Give It To Me Straight: How, When, and Why Managers Disclose Inside Information About Seasoned Equity Offerings

by

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A Dissertation Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

Approved February 2017 by the
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ARIZONA STATE UNIVERSITY

May 2017

ABSTRACT

Managers' control over the timing and content of information disclosure represents a significant strategic tool which they can use at their discretion. However, extant theoretical perspectives offer incongruent arguments and incompatible predictions about when and why managers would release inside information about their firms. More specifically, agency theory and theories within competitive dynamics provide competing hypotheses about when and why managers would disclose inside information about their firms. In this study, I highlight how voluntary disclosure theory may help to coalesce these two theoretical perspectives. Voluntary disclosure theory predicts that managers will release inside information when managers perceive that the benefits outweigh the costs of doing so. Accordingly, I posit that competitive dynamics introduce the costs associated with disclosing information (i.e., proprietary costs) and that agency theory highlights the benefits associated with disclosing information. Examining the context of seasoned equity offerings (SEOs), I identify three ways managers can use information in SEO prospectuses. I hypothesize that competitive intensity increases proprietary costs that will reduce disclosure of inside information but will increase discussing the organization positively. I then hypothesize that capital market participants (e.g., security analysts and investors) may prefer managers to provide more, clearer, and positive information about the SEO and their firms. I find support for many of my hypotheses.

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CHAPTER 1

INTRODUCTION

Introduction

Information about an organization is important for investors and managers alike. Agency theory suggests that information asymmetries between managers and investors create the potential for managers to act opportunistically at the expense of investors (Eisenhardt, 1989; Fama, 1980; Jensen & Meckling, 1976). Because of this paradigm, a robust corporate governance literature outlines the mechanisms capital market participants can use to reduce information asymmetry (e.g., Bebchuk & Weisbach, 2009; Daily, Dalton, & Cannella, 2003a; Finkelstein, Hambrick, & Cannella, 2009). As information asymmetry increases, capital market responses to strategic activities should reflect the perceived value of the activity and also a discount for agency-related concerns (Corwin, 2003).

Given this conceptualization of information asymmetry and market reactions, research documents how managers can use information announcements to their firms' advantage (e.g., Graffin, Haleblian, & Kiley, 2016; Healy & Palepu, 2001; Libby & Tan, 1999). Since managers have more information about the operations of the firm than capital market participants do, they can control the timing and content of information releases in order to help improve capital market reactions to strategic announcements (Fiss & Zajac, 2006; Graffin, Carpenter, & Boivie, 2011; Washburn & Bromiley, 2013). Some scholars suggest that managers can release more information about a strategic event itself to improve capital market reactions to the event (e.g., Fiss & Zajac, 2006; Washburn & Bromiley, 2013). Other scholars have posited that managers can provide

more information about other elements of the organization to distract from the event itself and improve capital market reactions (e.g., Graffin et al., 2016; Graffin et al., 2011). Regardless of exactly how managers use their inside information, these tactics tend to involve releasing more information about the firm and thus lowering the veil of information asymmetry.

Lowering the veil of information asymmetry, however, often represents an unrealistic solution that potentially undermines the firm's ongoing performance. One major reason for this involves the potential proprietary costs associated with disclosing information (Healy & Palepu, 2001; Lang & Sul, 2014; Verrecchia, 1990b). Proprietary costs refer to the decrease in future firm performance associated with the advantages competitors gain from receiving more information about the firm (Verrecchia, 1990b, 1990a). When managers employ tactics aimed at using their inside information to improve capital market reactions, competitors can use it against the announcing firm. This presents quite a paradox for managers. On one hand, managers face a high incentive to provide more information about their firm in order to improve capital market reactions associated with potentially controversial activities. On the other hand, managers are often wary of disclosing their proprietary information because it may actually hamper firm performance when competitors use this information for their own benefit.

This paradox pits the predictions of agency theory against those of theories within competitive dynamics. Agency theory suggests that managers benefit from disclosing more information about their firms to outsiders because of the benefits of reducing information asymmetry (Bebchuk & Weisbach, 2009; Dhaliwal et al., 2011; Eisenhardt, 1989). Theories within competitive dynamics, however, suggest that managers may either

(a) not want to disclose inside information because of proprietary costs (Chen & Miller, 2015) or (b) want to disclose information only to shape competitors' perceptions and reactions (Gao, Yu, & Cannella, 2016).

In this study, I examine this theoretical tension through the lens of voluntary disclosure theory. Voluntary disclosure theory predicts that managers will release information when they perceive the benefits of doing so outweigh the costs (Guidry & Patten, 2012; Lewis, Walls, & Dowell, 2013). I conceptualize the costs of releasing inside information as those corresponding with the proprietary costs of competitors potentially using inside information against the firm. These costs may arise from performance declines associated with competitors using information at the expense of the disclosing firm. They may also arise from investors concerns' over competitors using information in this way. I conceptualize the benefits of releasing information as those corresponding with better stock market reactions from investors receiving more material information on which they can value the firm.

I examine these costs and benefits in the context of seasoned equity offerings (SEOs). SEOs represent often necessary, but frequently controversial, activities in which managers engage (Henry & Koski, 2010). SEOs are necessary because managers often use them to raise capital when needed to fund future activities, but are controversial because outsiders can associate them with managers taking advantage of overvaluation (Brisker, Colak, & Peterson, 2014; Henry & Koski, 2010). By SEOs, I am referring to a dilutive activity wherein a firm issues more equity in exchange for capital (e.g., Autore, Bray, & Peterson, 2009; Kalay & Shimrat, 1987; Loughran & Ritter, 1995). SEOs are the equivalent of an initial public offering (IPO) for firms that are already publicly traded,

with the exception of the market already having a history with an SEO issuing firm. SEOs are steeped in information asymmetry and involve a high degree of information processing to determine whether the equity price is appropriate, the reasons for pursuing more capital are justified, and if managers are simply taking advantage of information asymmetry (Gao & Ritter, 2010; Karpoff, Lee, & Masulis, 2013). Scholars suggest SEOs are controversial because they are often associated with the perception that managers are timing the issuance to get capital at equity prices exceeding what the firm is actually worth, often times despite whether or not managers demonstrate an actual need for the funds (Cornett & Tehranian, 1994; DeAngelo, DeAngelo, & Stulz, 2010).

