterion	1.874498	Sum squared resid	244.2090
Schwarz criterion	2.885983	Log likelihood	-707.1941
Hannan-Quinn criter.	2.259520	F-statistic	123.8966
Durbin-Watson stat	2.314457	Prob(F-statistic)	0.000000

Table 15

Relationship between Politics and Human Slack in 1,000s Cluster Robust Standard Errors

Dependent Variable: HUMAN SLACK
Method: Panel Least Squares
Date: 04/04/20 Time: 22:28
Sample: 2013 2017
Periods included: 5
Cross-sections included: 197
Total panel (unbalanced) observations: 969
White period standard errors & covariance (d.f. corrected)
WARNING: estimated coefficient covariance matrix is of reduced rank

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.618452	3.388802	-0.772678	0.4400
POLITICS	0.000364	0.000168	2.163935	0.0308
AGE	0.053956	0.039597	1.362636	0.1734
EMPLOYEES	0.010502	0.003040	3.455017	0.0006
MARKET VALUE	-3.22E-06	1.45E-06	-2.222946	0.0265

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	0.502018	R-squared	0.969938
Mean dependent var	2.781470	Adjusted R-squared	0.962110
S.D. dependent var	2.896912	S.E. of regression	0.563898
Akaike info criterion	1.874498	Sum squared resid	244.2090
Schwarz criterion	2.885983	Log likelihood	-707.1941
Hannan-Quinn criter.	2.259520	F-statistic	123.8966
Durbin-Watson stat	2.314457	Prob(F-statistic)	0.000000

Table 16

Relationship between Politics and Potential Slack in 1,000s

Dependent Variable: POTENTIAL SLACK
Method: Panel Least Squares
Date: 04/01/20   Time: 22:32
Sample: 2013 2017
Periods included: 5
Cross-sections included: 196
Total panel (unbalanced) observations: 969

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1541825.	1624400.	-0.949166	0.3428
POLITICS	181.3430	100.5623	1.803291	0.0717
AGE	17608.44	19561.77	0.900146	0.3683
EMPLOYEES	877.4178	602.0538	1.457374	0.1454
MARKET VALUE	-1.046187	0.548053	-1.908916	0.0566

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	326479.0	R-squared	0.181582
Mean dependent var	-7825.587	Adjusted R-squared	-0.030206
S.D. dependent var	361070.5	S.E. of regression	366483.1
Akaike info criterion	28.64292	Sum squared resid	1.03E+14
Schwarz criterion	29.64937	Log likelihood	-13677.49
Hannan-Quinn criter.	29.02602	F-statistic	0.857377
Durbin-Watson stat	1.558896	Prob(F-statistic)	0.907310

Table 17

Relationship between Politics and Potential Slack in 1,000s Cluster Robust Standard Errors

Dependent Variable: POTENTIAL SLACK
Method: Panel Least Squares
Date: 04/04/20 Time: 22:35
Sample: 2013 2017
Periods included: 5
Cross-sections included: 196
Total panel (unbalanced) observations: 969
White period standard errors & covariance (d.f. corrected)
WARNING: estimated coefficient covariance matrix is of reduced rank

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1541825.	1133823.	-1.359847	0.1743
POLITICS	181.3430	130.8189	1.386214	0.1661
AGE	17608.44	13049.43	1.349365	0.1776
EMPLOYEES	877.4178	1026.790	0.854525	0.3931
MARKET VALUE	-1.046187	1.385369	-0.755169	0.4504

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	326479.0	R-squared	0.181582
Mean dependent var	-7825.587	Adjusted R-squared	-0.030206
S.D. dependent var	361070.5	S.E. of regression	366483.1
Akaike info criterion	28.64292	Sum squared resid	1.03E+14
Schwarz criterion	29.64937	Log likelihood	-13677.49
Hannan-Quinn criter.	29.02602	F-statistic	0.857377
Durbin-Watson stat	1.558896	Prob(F-statistic)	0.907310

Table 18

Relationship between Politics and Available Slack in 1,000s

Dependent Variable: AVAILABLE SLACK
Method: Panel Least Squares
Date: 04/01/20 Time: 22:38
Sample: 2013 2017
Periods included: 5
Cross-sections included: 196
Total panel (unbalanced) observations: 967

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-44555.84	55157.64	-0.807791	0.4195
POLITICS	1.268755	3.414152	0.371617	0.7103
AGE	594.3144	664.8714	0.893879	0.3717
EMPLOYEES	-4.088947	20.61189	-0.198378	0.8428
MARKET VALUE	-0.004869	0.018604	-0.261731	0.7936

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	11074.18	R-squared	0.789209
Mean dependent var	3406.723	Adjusted R-squared	0.734519
S.D. dependent var	24132.95	S.E. of regression	12434.47
Akaike info criterion	21.87627	Sum squared resid	1.19E+11
Schwarz criterion	22.88438	Log likelihood	-10377.18
Hannan-Quinn criter.	22.26005	F-statistic	14.43053
Durbin-Watson stat	3.530604	Prob(F-statistic)	0.000000

Table 19

Relationship between Politics and Available Slack in 1,000s Cluster Robust Standard Errors

Dependent Variable: AVAILABLE SLACK
Method: Panel Least Squares
Date: 04/04/20 Time: 22:39
Sample: 2013 2017
Periods included: 5
Cross-sections included: 196
Total panel (unbalanced) observations: 967
White period standard errors & covariance (d.f. corrected)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-44555.84	57306.78	-0.777497	0.4371
POLITICS	1.268755	2.571088	0.493470	0.6218
AGE	594.3144	698.3465	0.851031	0.3950
EMPLOYEES	-4.088947	4.460439	-0.916714	0.3596
MARKET VALUE	-0.004869	0.005466	-0.890763	0.3733

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	11074.18	R-squared	0.789209
Mean dependent var	3406.723	Adjusted R-squared	0.734519
S.D. dependent var	24132.95	S.E. of regression	12434.47
Akaike info criterion	21.87627	Sum squared resid	1.19E+11
Schwarz criterion	22.88438	Log likelihood	-10377.18
Hannan-Quinn criter.	22.26005	F-statistic	14.43053
Durbin-Watson stat	3.530604	Prob(F-statistic)	0.000000

Table 20

Relationship between Potential Slack and ROE in 1,000s

Dependent Variable: ROE
Method: Panel Least Squares
Date: 04/01/20 Time: 22:42
Sample: 2013 2017
Periods included: 5
Cross-sections included: 196
Total panel (unbalanced) observations: 965

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	118.0372	3245.310	0.036372	0.9710
POTENTIAL SLACK	0.000917	0.000167	5.489973	0.0000
AGE	0.971657	40.76389	0.023836	0.9810
EMPLOYEES	-1.320071	2.907501	-0.454023	0.6499
MARKET VALUE	0.001896	0.002530	0.749524	0.4538

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	1501.744	R-squared	0.285927
Mean dependent var	185.1111	Adjusted R-squared	0.100175
S.D. dependent var	1778.074	S.E. of regression	1686.665
Akaike info criterion	17.88115	Sum squared resid	2.18E+09
Schwarz criterion	18.89092	Log likelihood	-8427.654
Hannan-Quinn criter.	18.26559	F-statistic	1.539295
Durbin-Watson stat	2.419563	Prob(F-statistic)	0.000030

Table 21

Relationship between Potential Slack and ROE in 1,000s Cluster Robust Standard Errors

Dependent Variable: ROE
Method: Panel Least Squares
Date: 04/04/20 Time: 23:51
Sample: 2013 2017
Periods included: 5
Cross-sections included: 196
Total panel (unbalanced) observations: 965
White period standard errors & covariance (d.f. corrected)
WARNING: estimated coefficient covariance matrix is of reduced rank

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	118.0372	4044.567	0.029184	0.9767
POTENTIAL SLACK	0.000917	0.001108	0.828082	0.4079
AGE	0.971657	50.99442	0.019054	0.9848
EMPLOYEES	-1.320071	1.075808	-1.227051	0.2202
MARKET VALUE	0.001896	0.001698	1.116974	0.2644

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	1501.744	R-squared	0.285927
Mean dependent var	185.1111	Adjusted R-squared	0.100175
S.D. dependent var	1778.074	S.E. of regression	1686.665
Akaike info criterion	17.88115	Sum squared resid	2.18E+09
Schwarz criterion	18.89092	Log likelihood	-8427.654
Hannan-Quinn criter.	18.26559	F-statistic	1.539295
Durbin-Watson stat	2.419563	Prob(F-statistic)	0.000030

Table 22

Relationship between Potential Slack and ROA in 1,000s

Dependent Variable: ROA
Method: Panel Least Squares
Date: 04/01/20 Time: 22:46
Sample: 2013 2017
Periods included: 5
Cross-sections included: 196
Total panel (unbalanced) observations: 965

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	172.5965	348.4544	0.495320	0.6205
POTENTIAL SLACK	4.09E-05	1.79E-05	2.278769	0.0230
AGE	-0.596194	4.376888	-0.136214	0.8917
EMPLOYEES	0.161511	0.312183	0.517360	0.6051
MARKET VALUE	1.37E-05	0.000272	0.050514	0.9597

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	161.2448	R-squared	0.346035
Mean dependent var	141.5892	Adjusted R-squared	0.175919
S.D. dependent var	199.4957	S.E. of regression	181.1000
Akaike info criterion	13.41823	Sum squared resid	25089875
Schwarz criterion	14.42800	Log likelihood	-6274.297
Hannan-Quinn criter.	13.80268	F-statistic	2.034107
Durbin-Watson stat	2.891580	Prob(F-statistic)	0.000000

Table 23

Relationship between Potential Slack and ROA in 1,000s Cluster Robust Standard Errors

Dependent Variable: ROA
Method: Panel Least Squares
Date: 04/04/20 Time: 23:56
Sample: 2013 2017
Periods included: 5
Cross-sections included: 196
Total panel (unbalanced) observations: 965
White period standard errors & covariance (d.f. corrected)
WARNING: estimated coefficient covariance matrix is of reduced rank

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	172.5965	187.2964	0.921516	0.3571
POTENTIAL SLACK	4.09E-05	3.16E-05	1.291971	0.1968
AGE	-0.596194	2.353867	-0.253283	0.8001
EMPLOYEES	0.161511	0.145642	1.108957	0.2678
MARKET VALUE	1.37E-05	0.000115	0.118941	0.9054

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	161.2448	R-squared	0.346035
Mean dependent var	141.5892	Adjusted R-squared	0.175919
S.D. dependent var	199.4957	S.E. of regression	181.1000
Akaike info criterion	13.41823	Sum squared resid	25089875
Schwarz criterion	14.42800	Log likelihood	-6274.297
Hannan-Quinn criter.	13.80268	F-statistic	2.034107
Durbin-Watson stat	2.891580	Prob(F-statistic)	0.000000

Table 24

Relationship between Human Slack and ROE in 1,000s

Dependent Variable: ROE
Method: Panel Least Squares
Date: 04/01/20 Time: 22:50
Sample: 2013 2017
Periods included: 5
Cross-sections included: 197
Total panel (unbalanced) observations: 965

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	889.7786	3318.125	0.268157	0.7887
HUMAN SLACK	41.43497	109.8343	0.377250	0.7061
AGE	-9.917651	41.57333	-0.238558	0.8115
EMPLOYEES	-0.855443	3.197462	-0.267538	0.7891
MARKET VALUE	0.001003	0.002608	0.384578	0.7007

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	1530.881	R-squared	0.257947
Mean dependent var	185.0343	Adjusted R-squared	0.063692
S.D. dependent var	1778.071	S.E. of regression	1720.515
Akaike info criterion	17.92165	Sum squared resid	2.26E+09
Schwarz criterion	18.93647	Log likelihood	-8446.198
Hannan-Quinn criter.	18.30802	F-statistic	1.327881
Durbin-Watson stat	2.385893	Prob(F-statistic)	0.004481

Table 25

Relationship between Human Slack and ROE in 1,000s Cluster Robust Standard Errors

Dependent Variable: ROE
Method: Panel Least Squares
Date: 04/04/20 Time: 23:59
Sample: 2013 2017
Periods included: 5
Cross-sections included: 197
Total panel (unbalanced) observations: 965
White period standard errors & covariance (d.f. corrected)
WARNING: estimated coefficient covariance matrix is of reduced rank

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	889.7786	4543.082	0.195853	0.8448
HUMAN SLACK	41.43497	58.45632	0.708819	0.4787
AGE	-9.917651	57.40417	-0.172769	0.8629
EMPLOYEES	-0.855443	0.941849	-0.908259	0.3640
MARKET VALUE	0.001003	0.001021	0.982431	0.3262

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	1530.881	R-squared	0.257947
Mean dependent var	185.0343	Adjusted R-squared	0.063692
S.D. dependent var	1778.071	S.E. of regression	1720.515
Akaike info criterion	17.92165	Sum squared resid	2.26E+09
Schwarz criterion	18.93647	Log likelihood	-8446.198
Hannan-Quinn criter.	18.30802	F-statistic	1.327881
Durbin-Watson stat	2.385893	Prob(F-statistic)	0.004481

Table 26

Relationship between Human Slack and ROA in 1,000s

Dependent Variable: ROA
Method: Panel Least Squares
Date: 04/01/20 Time: 22:53
Sample: 2013 2017
Periods included: 5
Cross-sections included: 197
Total panel (unbalanced) observations: 965

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	216.7183	350.5807	0.618169	0.5366
HUMAN SLACK	-4.059398	11.60468	-0.349807	0.7266
AGE	-1.069285	4.392484	-0.243435	0.8077
EMPLOYEES	0.243435	0.337832	0.720582	0.4714
MARKET VALUE	-3.66E-05	0.000276	-0.133018	0.8942

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	161.7472	R-squared	0.341976
Mean dependent var	141.5116	Adjusted R-squared	0.169718
S.D. dependent var	199.4991	S.E. of regression	181.7832
Akaike info criterion	13.42653	Sum squared resid	2524646 8
Schwarz criterion	14.44134	Log likelihood	- 6277.299
Hannan-Quinn criter.	13.81289	F-statistic	1.985259
Durbin-Watson stat	2.863895	Prob(F-statistic)	0.000000

Table 27

Relationship between Human Slack and ROA in 1,000s Cluster Robust Standard Errors

Dependent Variable: ROA
Method: Panel Least Squares
Date: 04/05/20   Time: 00:04
Sample: 2013 2017
Periods included: 5
Cross-sections included: 197
Total panel (unbalanced) observations: 965
White period standard errors & covariance (d.f. corrected)
WARNING: estimated coefficient covariance matrix is of reduced rank

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	216.7183	177.8445	1.218583	0.2234
HUMAN SLACK	-4.059398	5.394635	-0.752488	0.4520
AGE	-1.069285	2.248696	-0.475513	0.6346
EMPLOYEES	0.243435	0.177055	1.374911	0.1696
MARKET VALUE	-3.66E-05	0.000120	-0.306308	0.7595

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	161.7472	R-squared	0.341976
Mean dependent var	141.5116	Adjusted R-squared	0.169718
S.D. dependent var	199.4991	S.E. of regression	181.7832
Akaike info criterion	13.42653	Sum squared resid	25246468
Schwarz criterion	14.44134	Log likelihood	-6277.299
Hannan-Quinn criter.	13.81289	F-statistic	1.985259
Durbin-Watson stat	2.863895	Prob(F-statistic)	0.000000

Table 28

Relationship between Available Slack and ROE in 1,000s

Dependent Variable: ROE
Method: Panel Least Squares
Date: 04/01/20 Time: 22:56
Sample: 2013 2017
Periods included: 5
Cross-sections included: 196
Total panel (unbalanced) observations: 963

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1005.803	3310.929	0.303783	0.7614
AVAILABLE SLACK	-0.000342	0.005037	-0.067879	0.9459
AGE	-10.30875	41.64019	-0.247567	0.8045
EMPLOYEES	-0.420824	2.982088	-0.141117	0.8878
MARKET VALUE	0.000839	0.002576	0.325659	0.7448

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	1532.618	R-squared	0.257736
Mean dependent var	185.8012	Adjusted R-squared	0.064145
S.D. dependent var	1779.838	S.E. of regression	1721.809
Akaike info criterion	17.92271	Sum squared resid	2.26E+09
Schwarz criterion	18.93415	Log likelihood	-8429.786
Hannan-Quinn criter.	18.30783	F-statistic	1.331340
Durbin-Watson stat	2.389541	Prob(F-statistic)	0.004236

Table 29

Relationship between Available Slack and ROE in 1,000s Cluster Robust Standard Errors

Dependent Variable: ROE
Method: Panel Least Squares
Date: 04/05/20 Time: 00:10
Sample: 2013 2017
Periods included: 5
Cross-sections included: 196
Total panel (unbalanced) observations: 963
White period standard errors & covariance (d.f. corrected)
WARNING: estimated coefficient covariance matrix is of reduced rank

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1005.803	4553.871	0.220868	0.8253
AVAILABLE SLACK	-0.000342	0.000789	-0.433444	0.6648
AGE	-10.30875	57.48457	-0.179331	0.8577
EMPLOYEES	-0.420824	0.777520	-0.541239	0.5885
MARKET VALUE	0.000839	0.000987	0.849815	0.3957

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	1532.618	R-squared	0.257736
Mean dependent var	185.8012	Adjusted R-squared	0.064145
S.D. dependent var	1779.838	S.E. of regression	1721.809
Akaike info criterion	17.92271	Sum squared resid	2.26E+09
Schwarz criterion	18.93415	Log likelihood	-8429.786
Hannan-Quinn criter.	18.30783	F-statistic	1.331340
Durbin-Watson stat	2.389541	Prob(F-statistic)	0.004236

Table 30

Relationship between Available Slack and ROA in 1,000s

Dependent Variable: ROA
Method: Panel Least Squares
Date: 04/01/20 Time: 23:00
Sample: 2013 2017
Periods included: 5
Cross-sections included: 196
Total panel (unbalanced) observations: 963

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	186.9365	349.2426	0.535263	0.5926
AVAILABLE SLACK	-8.55E-05	0.000531	-0.160950	0.8722
AGE	-0.716773	4.392281	-0.163189	0.8704
EMPLOYEES	0.143786	0.314556	0.457109	0.6477
MARKET VALUE	-2.37E-05	0.000272	-0.087239	0.9305

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	161.6633	R-squared	0.343576
Mean dependent var	141.8092	Adjusted R-squared	0.172372
S.D. dependent var	199.6387	S.E. of regression	181.6194
Akaike info criterion	13.42428	Sum squared resid	25168019
Schwarz criterion	14.43571	Log likelihood	-6263.789
Hannan-Quinn criter.	13.80940	F-statistic	2.006827
Durbin-Watson stat	2.877714	Prob(F-statistic)	0.000000

Table 31

Relationship between Available Slack and ROA in 1,000s Cluster Robust Standard Errors

Dependent Variable: ROA
Method: Panel Least Squares
Date: 04/05/20 Time: 00:17
Sample: 2013 2017
Periods included: 5
Cross-sections included: 196
Total panel (unbalanced) observations: 963
White period standard errors & covariance (d.f. corrected)
WARNING: estimated coefficient covariance matrix is of reduced rank

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	186.9365	175.7177	1.063845	0.2877
AVAILABLE SLACK	-8.55E-05	0.000138	-0.618225	0.5366
AGE	-0.716773	2.191381	-0.327088	0.7437
EMPLOYEES	0.143786	0.123437	1.164860	0.2444
MARKET VALUE	-2.37E-05	0.000112	-0.211397	0.8326

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	161.6633	R-squared	0.343576
Mean dependent var	141.8092	Adjusted R-squared	0.172372
S.D. dependent var	199.6387	S.E. of regression	181.6194
Akaike info criterion	13.42428	Sum squared resid	25168019
Schwarz criterion	14.43571	Log likelihood	-6263.789
Hannan-Quinn criter.	13.80940	F-statistic	2.006827
Durbin-Watson stat	2.877714	Prob(F-statistic)	0.000000

Hypothesis 2: CEO power positively affects the association between organizational slack and firm performance.

The interaction effect of CEO power on the relationship between potential slack and return on equity was statistically significant (Tables 32 and 33). A similar finding was identified for return on assets (Tables 34 and 35). The coefficient was negative for the former and positive for the latter. The interaction effect was neither supported for human slack and return on equity (Tables 36 and 37) nor found for return on assets (Tables 38 and 39). The relationship between available slack and ROE (Tables 40 and 41) was not statistically significant. However, the interaction effect was supported for the relationship between available slack and ROA (Table 42); the coefficient was positive. That relationship was not supported when cluster robust standard errors were utilized (Table 43).

Hypothesis 3: Organizational slack is associated with an increase in credit ratings.

This hypothesis was not supported for the relationship among all three operating measures of organizational slack and the S&P credit risk scores (Tables 44 to 49). The regressions had p-values above the 0.05 statistical significance level. While previous research found a relationship between slack and credit ratings, the type of organizational slack measured in that study focused on inventory and property, plant, and equipment (Bendig et al., 2017). Those organizational slack resources differ from this study's selection of human slack, potential slack, and available slack.

Table 32

Interaction Effect of CEO Power on Relationship between Potential Slack and ROE in 1,000s

Dependent Variable: ROE
Method: Panel Least Squares
Date: 04/01/20 Time: 23:06
Sample: 2013 2017
Periods included: 5
Cross-sections included: 196
Total panel (unbalanced) observations: 949

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3966.207	3827.340	1.036283	0.3004
POTENTIAL SLACK	0.020444	0.003635	5.623990	0.0000
CEO POWER	35.17579	14.87278	2.365113	0.0183
CEOXPOTENTIALSLACK	-0.416733	0.077282	-5.392348	0.0000
AGE	-65.51789	52.25280	-1.253864	0.2103
EMPLOYEES	-1.636062	2.933475	-0.557721	0.5772
MARKET VALUE	0.002317	0.002529	0.915960	0.3600

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	1481.583	R-squared	0.316443
Mean dependent var	186.4955	Adjusted R-squared	0.132513
S.D. dependent var	1792.947	S.E. of regression	1669.932
Akaike info criterion	17.86532	Sum squared resid	2.08E+09
Schwarz criterion	18.89882	Log likelihood	-8275.095
Hannan-Quinn criter.	18.25912	F-statistic	1.720459
Durbin-Watson stat	2.468147	Prob(F-statistic)	0.000000

Table 33

Interaction Effect of CEO Power on Relationship between Potential Slack and ROE in 1,000s Cluster Robust Standard Errors

Dependent Variable: ROE
Method: Panel Least Squares
Date: 04/05/20 Time: 00:21
Sample: 2013 2017
Periods included: 5
Cross-sections included: 196
Total panel (unbalanced) observations: 949
White period standard errors & covariance (d.f. corrected)
WARNING: estimated coefficient covariance matrix is of reduced rank

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3966.207	7360.624	0.538841	0.5902
POTENTIAL SLACK	0.020444	0.001476	13.85043	0.0000
CEO POWER	35.17579	29.93253	1.175169	0.2403
CEOXPOTENTIALSLACK	-0.416733	0.045667	-9.125434	0.0000
AGE	-65.51789	106.8147	-0.613379	0.5398
EMPLOYEES	-1.636062	1.098109	-1.489890	0.1367
MARKET VALUE	0.002317	0.002040	1.135829	0.2564

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	1481.583	R-squared	0.316443
Mean dependent var	186.4955	Adjusted R-squared	0.132513
S.D. dependent var	1792.947	S.E. of regression	1669.932
Akaike info criterion	17.86532	Sum squared resid	2.08E+09
Schwarz criterion	18.89882	Log likelihood	-8275.095
Hannan-Quinn criter.	18.25912	F-statistic	1.720459
Durbin-Watson stat	2.468147	Prob(F-statistic)	0.000000

Table 34

Interaction Effect of CEO Power on Relationship between Potential Slack and ROA in 1,000s

Dependent Variable: ROA
Method: Panel Least Squares
Date: 04/01/20 Time: 23:11
Sample: 2013 2017
Periods included: 5
Cross-sections included: 196
Total panel (unbalanced) observations: 949

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	551.6983	410.1034	1.345266	0.1789
POTENTIAL SLACK	-0.002149	0.000390	-5.516633	0.0000
CEO POWER	2.414561	1.593633	1.515129	0.1302
CEOXPOTENTIALSLACK	0.046492	0.008281	5.614339	0.0000
AGE	-6.733432	5.598941	-1.202626	0.2295
EMPLOYEES	0.169705	0.314325	0.539903	0.5894
MARKET VALUE	7.88E-05	0.000271	0.290788	0.7713

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	158.7531	R-squared	0.374607
Mean dependent var	142.3014	Adjusted R-squared	0.206329
S.D. dependent var	200.8514	S.E. of regression	178.9349
Akaike info criterion	13.39829	Sum squared resid	23917227
Schwarz criterion	14.43179	Log likelihood	-6155.488
Hannan-Quinn criter.	13.79209	F-statistic	2.226117
Durbin-Watson stat	3.089176	Prob(F-statistic)	0.000000

Table 35

Interaction Effect of CEO Power on Relationship between Potential Slack and ROA in 1,000s Cluster Robust Standard Errors

Dependent Variable: ROA
Method: Panel Least Squares
Date: 04/05/20 Time: 00:28
Sample: 2013 2017
Periods included: 5
Cross-sections included: 196
Total panel (unbalanced) observations: 949
White period standard errors & covariance (d.f. corrected)
WARNING: estimated coefficient covariance matrix is of reduced rank

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	551.6983	228.1261	2.418392	0.0158
POTENTIAL SLACK	-0.002149	0.000154	-13.93251	0.0000
CEO POWER	2.414561	1.414106	1.707483	0.0881
CEOXPOTENTIALSLACK	0.046492	0.003908	11.89764	0.0000
AGE	-6.733432	3.436350	-1.959472	0.0504
EMPLOYEES	0.169705	0.157174	1.079728	0.2806
MARKET VALUE	7.88E-05	0.000138	0.569551	0.5692