I posit that managers can use the language and information contained in the prospectus that accompanies each SEO to create more favorable capital market reactions to the issuance. I look at three communication techniques managers may employ to reduce information asymmetry with investors when undertaking SEOs. First, I expect managers seek to lower information asymmetry by providing justifications in the "Use of Proceeds" section of the SEO prospectus. This section of the prospectus is required by the SEC, and managers are legally bound to provide information about the purpose of issuing the SEO. Justifications refer to the explicit reasons why the firm is issuing the SEO. These may include informative reasons such as to pursue growth opportunities, build new plants, or engage in future acquisitions. These may also include less informative reasons such as for general corporate purposes or to pay down debt. Second, I predict managers provide information clarity in the SEO prospectus to try to make the information less opaque or more "readable" (e.g., Loughran & McDonald, 2014: 1644). Third, I suggest that managers can use the language in the SEO prospectus to create more

favorable organizational images in order to solicit positive perceptions of the firm (Pfarrer, Pollock, & Rindova, 2010; Rhee & Fiss, 2014).

After introducing these three communication techniques managers can use to reduce information asymmetry in SEO prospectuses, I then turn to the antecedents driving when they are apt to use language in each way. I expect that managers are more or less likely to use this information depending on the competitive environment in which their firms' compete and the corresponding proprietary costs. I integrate a construct from the competitive dynamics literature referred to as competitive intensity (Barnett, 1997; Chen & Miller, 2015; Kilduff, Elfenbein, & Staw, 2010). Competitive intensity addresses managers' subjective perceptions of their competition and the perceived propensity for competitors to react to new information (Barnett, 1997; Kilduff et al., 2010). I contend that firms with greater levels of competitive intensity are less likely to disclose proprietary information about their firms, but are more likely to cast a positive organizational image.

I then examine the outcomes of using information in the SEO prospectus in each of the three techniques by looking at capital market reactions to the SEO issuance. I theorize about security analysts' reactions because security analysts represent perhaps the most important information recipient with whom managers interface (Benner & Ranganathan, 2012; Westphal & Clement, 2008). I posit security analysts will respond more favorably to the SEO issuance when managers use justifications, increase information clarity, and/or cast a more favorable organizational image in the SEO prospectus, particularly because of the controversial nature of the SEO issuance. I gauge

security analysts' reactions by measuring the number of security analysts downgrading their recommendations of a firm after an SEO issuance.

Analysts may respond more favorably when managers provide justifications because they are less skeptical of the firm-related reasons for the issuance and about managers' opportunistic behavior (Karpoff et al., 2013). Analysts may also respond more favorably when information is clearer. This is because when analysts have a difficult time processing information about firm events, they respond negatively due to higher opportunity costs related to additional time and effort spent analyzing that activity compared to analyzing activities related to several other firms or activities (Hirshleifer & Teoh, 2003; Lehavy, Li, & Merkley, 2011; Plumlee, 2003). I work from this literature to further suggest that decreasing information asymmetry is likely insufficient if the information provided is not clear. I also expect analysts to respond more favorably when managers use more positive language about the firm (Pfarrer et al., 2010; Rhee & Fiss, 2014).

In this study, I contribute to the literature on voluntary information disclosure, corporate governance, and competitive dynamics. First, I contribute to voluntary disclosure theory by examining the antecedents and consequences of voluntary disclosure. Extant work clearly points to the downsides of disclosing information (i.e., proprietary costs), but research has yet to theoretically identify when these proprietary costs are higher or lower (Healy & Palepu, 2001). As Lang and Sul (2014: 256) point out, "we know relatively little about the likely prevalence and magnitude of proprietary costs in practice." Moreover, Beyer et al. (2010: 306) survey literature and conclude that "there is no clear empirical evidence to date on how proprietary costs…are related to voluntary

disclosures." To remedy this, I build on the competitive dynamics literature to suggest that proprietary costs are higher when competitive intensity is higher. I expect that managers issuing SEOs are conscious of the proprietary costs associated with their announcements. Thus, these differing proprietary costs will increase or decrease the likelihood of managers disclosing information in the SEO prospectus. In other words, I connect competitive intensity to actual information disclosure in order to suggest that competitive intensity relates to proprietary costs.

Second, I contribute to competitive dynamics literature by highlighting a previously unidentified outcome associated with competitive intensity—voluntary information disclosure. Finally, I contribute to the literature on corporate governance by re-examining the decades-old agency theory paradigm involving information asymmetry and the universal benefits of voluntary disclosure. I suggest that information asymmetry may represent a necessary component for firms to maintain a competitive edge. I also contend that managers can make decisions that may appear unpopular to capital market participants with the intention of concealing proprietary information from competitors.

CHAPTER 2

LITERATURE REVIEW & THEORETICAL DEVELOPMENT

Information Asymmetry, Agency Concerns, and Controversial Activities

Information asymmetry is the foundation on which agency theory and modern corporate governance is built (Certo et al., 2003; Finkelstein et al., 2009). Information asymmetry refers to the differing amounts of information about a firm that managers hold compared to key stakeholders (e.g., investors, security analysts, media) (Cohen & Dean, 2005). Although difficult to quantify, information asymmetry is greater when managers know relatively more about the ongoing concerns of their firms than outsiders, and it is nonexistent in a circumstance where outsiders know exactly what managers do about their firms (Chan, Menkveld, & Yang, 2008; Connelly et al., 2011). Because of this information asymmetry, managers may have the ability to act opportunistically (Bebchuk & Weisbach, 2009; Certo et al., 2003); acting opportunistically refers to managers using their insider information for their own benefit at the expense of those who have less information.

Agency theory integrates the concept of information asymmetry to qualify a formal relationship between the owners of public firms and those who control the actions and activities of the firms (Eisenhardt, 1989; Jensen & Meckling, 1976). Since the owners of public firms are conventionally diffuse and diversified, they are often not the individuals who control the strategic activities of the firms despite the fact that they hold perhaps the greatest interest in the performance of the firm (Fama & Jensen, 1983b, 1983a). Instead, these owners relinquish control of the firm to managers, who are expected to dedicate their expertise to maximize the value that the firm may deliver to

shareholders (Fama & Jensen, 1983a; Jensen, 1986). In this way, managers are the "agents" of shareholders.