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	158.7531	R-squared	0.374607
Mean dependent var	142.3014	Adjusted R-squared	0.206329
S.D. dependent var	200.8514	S.E. of regression	178.9349
Akaike info criterion	13.39829	Sum squared resid	23917227
Schwarz criterion	14.43179	Log likelihood	-6155.488
Hannan-Quinn criter.	13.79209	F-statistic	2.226117
Durbin-Watson stat	3.089176	Prob(F-statistic)	0.000000

Table 36

Interaction Effect of CEO Power on Relationship between Human Slack and ROE in 1,000s

Dependent Variable: ROE
Method: Panel Least Squares
Date: 04/01/20 Time: 23:15
Sample: 2013 2017
Periods included: 5
Cross-sections included: 197
Total panel (unbalanced) observations: 949

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5371.489	4048.404	1.326817	0.1850
HUMAN SLACK	281413.7	234347.0	1.200842	0.2302
CEO POWER	55.15460	18.28323	3.016678	0.0026
CEOXHUMANSLACK	-4525.764	3839.339	-1.178787	0.2389
AGE	-97.67011	53.87950	-1.812751	0.0703
EMPLOYEES	-1.159450	3.335686	-0.347590	0.7282
MARKET VALUE	0.001960	0.002659	0.737272	0.4612

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	1533.943	R-squared	0.267272
Mean dependent var	186.4174	Adjusted R-squared	0.068865
S.D. dependent var	1792.944	S.E. of regression	1730.107
Akaike info criterion	17.93689	Sum squared resid	2.23E+09
Schwarz criterion	18.97551	Log likelihood	-8308.054
Hannan-Quinn criter.	18.33264	F-statistic	1.347093
Durbin-Watson stat	2.414177	Prob(F-statistic)	0.002978

Table 37

Interaction Effect of CEO Power on Relationship between Human Slack and ROE in 1,000s Cluster Robust Standard Errors

Dependent Variable: ROE
Method: Panel Least Squares
Date: 04/05/20 Time: 00:32
Sample: 2013 2017
Periods included: 5
Cross-sections included: 197
Total panel (unbalanced) observations: 949
White period standard errors & covariance (d.f. corrected)
WARNING: estimated coefficient covariance matrix is of reduced rank

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5371.489	9244.381	0.581055	0.5614
HUMAN SLACK	281.4137	298.0489	0.944186	0.3454
CEO POWER	55.15460	62.83382	0.877785	0.3803
CEOXHUMANSLACK	-4525.764	6084.085	-0.743869	0.4572
AGE	-97.67011	146.8220	-0.665228	0.5061
EMPLOYEES	-1.159450	1.317564	-0.879995	0.3791
MARKET VALUE	0.001960	0.001924	1.018821	0.3086

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	1533.943	R-squared	0.267272
Mean dependent var	186.4174	Adjusted R-squared	0.068865
S.D. dependent var	1792.944	S.E. of regression	1730.107
Akaike info criterion	17.93689	Sum squared resid	2.23E+09
Schwarz criterion	18.97551	Log likelihood	-8308.054
Hannan-Quinn criter.	18.33264	F-statistic	1.347093
Durbin-Watson stat	2.414177	Prob(F-statistic)	0.002978

Table 38

Interaction Effect of CEO Power on Relationship between Human Slack and ROA in 1,000s

Dependent Variable: ROA
Method: Panel Least Squares
Date: 04/01/20 Time: 23:17
Sample: 2013 2017
Periods included: 5
Cross-sections included: 197
Total panel (unbalanced) observations: 949

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	517.8118	427.8283	1.210326	0.2265
HUMAN SLACK	26557.79	24765.39	1.072375	0.2839
CEO POWER	5.293170	1.932140	2.739538	0.0063
CEOXHUMANSLACK	-672.3031	405.7347	-1.657002	0.0979
AGE	-7.837738	5.693893	-1.376517	0.1691
EMPLOYEES	0.274970	0.352510	0.780035	0.4356
MARKET VALUE	2.07E-05	0.000281	0.073690	0.9413

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	162.1044	R-squared	0.347949
Mean dependent var	142.2225	Adjusted R-squared	0.171388
S.D. dependent var	200.8551	S.E. of regression	182.8347
Akaike info criterion	13.44218	Sum squared resid	24937679
Schwarz criterion	14.48079	Log likelihood	-6175.313
Hannan-Quinn criter.	13.83793	F-statistic	1.970701
Durbin-Watson stat	2.895374	Prob(F-statistic)	0.000000

Table 39

Interaction Effect of CEO Power on Relationship between Human Slack and ROA in 1,000s Cluster Robust Standard Errors

Dependent Variable: ROA
Method: Panel Least Squares
Date: 04/05/20 Time: 00:38
Sample: 2013 2017
Periods included: 5
Cross-sections included: 197
Total panel (unbalanced) observations: 949
White period standard errors & covariance (d.f. corrected)
WARNING: estimated coefficient covariance matrix is of reduced rank

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	517.8118	233.3832	2.218720	0.0268
HUMAN SLACK	26.55779	21.14782	1.255817	0.2096
CEO POWER	5.293170	2.370309	2.233114	0.0258
CEOXHUMANSLACK	-672.3031	364.3214	-1.845357	0.0654
AGE	-7.837738	3.494377	-2.242958	0.0252
EMPLOYEES	0.274970	0.188899	1.455645	0.1459
MARKET VALUE	2.07E-05	0.000147	0.140472	0.8883

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	162.1044	R-squared	0.347949
Mean dependent var	142.2225	Adjusted R-squared	0.171388
S.D. dependent var	200.8551	S.E. of regression	182.8347
Akaike info criterion	13.44218	Sum squared resid	24937679
Schwarz criterion	14.48079	Log likelihood	-6175.313
Hannan-Quinn criter.	13.83793	F-statistic	1.970701
Durbin-Watson stat	2.895374	Prob(F-statistic)	0.000000

Table 40

Interaction Effect of CEO Power on Relationship between Available Slack and ROE in 1,000s

Dependent Variable: ROE
Method: Panel Least Squares
Date: 04/01/20 Time: 23:21
Sample: 2013 2017
Periods included: 5
Cross-sections included: 196
Total panel (unbalanced) observations: 947

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6579.898	3949.510	1.666004	0.0961
AVAILABLE SLACK	-7.941297	42.92819	-0.184990	0.8533
CEO POWER	42.42610	15.38997	2.756737	0.0060
CEOXAVAILABLESLACK	0.159079	0.866138	0.183664	0.8543
AGE	-103.0065	53.83030	-1.913542	0.0561
EMPLOYEES	-0.765935	3.060585	-0.250258	0.8025
MARKET VALUE	0.001763	0.002623	0.672064	0.5018

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	1537.318	R-squared	0.265528
Mean dependent var	187.2003	Adjusted R-squared	0.067369
S.D. dependent var	1794.757	S.E. of regression	1733.247
Akaike info criterion	17.94008	Sum squared resid	2.24E+09
Schwarz criterion	18.97531	Log likelihood	-8292.626
Hannan-Quinn criter.	18.33458	F-statistic	1.339972
Durbin-Watson stat	2.413476	Prob(F-statistic)	0.003519

Table 41

Interaction Effect of CEO Power on Relationship between Available Slack and ROE in 1,000s Cluster Robust Standard Errors

Dependent Variable: ROE
Method: Panel Least Squares
Date: 04/05/20 Time: 00:50
Sample: 2013 2017
Periods included: 5
Cross-sections included: 196
Total panel (unbalanced) observations: 947
White period standard errors & covariance (d.f. corrected)
WARNING: estimated coefficient covariance matrix is of reduced rank

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6579.898	10338.57	0.636442	0.5247
AVAILABLE_SLACK	-0.007941	0.058346	-0.136106	0.8918
CEO POWER	42.42610	46.81815	0.906189	0.3651
CEOXAVAILABLESLACK	0.159079	1.181980	0.134587	0.8930
AGE	-103.0065	153.6576	-0.670364	0.5028
EMPLOYEES	-0.765935	0.826227	-0.927027	0.3542
MARKET VALUE	0.001763	0.001949	0.904418	0.3661

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	1537.318	R-squared	0.265528
Mean dependent var	187.2003	Adjusted R-squared	0.067369
S.D. dependent var	1794.757	S.E. of regression	1733.247
Akaike info criterion	17.94008	Sum squared resid	2.24E+09
Schwarz criterion	18.97531	Log likelihood	-8292.626
Hannan-Quinn criter.	18.33458	F-statistic	1.339972
Durbin-Watson stat	2.413476	Prob(F-statistic)	0.003519

Table 42

Interaction Effect of CEO Power on Relationship between Available Slack and ROA in 1,000s

Dependent Variable: ROA
Method: Panel Least Squares
Date: 04/01/20 Time: 23:24
Sample: 2013 2017
Periods included: 5
Cross-sections included: 196
Total panel (unbalanced) observations: 947

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	658.2361	415.2393	1.585197	0.1133
AVAILABLE SLACK	-11.70741	4.513338	-2.593958	0.0097
CEO POWER	2.783252	1.618054	1.720122	0.0858
CEOXAVAILABLESLACK	0.236473	0.091063	2.596809	0.0096
AGE	-8.116313	5.659553	-1.434091	0.1520
EMPLOYEES	0.139557	0.321780	0.433704	0.6646
MARKET VALUE	5.54E-05	0.000276	0.201073	0.8407

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	161.6289	R-squared	0.352688
Mean dependent var	142.5266	Adjusted R-squared	0.178044
S.D. dependent var	200.9979	S.E. of regression	182.2283
Akaike info criterion	13.43509	Sum squared resid	24739336
Schwarz criterion	14.47033	Log likelihood	-6159.517
Hannan-Quinn criter.	13.82959	F-statistic	2.019468
Durbin-Watson stat	2.914501	Prob(F-statistic)	0.000000

Table 43

Interaction Effect of CEO Power on Relationship between Available Slack and ROA in 1,000s Cluster Robust Standard Errors

Dependent Variable: ROA
Method: Panel Least Squares
Date: 04/05/20   Time: 00:55
Sample: 2013 2017
Periods included: 5
Cross-sections included: 196
Total panel (unbalanced) observations: 947
White period standard errors & covariance (d.f. corrected)
WARNING: estimated coefficient covariance matrix is of reduced rank

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	658.2361	225.3956	2.920359	0.0036
AVAILABLE SLACK	-0.011707	0.013766	-0.850474	0.3953
CEO_POWER	2.783252	1.617468	1.720746	0.0857
CEOXAVAILABLESLACK	0.236473	0.283966	0.832753	0.4053
AGE	-8.116313	3.544045	-2.290127	0.0223
EMPLOYEES	0.139557	0.133241	1.047405	0.2953
MARKET VALUE	5.54E-05	0.000140	0.396351	0.6920

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	161.6289	R-squared	0.352688
Mean dependent var	142.5266	Adjusted R-squared	0.178044
S.D. dependent var	200.9979	S.E. of regression	182.2283
Akaike info criterion	13.43509	Sum squared resid	24739336
Schwarz criterion	14.47033	Log likelihood	-6159.517
Hannan-Quinn criter.	13.82959	F-statistic	2.019468
Durbin-Watson stat	2.914501	Prob(F-statistic)	0.000000

Table 44

Relationship between Human Slack and Ratings in 1,000s

Dependent Variable: RATINGS
Method: Panel Least Squares
Date: 04/01/20 Time: 23:28
Sample: 2013 2017
Periods included: 5
Cross-sections included: 180
Total panel (unbalanced) observations: 874

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5645.120	997.0165	5.662013	0.0000
HUMAN SLACK	57594.30	45089.25	1.277340	0.2019
AGE	26.13026	11.81740	2.211169	0.0274
EMPLOYEES	-2.859812	0.891841	-3.206638	0.0014
MARKET VALUE	0.000191	0.000777	0.245397	0.8062

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	411.3733	R-squared	0.980525
Mean dependent var	7713.959	Adjusted R-squared	0.975359
S.D. dependent var	2949.458	S.E. of regression	462.9853
Akaike info criterion	15.29793	Sum squared resid	1.48E+08
Schwarz criterion	16.30279	Log likelihood	-6501.196
Hannan-Quinn criter.	15.68233	F-statistic	189.8329
Durbin-Watson stat	1.152564	Prob(F-statistic)	0.000000

Table 45

Relationship between Human Slack and Ratings in 1,000s Cluster Robust Standard Errors

Dependent Variable: RATINGS
Method: Panel Least Squares
Date: 04/05/20 Time: 01:00
Sample: 2013 2017
Periods included: 5
Cross-sections included: 180
Total panel (unbalanced) observations: 874
White period standard errors & covariance (d.f. corrected)
WARNING: estimated coefficient covariance matrix is of reduced rank

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5645.120	1918.851	2.941927	0.0034
HUMAN SLACK	57594.30	39167.79	1.470450	0.1419
AGE	26.13026	23.00509	1.135847	0.2564
EMPLOYEES	-2.859812	1.239371	-2.307471	0.0213
MARKET VALUE	0.000191	0.001173	0.162589	0.8709

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	411.3733	R-squared	0.980525
Mean dependent var	7713.959	Adjusted R-squared	0.975359
S.D. dependent var	2949.458	S.E. of regression	462.9853
Akaike info criterion	15.29793	Sum squared resid	1.48E+08
Schwarz criterion	16.30279	Log likelihood	-6501.196
Hannan-Quinn criter.	15.68233	F-statistic	189.8329
Durbin-Watson stat	1.152564	Prob(F-statistic)	0.000000

Table 46

Relationship between Potential Slack and Ratings in 1,000s

Dependent Variable: RATINGS
Method: Panel Least Squares
Date: 04/01/20 Time: 23:32
Sample: 2013 2017
Periods included: 5
Cross-sections included: 180
Total panel (unbalanced) observations: 875

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6060.859	1008.318	6.010857	0.0000
POTENTIAL_SLACK	0.008406	0.057667	0.145775	0.8841
AGE	22.77534	12.06461	1.887780	0.0595
EMPLOYEES	-2.248322	0.819314	-2.744153	0.0062
MARKET_VALUE	-0.000317	0.000786	-0.403648	0.6866

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	421.1315	R-squared	0.979641
Mean dependent var	7720.000	Adjusted R-squared	0.974250
S.D. dependent var	2953.182	S.E. of regression	473.8957
Akaike info criterion	15.34434	Sum squared resid	1.55E+08
Schwarz criterion	16.34829	Log likelihood	-6529.148
Hannan-Quinn criter.	15.72837	F-statistic	181.6947
Durbin-Watson stat	1.111583	Prob(F-statistic)	0.000000

Table 47

Relationship between Potential Slack and Ratings in 1,000s Cluster Robust Standard Errors

Dependent Variable: RATINGS
Method: Panel Least Squares
Date: 04/05/20 Time: 01:04
Sample: 2013 2017
Periods included: 5
Cross-sections included: 180
Total panel (unbalanced) observations: 875
White period standard errors & covariance (d.f. corrected)
WARNING: estimated coefficient covariance matrix is of reduced rank

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6060.859	1903.730	3.183676	0.0015
POTENTIAL_SLACK	0.008406	0.010856	0.774354	0.4390
AGE	22.77534	22.95585	0.992136	0.3215
EMPLOYEES	-2.248322	1.093116	-2.056802	0.0401
MARKET VALUE	-0.000317	0.001178	-0.269312	0.7878

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	421.1315	R-squared	0.979641
Mean dependent var	7720.000	Adjusted R-squared	0.974250
S.D. dependent var	2953.182	S.E. of regression	473.8957
Akaike info criterion	15.34434	Sum squared resid	1.55E+08
Schwarz criterion	16.34829	Log likelihood	-6529.148
Hannan-Quinn criter.	15.72837	F-statistic	181.6947
Durbin-Watson stat	1.111583	Prob(F-statistic)	0.000000

Table 48

Relationship between Available Slack and Ratings in 1,000s

Dependent Variable: RATINGS
Method: Panel Least Squares
Date: 04/01/20   Time: 23:34
Sample: 2013 2017
Periods included: 5
Cross-sections included: 180
Total panel (unbalanced) observations: 873

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6043.065	1010.252	5.981742	0.0000
AVAILABLE_SLACK	0.402226	1.388542	0.289675	0.7722
AGE	22.91464	12.10390	1.893161	0.0588
EMPLOYEES	-2.290996	0.825459	-2.775421	0.0057
MARKET_VALUE	-0.000312	0.000782	-0.398399	0.6905

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	421.4639	R-squared	0.979422
Mean dependent var	7710.195	Adjusted R-squared	0.973956
S.D. dependent var	2939.700	S.E. of regression	474.4145
Akaike info criterion	15.34688	Sum squared resid	1.55E+08
Schwarz criterion	16.35265	Log likelihood	-6514.913
Hannan-Quinn criter.	15.73165	F-statistic	179.1947
Durbin-Watson stat	1.114918	Prob(F-statistic)	0.000000

Table 49

Relationship between Available Slack and Ratings in 1,000s Cluster Robust Standard Error

Dependent Variable: RATINGS
Method: Panel Least Squares
Date: 04/05/20 Time: 01:07
Sample: 2013 2017
Periods included: 5
Cross-sections included: 180
Total panel (unbalanced) observations: 873
White period standard errors & covariance (d.f. corrected)
WARNING: estimated coefficient covariance matrix is of reduced rank

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6043.065	1908.675	3.166105	0.0016
AVAILABLE SLACK	0.402226	0.703952	0.571383	0.5679
AGE	22.91464	23.05375	0.993966	0.3206
EMPLOYEES	-2.290996	1.111686	-2.060831	0.0397
MARKET VALUE	-0.000312	0.001168	-0.266889	0.7896

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	421.4639	R-squared	0.979422
Mean dependent var	7710.195	Adjusted R-squared	0.973956
S.D. dependent var	2939.700	S.E. of regression	474.4145
Akaike info criterion	15.34688	Sum squared resid	1.55E+08
Schwarz criterion	16.35265	Log likelihood	-6514.913
Hannan-Quinn criter.	15.73165	F-statistic	179.1947
Durbin-Watson stat	1.114918	Prob(F-statistic)	0.000000

While the fixed effects regressions employed in this study do not allow for the inclusion of industry and dual class shares because those variables are time invariant, random effects regression analyses are included in Appendix K as a robustness check and in recognition that industry, in particular, impacts slack and politics. The industries are identified by divisional groupings. Table 50 provides a summary of each random effects regression analyses and includes the coefficient, standard error, t-statistic, and probability. Furthermore, a comparison of the coefficients and probability values for fixed effects and random effects regression analyses are listed in Table 51. When considering random effects regression, the answer to the research question remains yes in that politics is related to an increase in potential slack.

The associations among potential slack and both profitability measures were supported in Hypothesis 1. In Hypothesis 2, the interaction effect of CEO power had a positive influence on the relationship between potential slack and ROA as well as the association between available slack and ROA. A negative relationship was found on human slack and return on assets. CEO power also had a harmful effect on the association between potential slack and return on equity. Unlike the fixed effects regressions which do not identify the presence of statistical significance in Hypothesis 3, the random effects model identified that human slack had a positive influence on credit ratings. A relationship was not found for potential slack and available slack.

Table 50

Random Effects Regression Summary

Research Question 1	Coefficient	Standard Error	t-statistic	Probability
Human Slack	0.0001	0.0001	1.1874	0.2354
Potential Slack	115.3174	43.1153	2.6895	0.0073
Available Slack	-1.4687	1.5041	-0.9765	0.3291
Hypothesis 1	Coefficient	Standard Error	t-statistic	Probability
Human Slack [ROE]	-11.2586	27.6971	-0.4065	0.6845
Human Slack [ROA]	4.7597	3.4366	1.3850	0.1664
Potential Slack [ROE]	0.0009	0.0002	5.6315	0.0000
Potential Slack [ROA]	0.0000	0.0000	2.3604	0.0185
Available Slack [ROE]	0.0004	0.0027	0.1506	0.8803
Available Slack [ROA]	0.0000	0.0003	-0.0660	0.9474
Hypothesis 2	Coefficient	Standard Error	t-statistic	Probability
Human Slack [ROE]	-3297.4290	2583.2570	-1.2765	0.2021
Human Slack [ROA]	-998.4837	292.7755	-3.4104	0.0007
Potential Slack [ROE]	-0.1101	0.0437	-2.5196	0.0119
Potential Slack [ROA]	0.0441	0.0048	9.1777	0.0000
Available Slack [ROE]	0.9233	0.7596	1.2155	0.2245
Available Slack [ROA]	0.4477	0.0810	5.5285	0.0000
Hypothesis 3	Coefficient	Standard Error	t-statistic	Probability
Human Slack	103363.7000	38131.7900	2.7107	0.0068
Potential Slack	-0.0126	0.0575	-0.2186	0.8270
Available Slack	0.5153	1.3644	0.3777	0.7058

Table 51

Fixed Effects and Random Effects Comparison

RQ1	**Fixed Effects**		**Random Effects**	
	Coefficients	**Probability**	**Coefficients**	**Probability**
Human Slack	+	**p<.05**	+	p>.05
Potential Slack	+	p>.05	+	**p<.05**
Available Slack	+	p>.05	-	p>.05
H1 ROE	**Coefficients**	**Probability**	**Coefficients**	**Probability**
Human Slack	+	p>.05	-	p>.05
Potential Slack	+	**p<.05**	+	**p<.05**
Available Slack	-	p>.05	+	p>.05
H1 ROA	**Coefficients**	**Probability**	**Coefficients**	**Probability**
Human Slack	-	p>.05	+	p>.05
Potential Slack	+	**p<.05**	+	**p<.05**
Available Slack	-	p>.05	-	p>.05
H2 ROE	**Coefficients**	**Probability**	**Coefficients**	**Probability**
Human Slack	-	p>.05	-	p>.05
Potential Slack	-	**p<.05**	-	**p<.05**
Available Slack	+	p>.05	+	p>.05
H2 ROA	**Coefficients**	**Probability**	**Coefficients**	**Probability**
Human Slack	-	p>.05	-	**p<.05**
Potential Slack	+	**p<.05**	+	**p<.05**
Available Slack	+	**p<.05**	+	**p<.05**
H3	**Coefficients**	**Probability**	**Coefficients**	**Probability**
Human Slack	+	p>.05	+	**p<.05**
Potential Slack	+	p>.05	-	p>.05
Available Slack	+	p>.05	+	p>.05

Conclusion

The answer to the research question of whether politics is related to an increase in organizational slack is yes, but only for human slack. An increase in political control held by Democrats, since this political party is coded as 1 and Republicans categorized as 0, is associated with a positive increase in human slack. Democratic control is likely to bring about increased regulation that is aimed at worker protection. A pro-union environment is apt to flourish under Democratic leadership. These policies could influence or mandate businesses to increase the size of the workforce. However, the requirement of a super-majority in the United States Senate to advance legislation, provides the political party in the minority with the ability to thwart the majority party either outright or by exacting substantial concessions.

Hypotheses 1 and 2 were supported for certain operational measures of organizational slack and the profitability ratios consisting of return on equity and return on assets. The support for the relationship between potential slack and return on equity suggests that future internal and external resources can be efficiently deployed in service of business activities that are beneficial to shareholders. The association between potential slack and return on assets is found to have a positive influence. They are consistent with what was hypothesized in H1. Future slack provides organizations with the flexibility to enhance financial performance. The study also did not find a relationship between human slack and return on assets; similarly, no association was found with return on equity.

The interaction effect of CEO power had a positive impact on the relationship between available slack and return on assets. CEO power also had a negative impact on the relationship between potential slack and return on equity, but a positive impact on the association between potential slack and return on assets. While those competing findings may seem at odds with the expectation that ROA and ROE would move in the same direction, there is company specific evidence that supports the opposite movement found in Hypothesis 2. Walmart experienced a decrease in return on equity and an increase in return on assets from 1996 to 1997 (Wehrley, 2000). This involved a certain combination where net income, assets, and equity increased while liabilities decreased (Appendix L).

In comparison to research that found that return on equity and return on assets are highly correlated (Wiseman & Bromiley, 1996; Wefald et al., 2010b) for sample sizes consisting of specific industries, this study (Table 52) identified a low correlation because the companies selected in the sample reflect a wide variety of industries; no sector is excluded. The companies in this study's sample also have increased financial leverage since the mean of return on equity is greater than return on assets (Table 53). Research acknowledges that it is customary to look solely at the significance level of the interaction term of the moderator and independent variable when evaluating the data (Robinson et al., 2013). Beyond this approach, another consideration is the moderation effect at a low, medium, and high level for CEO power. This is calculated by identifying the mean and one standard deviation below and above the mean. Following the simple slopes analysis method (Newsom, 2020), the slopes and y-intercepts (Tables 54 to 56) are identified.

Table 52

Correlation Matrix for ROE and ROA

Correlations

		ROE	ROA
ROE	Pearson Correlation	1	.050
	Sig. (2-tailed)		.117
	N	982	982
ROA	Pearson Correlation	.050	1
	Sig. (2-tailed)	.117	
	N	982	982

Table 53

Means of ROE and ROA

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ROE	982	-29.7140	36.9667	0.1833	1.7627
ROA	982	-3.2095	2.6987	0.1400	0.1983
Valid N (listwise)	982				

Table 54

Simple Slopes Analysis: Interaction Effect of CEO Power on Relationship between Potential Slack and ROE in 1,000s

	Slope	Y-Intercept
Low CEO Power	-16.26	5,340.72
Mean CEO Power	-19.43	5,607.61
High CEO Power	-22.59	5,874.50

Table 55

Simple Slopes Analysis: Interaction Effect of CEO Power on Relationship between Potential Slack and ROA in 1,000s

	Slope	Y-Intercept
Low CEO Power	1.81	646.05
Mean CEO Power	2.17	664.37
High CEO Power	2.52	682.69

Table 56

Simple Slopes Analysis: Interaction Effect of CEO Power on Relationship between Available Slack and ROA in 1,000s

	Slope	Y-Intercept
Low CEO Power	-2.47	766.99
Mean CEO Power	-0.67	788.11
High CEO Power	1.12	809.23

CHAPTER 4

CONTRIBUTIONS TO RESEARCH AND PRACTICE

CEO Power

It is anticipated that this study will make an expected contribution not only to management and organizational behavior theory but also to practice for large-sized companies. The examination of this data provides for a reorientation on how CEO power is calculated by moving away from duality, the situation when one person holds the CEO and chair of the board of directors roles simultaneously. By viewing governance as a limiting force on the influence held by CEOs, the calculation of CEO power is meaningfully derived by subtracting the board rating, which is on a scale ranging from 0 to 100, from one hundred. This approach is an alternative to and presumes that an enhanced focus on governance is not sufficiently captured in CEO duality calculations. Moreover, the CEO power metric found in this study identifies a reasonable proxy for academia and practice. While this research utilized a single provider for the board rating, companies and academic experts with access to financial resources should consider multiple data sources from corporate social responsibility and investor analysis providers.

As most large-scale publicly traded companies have programs committed to diversity, it raises the question if these initiatives contribute to financial performance or if they are a reaction to shareholder activism. The results of this study present support for an association between the diversity category and select measures of firm performance as well as a relationship between CEO power and certain measures of firm performance. It also can bring attention to and position diversity as a central construct. From a practical standpoint, companies may wish to examine if the diversity programs in place are robust enough to influence corporate performance positively. Such research can also counter sentiment from individuals who do not believe that diversity initiatives are a necessary investment relative to other corporate priorities.

Organizational Slack

Although organizational slack has moved from a nebulous concept to a more concrete measurement over several decades, the topic remains relevant in contemporary times. One contribution is to raise awareness how political representation influences human slack. While research acknowledges that an executive sets the level or absence of slack in an organization, the linking of slack to politics is not widespread in the literature. This study moves away from politics defined as the political behavior of top management teams and positions the variable towards the political (electoral) climate. Moreover, the repositioning of the operational measurement of this variable explores how control of the executive and legislative branches of the federal government influences the setting of organizational slack within companies. Based on the findings from this study, Republican control of the federal government is likely associated with a company avoiding or minimizing organizational slack. Democratic control of the government, however, might prompt companies to consider raising the level of organizational slack. Of course, internal and external factors make the slack determination far more complex and nuanced.

The results of this study will cause companies to revisit existing policies towards potential slack and explore how to create company-specific approaches. One area that is not considered in the present research is the response that shareholders have to companies that embrace organizational slack as a business strategy. Given that potential slack positively influences return on equity and return on assets, subsequent research may want to consider receptivity by Wall Street. There is also a belief in the financial community that mature and established companies should distribute excess cash to shareholders rather than slack. This financial philosophy is somewhat at odds with the concept of organizational slack. Therefore, a contribution within this domain is getting leaders to broaden the purpose of a company and propose that future internal and external resources in the form of slack are beneficial.

Exploration of the interaction effect of CEO power on firm performance and the setting of organizational resources has practical implications. The presence of CEO power had a negative effect on the relationship between performance slack and return on equity. However, a positive effect was found for the relationship between potential slack and return on equity and the association between available slack and return on assets. One possibility is that a CEO may embark on initiatives and strategies that will have a negative and short-term impact on ROE, but produce greater long-term value. While this negative effect on ROE makes for an interesting observation that is worth further exploration, some have advocated that ROA is a better measure of performance because it is less prone to manipulation by management's use of creative financing tactics (Hagel et al., 2010).

From a tactical perspective, this research is expected to inform how practitioners and leaders view organizational slack. The literature tends to hold that organizational slack is mostly detrimental. However, some research paints a more nuanced perspective that slack resources require careful calibration. This study emphasizes that the different types of organizational slack respond differently; thus, companies must carefully consider what resource strategy to pursue.

Venues

Venues to present this research are an essential consideration. The Fox School of Business' Center for Translational Research in Business provides an ideal forum to bridge the gap between industry and academia. This setting will allow for collaboration with a wide variety of stakeholders who are committed to a common purpose. The Academy of Management also has professional development workshops within the broader annual meeting that can serve as a platform to distill academic research into a practical focus. This workshop format creates an opportunity for positive implications on how leaders and managers grapple with the topic to advance knowledge.

Limitations

While these two studies focus on the largest publicly traded companies in the United States, this subset of companies may not have generalizability for the entire Fortune 500 companies list. There are, of course, companies that operate in the private industry sector. Although some of the findings from the studies may have some level of applicability to private companies and nonprofit organizations, there are fundamental differences in the capital structure and scale of these kinds of enterprises. The existing samples contain companies that have headquarters in the United States. In an increasingly interconnected global business environment, some companies that are headquartered abroad have an international presence and subsidiaries in America. The presence of distinct processes and dynamics associated with these companies may fundamentally alter meaningful comparisons between domestic and foreign organizations.

The operating measure of CEO power as an independent variable in Study 1 and a moderating variable in Study 2 deviate from how prior research measured this construct. The established parameters concentrate on control and influence. The methodology utilized in these two studies accomplish similar objectives because CEO power is calculated as the inverse of the rating for the board of directors. This approach relies on the established governance model that the chief executive officer has a reporting duty to the board, which provides oversight. However, it is possible for a CEO to hold a high level of power when the board of directors is rated highly in terms of governance.

Similarly, the operational measure for diversity in Study 1 has certain limitations. CSRHub, the company that specializes in environmental, social, and governance data, combines its rating of diversity with labor rights. This blended rating is imperfect and creates a contradiction. While there is generally a relationship between diversity and firm performance, the association between labor rights and profitability is considered negative. Communications with CSRHub staff representatives have confirmed that the company does not provide a breakout for diversity and labor rights. A competing data provider, MSCI, has diversity data through its KLD service, which is not presently part of the Fox School of Business' subscription to Wharton Research Data Services. Accessing this data as an individual user is extremely cost prohibitive even with an academic discount.

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APPENDIX A

CSRHUB DEFINITIONS

Community	"The Community Category covers the company's commitment and effectiveness within the local, national, and global community in which it does business. It reflects a company's citizenship, charitable giving, and volunteerism. This category covers the company's human rights record and treatment of its supply chain. It also covers the environmental and social impacts of the company's products and services, and the development of sustainable products, processes, and technologies."
Board	"The Board subcategory covers a company's effectiveness in following best practices in corporate governance principles related to board membership, independent decision making through experienced diverse and independent board members, effectiveness toward following best practices related to board activities and functions, and board committee structure and composition. It includes how the company provides competitive and proportionate management compensation and its ability to incent executives and board members to achieve both financial and extra-financial targets."
Diversity and Labor Rights	"The Diversity and Labor Rights subcategory covers workplace policies and practices covering fair and non-discriminatory treatment of employees, and its diversity policies. It covers a company's labor-management relations and participation by employees, National Labor Relations Board (NLRB) violations or patterns of anti-union practice, conformance to internationally recognized worker rights, as defined in the basic conventions of the International Labor Organization (ILO). Fundamental labor rights include freedom of association and protection of the right to organize; right to bargain collectively; a minimum age for the employment of children; a prohibition against forced labor; lack of employment and occupational discrimination; and equal compensation. This subcategory measures a company's ability to maintain diversity, provide equal opportunities regardless of gender, age, ethnicity, religion, or sexual orientation, and promote work-life balance."
Source: CSRHub	

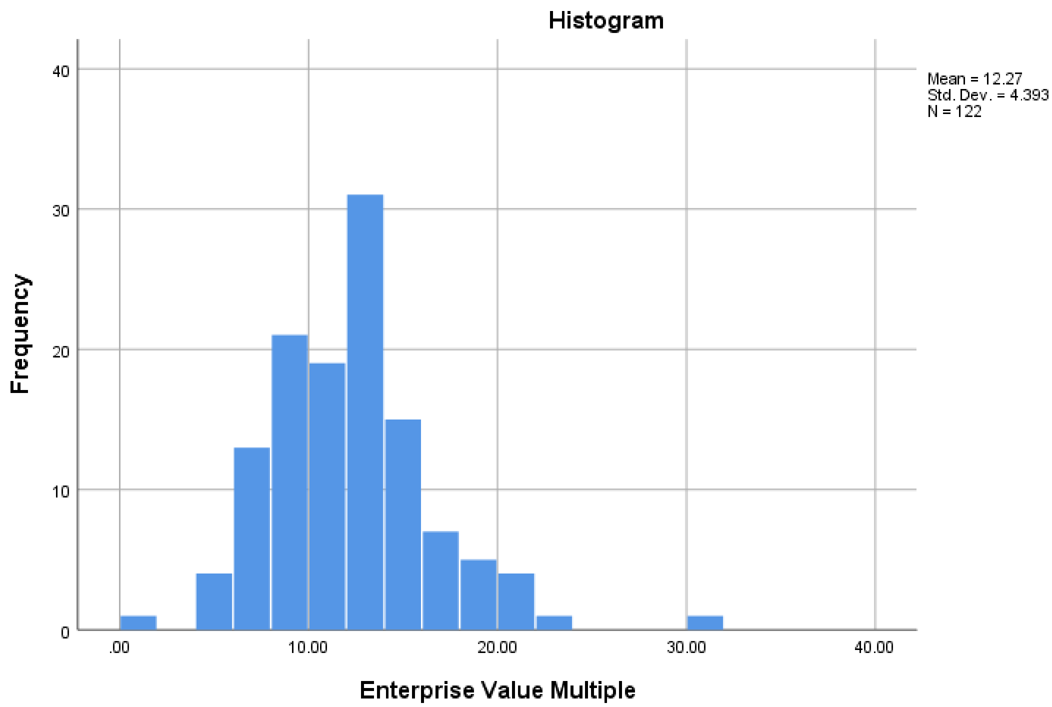
APPENDIX B

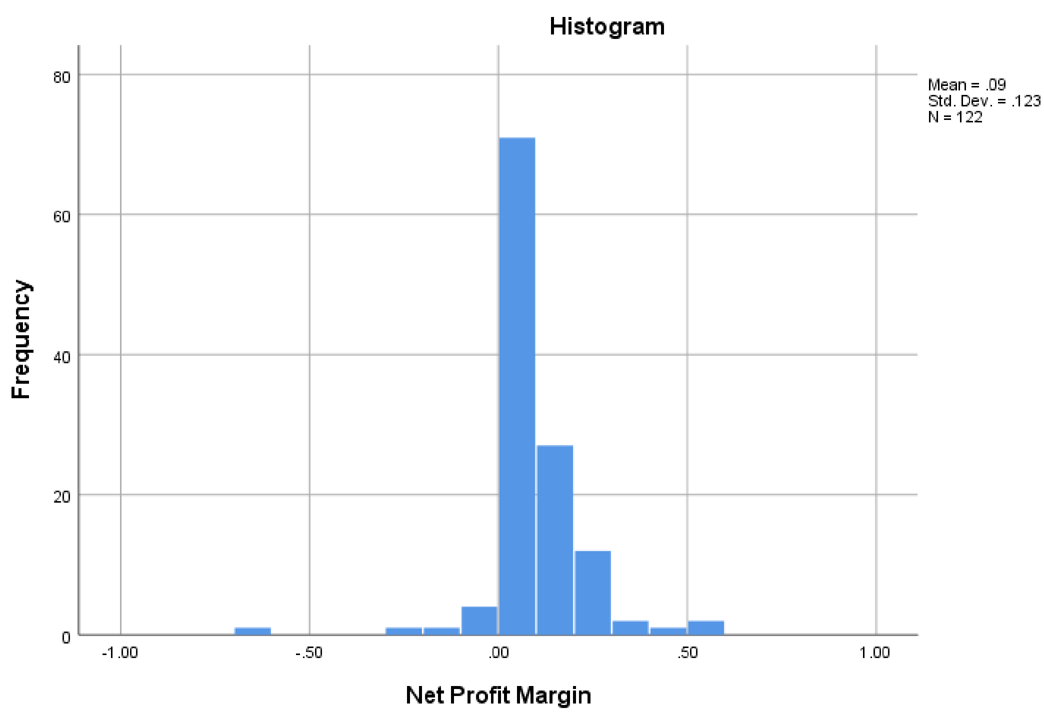
FINANCIAL PERFORMANCE MEASURES

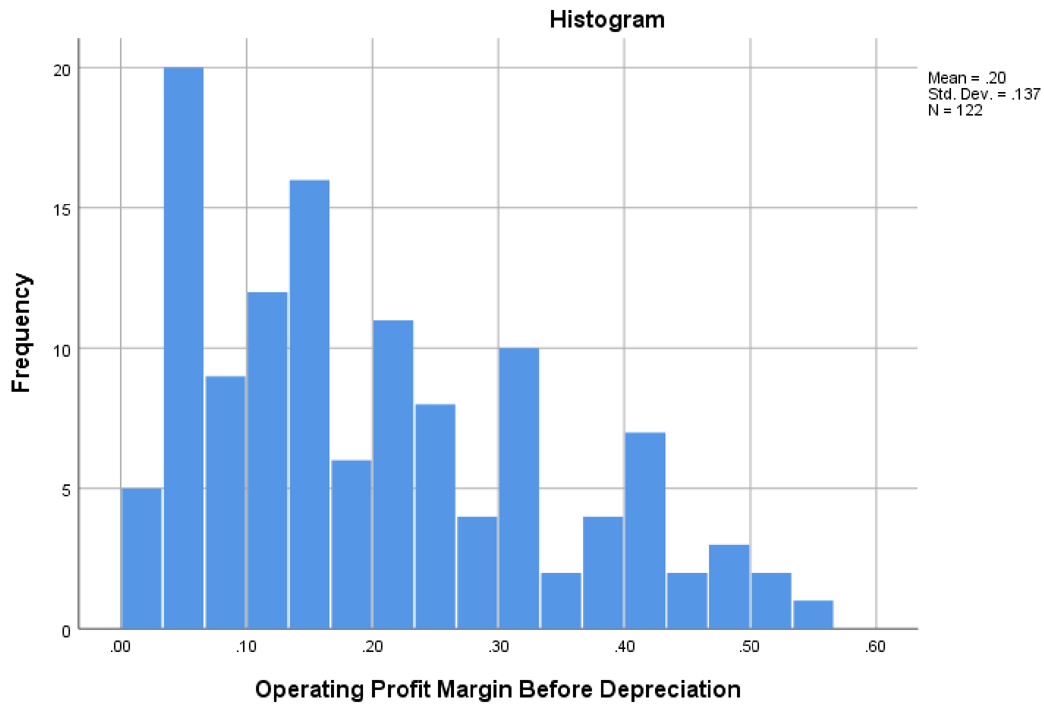
		Enterprise Value Multiple	Net Profit Margin	Operating Profit Margin Before Depreciation	Gross Profit Margin	Return on Assets	Return on Equity	Return on Capital Employed
N	Valid	122	122	122	122	122	122	122
	Missing	0	0	0	0	0	0	0
Mean		12.2676	.0895	.1999	.3348	.1337	.2461	.1848
Median		12.3515	.0775	.1625	.2835	.1230	.1695	.1520
Std. Deviation		4.39293	.12343	.13681	.22293	.07996	.59643	.13233
Skewness		.827	-.661	.663	.876	.894	5.076	2.239
Std. Error of Skewness		.219	.219	.219	.219	.219	.219	.219
Kurtosis		2.691	10.534	-.473	.039	1.129	37.756	7.449
Std. Error of Kurtosis		.435	.435	.435	.435	.435	.435	.435
Range		31.79	1.14	.54	.91	.41	6.65	.87
Minimum		.00	-.62	.01	.01	.01	-1.61	.02
Maximum		31.79	.52	.55	.92	.41	5.04	.89
Percentiles	25	9.0428	.0295	.0808	.1640	.0785	.0835	.0995
	50	12.3515	.0775	.1625	.2835	.1230	.1695	.1520
	75	14.1118	.1335	.3007	.4503	.1803	.2593	.2303

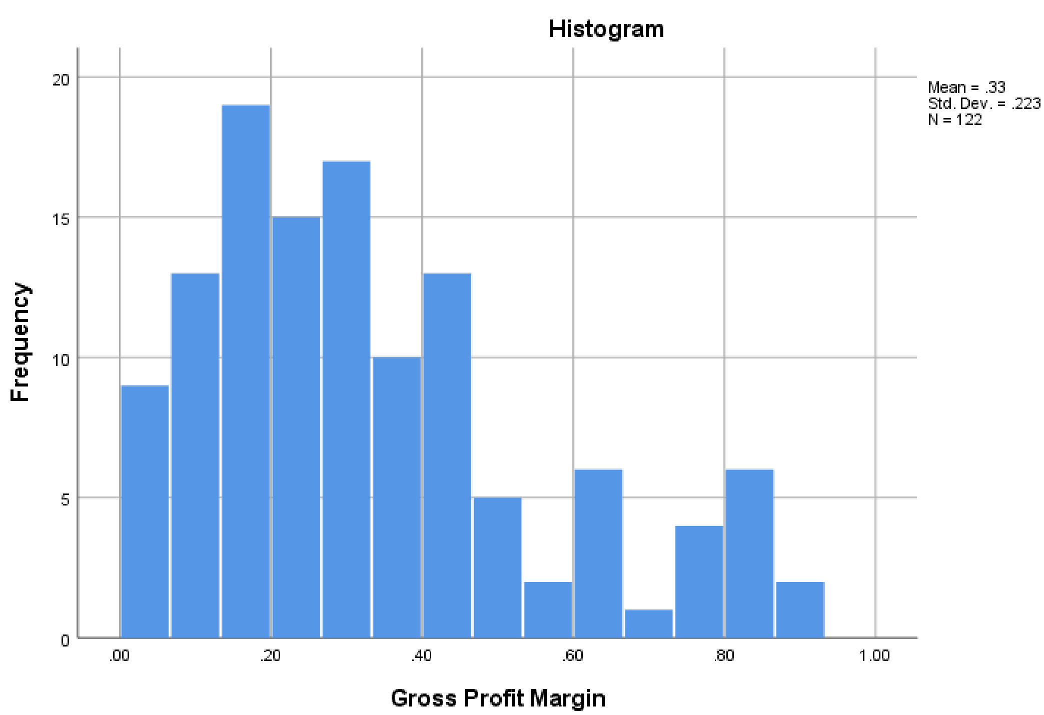
APPENDIX C

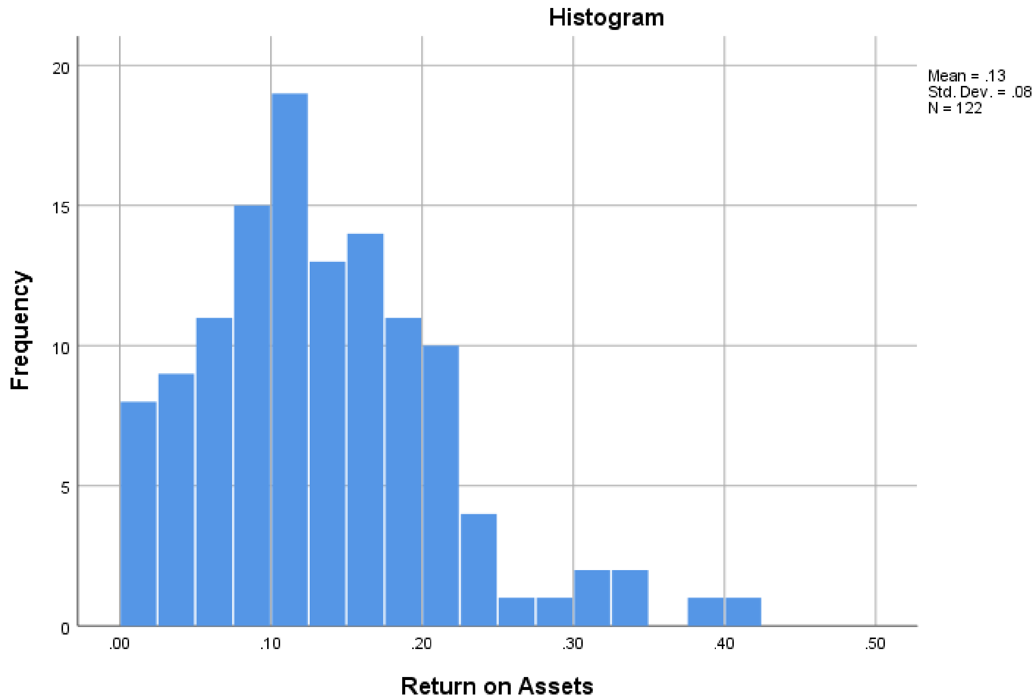
HISTOGRAMS OF FINANCIAL PERFORMANCE MEASURES



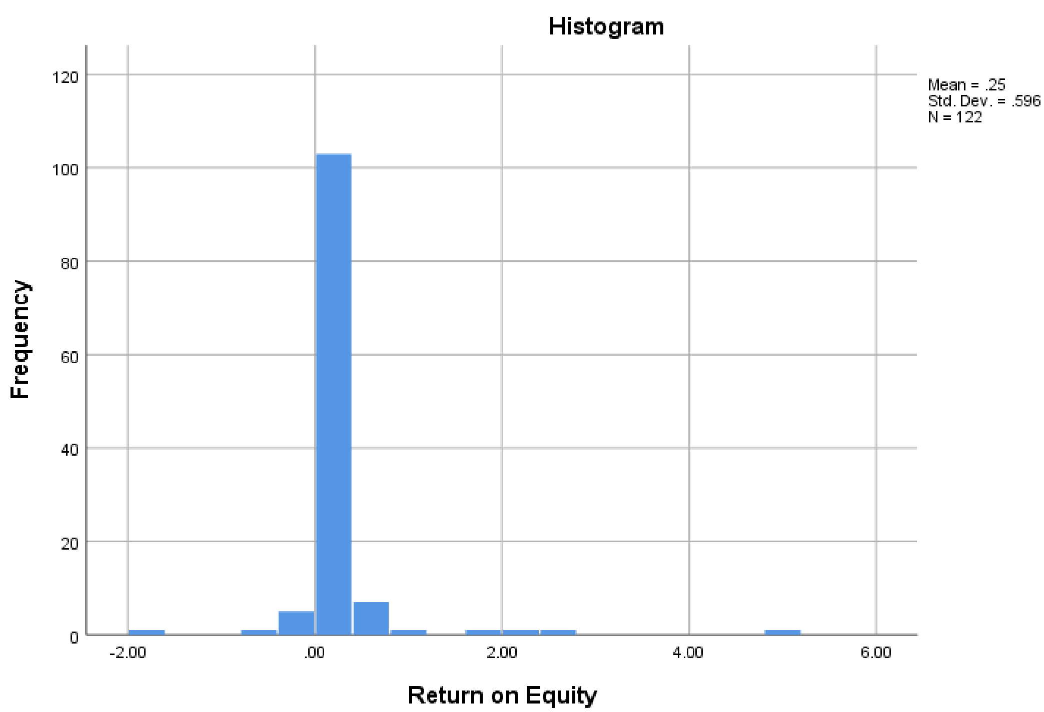



Histogram
Mean = .20
Std. Dev. = .137
N = 122
Frequency
0
5
10
15
20
.00
.10
.20
.30
.40
.50
.60
Operating Profit Margin Before Depreciation

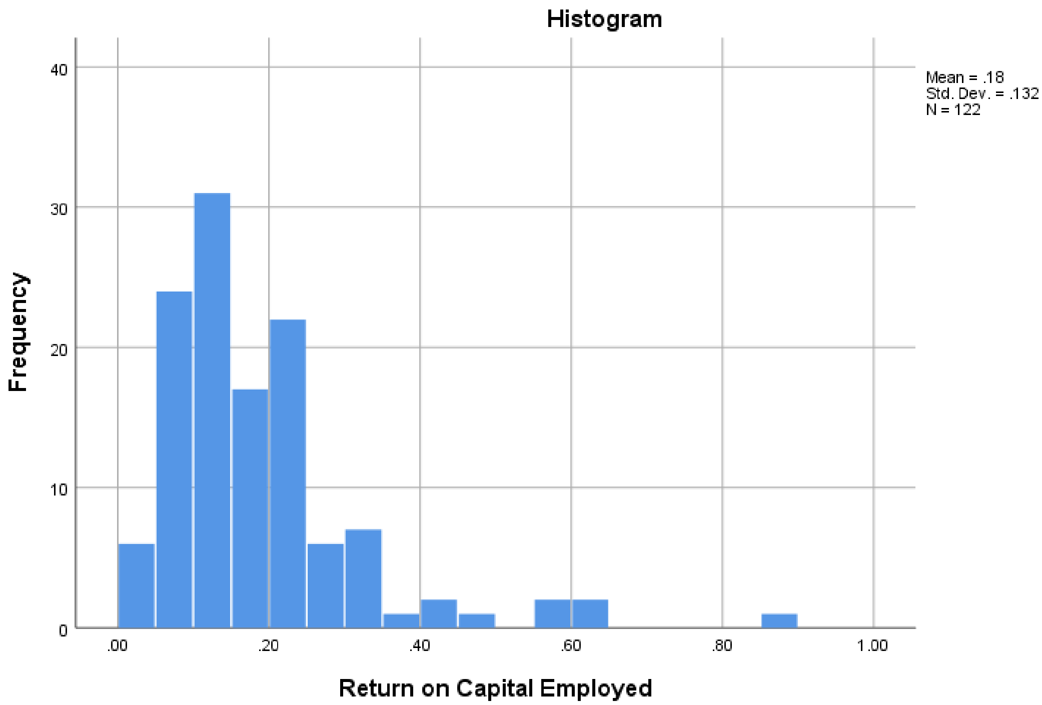

Histogram
Mean = .33
Std. Dev. = .223
N = 122
Frequency
0
5
10
15
20
.00
.20
.40
.60
.80
1.00
Gross Profit Margin



Histogram
Mean = .13
Std. Dev. = .08
N = 122
Frequency
20
15
10
5
0
.00
.10
.20
.30
.40
.50
Return on Assets



Histogram
Mean = .25
Std. Dev. = .596
N = 122
Frequency
120
100
80
60
40
20
0
-2.00
.00
2.00
4.00
6.00
Return on Equity


Histogram
Mean = .18
Std. Dev. = .132
N = 122
Frequency
0
10
20
30
40
.00
.20
.40
.60
.80
1.00
Return on Capital Employed