Due to the information asymmetry between managers and shareholders in the agency relationship, shareholders retain a legitimate concern that managers may act opportunistically (Eisenhardt, 1989; Geletkanycz & Boyd, 2011). Thus, agency theory addresses conflicts of interest between managers (i.e., controllers) and shareholders (i.e., owners) (Eisenhardt, 1989). Consequently, shareholders have instituted several mechanisms aimed at governing the behavior of managers (e.g., contingent compensation and boards of directors), such that managers are less able and motivated to act in their own interests at the expense of shareholders (Daily, Dalton, & Rajagopalan, 2003b). Referring to these mechanisms as corporate governance, scholars have spent decades examining agency theory by exploring the efficacy of the techniques and the conditions under which shareholders are able to minimize the costs associated with managerial agency (e.g., Bebchuk & Weisbach, 2009; Daily et al., 2003a; Finkelstein et al., 2009).

Despite the intense focus on corporate governance mechanisms from both scholars and practitioners, there remain several instances when managers may leverage information asymmetries to act opportunistically. Often times, these instances are types of activities that allow managers to use their inside information to enhance their own utility at the expense of shareholders (e.g., Bednar, Love, & Kraatz, 2014; Rhee & Fiss, 2014). Accordingly, these activities are considered controversial. Acquisitions, for instance, often represent controversial activities because shareholders are potentially unaware of, or unable to rationalize, the reasons motivating the acquisition itself (Haleblian et al., 2009; King et al., 2004). Shareholders tend to respond negatively to the

acquiring firm announcing an acquisition because they are concerned that managers are seeking to increase their own power (e.g., Hayward & Hambrick, 1997), may simply enjoy pursuing other firms (e.g., Kumar, Dixit, & Francis, 2015), or may have personal characteristics that predispose them to acquiring (e.g., Gamache et al., 2015), amongst many other reasons that do not involve increasing shareholder value.

Acquisitions represent just one example of how information asymmetries may make otherwise innocuous strategic activities seem controversial. Other examples may include growth or expansion (e.g., Brush, Bromiley, & Hendrickx, 2000), issuing seasoned equity (e.g., Henry & Koski, 2010), CEO board interlocks (e.g., Geletkanycz & Boyd, 2011), adoption of poison pills (Schepker & Oh, 2013), and stock repurchases (e.g., Westphal & Zajac, 2001), along with many others. Ultimately, controversial activities occur when managers could potentially use the activity as a means of facilitating opportunistic behavior.

When shareholders perceive such activities as controversial, managers who intend to pursue such activities for the benefit of the firm are faced with a genuine concern. On one hand, managers may think that pursuing such activities will actually increase the value of the firm. On the other hand, they face a strong disincentive to pursue these types of activities because shareholders are skeptical and are likely to respond negatively or may even terminate the CEO (e.g., Busenbark et al., 2016). In this study, I take the perspective of managers who are truly trying to increase the value of the firm and must navigate the disincentives from shareholders that prevent them from doing so. Although I recognize the importance of corporate governance techniques outlined under traditional agency theoretic perspectives, in this study I assume that managers are endeavoring to

increase firm value and some corporate governance mechanisms may prohibit them from doing so.

Seasoned Equity Offerings as Controversial Activities

Seasoned equity offerings. Seasoned equity offerings (SEO) represent a method for firms that are already publicly-traded to issue new shares in exchange for capital (Autore, Kumar, & Shome, 2008). Sometimes SEOs refer to a mechanism that allows shareholders to sell large portions of shares on more discrete secondary markets than the conventional platforms. For example, SEOs can refer to investors selling large portions of shares through an investment banker rather than through a public stock exchange such as the New York Stock Exchange. However, the majority of SEO issuances are made by firms that are seeking additional capital by way of equity rather than debt or other means (Henry & Koski, 2010; Kalay & Shimrat, 1987). In other words, SEOs both colloquially and legally represent "issues of new equity by public firms" (Kalay & Shimrat, 1987: 109). Managers issue equity instead of debt to obtain additional capital for a variety of reasons: debt may be too costly at the time, the firm may be already overleveraged, or the firm may have additional treasury shares reserved for obtaining capital (DeAngelo et al., 2010; Mola & Loughran, 2004).

Despite the fact that firms issuing SEOs already have an established price for their equity, they offer the new equity at a discount in order to attract more investors (Autore, 2011; Mola & Loughran, 2004). Autore (2011) indicates that the average discount associated with an SEO is approximately 2.5% less than the current share price. Thus, if a firm's stock trades for $10, the seasoned equity price the firm will receive is approximately $9.75. The primary reason investors require this discount because they

could otherwise buy equity on public stock exchanges for the full price. Firms offer a discount to entice investors to buy new shares.

There are a variety of reasons why firms might issue SEOs. Firms may need more capital to pursue expansion of production plants, open new retail outlets, capitalize new strategic alliance ventures, hire more employees, restructure the capitalization of the firm (e.g., pay down debt), pursue acquisitions, or maintain generally desirable levels of liquidity (Autore et al., 2009; Cornett & Tehranian, 1994). Ultimately, when firms need capital to pursue strategic activities, and receiving that capital via the issuance of new debt is less desirable than by issuing new equity, firms are apt to issue SEOs. Masulis and Korwar (1986: 91), for example, describe the fundamental rationale underlying why firms may elect to issue seasoned equity by suggesting firms may "finance capital expenditures" and "lower the firm's leverage".

The process of issuing an SEO is both similar to, and somewhat different than, its newly-public analog of initial public offerings (IPO). SEOs are similar to IPOs in that both require prospectuses to identify characteristics of the firm as well as the intended use of the proceeds from the equity issuance (Certo, 2003; Gao & Ritter, 2010; Heron & Lie, 2004). Even though firms issuing SEOs do have a track record and verified performance history with shareholders, whereas firms issuing IPOs do not (Certo, 2003; Certo, Holcomb, & Holmes, 2009), the prospectus is a necessary tool for investors to understand essential characteristics of the firm and how additional capital may manifest in stronger future performance. Thus, an important element of an SEO prospectus is a mandatory section referred to as the "Uses of Proceeds" section. In this section, managers can

communicate why their firms need capital in exchange for equity (Autore, 2011; Autore et al., 2009).