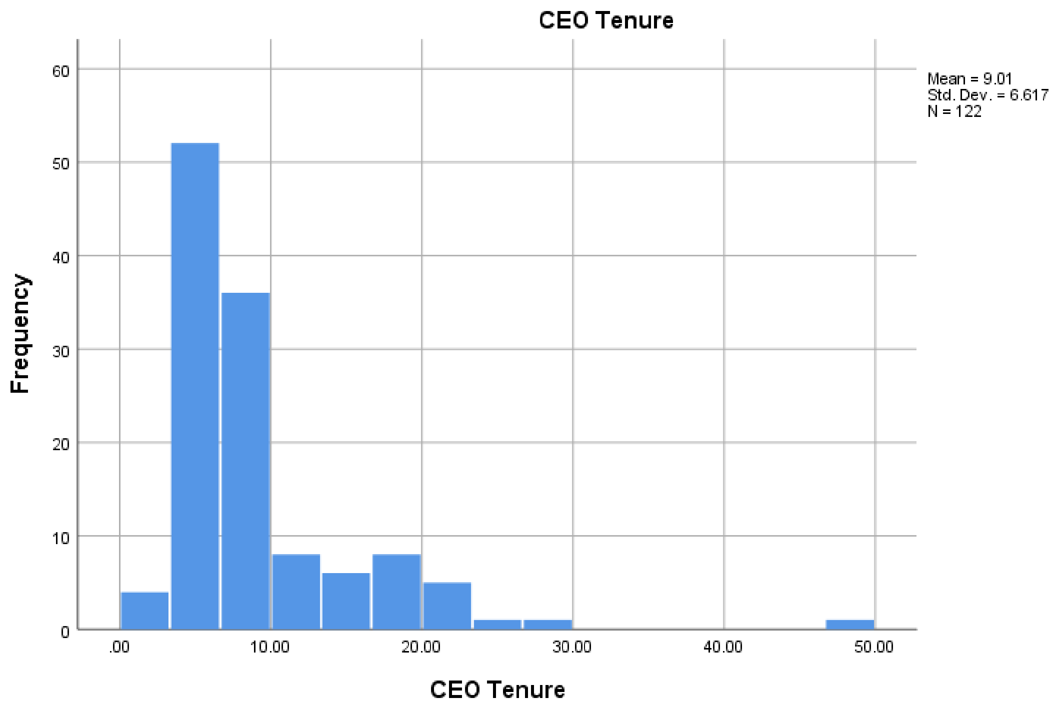
APPENDIX D

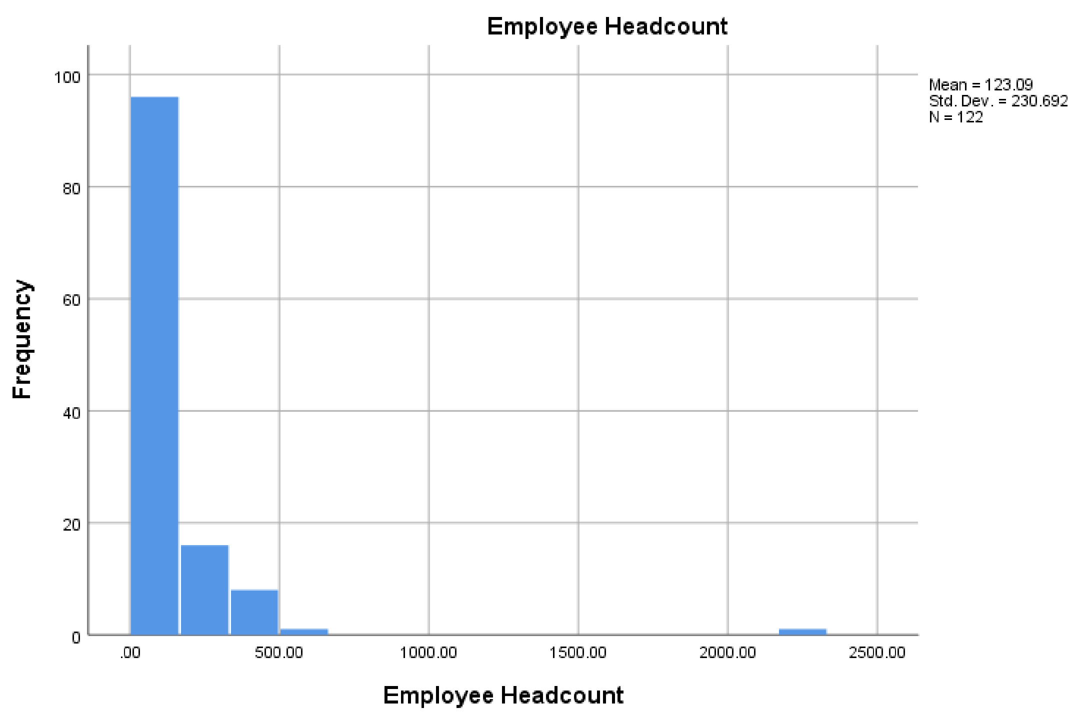
DESCRIPTIVE STATISTICS OF CONTROL VARIABLES

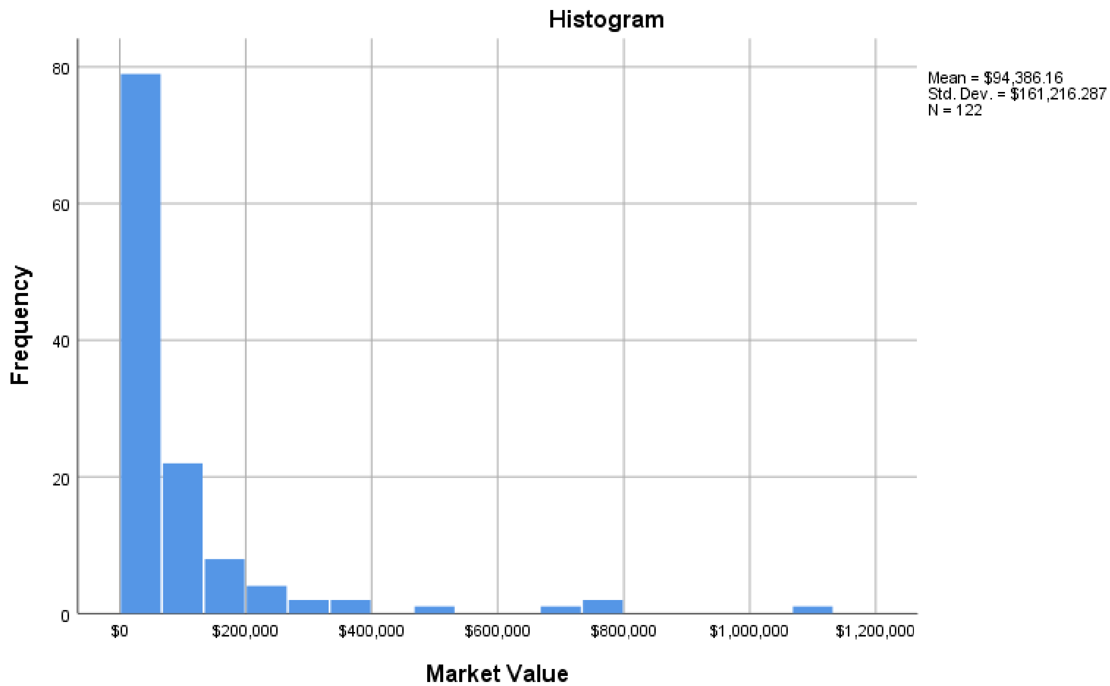
		CEO Tenure	Employee Headcount	Market Value	Age of Company
N	Valid	122	122	122	122
	Missing	0	0	0	0
Mean		9.0142	123.0876	94386.1619	87.4426
Median		6.8419	64.5000	40153.9004	82.0000
Std. Deviation		6.61681	230.69175	161216.28672	52.19259
Skewness		2.627	7.268	3.724	.626
Std. Error of Skewness		.219	.219	.219	.219
Kurtosis		10.623	66.221	16.030	-.242
Std. Error of Kurtosis		.435	.435	.435	.435
Range		45.91	2298.30	1073062.72	220.00
Minimum		3.08	1.70	327.82	7.00
Maximum		49.00	2300.00	1073390.54	227.00
Percentiles	25	4.8255	30.0000	16117.4092	41.7500
	50	6.8419	64.5000	40153.9004	82.0000
	75	10.1225	131.2500	91721.1357	121.0000

APPENDIX E

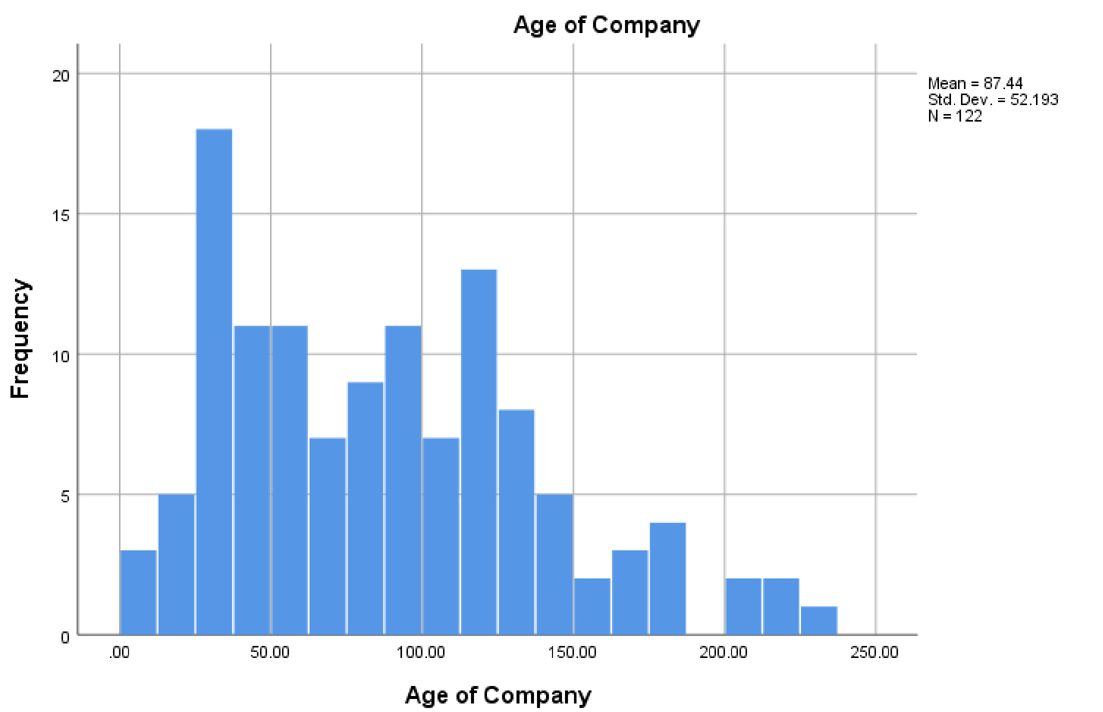
HISTOGRAMS OF CONTROL VARIABLES







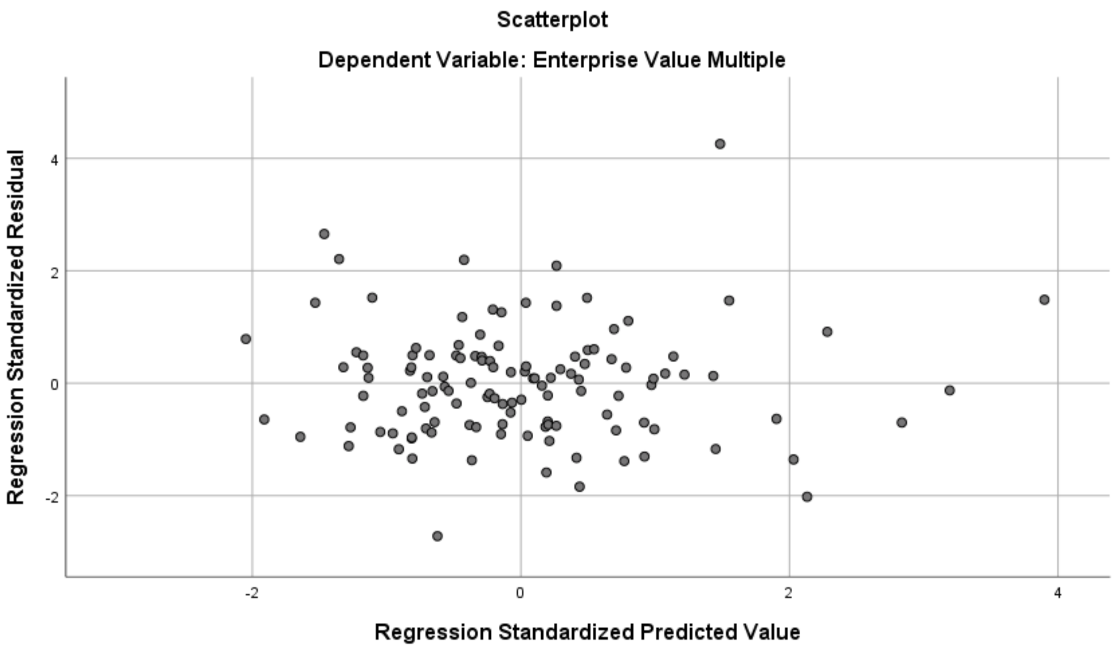
Values in millions

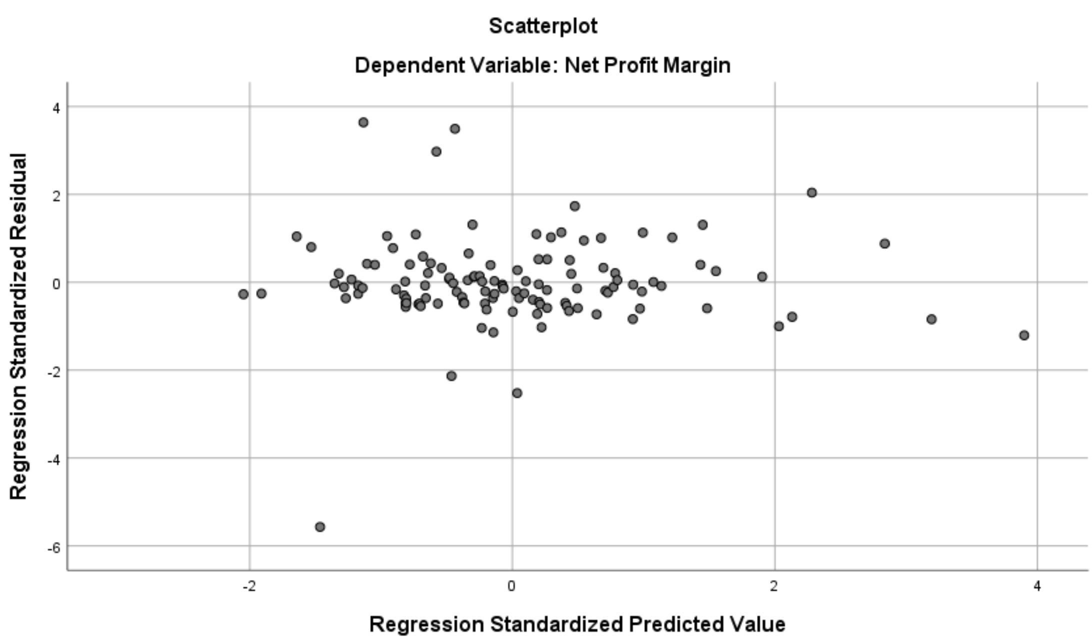


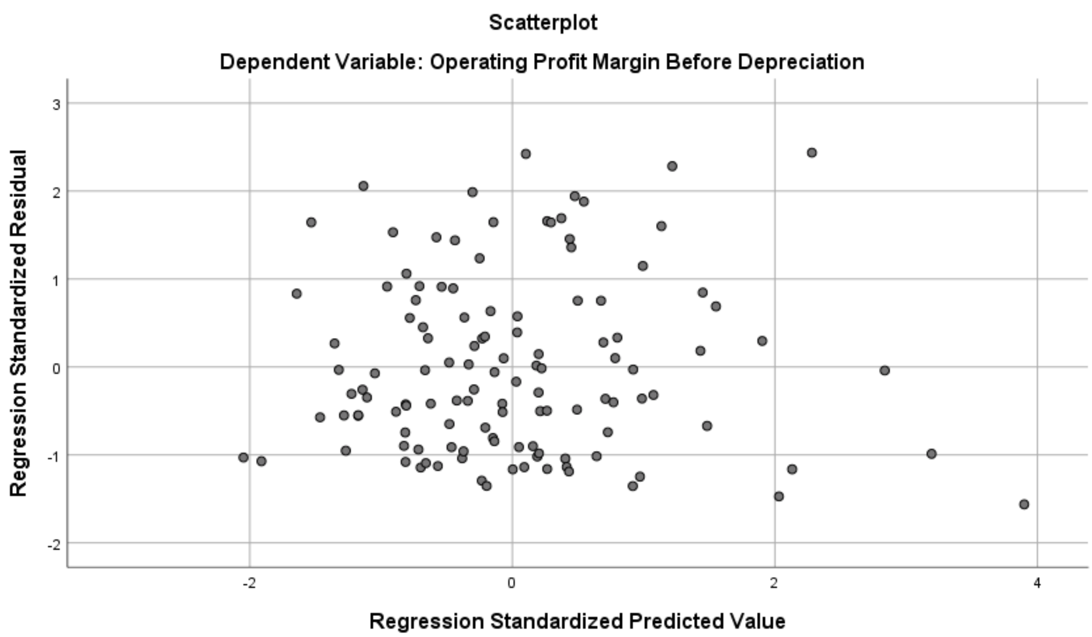
APPENDIX F

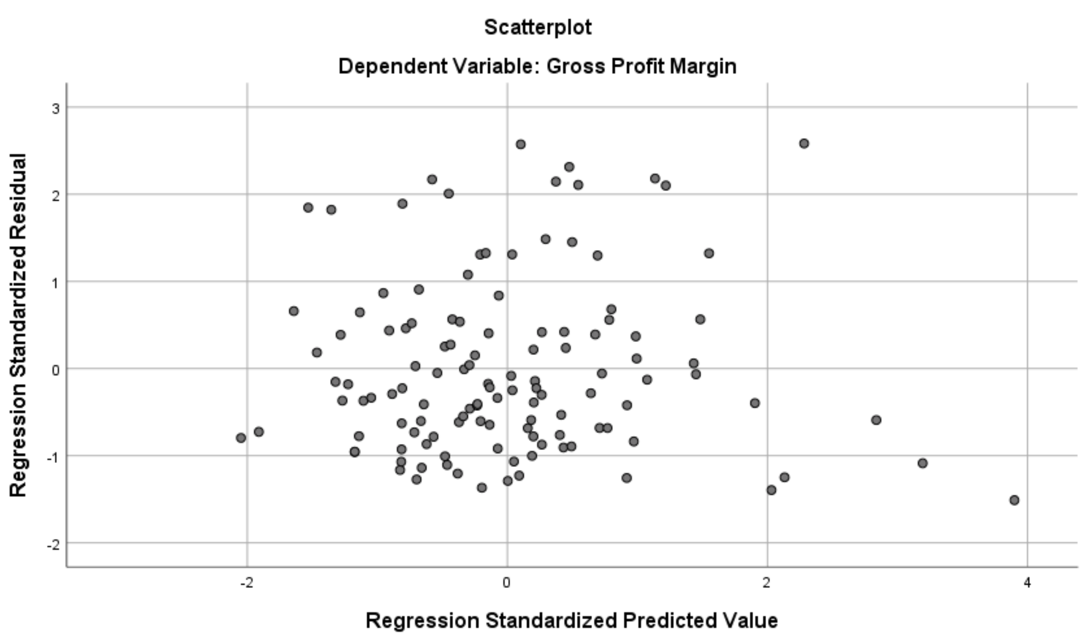
RESIDUAL SCATTERPLOTS

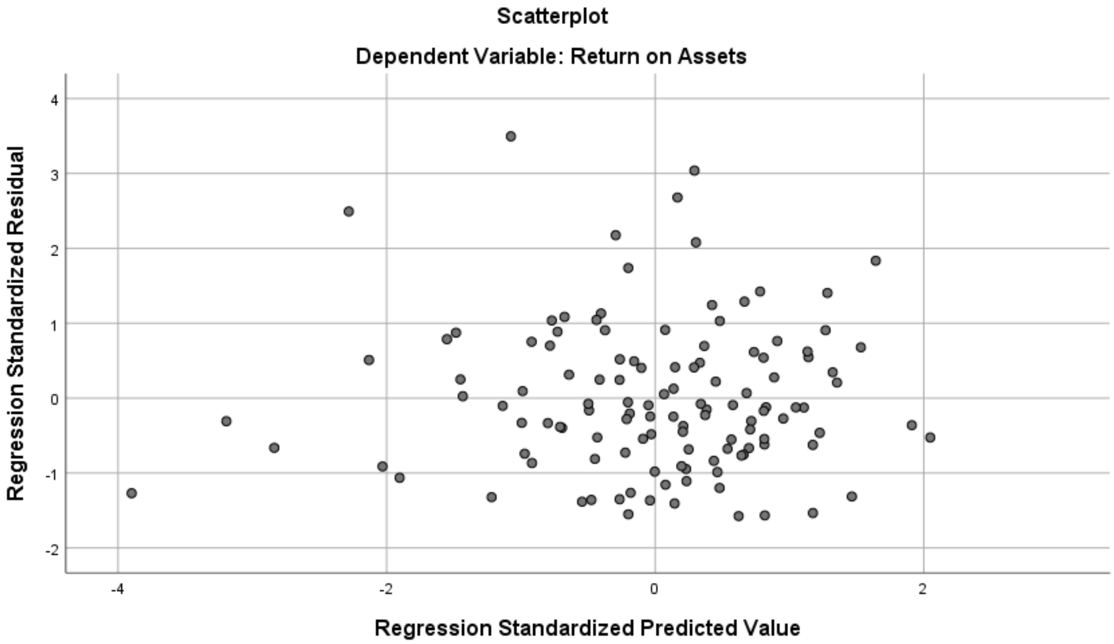
CEO Power 2015

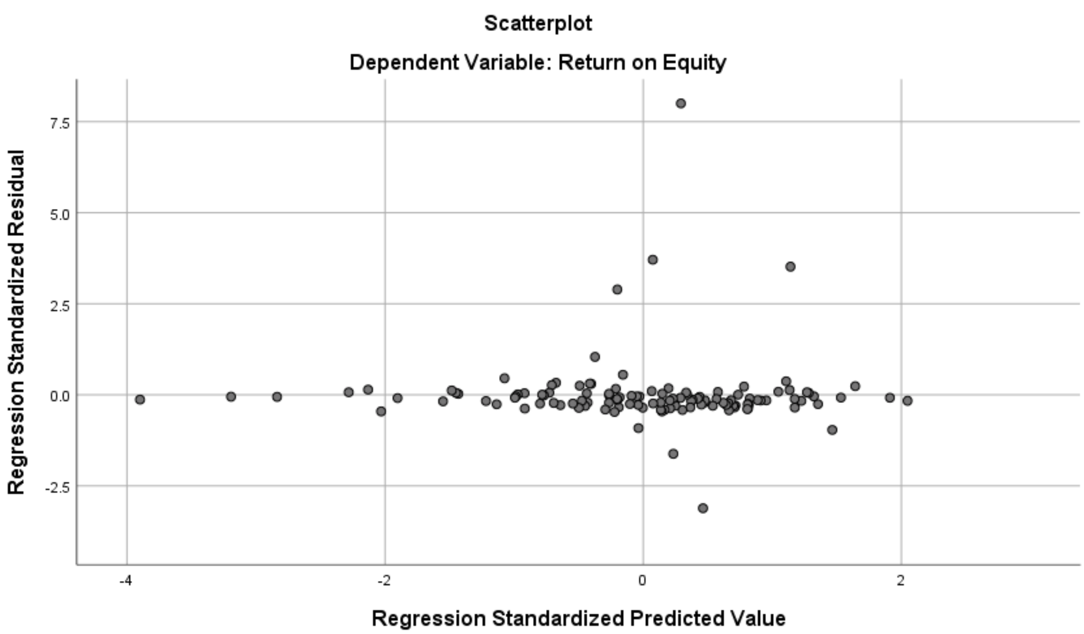





Scatterplot
Dependent Variable: Operating Profit Margin Before Depreciation
Regression Standardized Residual
Regression Standardized Predicted Value
3
2
1
0
-1
-2
-2
0
2
4


Scatterplot
Dependent Variable: Gross Profit Margin
Regression Standardized Residual
Regression Standardized Predicted Value
3
2
1
0
-1
-2
-2
0
2
4