SEOs are also often associated with less information asymmetry than IPOs since investors have had a period of time to monitor an issuing firm's performance and have an auditing history when the firm is already public (Heron & Lie, 2004). Because of this, SEOs often release new equity in several stages rather than in a grandiose event like an IPO (Autore et al., 2008; Gao & Ritter, 2010; Heron & Lie, 2004). This is referred to as a shelf-offering (SEC Rule 405-b), wherein firms can issue several rounds of equity using a single prospectus (Autore et al., 2008; Heron & Lie, 2004). Since a single prospectus can apply to several issuances of new equity, the prospectus associated with the first announcement of an SEO issuance is highly scrutinized by investors and security analysts.

SEOs as controversial activities. Despite the fact that SEOs are associated with already public firms, are approved by the board of directors, and are accompanied by a regulated document that details why the firm is raising capital, SEOs often solicit negative stock market-related outcomes (Henry & Koski, 2010; Loughran & Ritter, 1995; Mola & Loughran, 2004). Decades of research in the finance and accounting literatures has documented how SEOs are often accompanied by negative stock market reactions to the announcement of the issuance (e.g., Henry & Koski, 2010) and by abnormally low post-issuance operating performance (e.g., Eberhart & Siddique, 2002). By and large, scholars in these literatures have offered two overarching reasons for these negative outcomes associated with SEOs, both of which stems from information asymmetry and the corresponding costs that agency theory would predict.

First, scholars suggest that since managers have more information about the operations and future prospects of their firms than do investors, they could time SEO issuances to occasions when the share price of the firm is higher than they believe it is actually worth (Corwin, 2003; DeAngelo et al., 2010; Loughran & Ritter, 1995). As DeAngelo et al. (2010: 275) suggest, "market timing appears to have a statistically significant influence on the decision to conduct an SEO." In other words, managers may wait until the stock market has optimistically valued their firms' shares in order to issue equity to receive the highest possible value for it. Corwin (2003) suggests that the uncertainty that investors face about managers' using their asymmetric information in this way may influence the negative reactions to SEOs.

Second, some scholars suggest that managers engage in an unsustainable use of discretionary accruals around SEO issuances in order to make their firms' financials and prospects appear better than they actually are (DeAngelo et al., 2010; Teoh, Welch, & Wong, 1998). The argument is that managers may use "unusually aggressive management of earnings through income-increasing accounting adjustments [to lead] investors to be overly optimistic about the issuer's prospects" (Teoh et al., 1998: 63). In other words, these scholars again assume managers use information asymmetry to their advantage in order to manipulate investors who "naively extrapolate pre-issues earnings without fully adjusting for the potential manipulation of reported earnings" (Teoh et al., 1998: 63). Thus, these scholars argue that some investors are skeptical of managers' use of discretionary accruals and thus may engage in heavy short selling around the issuance of the SEO (Henry & Koski, 2010).

Whether or not managers actually engage in these types of behaviors, however, is both difficult to determine and largely irrelevant to scholars who perceive managerial behavior through the lens of traditional agency theory. Indeed, scholars suggest that just the uncertainty associated with managers using information asymmetries to their advantage is enough to encourage many investors to act skeptically (Corwin, 2003; Karpoff et al., 2013). Further, given the alternatives managers could use to raise capital, investors are often skeptical about why managers selected an SEO.

Investors may also respond negatively to SEOs on the basis of information asymmetry and earnings per share (EPS) dilution. SEOs represent a dilutive activity for existing shareholders (Kalay & Shimrat, 1987; Spiess & Affleck-Graves, 1995). Unless an issuance of new shares of equity is accompanied by a corresponding earnings increase, the EPS for the company decreases. Shareholders tend to dislike dilutive activities and reactive negatively when managers engage in activities that dilute the firm's EPS (Huson, Scott, & Wier, 2001; Martin, 1996). Brisker et al. (2014) suggest that managers issuing SEOs can minimize dilution by adding value with the information they provide in the SEO prospectus. For examples, managers can demonstrate how the cash received from the SEO will result in productive future activities, thereby offering inside information about the firm and decreasing information asymmetry. Without providing such information, investors are left to question managers' intentions for the SEO issuance and why their shares are being diluted.

SEOS tend to receive negative responses from capital market participants despite the fact that SEOs issued by firms publicly trading on American stock exchanges are approved by the board of directors (Holderness, 2016; Holderness & Pontiff, 2016). This

is in contrast to firms in several other countries whose shareholders participate in a vote any time new equity is issued (Holderness & Pontiff, 2016). Myers and Majluf (1984) suggest that agency concerns stemming from information asymmetry are often lower when the board approves new equity issues than when the board does not because directors are meant to represent shareholders. However, Holderness (2016) points out that the overwhelming majority of evidence suggests that investors' concerns over managerial opportunism during SEO issuances are not assuaged by the fact that the board authorizes the issuance. Holderness and Pontiff (2016) suggest this is the case because very few shareholders are involved with and interested in judiciously monitoring the firm and its board of directors. Board approval of SEO issuance does little to satiate the average investor.

Negative capital market reactions to SEO issuances represent a real problem for managers who genuinely need to pursue SEOs. By this, I am referring to managers who are issuing SEOs for the purposes of using the corresponding capital to finance future strategic activities. While some managers may issue an SEO to capitalize on overvaluation of the firm's share price, other managers may not have the necessary capital to pursue value-creating future strategic activities (Autore et al., 2009; DeAngelo et al., 2010). For managers in the latter scenario, this presents an impediment to securing the necessary capital to pursue activities.

Consistent with the tension I outlined in the above section, SEOs represent such activities that managers may need to pursue but where they face strong disincentives to do so. Investors dislike SEOs almost regardless of the necessity for them (e.g., Cornett & Tehranian, 1994). For these reasons, I suggest SEOs represent *controversial* activities.

Rhee and Fiss (2014: 1735) conceptualize controversial activities as those when "the meaning of which is uncertain and which could potentially be aligned with either a dominant logic or opposing arguments." Put differently, controversial activities are those which may receive positive or negative outlooks depending on the perspective of the individual(s) analyzing the activity (Fiss, Kennedy, & Davis, 2012; Rhee & Fiss, 2014).

In the coming sections, I will take the perspective of a manager who is pursuing an SEO for the intended purposes of maximizing shareholder value and not for the purposes of leveraging information asymmetries to take advantage of shareholders. Following recent work in the management literature (e.g., Fiss et al., 2012; Fiss & Zajac, 2006; Rhee & Fiss, 2014; Washburn & Bromiley, 2013), I will argue that managers can use the asymmetric information they hold in a variety of ways to decrease the perception that their SEO is controversial. If managers can do so, they may make the SEO either seem less controversial or may improve reactions to the announcement of the SEO issuance.

Proprietary Information as a Strategic Mechanism

Although agency theory-related perspectives may suggest information asymmetry is an impediment to maximizing firm value (e.g., Eisenhardt, 1989; Fama & Jensen, 1983b; Jensen & Meckling, 1976), it is also an important characteristic of the public firm to ensure those individuals with strategic discretion are the most informed on the ongoing activities of the firm (Crossland & Hambrick, 2011; Fama & Jensen, 1983a). Managers' ability to use their insider information to their advantage is an important element in the performance of the firm (Crossland & Hambrick, 2007). Arguing that successful use of insider information is a function of envisioning different strategic alternatives for the

firm, Crossland and Hambrick (2011: 799) suggest "some executives are able to envision or create more alternatives than are others, due differing degrees of creativity, locus of control, or other personal attributes." In other words, the ability of managers to use their inside information is paramount to improving firm value.

One way managers can use their inside information to improve firm value involves voluntary disclosure. Voluntary disclosure refers to instances where managers leverage their discretion to time the release and vary the content of insider information to outsiders (Healy & Palepu, 2001). Whereas some information mandates disclosure (e.g., financial statements, auditing reports, share price asked in SEO prospectuses), other information is disclosed voluntarily or at managers' discretion (e.g., strategic initiatives, CSR activities, future strategic activities, future earnings projections). This discretion is especially important when it involves material information, which refers to information that is substantive and potentially critical to the firm and its activities (Cohen & Dean, 2005). Accounting scholars note that managers must disclose material information, as mandated by the SEC, since this information informs stock prices (DeAngelo, 1988; Ge & McVay, 2005; Skinner, 1997). These scholars notice that managers exercise some discretion, however, over when they disclose potentially material information, which refers to information about events that may occur but have not yet; managers also maintain discretion of over non-material information (DeAngelo, 1988; Skinner, 1997).

Voluntary disclosure theory predicts that managers will choose to disclose such insider information when the perceived benefits from disclosure outweigh the perceived costs (Guidry & Patten, 2012; Lewis et al., 2013; Verrecchia, 1983). At its core, voluntary disclosure theory is about how managers exercise their discretion to decide

when to release insider information and what insider information they may release. Even when managers face mandates to release more or less information, scholarship on voluntary disclosure suggests managers still possess some discretion of the timing of the information, the mode in which it is released, and the way in which it is released (Healy & Palepu, 2001; Lewis et al., 2013).

Research has examined managers' discretionary use of insider information under the lens of voluntary disclosure theory (e.g., Beyer et al., 2010; Healy & Palepu, 2001; Li, 2010). In much of this research, scholars suggest that managers are concerned about meeting or beating earnings forecasts from security analysts. Thus they may choose to release insider information prior to their formal earnings announcement in order to help analysts and investors arrive at an estimate for future earnings that aligns with what managers expect their firms can achieve (Baginski, Conrad, & Hassell, 1993; Beyer et al., 2010; Washburn & Bromiley, 2013). Of course, managers may disclose other types of information besides that which relates directly to earnings. Managers may disclose information about environmental impact (e.g., Lewis et al., 2013), future strategic initiatives (e.g., Frankel, Johnson, & Skinner, 1999), the CEO (e.g., Chen et al., 2014), or the general going activities within the firm (e.g., Graffin et al., 2016), amongst many other aspects of the firm.

There are at least three different theoretical perspectives regarding information disclosure, why managers choose to disclose information, and the rationale behind potential benefits. First, agency theory predicts managers will disclose information to reduce information asymmetry between themselves and outsiders (namely investors or security analysts) (Beyer et al., 2010). This is to suggest that voluntary disclosure of

inside information exists to decrease information asymmetry at times managers deem opportune. Second, voluntary disclosure theory predicts that managers will disclose information that benefits outsiders who managers want to use the information, as long as those benefits outweigh the costs of other individuals accessing the information (Lewis et al., 2013; Verrecchia, 1983). This suggests that managers may consider what and how information is communicated. More specifically, managers are selective over the language they use to communicate information to outsiders (Lehavy et al., 2011; Loughran & McDonald, 2011); managers want to ensure the information is "coherent and comprehensible" (Rindova, Pollock, & Hayward, 2006: 56). Third, impression management theories suggest that managers may release information to make their firms appear more positive or more favorable to outsiders (Washburn & Bromiley, 2013). In other words, managers want to frame information to help external audiences believe there is value in the ongoing activities.

In the coming sections, I argue that managers may use information contained in the SEO prospectus in three different ways, consistent with the three theoretical rationales underlying discretionary information disclosure. I suggest that managers may use *justifications* in order to help decrease information asymmetry, may use *information clarity* in order to ensure the language is coherent and comprehensible such that it is interpreted and processed the way managers intended, and may *cast a positive organizational* image in order to manage impressions about the firm.

Justifications. Agency theory predicts a negative relationship between the information asymmetry a manager holds and the type of reactions an outsider (e.g., shareholder, security analyst) would have to any given strategic event or announcement

of information (Daily et al., 2003b; Finkelstein et al., 2009; Healy & Palepu, 2001). When information asymmetry is lower, stock market participants tend to respond more favorably to strategic announcements (Certo et al., 2003; Zhang, 2006a, 2006b). According to extant theory relating to SEOs, stock market participants tend to respond negatively to SEO announcements because of the inherent information asymmetry; however, these same participants tend to respond less negatively or positively when managers are able to decrease information asymmetry associated with the SEO issuance (Cornett, Mehran, & Tehranian, 1998; Cornett & Tehranian, 1994). Cornett and Tehranian (1994) suggest that firms are able to receive better stock market reactions to SEOs when investors are able to identify and rationalize why the firm is issuing equity.