Scatterplot
Dependent Variable: Return on Assets
Regression Standardized Residual
Regression Standardized Predicted Value
4
3
2
1
0
-1
-2
-4
-2
0
2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Regression Standardized Predicted Value
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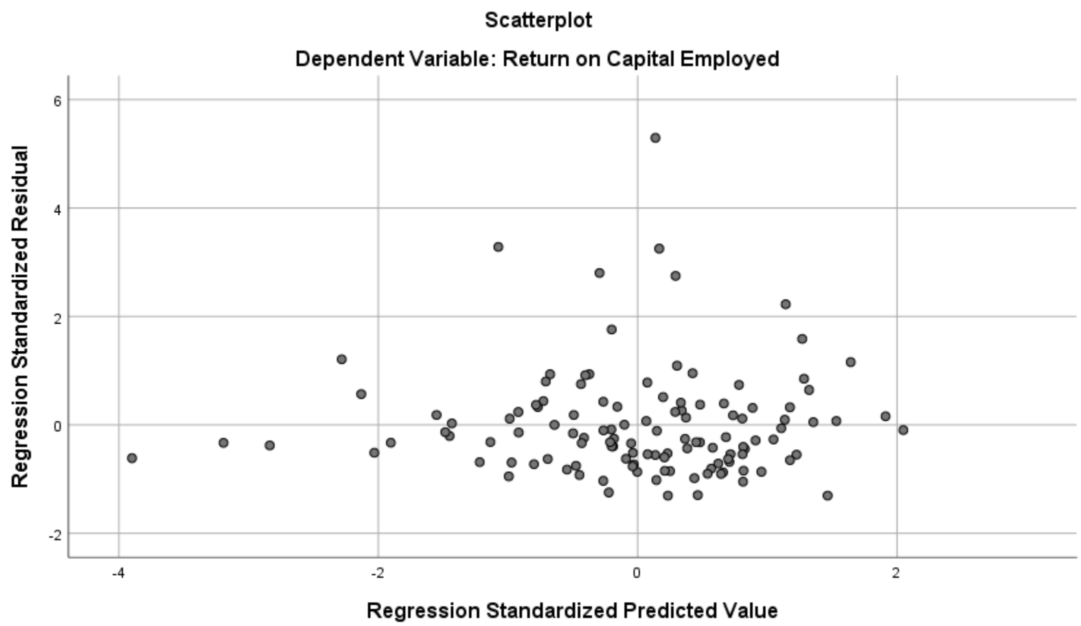
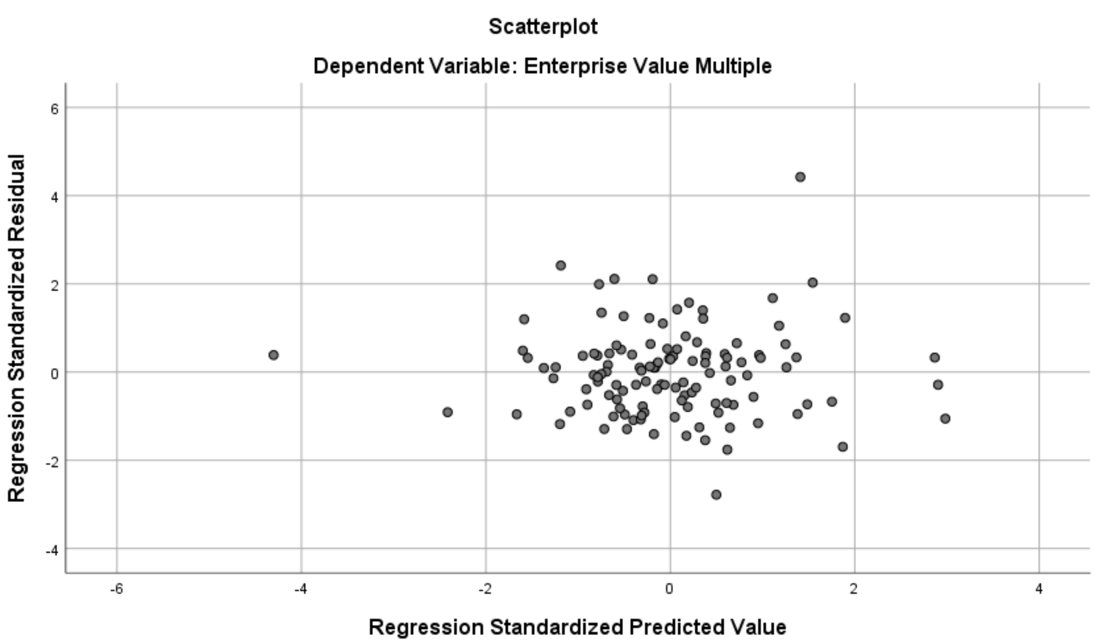
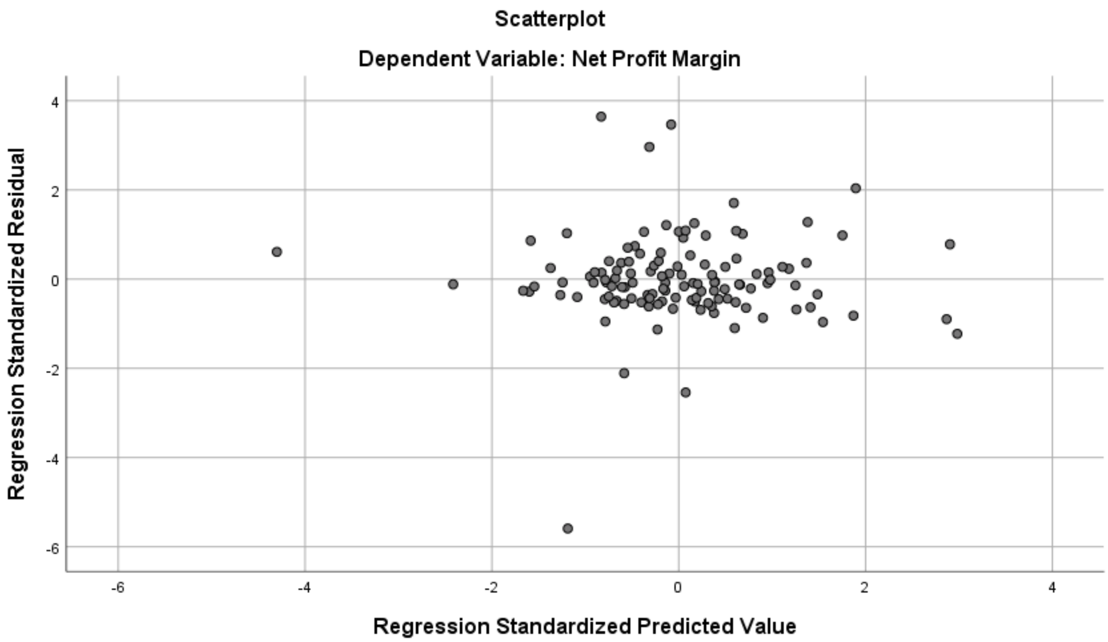
5.0
2.5
0.0
-2.5
-4
-2
0
2



CEO Power 2016




Scatterplot
Dependent Variable: Net Profit Margin
Regression Standardized Residual
Regression Standardized Predicted Value
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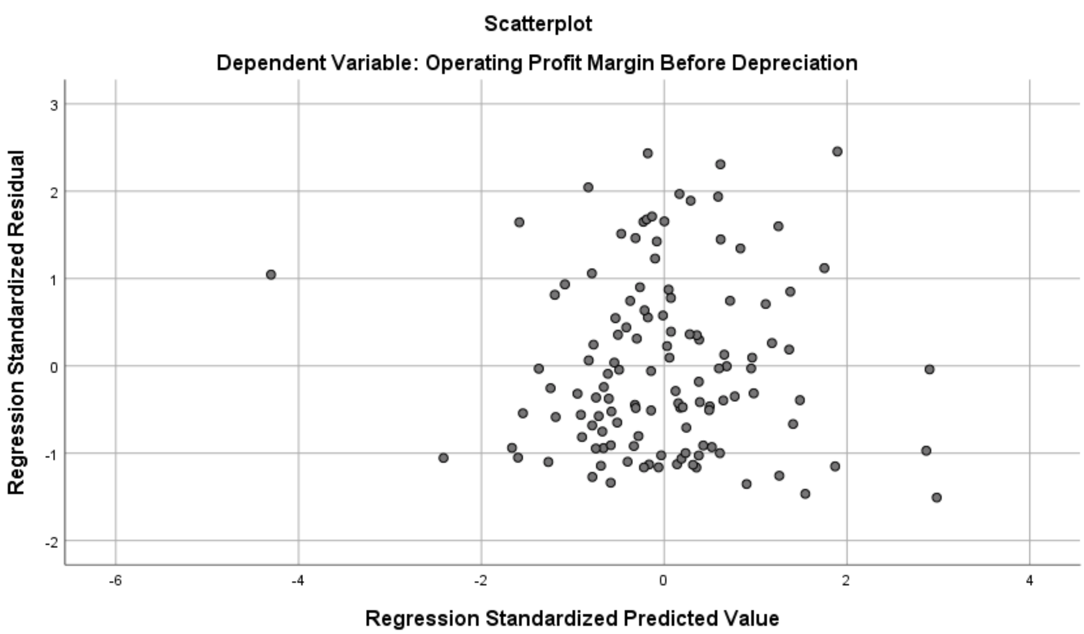
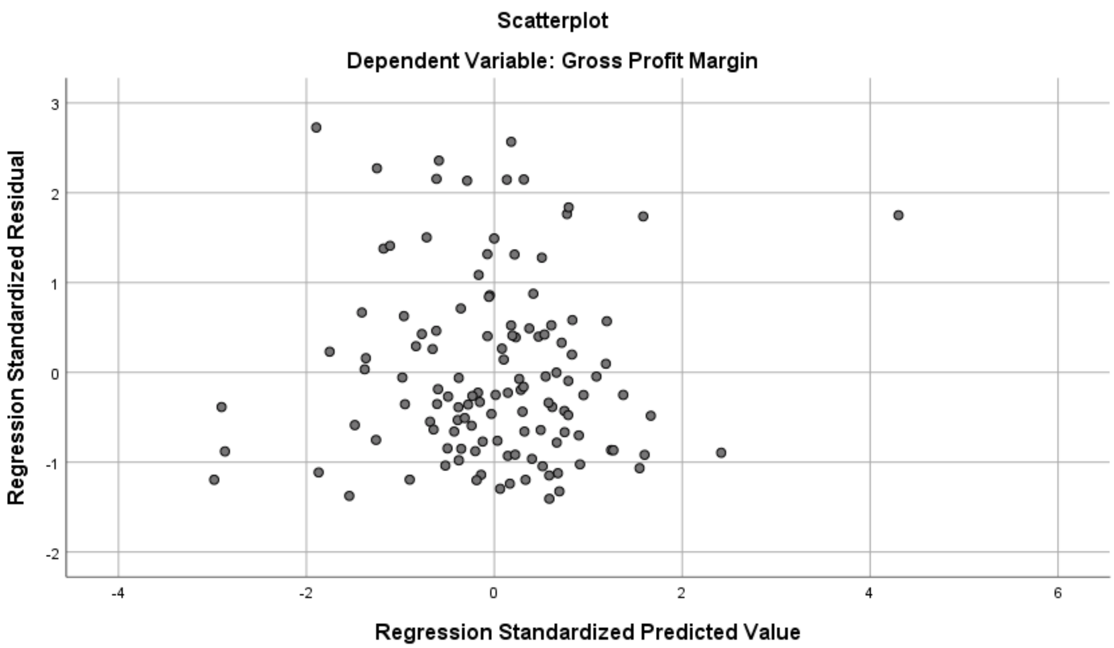
2
0
-2
-4
-6
-6
-4
-2
0
2
4


Scatterplot
Dependent Variable: Operating Profit Margin Before Depreciation
Regression Standardized Residual
Regression Standardized Predicted Value
3
2
1
0
-1
-2
-6
-4
-2
0
2
4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Dependent Variable: Gross Profit Margin
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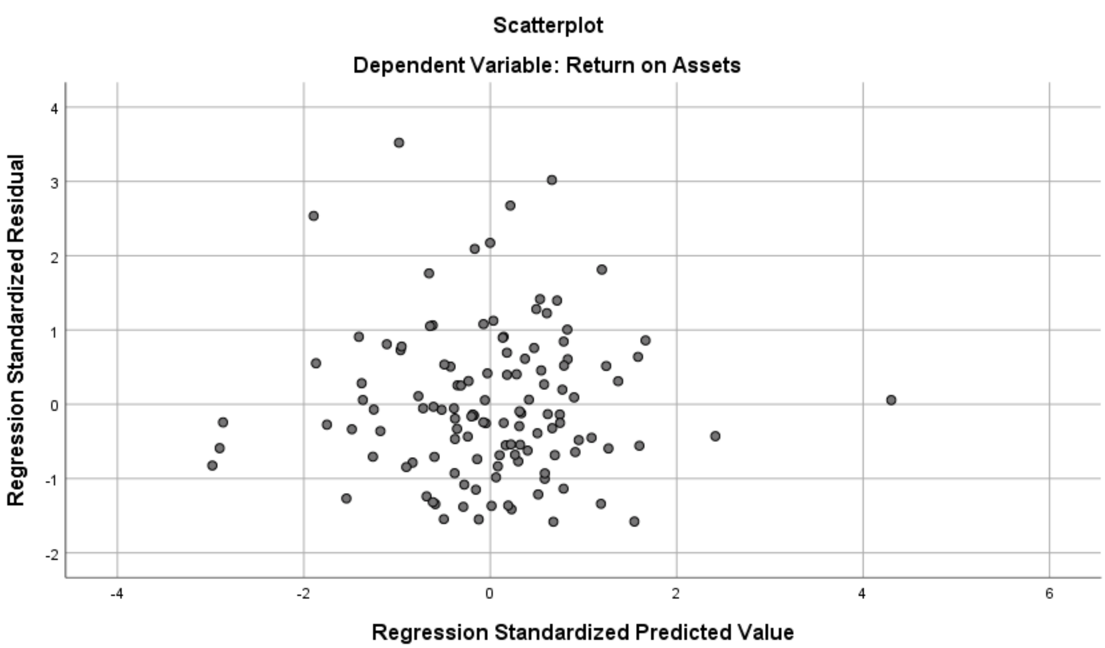
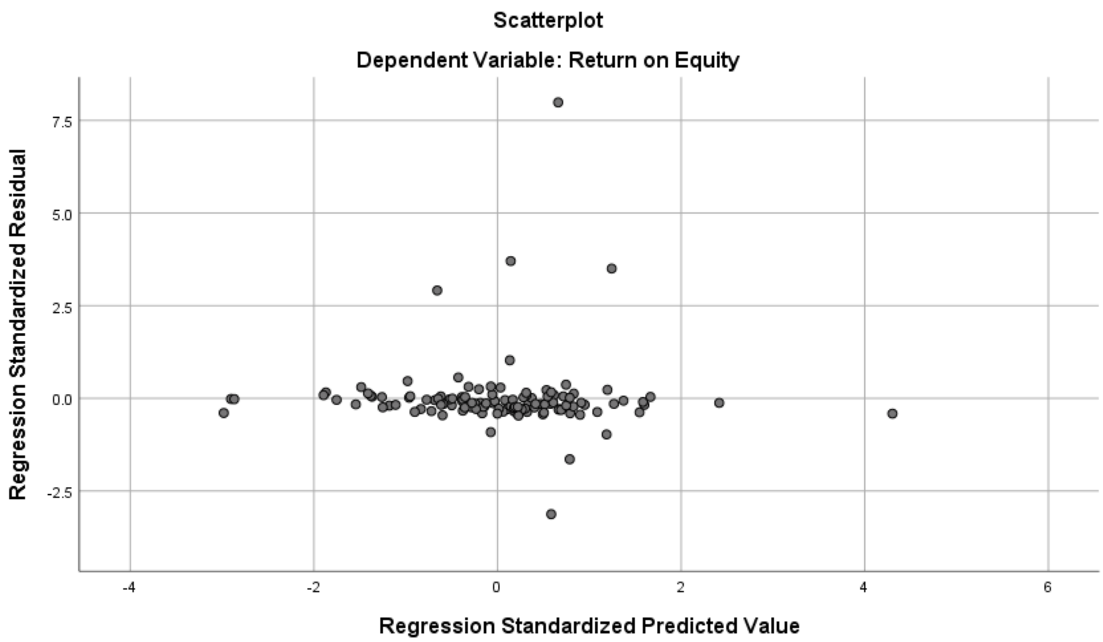
2
1
0
-1
-2
-4
-2
0
2
4
6
Regression Standardized Predicted Value


Scatterplot
Dependent Variable: Return on Assets
Regression Standardized Residual
4
3
2
1
0
-1
-2
-4
-2
0
2
4
6
Regression Standardized Predicted Value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Dependent Variable: Return on Equity
Regression Standardized Residual
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5.0
2.5
0.0
-2.5
-4
-2
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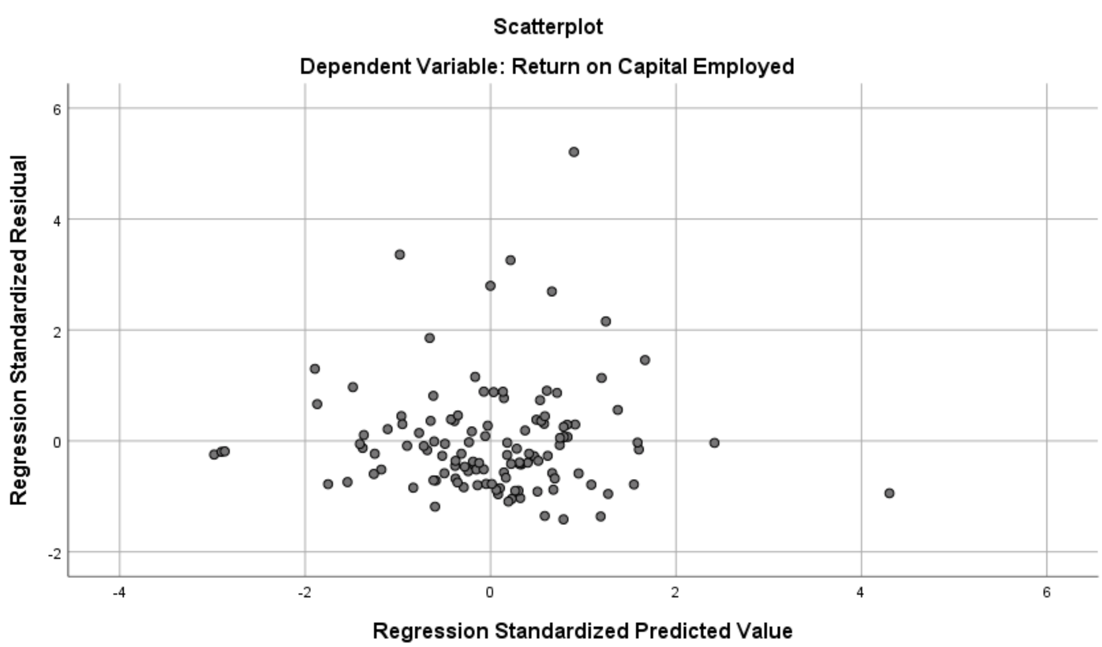
2
4
6
Regression Standardized Predicted Value


Scatterplot
Dependent Variable: Return on Capital Employed
Regression Standardized Residual
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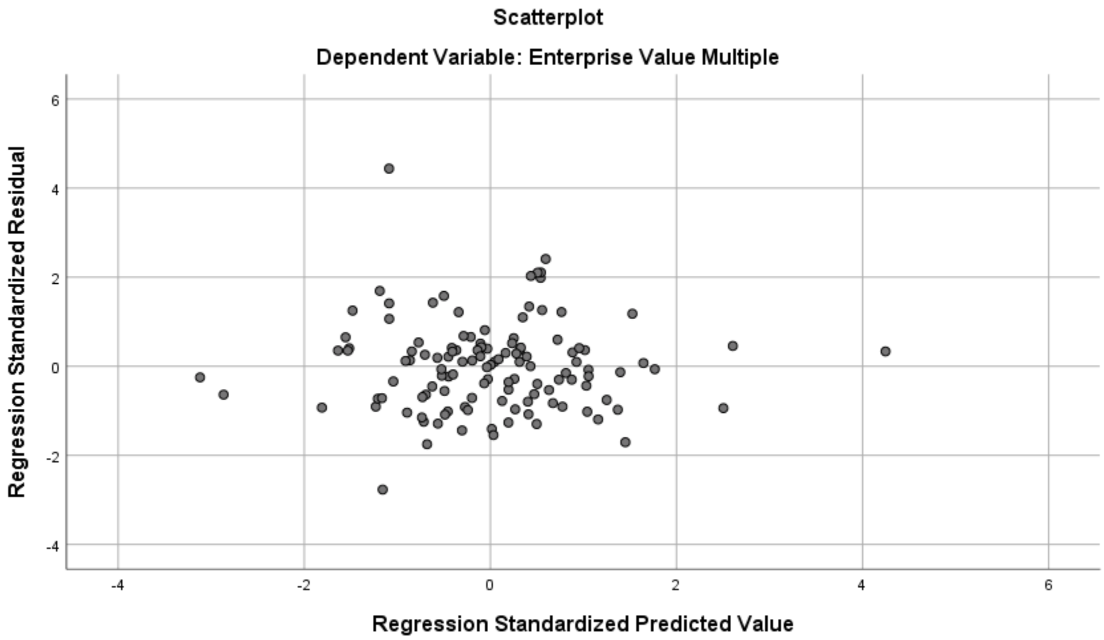
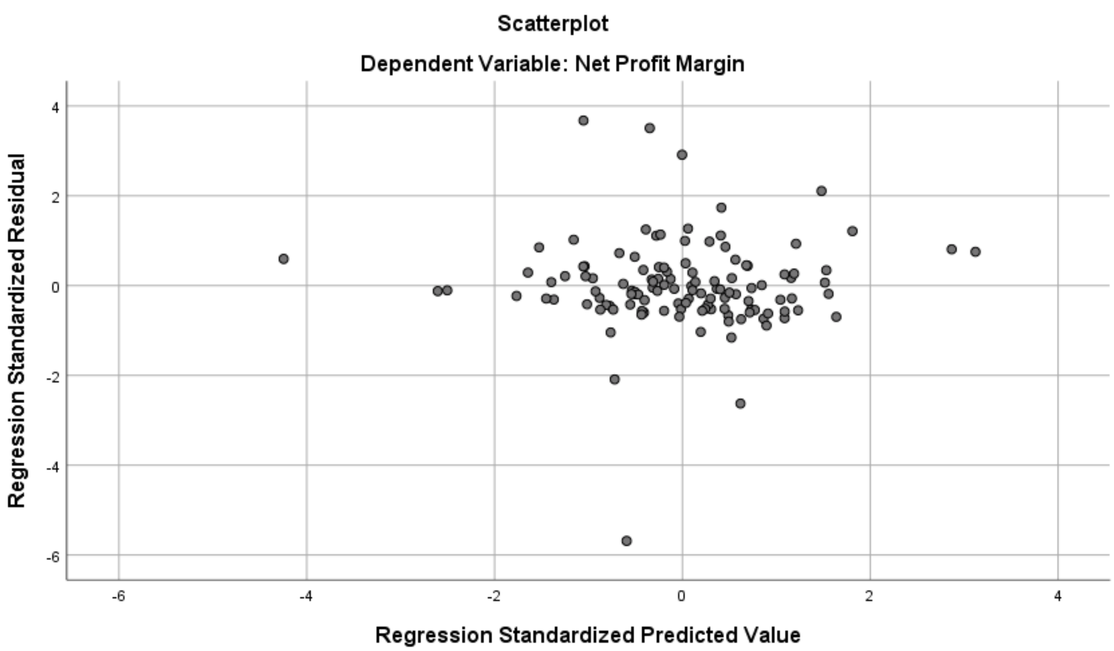
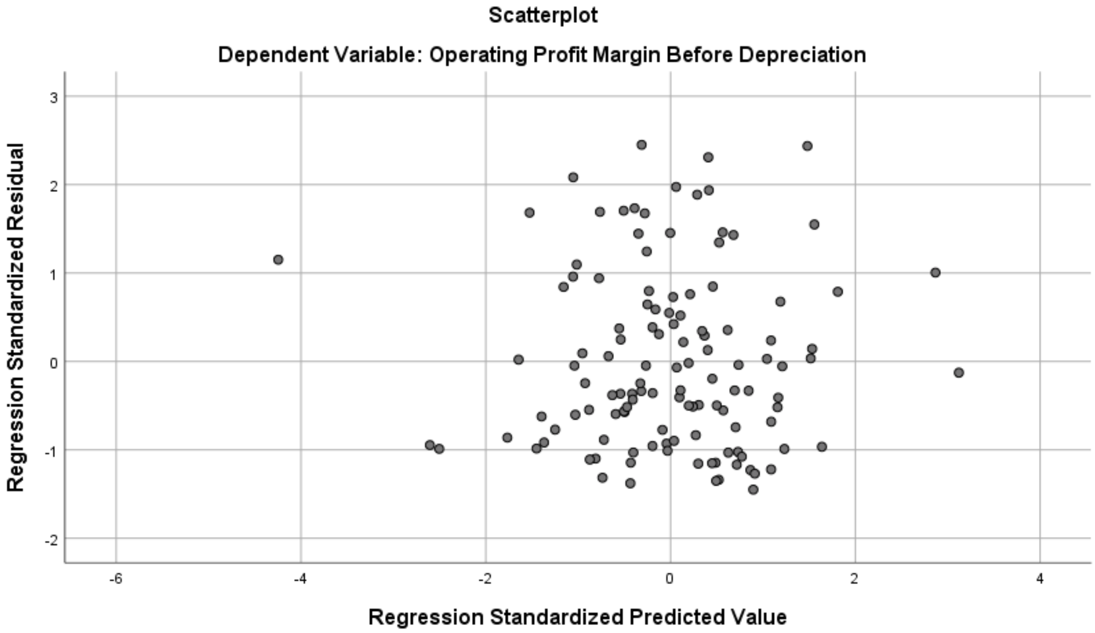
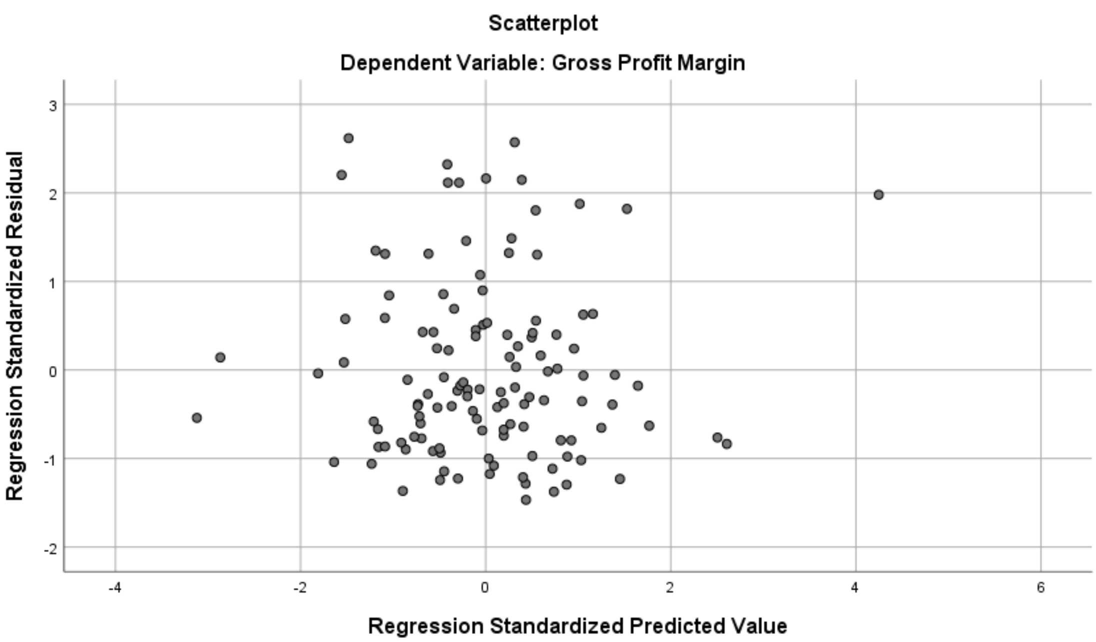
4
2
0
-2
-4
-2
0
2
4
6
Regression Standardized Predicted Value