I argue that managers are able to create *justifications* in the SEO prospectus with the intention of reducing outsiders' perceived information asymmetry (e.g., Gao et al., 2016; Porac, Wade, & Pollock, 1999). The use of justifications refers to "creating inductive analogical and metaphorical reasoning supporting" the rationale underlying the SEO issuance (Cornelissen & Clarke, 2010: 539). Justifications may also refer to explanations for behavior (Shaw, Wild, & Colquitt, 2003; Staw, McKechnie, & Puffer, 1983). Further, it may allow outsiders to compare information from the firm to their own expectations or to other firms (Porac et al., 1999; Zajac & Westphal, 1995). The use of justifications allows outsiders to create reasons, explanations, and rationale for a firm's activity, thereby decreasing the uncertainties from information asymmetry that would have otherwise existed without those justifications (Lechner & Floyd, 2012).

Consistent with agency theory, I suggest managers may use justifications about the SEO to decrease the information asymmetry observers may attribute to the SEO

issuance. Managers may justify the SEO issuance by describing the purpose of the SEO in the "Uses of Proceeds" section of the accompanying prospectus. Whereas some managers may not provide any useful information in the "Uses of Proceeds" section, other managers may seek to justify the SEO by identifying one or many reasons for which the firm needs the associated equity. Some managers may provide ambiguous justification for the SEO issuance (e.g., "general corporate purposes"), while other managers may explicitly state specific activities the firm may use the capital to pursue (e.g., "acquisitions", "new plant expansion"). In doing this, managers decrease the quantity of information asymmetry between themselves and outsiders.

Managers may also use justifications in the SEO prospectus to help outsiders make sense of the activities the firm is undertaking. When firms conduct potentially controversial activities, outsiders are left to rationalize the activities in accordance with what they believe the firm is doing—this often works to the detriment of managers because outsiders tend to focus on the potential agency costs and possibility of opportunistic behavior (Rhee & Fiss, 2014; Zajac & Westphal, 1995). However, if managers use justifications, they can create what capital market participants perceive as "appropriate rationales" for the activity (Zajac & Westphal, 1995: 285). In the case of SEO issuances, appropriate rationales likely represent informative reasons for the SEO issuance beyond capitalization on overvaluation. Rhee and Fiss (2014) connect this idea of justifying controversial activities to sensegiving, which refers to helping others to make sense of and construct meaning about activities. They suggest that how managers justify controversial activities is an important determinant of outsider perceptions of the

activity because justifications help outsiders create sense about the activity. Such perceptions of justifications are exceedingly important when the activity is controversial.

Information clarity. In accordance with voluntary disclosure theory, scholars suggest one reason managers may choose to release information is to shape outsiders' cognitions or interpretations of the firm in specific ways (Dhaliwal et al., 2011; Guidry & Patten, 2012). Other scholars have conceptualized this by suggesting information can help craft a story for outsiders to perceive information in ways the authors (e.g., managers) intended (Rindova et al., 2006). In order for managers to release information that will successfully craft a story or get interpreted in the ways they intend, the information needs to possess qualities consistent with it being cogent, coherent, comprehensible, and easy to process (Lehavy et al., 2011; Loughran & McDonald, 2014; Rindova et al., 2006).

In other words, managers need to engage in *information clarity.* Whereas the use of justifications integrates work that builds on agency theory to suggest that providing more information about a firm may reduce information asymmetry (e.g., Rhee & Fiss, 2014), information clarity focuses on the way that information is communicated. I am referring to information clarity as how easily the information is consumed by readers, and thus how easily it is processed.

Recognizing the need for information clarity, recent scholarship in the finance literature has examined the "readability" of information and how this might distil into the ways outsiders interpret the information (e.g., Lehavy et al., 2011; Loughran & McDonald, 2011; Loughran & McDonald, 2014: 1643). Readability addresses the "Plain English" standards for language and does so using a grade school level understanding of

how easy a document is to read (Kimble, 1994; Loughran & McDonald, 2014). Scholars in this literature suggest that outsiders may have a difficult time processing, interpreting, and understanding opaque or poorly written documents; in these cases, outsiders are unable to follow the story the managers craft with the information (whether that story involves communicating financials, strategic activities, or other more complex elements) (Lawrence, 2013; Lehavy et al., 2011). In fact, Lehavy et al. (2011) suggest that documents that are too difficult to read are essentially unusable because outsiders are unable to correctly interpret the information contained within them.

Scholars have suggested that communicating information clearly is a skill that some managers possess and other managers do not (Kimble, 1994). Lehavy et al. (2011) suggest that this skill is especially important when the information is non-standardized or more complex. This is the case for SEO issuances, which can fall outside the realm of highly scripted documents such as financial statements (Dougal et al., 2012; Lawrence, 2013; Lehavy et al., 2011). Communicating such complex information clearly is associated with several benefits, including better stock market reactions, better analyst reactions, and favorable press coverage (e.g., Dougal et al., 2012; Hirst & Hopkins, 1998; Lawrence, 2013; Lehavy et al., 2011).

There are two highly related reasons to explain why managers may prefer to present information clearly in public documents. Each of the two reasons is built on the idea that when information contained in documents is clearer, outsiders have to spend less time and effort processing the information (Lehavy et al., 2011; Loughran & McDonald, 2014). First, this translates into lower opportunity costs for outsiders associated with doing other activities, such as evaluating other firms, investing in other

firms, or conducting other activities to increase their utility (Hirshleifer & Teoh, 2003; Lou, 2014; Plumlee, 2003). Second, information that is more difficult to process invokes higher costs of gathering information (Rindova et al., 2006; Washburn & Bromiley, 2013). Scholars have found that outsiders dislike having to expend additional effort gathering information to evaluate what they have been provided, which is referred to as "costs" associated with gathering information (Aldrich & Fiol, 1994; Washburn & Bromiley, 2013: 854).[1]

In sum, managers may provide clearer information in SEO prospectuses in order to help craft a cogent story to outsiders, to decrease information processing time, and to decrease costs associated with gathering and analyzing information (Hirshleifer & Teoh, 2003; Rindova et al., 2006; Washburn & Bromiley, 2013). To do so, managers may use simpler language (e.g., Kimble, 1994), shorter sentences (e.g., Loughran & McDonald, 2014), concise document structures (e.g., Lawrence, 2013), or more familiar business nomenclature (e.g., Loughran & McDonald, 2011). I suggest that all of these tactics represent information clarity.

Casting a positive organizational image. Managers may provide information about their organization to create a more favorable or positive perception of the image of the organization (Elsbach & Sutton, 1992; Gao et al., 2016; Rhee & Fiss, 2014). In other words, managers may *cast a positive organizational image* in order to improve the perceptions of the organization or to prevent image-threatening activities (such as SEOs)

[1] Some scholars have also suggested that managers may intentionally communicate unclearly in order to distract outsiders or to obfuscate information (e.g., Graffin et al., 2011). While this remains a possibility, I do not expect it to occur within the SEO prospectus because of the legal ramifications of issuing intentionally misleading information in the document. Perhaps managers may seek to obfuscate the information in the SEO using other information mediums, but this is outside of the scope of my study.

from creating negative perceptions of the organization (Fiss & Zajac, 2006; Rhee & Fiss, 2014; Staw et al., 1983). Scholars suggest this technique is important because certain activities may threaten the image of an organization and thereby cause negative outcomes such as reduced legitimacy, reputation, and status (e.g., Bednar et al., 2014; Bitektine, 2011; Deephouse & Suchman, 2008; Gao et al., 2016). Managers may provide positive information about their firms in order to help offset those negative outcomes (Bansal & Clelland, 2004; Graffin et al., 2016; Washburn & Bromiley, 2013).

Casting a positive organizational image involves selectively disclosing positive information about the firm, even if it is not necessarily novel or related to a focal event (Elsbach & Sutton, 1992; Graffin et al., 2016; Washburn & Bromiley, 2013). Managers may frame information about the firm in such a way that it creates more favorable perceptions of the organization even if the framing of that information is not relevant to the situation at hand (e.g., SEO issuances) (e.g., Benner & Ranganathan, 2012; Westphal & Zajac, 2001). Appropriately, I draw from framing theory (e.g., Cornelissen & Clarke, 2010; Fiss & Zajac, 2006) and impression management research (e.g., Graffin et al., 2016; McDonnell & King, 2013) to explain why and how managers may cast a positive organizational image.

Framing theory suggests that managers can provide information in such a way that observers' attention is directed toward positive facets of an organization (Cornelissen & Clarke, 2010; Cornelissen & Werner, 2014). Put differently, managers can frame the information they provide to influence the cognitions of outsiders and to direct them towards desirable facets of the organization or more favorable lenses through which the information is viewed (Benner & Tripsas, 2012). To do this, managers may project

certain information about the organization to influence a more favorable cognitive frame from those consuming the information (Cornelissen & Werner, 2014; Gavetti, Levinthal, & Rivkin, 2005). As Fiss and Zajac (2006: 1174) identify, managers may frame by "articulating a specific version of reality, [thereby securing] both the understanding and support of key stakeholders…because it shapes how people notice and interpret what is going on." Managers can focus on positive aspects of the organization in order to help outsiders perceive the potentially controversial activity of an SEO more favorably.

Framing outsiders' perceptions of the firm via casting a positive organizational image is also tied to theories of impression management. Impression management refers to managers releasing information to "influence outsiders' perceptions of their firms" (Bansal & Clelland, 2004: 95). As Bansal and Clelland (2004) point out, managers may release such information in mediums such as shareholder meetings, annual reports, public documents, and press releases. Therefore, managers may use the SEO prospectus as an opportunity to provide selective information about the organization to encourage outsiders to perceive the organization more favorably. This is consistent with the foundations of impression management research, which "typically assumes managers of firms want to build positive impressions" of their organizations (Washburn & Bromiley, 2013: 850). Further, some impression management scholarship suggests that managers apt to focus on positive aspects of the organization rather than negative or defensive language because observers tend to respond favorably to positive language and unfavorably to negative language (Graffin et al., 2016; Hovland, Janis, & Kelley, 1953).

I suggest managers may selectively disclose positive information about their organizations to influence outsiders' perceptions of their firms. This will work to manage

impressions about what is often otherwise considered as a negative and controversial activity of an SEO issuance. Following framing theory and impression management, I suggest managers may frame the SEO in a positive light by speaking positively about aspects of their organizations with the intention of influencing outsiders to perceive the organization more favorably (Graffin et al., 2016; Rhee & Fiss, 2014; Washburn & Bromiley, 2013).

This is not to suggest casting a positive organizational image is a costless endeavor. Indeed, discussing the firm positively introduces potentially unnecessary language into the prospectus, which may conflict with clearly communicating the purposes of the SEO issuance—something I discuss in the coming sections that security analysts tend to dislike (Lehavy et al., 2011; Litov, Moreton, & Zenger, 2012). Further, outsiders may perceive managers' positive sentiments about their organizations as inauthentic or disingenuous, particularly if the organization is performing poorly. Research on "cheap talk" suggests that such instances undermine otherwise credible information that managers are attempting to convey (Almazan, Banerji, & Motta, 2008; Connelly et al., 2011; Whittington, Yakis-Douglas, & Ahn, 2016).

CHAPTER 3

THEORY & TESTABLE HYPOTHESES

Proprietary Costs and Competitive Dynamics – Antecedents

Voluntary disclosure theory suggests that managers will disclose non-required information about the firm when the benefits of doing so outweigh the costs (Guidry & Patten, 2012; Lewis et al., 2013). Previously, I posited that managers may use their discretion to voluntarily disclose information in at least three ways—justifications, information clarity, and casting a positive organizational image. In this section, I turn to the potential costs associated with voluntarily disclosing such information. I integrate research in competitive dynamics to examine the role of competitive intensity (Barnett, 1997; Kilduff et al., 2010) in understanding when managers are likely to disclose inside information.

Proprietary costs. Proprietary costs represent perhaps the most significant force that influences the degree to which managers reveal inside information (e.g., Healy & Palepu, 2001; Verrecchia, 1990b). Proprietary costs refer to any performance losses a firm would receive from competitors having access to inside information (Lang & Sul, 2014). In other words, proprietary costs are greater when competitors can achieve a stronger competitive edge by knowing information that is otherwise reserved only for those individuals inside the information-revealing organization (Ali, Klasa, & Yeung, 2014). Proprietary costs build on the ideas of material proprietary information. Proprietary information is information about the firm that insiders possess and outsiders do not (Healy & Palepu, 2001). While proprietary costs refer to harm from releasing that

information, these costs generally assume that the information released is material or important to the performance of the firm.