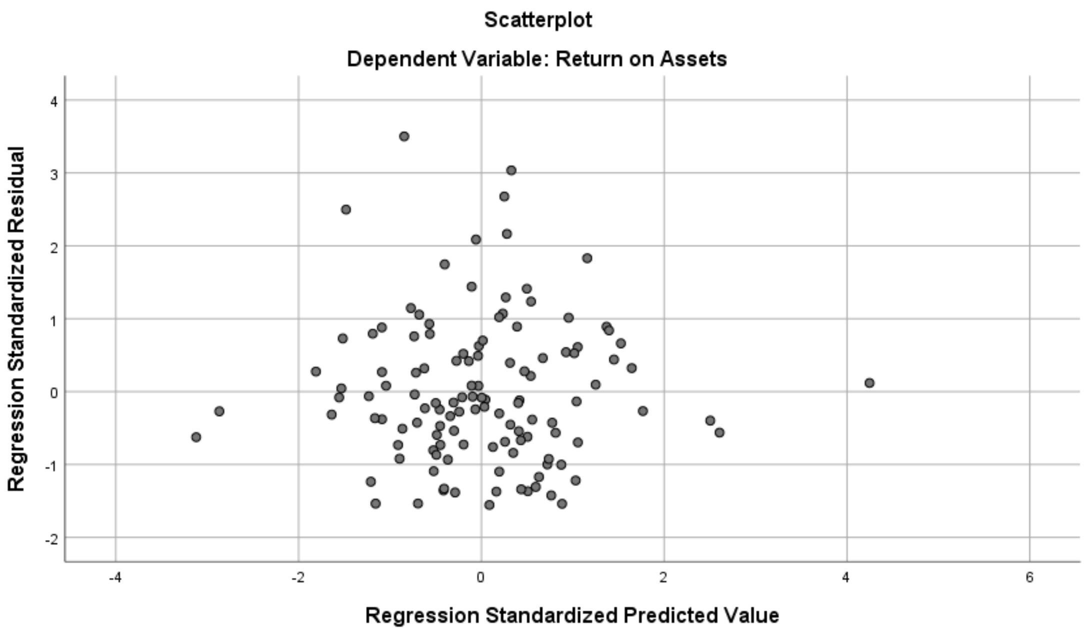
CEO Power 2017

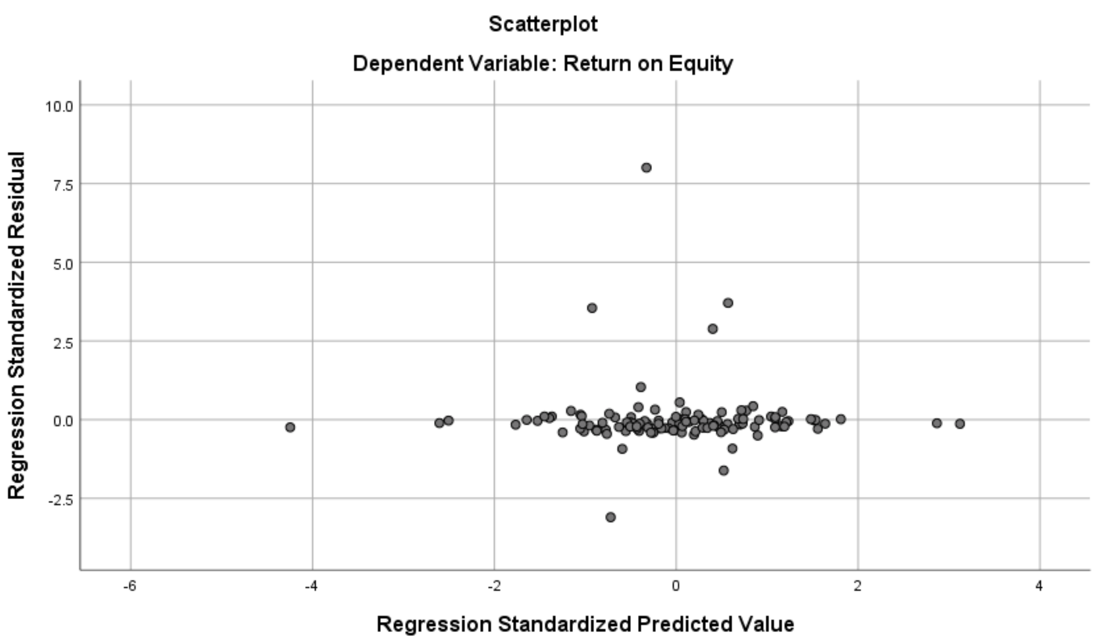


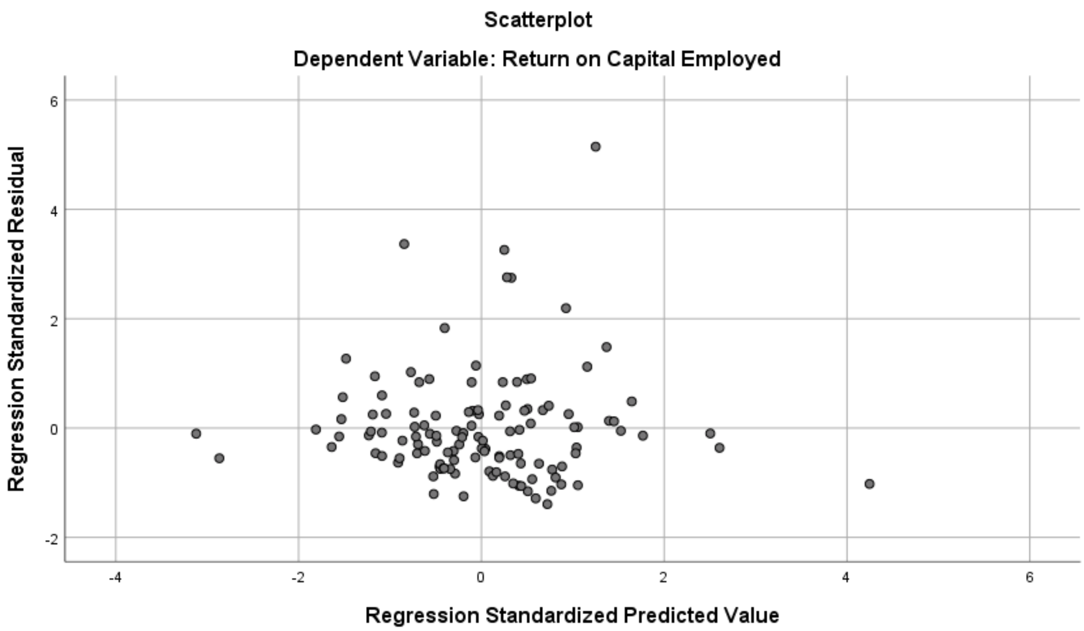



Scatterplot
Dependent Variable: Operating Profit Margin Before Depreciation
Regression Standardized Residual
3
2
1
0
-1
-2
-6
-4
-2
0
2
4
Regression Standardized Predicted Value

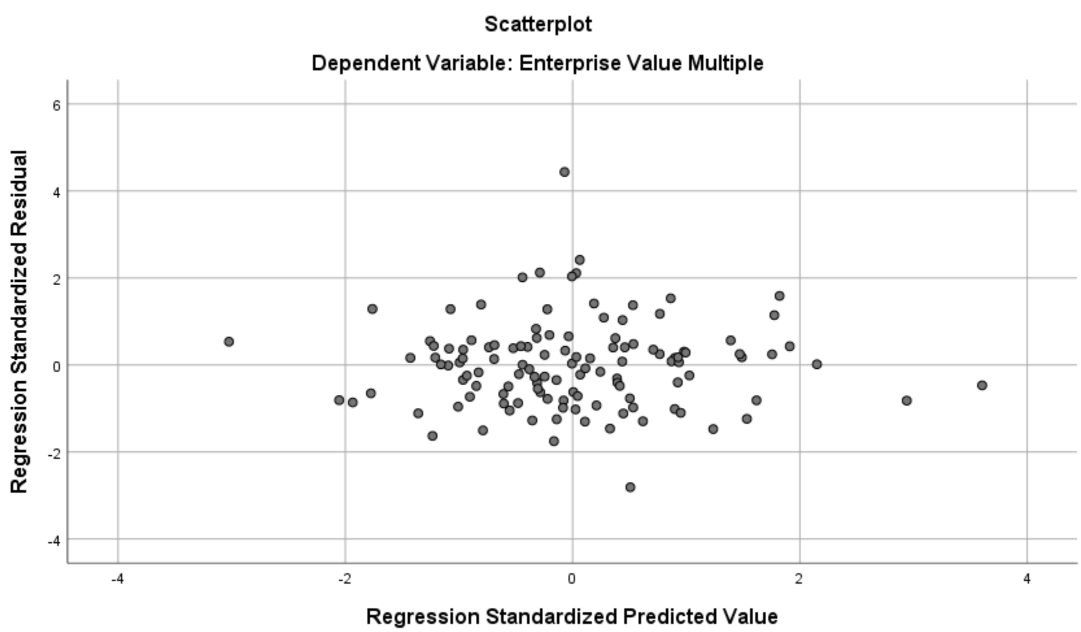

Scatterplot
Dependent Variable: Gross Profit Margin
Regression Standardized Residual
3
2
1
0
-1
-2
-4
-2
0
2
4
6
Regression Standardized Predicted Value

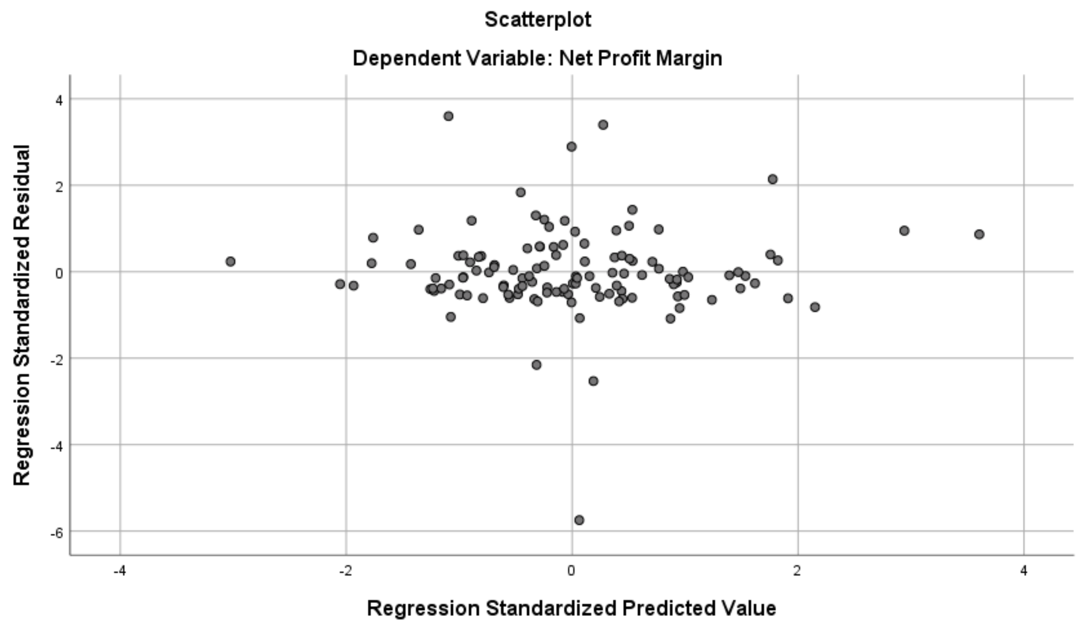

Scatterplot
Dependent Variable: Return on Assets
Regression Standardized Residual
Regression Standardized Predicted Value


Scatterplot
Dependent Variable: Return on Equity
Regression Standardized Residual
Regression Standardized Predicted Value

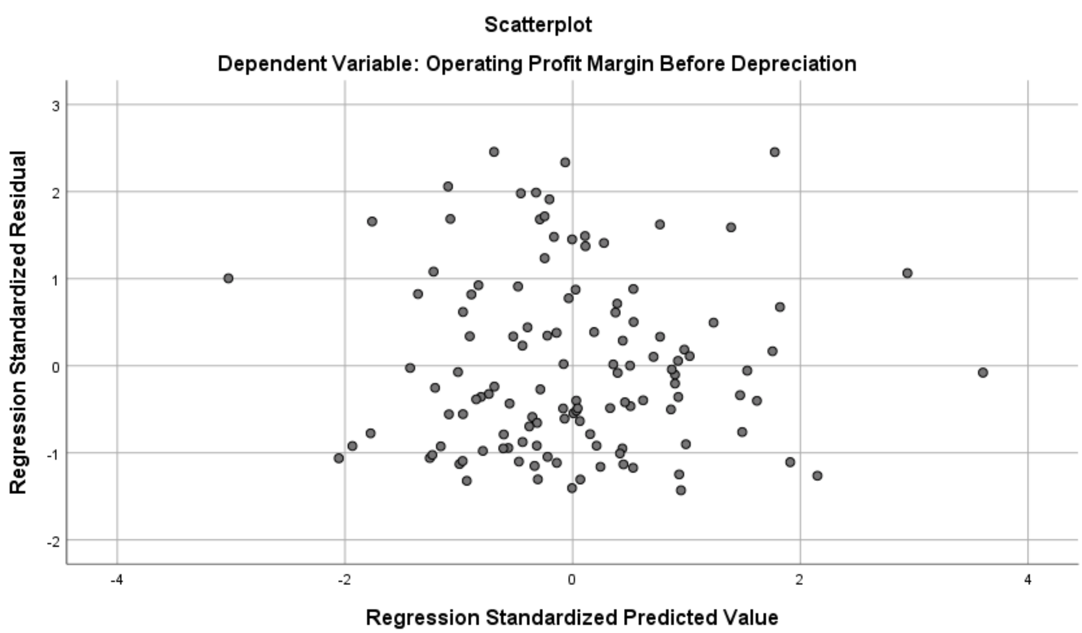


CEO Power 2018

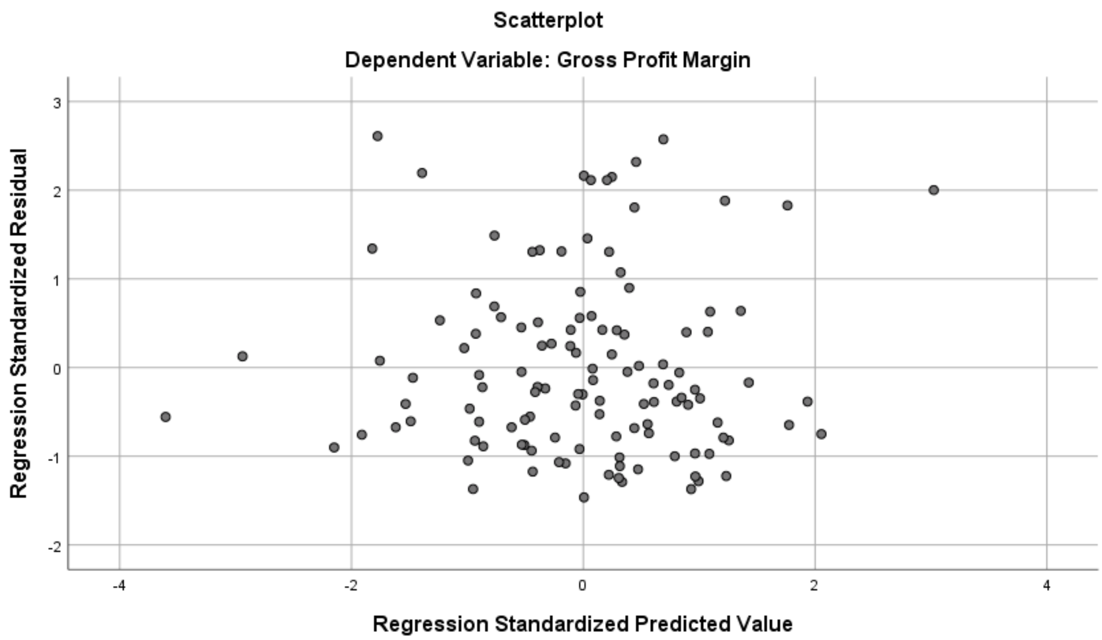


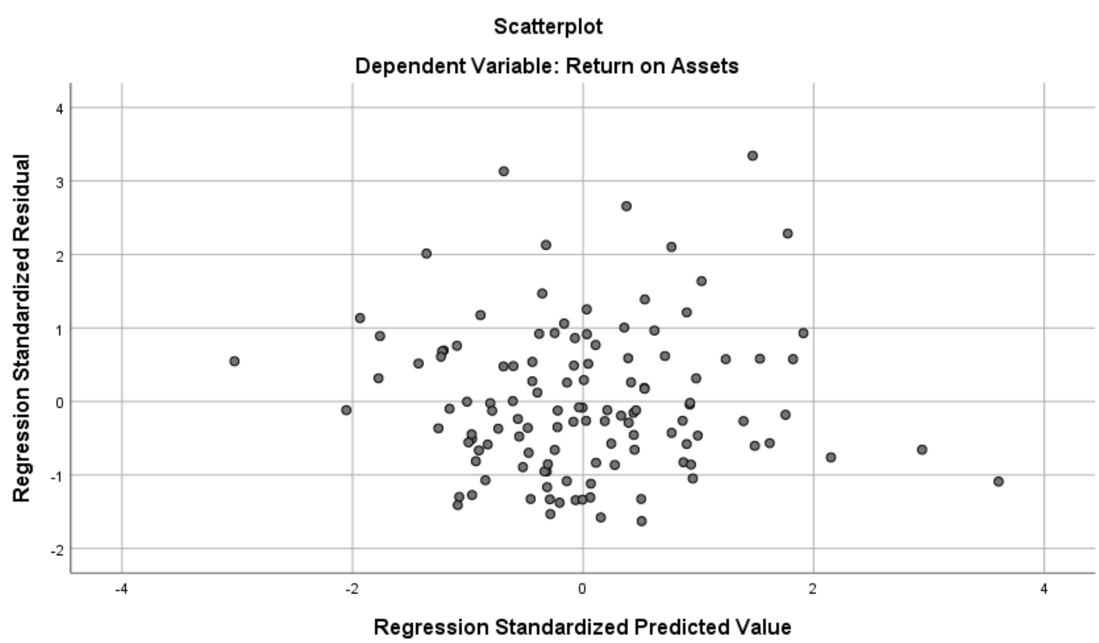


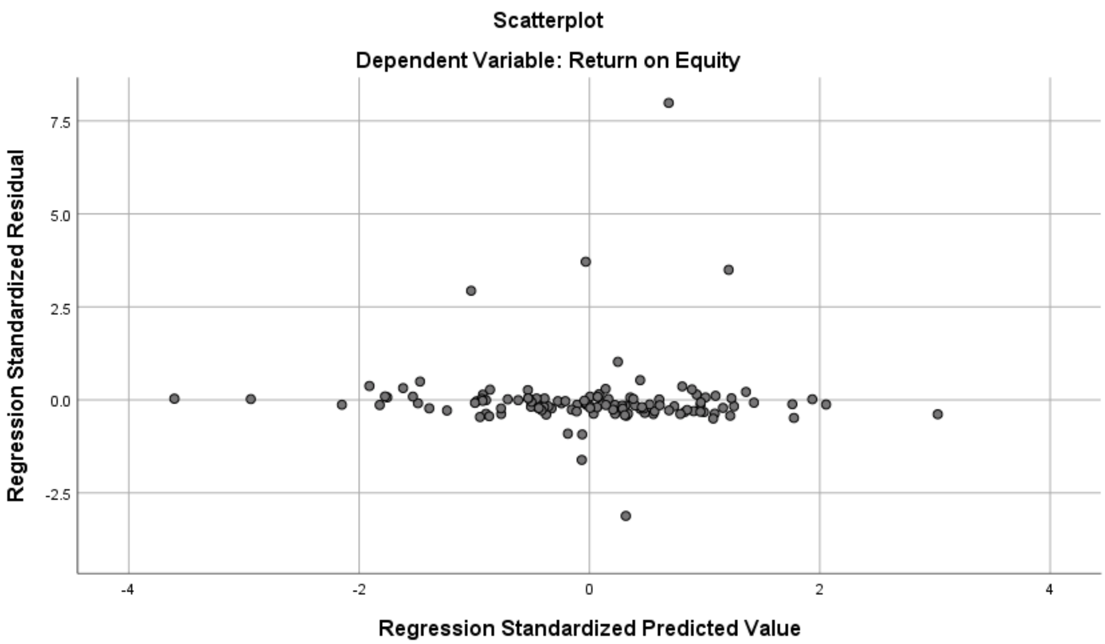
Scatterplot
Dependent Variable: Net Profit Margin
Regression Standardized Residual
Regression Standardized Predicted Value
4
2
0
-2
-4
-6
-4
-2
0
2
4

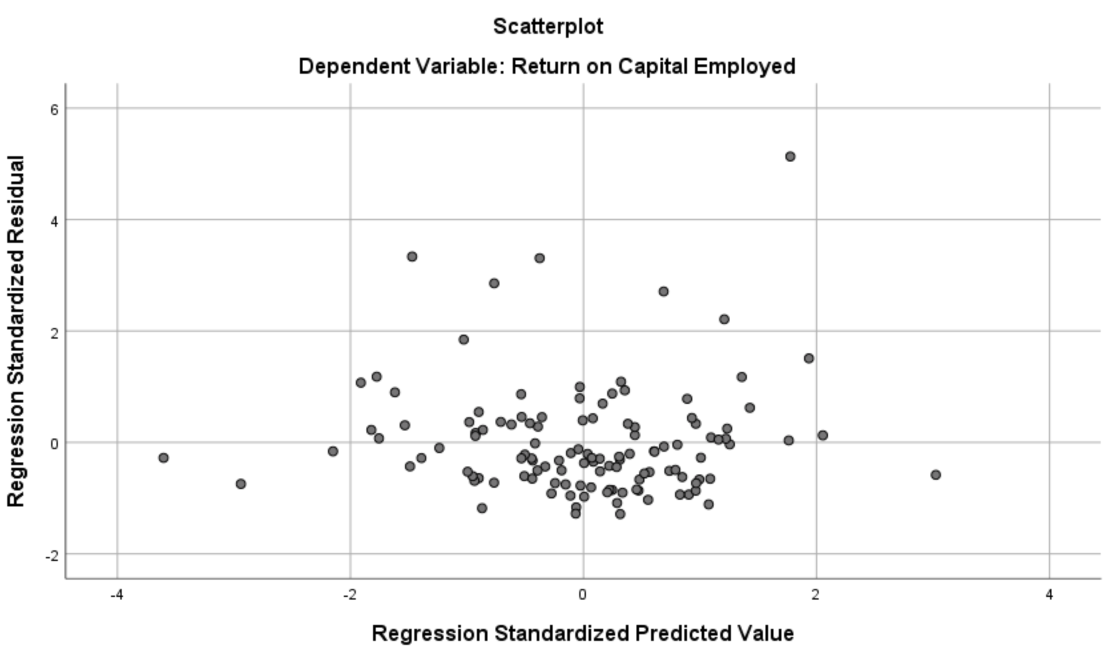


Scatterplot
Dependent Variable: Operating Profit Margin Before Depreciation
Regression Standardized Residual
Regression Standardized Predicted Value
3
2
1
0
-1
-2
-4
-2
0
2
4


Scatterplot
Dependent Variable: Gross Profit Margin
Regression Standardized Residual
Regression Standardized Predicted Value
3
2
1
0
-1
-2
-4
-2
0
2
4


Scatterplot
Dependent Variable: Return on Assets
Regression Standardized Residual
Regression Standardized Predicted Value
4
3
2
1
0
-1
-2
-4
-2
0
2
4


Scatterplot
Dependent Variable: Return on Equity
Regression Standardized Residual
7.5
5.0
2.5
0.0
-2.5
-4
-2
0
2
4
Regression Standardized Predicted Value


Scatterplot
Dependent Variable: Return on Capital Employed
Regression Standardized Residual
6
4
2
0
-2
-4
-2
0
2
4
Regression Standardized Predicted Value

APPENDIX G

ORGANIZATIONAL SLACK MEASUREMENTS

Antecedent		
Name	**Definition**	**References**
Bankruptcy and survival rates	Bankruptcy from time zero to time five years ago	Guha, 2016
Political behavior	Conflict and collaboration within the context of a firm's leadership and through a survey that utilized a Likert scale	Bourgeois & Singh, 1983
Politics	Incompatibility among leadership and creation of stakeholder alliances	Cyert & March, 1963; Astley, 1978 (As cited in Bourgeois III, 1981)

Construct		
Name	**Definition**	**References**
Organizational slack	Average profit over a five-year period	Dimick & Murray, 1978
Organizational slack	Measurement of slack through a Likert scale of 1 – 5 with 1 for no change in work output, 3 for a 10% decline in output, and 5 for a 20% decrease in output	Nohria & Gulati, 1995
Absorbed slack	Adjusted selling, general, and administrative expenses and working capital	Singh, 1986
Unabsorbed slack	Aggregate sum of cash and marketable securities for the year covered current liability obligations	Singh, 1986
Available slack	Quick ratio	Geiger and Cashen, 2002; Lee, 2015, Guha, 2016
Recoverable slack	Selling, general, and administrative expenses divided by sales	Geiger and Cashen, 2002; Guha, 2016; Wefald et al., 2010b
Potential slack	Debt to equity ratio	Geiger and Cashen, 2002
Organizational slack (increases in)	Retained earnings (+), dividend payout (-), general and administrative expenses (+), working capital as a % of sales (+), debt as a % of equity (-), credit rating (+), short-term loan interest relative to	Bourgeois III, 1981

Construct		
Name	**Definition**	**References**
	prime interest rate (-), price to earnings ratio (+)	
Potential slack	Debt to assets ratio	Lee, 2015
Unabsorbed slack	(current asset−current liabilities)/assets and debt/assets (inversed)	Su et al., 2009; Peng et al., 2010
Absorbed slack	Likert scale to determine the extent that organization functioning below "engineered capacity"	Tan & Peng, 2003, p. 1255
Unabsorbed slack	Likert scale to determine the extent that retained earnings are necessary for growth in market share, discretionary use of finances, and the capability to obtain external financing	Tan & Peng, 2003
Organizational slack	"Cost-efficiencies due to economies of scale and scope; customized product design skills; R&D excellence (especially in product quality and innovation); technical service (maintenance) skills; (e) recognized corporate brand; (f) branding (especially, in the domestic market) and marketing expertise; and (g) experience in distribution (especially, in the domestic market)."	Carneiro et al., 2018, pp 1061-1062
Managerial slack	"…administrative and control prowess, experience, and business expertise of the management team that can be easily deployed in new markets."	Carneiro et al., 2018, p. 1062
Financial slack	Profitability and excess liquidity	Carneiro et al., 2018
Available slack and recoverable slack	Current ratio; selling and general expenses	Lin, 2014
Financial slack; unabsorbed slack	Equity-to-debt ratio	Kuusela et al., 2017; Wan & Yiu, 2009
Absorbed slack	Sales, general, and administrative expenses	Love & Nohria, 2005
Organizational slack	Current ratio	Alessandri et al., 2014
Potential slack	Price to earnings ratio	Guha, 2016

Construct		
Name	**Definition**	**References**
Available slack	Profit margin; equity change; quick assets	Moses, 1992
Recoverable slack	Working capital; receivables; inventory; general expense; fixed assets	Moses, 1992
Potential slack	Current debt; long-term debt	Moses, 1992
Available slack	(Gross profit – net profit)/sales	Wefald et al., 2010b
Organizational slack	"perceived achievability of performance targets"	Indjejikian & Matejka, 2006
Unabsorbed slack	Cash flow divided sales	Wan & Yiu, 2009
Available slack	Current ratio, quick ratio, and working capital	Marlin & Geiger, 2015a
Potential slack	Debt to equity ratio, debt to sales ratio, and debt to assets ratio	Marlin & Geiger, 2015a
Recoverable slack	Selling, general, and administrative expenses divided by sales, and R&D and capital expenditures divided by sales	Marlin & Geiger, 2015a
Human slack	Employees / sales; (firm employees/firm sales) – (industry employees/industry sales)	Mishina et al. (2004)

Moderator		
Name	Definition	References
Decentralization	The level of decision making that a CEO delegates to the senior leadership team using a Likert scale consisting of 8 levels	Singh, 1986
CEO duality	The measurement of when the CEO is also the board chair represented as 1 and 0 for sole CEO designation	Peng et al., 2010
Business unit controller focus	Balance between local versus enterprise-wide focus	Indjejikian & Matejka, 2006

Consequence		
Name	**Definition**	**References**
Risk-taking	Questionnaire scale utilizing 6 levels measuring “reliance on innovation, debt financing, heavy R&D, and high risk—high return investments as opposed to low-risk moderate return investments”	Singh, 1986
Firm performance	Return on assets	Su et al., 2009; Peng et al., 2010; Kuusela et al., 2017; Love & Nohria, 2005
Firm performance	Questionnaire asking senior managers to assess firm performance relative to that of others in terms of profits and market share	Tan & Peng, 2003
Internationalization	“…number of countries in which a firm establishes subsidiaries in a given year.”	Lin, 2014, p. 399
Acquisitions	domestic non-diversifying; domestic diversifying; and cross-border.	Alessandri et al., 2014
Risk	Pricing strategies	Moses, 1992
Firm performance	Return on assets; return on equity; average worker productivity	Wefald et al., 2010b
Firm performance	Return on assets; return on equity	Wan & Yiu, 2009
Firm performance	Return on assets; return on sales	Marlin & Geiger, 2015a

APPENDIX H

FIXED EFFECTS REGRESSION COMPARISON

RQ1	**Standard Errors**	**Cluster-Robust Standard Errors**
Human Slack	**$p<.05$;** +	**$p<.05$;** +
Potential Slack	$p>.05$	$p>.05$
Available Slack	$p>.05$	$p>.05$
H1 ROE	**Standard Errors**	**Cluster-Robust Standard Errors**
Human Slack	$p>.05$	$p>.05$
Potential Slack	**$p<.05$;** +	$p>.05$
Available Slack	$p>.05$	$p>.05$
H1 ROA	**Standard Errors**	**Cluster-Robust Standard Errors**
Human Slack	$p>.05$	$p>.05$
Potential Slack	**$p<.05$;** +	$p>.05$
Available Slack	$p>.05$	$p>.05$
H2 ROE	**Standard Errors**	**Cluster-Robust Standard Errors**
Human Slack	$p>.05$	$p>.05$
Potential Slack	**$p<.05$; --**	**$p<.05$; --**
Available Slack	$p>.05$	$p>.05$
H2 ROA	**Standard Errors**	**Cluster-Robust Standard Errors**
Human Slack	$p>.05$	$p>.05$
Potential Slack	**$p<.05$;** +	**$p<.05$;** +
Available Slack	**$p<.05$;** +	$p>.05$
H3	**Standard Errors**	**Cluster-Robust Standard Errors**
Human Slack	$p>.05$	$p>.05$
Potential Slack	$p>.05$	$p>.05$
Available Slack	$p>.05$	$p>.05$

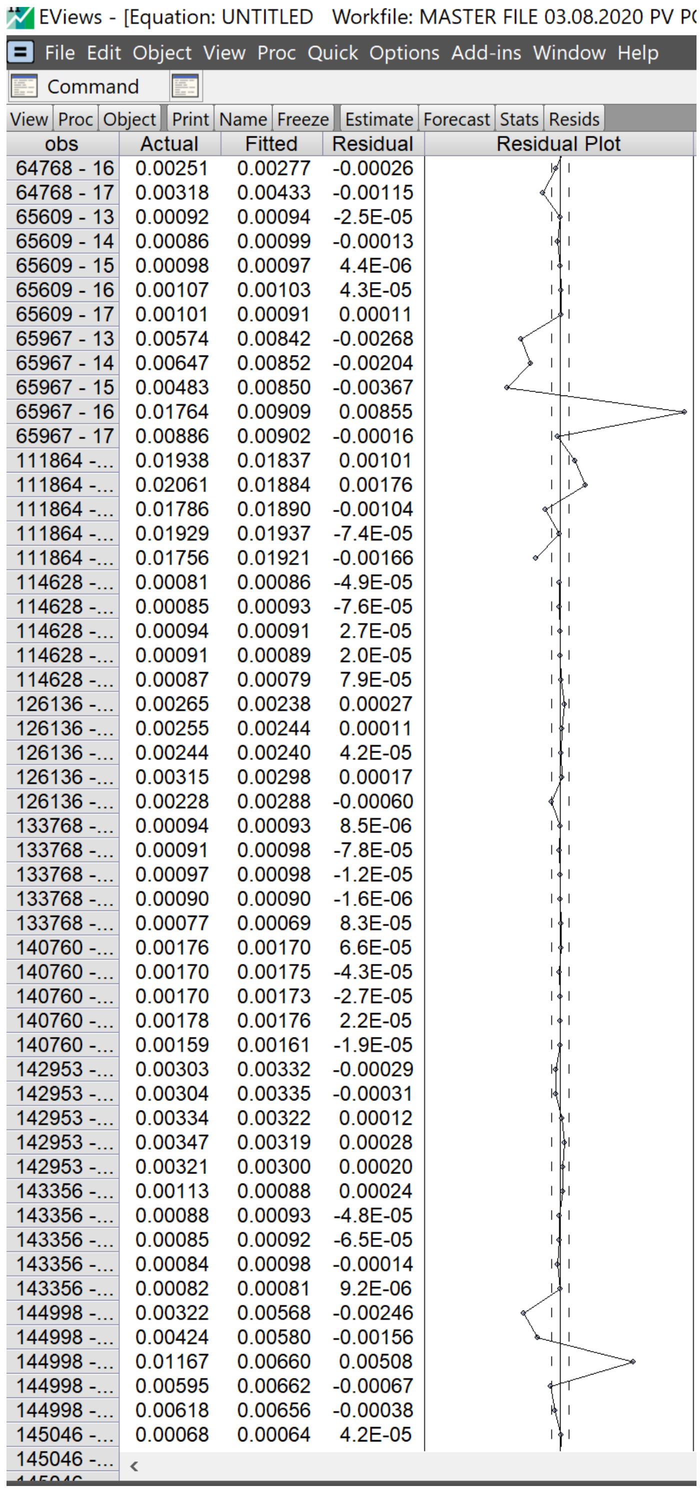
APPENDIX I

NUMERICAL CONVERSION FOR S&P RATINGS

Rating	Numerical Conversion
AAA	1
AA+	2
AA	3
AA-	4
A+	5
A	6
A-	7
BBB+	8
BBB	9
BBB-	10
BB+	11
BB	12
BB-	13
B+	14
B	15
B-	16
CCC+	17
CCC	18
CCC-	19
CC	20
C	21
D	22

APPENDIX J

RESIDUAL PLOT



EViews - [Equation: UNTITLED Workfile: MASTER FILE 03.08.2020 PV P(

File Edit Object View Proc Quick Options Add-ins Window Help

Command

View | Proc | Object | Print | Name | Freeze | Estimate | Forecast | Stats | Resids

obs	Actual	Fitted	Residual	Residual Plot
64768 - 16	0.00251	0.00277	-0.00026	
64768 - 17	0.00318	0.00433	-0.00115	
65609 - 13	0.00092	0.00094	-2.5E-05	
65609 - 14	0.00086	0.00099	-0.00013	
65609 - 15	0.00098	0.00097	4.4E-06	
65609 - 16	0.00107	0.00103	4.3E-05	
65609 - 17	0.00101	0.00091	0.00011	
65967 - 13	0.00574	0.00842	-0.00268	
65967 - 14	0.00647	0.00852	-0.00204	
65967 - 15	0.00483	0.00850	-0.00367	
65967 - 16	0.01764	0.00909	0.00855	
65967 - 17	0.00886	0.00902	-0.00016	
111864 -...	0.01938	0.01837	0.00101	
111864 -...	0.02061	0.01884	0.00176	
111864 -...	0.01786	0.01890	-0.00104	
111864 -...	0.01929	0.01937	-7.4E-05	
111864 -...	0.01756	0.01921	-0.00166	
114628 -...	0.00081	0.00086	-4.9E-05	
114628 -...	0.00085	0.00093	-7.6E-05	
114628 -...	0.00094	0.00091	2.7E-05	
114628 -...	0.00091	0.00089	2.0E-05	
114628 -...	0.00087	0.00079	7.9E-05	
126136 -...	0.00265	0.00238	0.00027	
126136 -...	0.00255	0.00244	0.00011	
126136 -...	0.00244	0.00240	4.2E-05	
126136 -...	0.00315	0.00298	0.00017	
126136 -...	0.00228	0.00288	-0.00060	
133768 -...	0.00094	0.00093	8.5E-06	
133768 -...	0.00091	0.00098	-7.8E-05	
133768 -...	0.00097	0.00098	-1.2E-05	
133768 -...	0.00090	0.00090	-1.6E-06	
133768 -...	0.00077	0.00069	8.3E-05	
140760 -...	0.00176	0.00170	6.6E-05	
140760 -...	0.00170	0.00175	-4.3E-05	
140760 -...	0.00170	0.00173	-2.7E-05	
140760 -...	0.00178	0.00176	2.2E-05	
140760 -...	0.00159	0.00161	-1.9E-05	
142953 -...	0.00303	0.00332	-0.00029	
142953 -...	0.00304	0.00335	-0.00031	
142953 -...	0.00334	0.00322	0.00012	
142953 -...	0.00347	0.00319	0.00028	
142953 -...	0.00321	0.00300	0.00020	
143356 -...	0.00113	0.00088	0.00024	
143356 -...	0.00088	0.00093	-4.8E-05	
143356 -...	0.00085	0.00092	-6.5E-05	
143356 -...	0.00084	0.00098	-0.00014	
143356 -...	0.00082	0.00081	9.2E-06	
144998 -...	0.00322	0.00568	-0.00246	
144998 -...	0.00424	0.00580	-0.00156	
144998 -...	0.01167	0.00660	0.00508	
144998 -...	0.00595	0.00662	-0.00067	
144998 -...	0.00618	0.00656	-0.00038	
145046 -...	0.00068	0.00064	4.2E-05	
145046 -...				

APPENDIX K

RANDOM EFFECTS REGRESSIONS

Dependent Variable: HUMAN SLACK IN 1,000S
Method: Panel EGLS (Cross-section random effects)
Date: 04/15/20 Time: 13:45
Sample: 2013 2017
Periods included: 5
Cross-sections included: 197
Total panel (unbalanced) observations: 969
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.640234	2.336013	0.702151	0.4828
POLITICS	8.40E-05	7.07E-05	1.187435	0.2354
AGE	0.000384	0.003522	0.109008	0.9132
EMPLOYEES	0.007307	0.000697	10.48347	0.0000
MARKET VALUE	-3.25E-06	7.74E-07	-4.201074	0.0000
MINING	-0.181041	2.703730	-0.066960	0.9466
CONSTRUCTION	0.249060	3.316349	0.075101	0.9402
MANUFACTURING	0.371333	2.367057	0.156875	0.8754
TRANSPORTATION, COMMUNICATIONS, ELECTRIC, GAS, AND SANITARY SERVICES	0.393215	2.388730	0.164613	0.8693
WHOLESALE TRADE	-0.694778	2.419112	-0.287204	0.7740
RETAIL TRADE	2.102235	2.389004	0.879963	0.3791
FINANCE, INSURANCE AND REAL ESTATE	-0.479542	2.392865	-0.200405	0.8412
SERVICES	3.561743	2.416002	1.474230	0.1407
PUBLIC ADMINISTRATION	0.457736	2.628253	0.174160	0.8618
DUAL CLASS	-1.055474	0.639116	-1.651458	0.0990

Effects Specification

	S.D.	Rho
Cross-section random	2.320931	0.9443
Idiosyncratic random	0.563898	0.0557

Weighted Statistics

Root MSE	0.570397	R-squared	0.169180
Mean dependent var	0.301563	Adjusted R-squared	0.156988
S.D. dependent var	0.625763	S.E. of regression	0.574864
Sum squared resid	315.2667	F-statistic	13.87597
Durbin-Watson stat	1.862971	Prob(F-statistic)	0.000000

Unweighted Statistics			
R-squared	0.280310	Mean dependent var	2.781470
Sum squared resid	5846.439	Durbin-Watson stat	0.100460

Dependent Variable: POTENTIAL SLACK IN 1,000S
Method: Panel EGLS (Cross-section random effects)
Date: 04/15/20 Time: 13:49
Sample: 2013 2017
Periods included: 5
Cross-sections included: 196
Total panel (unbalanced) observations: 969
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-53346.07	165545.4	-0.322244	0.7473
POLITICS	115.9571	43.11530	2.689465	0.0073
AGE	108.2112	254.9522	0.424437	0.6713
EMPLOYEES	-6.025740	74.35584	-0.081039	0.9354
MARKET VALUE	-0.080660	0.139628	-0.577677	0.5636
MINING	-6840.296	189851.7	-0.036030	0.9713
CONSTRUCTION	-13272.51	232996.3	-0.056964	0.9546
MANUFACTURING	-32269.24	166275.6	-0.194071	0.8462
TRANSPORTATION, COMMUNICATIONS, ELECTRIC, GAS, AND, SANITARY SERVICES	173.7081	167749.1	0.001036	0.9992
WHOLESALE TRADE	-6613.798	170373.3	-0.038819	0.9690
RETAIL TRADE	-3645.332	168186.1	-0.021674	0.9827
FINANCE, INSURANCE, AND REAL ESTATE	-21781.77	168159.4	-0.129531	0.8970
SERVICES	1946.153	169738.5	0.011466	0.9909
PUBLIC ADMINISTRATION	945.5065	184993.9	0.005111	0.9959
DUAL CLASS	14731.52	45921.56	0.320797	0.7484

Effects Specification

	S.D.	Rho
Cross-section random	0.000000	0.0000
Idiosyncratic random	366483.1	1.0000

Weighted Statistics

Root MSE	359097.4	R-squared	0.009877
Mean dependent var	-7825.587	Adjusted R-squared	-0.004653
S.D. dependent var	361070.5	S.E. of regression	361909.5
Sum squared resid	1.25E+14	F-statistic	0.679794
Durbin-Watson stat	1.296973	Prob(F-statistic)	0.795719

Unweighted Statistics

R-squared	0.009877	Mean dependent var	-7825.587
Sum squared resid	1.25E+14	Durbin-Watson stat	1.296973

Dependent Variable: AVAILABLE SLACK IN 1,000S
Method: Panel EGLS (Cross-section random effects)
Date: 04/15/20 Time: 13:53
Sample: 2013 2017
Periods included: 5
Cross-sections included: 196
Total panel (unbalanced) observations: 967
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1982.437	21645.62	0.091586	0.9270
POLITICS	-1.468744	1.504119	-0.976482	0.3291
AGE	9.998415	33.11245	0.301953	0.7628
EMPLOYEES	-3.072262	8.873708	-0.346221	0.7293
MARKET VALUE	-0.005941	0.013165	-0.451296	0.6519
MINING	-276.6800	25032.74	-0.011053	0.9912
CONSTRUCTION	-1029.848	30711.83	-0.033533	0.9733
MANUFACTURING	-314.5950	21922.44	-0.014350	0.9886
TRANSPORTATION, COMMUNICATIONS, ELECTRIC, GAS, AND SANITARY SERVICES	-435.0604	22117.92	-0.019670	0.9843
WHOLESALE TRADE	-955.0555	22410.25	-0.042617	0.9660
RETAIL TRADE	-284.1602	22157.43	-0.012825	0.9898
FINANCE, INSURANCE AND REAL ESTATE	12553.49	22158.99	0.566519	0.5712
SERVICES	1737.299	22375.33	0.077644	0.9381
PUBLIC ADMINISTRATION	1161.198	24364.11	0.047660	0.9620
DUAL CLASS	-36.78052	5956.543	-0.006175	0.9951

Effects Specification

	S.D.	Rho
Cross-section random	20885.26	0.7383
Idiosyncratic random	12434.47	0.2617

Weighted Statistics

Root MSE	12313.22	R-squared	0.012748
Mean dependent var	885.8507	Adjusted R-squared	-0.001770
S.D. dependent var	12399.25	S.E. of regression	12409.85
Sum squared resid	1.47E+11	F-statistic	0.878057
Durbin-Watson stat	2.861313	Prob(F-statistic)	0.582954

Unweighted Statistics

R-squared	0.045597	Mean dependent var	3406.723
Sum squared resid	5.37E+11	Durbin-Watson stat	0.781278

Dependent Variable: ROE IN 1,000S
Method: Panel EGLS (Cross-section random effects)
Date: 04/15/20 Time: 13:56
Sample: 2013 2017
Periods included: 5
Cross-sections included: 197
Total panel (unbalanced) observations: 965
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	271.7125	902.4762	0.301074	0.7634
HUMAN SLACK	-11.25858	27.69711	-0.406489	0.6845
AGE	-0.682896	1.398845	-0.488185	0.6255
EMPLOYEES	-0.121114	0.418716	-0.289251	0.7725
MARKET VALUE	3.22E-05	0.000783	0.041081	0.9672
MINING	-222.3444	1042.499	-0.213280	0.8312
CONSTRUCTION	-37.04845	1279.360	-0.028959	0.9769
MANUFACTURING	82.35152	913.0680	0.090192	0.9282
TRANSPORTATION, COMMUNICATIONS, ELECTRIC, GAS AND SANITARY SERVICES	-13.11424	921.2197	-0.014236	0.9886
WHOLESALE TRADE	-706.8365	935.5502	-0.755530	0.4501
RETAIL TRADE	358.2730	927.0610	0.386461	0.6992
FINANCE, INSURANCE, AND REAL ESTATE	-51.85200	923.5192	-0.056146	0.9552
SERVICES	-29.42117	938.9073	-0.031336	0.9750
PUBLIC ADMINISTRATION	-71.80777	1016.588	-0.070636	0.9437
DUAL CLASS	35.22111	252.4959	0.139492	0.8891

Effects Specification

	S.D.	Rho
Cross-section random	466.7936	0.0686
Idiosyncratic random	1720.515	0.9314

Weighted Statistics

Root MSE	1704.298	R-squared	0.013310
Mean dependent var	158.9233	Adjusted R-squared	-0.001231
S.D. dependent var	1716.691	S.E. of regression	1717.700
Sum squared resid	2.80E+09	F-statistic	0.915363
Durbin-Watson stat	1.925159	Prob(F-statistic)	0.541566

Unweighted Statistics

R-squared	0.017129	Mean dependent var	185.0343
Sum squared resid	3.00E+09	Durbin-Watson stat	1.801412

Dependent Variable: ROA IN 1,000S
Method: Panel EGLS (Cross-section random effects)
Date: 04/15/20 Time: 13:59
Sample: 2013 2017
Periods included: 5
Cross-sections included: 197
Total panel (unbalanced) observations: 965
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	196.3847	113.7195	1.726922	0.0845
HUMAN SLACK	4.759693	3.436563	1.385016	0.1664
AGE	-0.238508	0.175708	-1.357414	0.1750
EMPLOYEES	-0.000831	0.052524	-0.015824	0.9874
MARKET VALUE	0.000150	9.65E-05	1.549782	0.1215
MINING	-104.8432	131.3747	-0.798047	0.4250
CONSTRUCTION	-34.38355	161.2192	-0.213272	0.8312
MANUFACTURING	-25.84801	115.0574	-0.224653	0.8223
TRANSPORTATION, COMMUNICATIONS, ELECTRIC, GAS, AND SANITARY SERVICES	-55.65625	116.0911	-0.479419	0.6318
WHOLESALE TRADE	-95.70871	117.8479	-0.812138	0.4169
RETAIL TRADE	-51.97475	116.8057	-0.444968	0.6564
FINANCE, INSURANCE, AND REAL ESTATE	-89.65332	116.3583	-0.770494	0.4412
SERVICES	-87.20119	118.2864	-0.737204	0.4612
PUBLIC ADMINISTRATION	-144.8811	128.0900	-1.131089	0.2583
DUAL CLASS	-6.281489	31.73961	-0.197907	0.8432

Effects Specification

	S.D.	Rho
Cross-section random	79.08158	0.1591
Idiosyncratic random	181.7832	0.8409

Weighted Statistics

Root MSE	180.7884	R-squared	0.022363
Mean dependent var	101.8158	Adjusted R-squared	0.007956
S.D. dependent var	182.9912	S.E. of regression	182.2101
Sum squared resid	31540483	F-statistic	1.552230
Durbin-Watson stat	2.294383	Prob(F-statistic)	0.086730

Unweighted Statistics

R-squared	0.038815	Mean dependent var	141.5116
Sum squared resid	36877888	Durbin-Watson stat	1.962312

Dependent Variable: ROE IN 1,000S
Method: Panel EGLS (Cross-section random effects)
Date: 04/15/20 Time: 14:02
Sample: 2013 2017
Periods included: 5
Cross-sections included: 196
Total panel (unbalanced) observations: 965
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	242.7270	898.5111	0.270144	0.7871
POTENTIAL SLACK	0.000872	0.000155	5.631490	0.0000
AGE	-0.785605	1.394119	-0.563514	0.5732
EMPLOYEES	-0.163619	0.405923	-0.403078	0.6870
MARKET VALUE	0.000242	0.000752	0.322477	0.7472
MINING	-213.9454	1039.788	-0.205759	0.8370
CONSTRUCTION	-24.35244	1276.061	-0.019084	0.9848
MANUFACTURING	102.7169	910.6792	0.112792	0.9102
TRANSPORTATION, COMMUNICATIONS, ELECTRIC, GAS, AND SANITARY SERVICES	-19.20189	918.7379	-0.020900	0.9833
WHOLESALE TRADE	-686.6347	932.7216	-0.736163	0.4618
RETAIL TRADE	329.2837	921.1833	0.357457	0.7208
FINANCE, INSURANCE, AND REAL ESTATE	-31.76024	921.0384	-0.034483	0.9725
SERVICES	-79.92772	929.6165	-0.085979	0.9315
PUBLIC ADMINISTRATION	-95.48123	1013.095	-0.094247	0.9249
DUAL CLASS	28.19492	250.8722	0.112388	0.9105

Effects Specification

	S.D.	Rho
Cross-section random	486.6178	0.0768
Idiosyncratic random	1686.665	0.9232

Weighted Statistics

Root MSE	1671.250	R-squared	0.044746
Mean dependent var	156.3122	Adjusted R-squared	0.030668
S.D. dependent var	1710.882	S.E. of regression	1684.392
Sum squared resid	2.70E+09	F-statistic	3.178529
Durbin-Watson stat	1.954687	Prob(F-statistic)	0.000065

Unweighted Statistics

R-squared	0.046715	Mean dependent var	185.1111
Sum squared resid	2.91E+09	Durbin-Watson stat	1.813377

Dependent Variable: ROA IN 1,000S
Method: Panel EGLS (Cross-section random effects)
Date: 04/15/20 Time: 14:05
Sample: 2013 2017
Periods included: 5
Cross-sections included: 196
Total panel (unbalanced) observations: 965
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	205.4306	114.4136	1.795508	0.0729
POTENTIAL SLACK	4.00E-05	1.70E-05	2.360388	0.0185
AGE	-0.233740	0.177057	-1.320139	0.1871
EMPLOYEES	0.016292	0.051456	0.316617	0.7516
MARKET VALUE	0.000120	9.38E-05	1.277800	0.2016
MINING	-105.7365	132.4050	-0.798584	0.4247
CONSTRUCTION	-33.65676	162.4870	-0.207135	0.8359
MANUFACTURING	-21.33408	115.9607	-0.183977	0.8541
TRANSPORTATION, COMMUNICATIONS, ELECTRIC, GAS, AND SANITARY SERVICES	-53.05161	116.9908	-0.453468	0.6503
WHOLESALE TRADE	-99.72139	118.7257	-0.839931	0.4012
RETAIL TRADE	-37.96059	117.2954	-0.323633	0.7463
FINANCE, INSURANCE, AND REAL ESTATE	-91.01187	117.2627	-0.776137	0.4379
SERVICES	-67.85239	118.3745	-0.573201	0.5666
PUBLIC ADMINISTRATION	-137.8254	128.9943	-1.068461	0.2856
DUAL CLASS	-10.98446	31.87006	-0.344664	0.7304

Effects Specification

	S.D.	Rho
Cross-section random	80.66329	0.1655
Idiosyncratic random	181.1000	0.8345

Weighted Statistics

Root MSE	180.0442	R-squared	0.025832
Mean dependent var	100.6868	Adjusted R-squared	0.011476
S.D. dependent var	182.5755	S.E. of regression	181.4600
Sum squared resid	31281351	F-statistic	1.799346
Durbin-Watson stat	2.319921	Prob(F-statistic)	0.034379

Unweighted Statistics

R-squared	0.039209	Mean dependent var	141.5892
Sum squared resid	36861491	Durbin-Watson stat	1.968728

Dependent Variable: ROE IN 1,000S
Method: Panel EGLS (Cross-section random effects)
Date: 04/15/20 Time: 14:08
Sample: 2013 2017
Periods included: 5
Cross-sections included: 196
Total panel (unbalanced) observations: 963
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	249.1450	903.1198	0.275871	0.7827
AVAILABLE SLACK	0.000401	0.002661	0.150575	0.8803
AGE	-0.697478	1.402824	-0.497196	0.6192
EMPLOYEES	-0.158725	0.408228	-0.388814	0.6975
MARKET VALUE	0.000113	0.000757	0.149912	0.8809
MINING	-220.1279	1045.119	-0.210625	0.8332
CONSTRUCTION	-38.05187	1282.613	-0.029667	0.9763
MANUFACTURING	75.95001	915.3434	0.082974	0.9339
TRANSPORTATION, COMMUNICATIONS, ELECTRIC, GAS, AND_SANITARY SERVICES	-19.58357	923.4500	-0.021207	0.9831
WHOLESALE TRADE	-696.6451	937.5424	-0.743054	0.4576
RETAIL TRADE	329.4139	925.9711	0.355750	0.7221
FINANCE, INSURANCE, AND REAL ESTATE	-52.07566	926.3902	-0.056214	0.9552
SERVICES	-76.47558	934.3905	-0.081845	0.9348
PUBLIC ADMINISTRATION	-89.91045	1018.298	-0.088295	0.9297
DUAL CLASS	44.46969	252.2165	0.176316	0.8601

Effects Specification

	S.D.	Rho
Cross-section random	470.2263	0.0694
Idiosyncratic random	1721.809	0.9306

Weighted Statistics

Root MSE	1705.521	R-squared	0.013194
Mean dependent var	159.2556	Adjusted R-squared	-0.001379
S.D. dependent var	1717.821	S.E. of regression	1718.961
Sum squared resid	2.80E+09	F-statistic	0.905402
Durbin-Watson stat	1.929836	Prob(F-statistic)	0.552567

Unweighted Statistics

R-squared	0.017035	Mean dependent var	185.8012
Sum squared resid	3.00E+09	Durbin-Watson stat	1.804624

Dependent Variable: ROA IN 1,000S
Method: Panel EGLS (Cross-section random effects)
Date: 04/15/20 Time: 14:10
Sample: 2013 2017
Periods included: 5
Cross-sections included: 196
Total panel (unbalanced) observations: 963
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	205.8561	114.8558	1.792301	0.0734
AVAILABLE SLACK	-2.10E-05	0.000319	-0.066003	0.9474
AGE	-0.231717	0.177859	-1.302815	0.1930
EMPLOYEES	0.016626	0.051664	0.321807	0.7477
MARKET VALUE	0.000113	9.41E-05	1.196997	0.2316
MINING	-105.8973	132.9165	-0.796720	0.4258
CONSTRUCTION	-34.16093	163.1154	-0.209428	0.8342
MANUFACTURING	-22.37045	116.4080	-0.192173	0.8476
TRANSPORTATION, COMMUNICATIONS, ELECTRIC, GAS, AND SANITARY SERVICES	-52.97869	117.4429	-0.451102	0.6520
WHOLESALE TRADE	-100.1053	119.1845	-0.839919	0.4012
RETAIL TRADE	-38.49314	117.7541	-0.326894	0.7438
FINANCE, INSURANCE, AND REAL ESTATE	-91.17071	117.7836	-0.774053	0.4391
SERVICES	-67.51378	118.8326	-0.568142	0.5701
PUBLIC ADMINISTRATION	-137.2875	129.4926	-1.060196	0.2893
DUAL CLASS	-10.25332	31.99270	-0.320489	0.7487

Effects Specification

	S.D.	Rho
Cross-section random	81.05515	0.1661
Idiosyncratic random	181.6194	0.8339

Weighted Statistics

Root MSE	180.7181	R-squared	0.020096
Mean dependent var	100.6977	Adjusted R-squared	0.005624
S.D. dependent var	182.6699	S.E. of regression	182.1422
Sum squared resid	31450634	F-statistic	1.388659
Durbin-Watson stat	2.304239	Prob(F-statistic)	0.151430

Unweighted Statistics

R-squared	0.035090	Mean dependent var	141.8092
Sum squared resid	36995728	Durbin-Watson stat	1.958869

Dependent Variable: ROE IN 1,000S
Method: Panel EGLS (Cross-section random effects)
Date: 04/15/20 Time: 14:39
Sample: 2013 2017
Periods included: 5
Cross-sections included: 197
Total panel (unbalanced) observations: 949
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-994.9991	1050.558	-0.947115	0.3438
HUMAN SLACK	147204.0	127096.5	1.158207	0.2471
CEO POWER	27.15453	11.35457	2.391506	0.0170
CEOXHUMANSLACK	-3297.429	2583.257	-1.276462	0.2021
AGE	-0.214376	1.432541	-0.149647	0.8811
EMPLOYEES	-0.130202	0.421726	-0.308737	0.7576
MARKET VALUE	-2.15E-05	0.000791	-0.027192	0.9783
MINING	-273.6017	1047.868	-0.261103	0.7941
CONSTRUCTION	-31.16554	1285.655	-0.024241	0.9807
MANUFACTURING	78.43131	917.8270	0.085453	0.9319
TRANSPORTATION, COMMUNICATIONS, ELECTRIC, GAS, AND SANITARY SERVICES	-42.35297	925.8910	-0.045743	0.9635
WHOLESALE TRADE	-767.9884	942.1748	-0.815123	0.4152
RETAIL TRADE	321.7054	931.8690	0.345226	0.7300
FINANCE, INSURANCE, AND, REAL_ESTATE	-128.6693	928.9220	-0.138515	0.8899
SERVICES	-69.99931	945.6852	-0.074020	0.9410
PUBLIC ADMINISTRATION	-214.1394	1025.145	-0.208887	0.8346
DUAL CLASS	-148.2948	267.3509	-0.554682	0.5792

Effects Specification

	S.D.	Rho
Cross-section random	468.1390	0.0682
Idiosyncratic random	1730.107	0.9318

Weighted Statistics

Root MSE	1713.155	R-squared	0.019781
Mean dependent var	160.2839	Adjusted R-squared	0.002954
S.D. dependent var	1731.304	S.E. of regression	1728.709
Sum squared resid	2.79E+09	F-statistic	1.175513
Durbin-Watson stat	1.939338	Prob(F-statistic)	0.281286

Unweighted Statistics			
R-squared	0.022923	Mean dependent var	186.4174
Sum squared resid	2.98E+09	Durbin-Watson stat	1.814023

Dependent Variable: ROA IN 1,000S
Method: Panel EGLS (Cross-section random effects)
Date: 04/15/20 Time: 14:42
Sample: 2013 2017
Periods included: 5
Cross-sections included: 197
Total panel (unbalanced) observations: 949
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-20.68690	126.5374	-0.163484	0.8702
HUMAN SLACK	53585.04	14492.98	3.697311	0.0002
CEO POWER	4.589883	1.281014	3.583008	0.0004
CEOXHUMANSLACK	-998.4837	292.7755	-3.410407	0.0007
AGE	-0.192083	0.175001	-1.097613	0.2727
EMPLOYEES	-0.003265	0.051653	-0.063210	0.9496
MARKET VALUE	0.000151	9.54E-05	1.580864	0.1142
MINING	-110.0765	128.8204	-0.854496	0.3931
CONSTRUCTION	-32.87692	158.0564	-0.208008	0.8353
MANUFACTURING	-27.65007	112.8278	-0.245064	0.8065
TRANSPORTATION, COMMUNICATIONS, ELECTRIC, GAS, AND SANITARY_SERVICES	-60.15281	113.8270	-0.528458	0.5973
WHOLESALE TRADE	-97.36892	115.7491	-0.841207	0.4004
RETAIL TRADE	-59.02932	114.5491	-0.515319	0.6065
FINANCE, INSURANCE, AND REAL ESTATE	-99.29416	114.1643	-0.869748	0.3847
SERVICES	-101.7713	116.2186	-0.875688	0.3814
PUBLIC ADMINISTRATION	-156.3190	125.9386	-1.241232	0.2148
DUAL CLASS	-28.16751	32.53711	-0.865704	0.3869

Effects Specification

	S.D.	Rho
Cross-section random	75.33822	0.1451
Idiosyncratic random	182.8347	0.8549

Weighted Statistics

Root MSE	181.5014	R-squared	0.039034
Mean dependent var	105.0856	Adjusted R-squared	0.022537
S.D. dependent var	185.2533	S.E. of regression	183.1493
Sum squared resid	31262681	F-statistic	2.366103
Durbin-Watson stat	2.314759	Prob(F-statistic)	0.001850

Unweighted Statistics

R-squared	0.057693	Mean dependent var	142.2225

Sum squared resid	36038504	Durbin-Watson stat	2.008007

Dependent Variable: ROE IN 1,000S
Method: Panel EGLS (Cross-section random effects)
Date: 04/15/20 Time: 14:45
Sample: 2013 2017
Periods included: 5
Cross-sections included: 196
Total panel (unbalanced) observations: 949
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-723.4353	990.3812	-0.730461	0.4653
POTENTIAL SLACK	0.006019	0.002054	2.930768	0.0035
CEO POWER	21.08745	8.827810	2.388752	0.0171
CEOXPOTENTIALSLACK	-0.110123	0.043707	-2.519600	0.0119
AGE	-0.641931	1.428440	-0.449393	0.6533
EMPLOYEES	-0.181797	0.408293	-0.445262	0.6562
MARKET VALUE	9.50E-05	0.000758	0.125329	0.9003
MINING	-248.5834	1045.073	-0.237862	0.8120
CONSTRUCTION	8.691556	1282.312	0.006778	0.9946
MANUFACTURING	133.2710	915.4111	0.145586	0.8843
TRANSPORTATION, COMMUNICATIONS, ELECTRIC, GAS, AND SANITARY SERVICES	-26.13732	923.3547	-0.028307	0.9774
WHOLESALE TRADE	-726.1165	939.1406	-0.773171	0.4396
RETAIL TRADE	321.5268	925.8255	0.347287	0.7285
FINANCE, INSURANCE, AND REAL ESTATE	9.320983	926.9925	0.010055	0.9920
SERVICES	-69.03314	935.9374	-0.073758	0.9412
PUBLIC ADMINISTRATION	-254.0293	1021.282	-0.248736	0.8036
DUAL CLASS	-150.1711	263.9816	-0.568869	0.5696

Effects Specification

	S.D.	Rho
Cross-section random	505.7477	0.0840
Idiosyncratic random	1669.932	0.9160

Weighted Statistics

Root MSE	1671.838	R-squared	0.054542
Mean dependent var	155.3026	Adjusted R-squared	0.038311
S.D. dependent var	1720.335	S.E. of regression	1687.016
Sum squared resid	2.65E+09	F-statistic	3.360356
Durbin-Watson stat	1.962174	Prob(F-statistic)	0.000009

Unweighted Statistics

R-squared	0.054805	Mean dependent var	186.4955

Sum squared resid	2.88E+09	Durbin-Watson stat	1.806872

Dependent Variable: ROA IN 1,000S
Method: Panel EGLS (Cross-section random effects)
Date: 04/15/20 Time: 14:47
Sample: 2013 2017
Periods included: 5
Cross-sections included: 196
Total panel (unbalanced) observations: 949
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	226.4517	110.4409	2.050432	0.0406
POTENTIAL SLACK	-0.002028	0.000226	-8.986740	0.0000
CEO POWER	-0.524607	0.962291	-0.545164	0.5858
CEOXPOTENTIALSLACK	0.044060	0.004801	9.177659	0.0000
AGE	-0.115446	0.159742	-0.722703	0.4700
EMPLOYEES	0.020346	0.045689	0.445310	0.6562
MARKET VALUE	0.000147	8.45E-05	1.740115	0.0822
MINING	-112.2351	117.0677	-0.958720	0.3379
CONSTRUCTION	-44.19329	143.6436	-0.307659	0.7584
MANUFACTURING	-32.09684	102.5419	-0.313012	0.7543
TRANSPORTATION, COMMUNICATIONS, ELECTRIC, GAS, AND SANITARY SERVICES	-62.35656	103.4335	-0.602866	0.5467
WHOLESALE TRADE	-103.1103	105.1807	-0.980316	0.3272
RETAIL TRADE	-43.56571	103.7084	-0.420079	0.6745
FINANCE, INSURANCE, AND REAL ESTATE	-134.9184	103.8314	-1.299398	0.1941
SERVICES	-74.27502	104.8383	-0.708472	0.4788
PUBLIC ADMINISTRATION	-147.3743	114.3809	-1.288452	0.1979
DUAL CLASS	1.005287	29.48493	0.034095	0.9728

Effects Specification

	S.D.	Rho
Cross-section random	61.68479	0.1062
Idiosyncratic random	178.9349	0.8938

Weighted Statistics

Root MSE	177.3832	R-squared	0.112193
Mean dependent var	113.1025	Adjusted R-squared	0.096951
S.D. dependent var	188.3700	S.E. of regression	178.9937
Sum squared resid	29860111	F-statistic	7.361075
Durbin-Watson stat	2.474270	Prob(F-statistic)	0.000000

Unweighted Statistics

R-squared	0.131384	Mean dependent var	142.3014

Sum squared resid	33218945	Durbin-Watson stat	2.224091

Dependent Variable: ROE IN 1,000S
Method: Panel EGLS (Cross-section random effects)
Date: 04/15/20 Time: 14:49
Sample: 2013 2017
Periods included: 5
Cross-sections included: 196
Total panel (unbalanced) observations: 947
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-423.1882	988.0002	-0.428328	0.6685
AVAILABLE SLACK	-44.70288	37.08577	-1.205392	0.2284
CEO POWER	14.59159	9.048202	1.612651	0.1072
CEOXAVAILABLESLACK	0.923303	0.759615	1.215488	0.2245
AGE	-0.273446	1.417136	-0.192957	0.8470
EMPLOYEES	-0.158309	0.405261	-0.390635	0.6962
MARKET VALUE	3.72E-05	0.000754	0.049293	0.9607
MINING	-264.5092	1035.972	-0.255325	0.7985
CONSTRUCTION	-40.17719	1271.109	-0.031608	0.9748
MANUFACTURING	74.61383	907.3833	0.082230	0.9345
TRANSPORTATION, COMMUNICATIONS, ELECTRIC, GAS, AND SANITARY SERVICES	-44.52645	915.2934	-0.048647	0.9612
WHOLESALE TRADE	-752.7822	931.1533	-0.808441	0.4190
RETAIL TRADE	303.8969	917.8316	0.331103	0.7406
FINANCE, INSURANCE, AND REAL ESTATE	-112.0595	918.8474	-0.121957	0.9030
SERVICES	-88.49923	927.8506	-0.095381	0.9240
PUBLIC ADMINISTRATION	-237.1037	1012.623	-0.234148	0.8149
DUAL CLASS	-88.60889	261.7358	-0.338543	0.7350

Effects Specification

	S.D.	Rho
Cross-section random	445.5789	0.0620
Idiosyncratic random	1733.247	0.9380

Weighted Statistics

Root MSE	1719.497	R-squared	0.019764
Mean dependent var	162.9873	Adjusted R-squared	0.002899
S.D. dependent var	1737.694	S.E. of regression	1735.142
Sum squared resid	2.80E+09	F-statistic	1.171921
Durbin-Watson stat	1.934374	Prob(F-statistic)	0.284339

Unweighted Statistics

R-squared	0.023193	Mean dependent var	187.2003

Sum squared resid	2.98E+09	Durbin-Watson stat	1.819628

Dependent Variable: ROA IN 1,000S
Method: Panel EGLS (Cross-section random effects)
Date: 04/15/20 Time: 14:54
Sample: 2013 2017
Periods included: 5
Cross-sections included: 196
Total panel (unbalanced) observations: 947
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	195.1122	112.0333	1.741556	0.0819
AVAILABLE SLACK	-21.84767	3.956351	-5.522177	0.0000
CEO POWER	0.252270	0.984160	0.256330	0.7978
CEOXAVAILABLESLACK	0.447650	0.080971	5.528531	0.0000
AGE	-0.189606	0.161554	-1.173640	0.2408
EMPLOYEES	0.020247	0.046269	0.437592	0.6618
MARKET VALUE	0.000105	8.55E-05	1.224867	0.2209
MINING	-109.1714	118.5006	-0.921273	0.3571
CONSTRUCTION	-36.40784	145.3987	-0.250400	0.8023
MANUFACTURING	-23.95201	103.7901	-0.230774	0.8175
TRANSPORTATION, COMMUNICATIONS, ELECTRIC, GAS, AND SANITARY SERVICES	-55.80278	104.6978	-0.532989	0.5942
WHOLESALE TRADE	-100.3949	106.4709	-0.942933	0.3460
RETAIL TRADE	-40.16151	104.9838	-0.382550	0.7021
FINANCE, INSURANCE, AND REAL ESTATE	-97.84271	105.0831	-0.931099	0.3520
SERVICES	-73.29664	106.1252	-0.690662	0.4900
PUBLIC ADMINISTRATION	-147.2454	115.7879	-1.271683	0.2038
DUAL CLASS	-15.92999	29.78296	-0.534869	0.5929

Effects Specification

	S.D.	Rho
Cross-section random	61.79407	0.1031
Idiosyncratic random	182.2283	0.8969

Weighted Statistics

Root MSE	183.2228	R-squared	0.057453
Mean dependent var	113.9260	Adjusted R-squared	0.041237
S.D. dependent var	188.7929	S.E. of regression	184.8898
Sum squared resid	31791349	F-statistic	3.542991
Durbin-Watson stat	2.269941	Prob(F-statistic)	0.000003

Unweighted Statistics

R-squared	0.074079	Mean dependent var	142.5266

Sum squared resid	35387358	Durbin-Watson stat	2.039273

Dependent Variable: RATINGS IN 1,000S
Method: Panel EGLS (Cross-section random effects)
Date: 04/15/20 Time: 15:08
Sample: 2013 2017
Periods included: 5
Cross-sections included: 180
Total panel (unbalanced) observations: 874
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7871.969	2150.949	3.659765	0.0003
HUMAN SLACK	103363.7	38131.79	2.710695	0.0068
AGE	-7.301054	3.267742	-2.234281	0.0257
EMPLOYEES	-2.883504	0.666370	-4.327183	0.0000
MARKET VALUE	-0.001317	0.000692	-1.904627	0.0572
MINING	664.2997	2489.225	0.266870	0.7896
CONSTRUCTION	-210.3995	3053.473	-0.068905	0.9451
MANUFACTURING	-276.5930	2180.255	-0.126863	0.8991
TRANSPORTATION, COMMUNICATIONS, ELECTRIC, GAS, AND_SANITARY_SERVICES	2169.913	2201.225	0.985775	0.3245
WHOLESALE TRADE	2180.958	2275.117	0.958613	0.3380
RETAIL TRADE	1508.502	2203.623	0.684555	0.4938
FINANCE, INSURANCE, AND REAL ESTATE	560.8783	2209.026	0.253903	0.7996
SERVICES	1346.657	2243.242	0.600317	0.5485
PUBLIC ADMINISTRATION	-966.9190	2419.695	-0.399604	0.6895
DUAL CLASS	-974.2267	652.5705	-1.492906	0.1358

Effects Specification

	S.D.	Rho
Cross-section random	2139.247	0.9553
Idiosyncratic random	462.9853	0.0447

Weighted Statistics

Root MSE	483.7743	R-squared	0.087364
Mean dependent var	755.6180	Adjusted R-squared	0.072490
S.D. dependent var	514.8531	S.E. of regression	487.9799
Sum squared resid	2.05E+08	F-statistic	5.873572
Durbin-Watson stat	0.843281	Prob(F-statistic)	0.000000

Unweighted Statistics

R-squared	0.267933	Mean dependent var	7713.959
Sum squared resid	5.56E+09	Durbin-Watson stat	0.031026

Dependent Variable: RATINGS IN 1,000S
Method: Panel EGLS (Cross-section random effects)
Date: 04/15/20 Time: 15:11
Sample: 2013 2017
Periods included: 5
Cross-sections included: 180
Total panel (unbalanced) observations: 875
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8069.024	2171.100	3.716560	0.0002
POTENTIAL SLACK	-0.012569	0.057494	-0.218614	0.8270
AGE	-7.488604	3.303426	-2.266921	0.0236
EMPLOYEES	-2.146865	0.633809	-3.387246	0.0007
MARKET VALUE	-0.002036	0.000697	-2.920820	0.0036
MINING	657.0370	2513.715	0.261381	0.7939
CONSTRUCTION	-180.2445	3083.501	-0.058454	0.9534
MANUFACTURING	-197.5468	2201.639	-0.089727	0.9285
TRANSPORTATION, COMMUNICATIONS, ELECTRIC, GAS, AND SANITARY SERVICES	2221.958	2222.804	0.999619	0.3178
WHOLESALE TRADE	2062.000	2297.139	0.897638	0.3696
RETAIL TRADE	1751.413	2223.362	0.787732	0.4311
FINANCE, INSURANCE, AND REAL ESTATE	537.0324	2230.752	0.240741	0.8098
SERVICES	1640.161	2262.999	0.724773	0.4688
PUBLIC ADMINISTRATION	-866.2074	2443.428	-0.354505	0.7230
DUAL CLASS	-1035.219	658.4600	-1.572182	0.1163

Effects Specification

	S.D.	Rho
Cross-section random	2160.006	0.9541
Idiosyncratic random	473.8957	0.0459

Weighted Statistics

Root MSE	494.3368	R-squared	0.082545
Mean dependent var	766.0630	Adjusted R-squared	0.067610
S.D. dependent var	524.3363	S.E. of regression	498.6293
Sum squared resid	2.14E+08	F-statistic	5.526835
Durbin-Watson stat	0.821655	Prob(F-statistic)	0.000000

Unweighted Statistics

R-squared	0.256305	Mean dependent var	7720.000
Sum squared resid	5.67E+09	Durbin-Watson stat	0.030992

Dependent Variable: RATINGS IN 1,000S
Method: Panel EGLS (Cross-section random effects)
Date: 04/15/20 Time: 15:13
Sample: 2013 2017
Periods included: 5
Cross-sections included: 180
Total panel (unbalanced) observations: 873
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8069.761	2155.272	3.744196	0.0002
AVAILABLE SLACK	0.515309	1.364430	0.377673	0.7058
AGE	-7.507134	3.282310	-2.287150	0.0224
EMPLOYEES	-2.185647	0.634702	-3.443582	0.0006
MARKET VALUE	-0.002037	0.000693	-2.937823	0.0034
MINING	658.4534	2495.399	0.263867	0.7919
CONSTRUCTION	-177.8247	3061.043	-0.058093	0.9537
MANUFACTURING	-193.9670	2185.610	-0.088747	0.9293
TRANSPORTATION, COMMUNICATIONS, ELECTRIC, GAS, AND SANITARY_SERVICES	2225.009	2206.608	1.008339	0.3136
WHOLESALE TRADE	2063.220	2280.412	0.904758	0.3658
RETAIL TRADE	1760.044	2207.211	0.797406	0.4254
FINANCE, INSURANCE, AND REAL ESTATE	535.0402	2214.567	0.241600	0.8091
SERVICES	1643.656	2246.510	0.731649	0.4646
PUBLIC ADMINISTRATION	-858.1375	2425.653	-0.353776	0.7236
DUAL CLASS	-1034.035	653.6801	-1.581867	0.1140

Effects Specification

	S.D.	Rho
Cross-section random	2144.082	0.9533
Idiosyncratic random	474.4145	0.0467

Weighted Statistics

Root MSE	495.8358	R-squared	0.083842
Mean dependent var	772.8705	Adjusted R-squared	0.068893
S.D. dependent var	527.1979	S.E. of regression	500.1513
Sum squared resid	2.15E+08	F-statistic	5.608540
Durbin-Watson stat	0.820780	Prob(F-statistic)	0.000000

Unweighted Statistics

R-squared	0.258211	Mean dependent var	7710.195
Sum squared resid	5.59E+09	Durbin-Watson stat	0.031515

APPENDIX L

WALMART ROE AND ROA FROM 1996 AND 1997

Walmart	1996	1997	Change	Description
Net income	2,740	3,056	316	**Increase**
Assets	37,541	39,604	2,063	**Increase**
Liabilities	22,785	22,461	-324	**Decrease**
Equity	14,756	17,143	2,387	**Increase**
ROE	18.6%	17.8%	-0.7%	**Decrease**
ROA	7.3%	7.7%	0.4%	**Increase**
Source: 10-K Annual Report				