At its core, the concept of proprietary costs is focused on competitors, what they know, what they do not know, and how they might use internal information against a firm that is disclosing information (e.g., Beyer et al., 2010; Ellis, Fee, & Thomas, 2012; Lang & Sul, 2014). Thus, proprietary costs represent a different type of information asymmetry than asymmetry between managers and investors. Proprietary costs are borne out of information asymmetry between managers of a focal firm and managers of its competitors (Beyer et al., 2010; Healy & Palepu, 2001). This distinction is important because the information asymmetry between firms and their rivals is often qualitatively and quantitatively different than asymmetry between managers and investors. Rival firms may know more or less about the inside information of a firm than do its investors. Further, there is likely different relative value of this information between rivals or investors of a focal firm. Proprietary costs involve the information asymmetry between firms and their rivals.

When firms face higher proprietary costs and disclose too much information, they are at risk of competitive declines and destroying firm value (Ellis et al., 2012). In fact, proprietary costs are an important element of the sustained competitive advantage firms can achieve from their internal resources. As conceptualized by Barney (1991) and the scholarship building on the resource based view of the firm, organizations hold a competitive advantage when competitors are unable to decipher and imitate or mitigate the value-creating resources the organization holds (i.e., causal ambiguity) (Reed & DeFillippi, 1990). For this reason, managers must consider the potential for competitors

to leverage any information that managers may publically disclose (Ellis et al., 2012; Verrecchia, 1990b).

Proprietary costs are often connected to the competitive landscape of the firm considering information disclosure. Much of the work investigating these costs has almost exclusively posited a positive relationship between industry concentration and proprietary costs (Beyer et al., 2010; Lang & Sul, 2014; Li, 2010). The logic is that as industries become more concentrated, there is a greater threat of existing rivals using new information to enter the product or innovation market of the disclosing firm (Li, 2010). Scholars in this area suggest that proprietary costs are characterized by rivals reacting to information and then using that new information to enter into the product markets of the firm disclosing information (Ali et al., 2014; Beyer et al., 2010; Li, 2010).

Inconclusive findings. Aside from industry concentration, however, there have been few theoretical and empirical inroads conceptualizing and quantifying when proprietary costs are higher or lower (Beyer et al., 2010; Healy & Palepu, 2001; Lang & Sul, 2014). In fact, even recent scholarship examining the link between industry concentration and proprietary costs has suggested that the evidence supporting a positive relationship between industry concentration and proprietary costs is mixed and inconclusive (Beyer et al., 2010; Lang & Sul, 2014). In this scholarship, industry concentration is typically measured using the Herfindahl Index or other similar measures that calculate the competitive density of an industry (Ali et al., 2014; Lang & Sul, 2014).

There are four potential explanations for the inconclusive relationship between industry concentration and proprietary costs. First, using industry concentration essentially imputes an identical value for proprietary costs for all firms in a given

industry or segment over each year, unless a remarkable shake-up changes the structure of the firms in the industry (e.g., Ali et al., 2014; Lang & Sul, 2014). This is too broad to capture the actual competitive forces that may influence managers' proclivity to disclose proprietary information. Second, this conceptualization relies on the assumption that firms have, on average, a greater likelihood of responding to new information when the industry is more concentrated. There is, however, no underlying theoretical rationale to suggest that firms in more concentrated industries have a greater propensity to respond to information (Chen, 1996; Lang & Sul, 2014).

Third, this scholarship has not focused on what represents actual concerns for managers. Instead, it has focused on whether or not competitors will enter into the same markets (product or otherwise) as the disclosing firm (Ali et al., 2014; Bamber & Cheon, 1998), but not whether managers will care about those types of activities. Indeed, managers' concerns may focus on processes, capabilities, activities, or knowledge-bases that they perceive as key resources. In other words, concerns over competition may extend beyond simply entering or exiting from markets. Finally, and perhaps most importantly, industry concentration does not address managers' perceptions of competition. Since voluntary information disclosure is an endogenous choice managers make (Lewis et al., 2013; Verrecchia, 1983, 1990b), their perceptions of the cost of doing so are likely idiosyncratic and highly subjective.

To help resolve the problems associated with conceptualizing proprietary costs using industry concentration, I suggest an approach that scholars suggest may more accurately capture managers' concerns over competitive actions (Chen & Miller, 2012; Chen & Miller, 2015). Following work in the competitive dynamics literature, I postulate

it is perhaps more appropriate to focus on how firms in a competitive landscape are actually behaving rather than their relative sizes (which is what the industry concentration approach employs) (Yu & Cannella, 2013). Specifically, I expect that when there is more competitive activity in an industry, rivals have a greater propensity to respond to new information. When rivals have a greater propensity to respond, they are likely to react to proprietary information and use that information for their benefit. This is something information-disclosing managers may directly consider when providing inside information to outsiders.

To investigate this more activity-centric conceptualization, I utilize the core tenets held within the competitive dynamics literature. This literature has a long history of recognizing the competitive landscapes and actions of firms instead of looking broadly at the environment (e.g., Baum & Korn, 1996; Chen & Miller, 2012; Yu & Cannella, 2013). In this literature—which is largely held within the confines of management scholarship—the competitive forces which influence managerial behavior often arise from actions that competitors and focal firms take (Chen, Kuo-Hsien, & Tsai, 2007). Instead of focusing on passive elements of an industry structure (like the density of the industry), I suggest it is more appropriate to focus on the activities of the firms in an industry and how they change over time (Grimm, Lee, & Smith, 2005). For example, new product introductions by firms in a market may inform managers as to how competitively active a market is compared to simply looking at the general market density of the industry.

Competitive intensity. Competitive intensity, which addresses the interactions between a firm and its close set of rivals, is a key theoretical framework in the competitive dynamics literature (Barnett, 1997; Giachetti & Dagnino, 2014). Competitive

intensity builds on the framework of "intensity of rivalry" proposed in Porter's (1979) Five Forces model in order understand how small clusters of firms' actions are shaped by concerns over competitors' responses. Competitive intensity is conceptualized as the perceived ferocity of competition between either two rivals or a small set of rivals (Chen et al., 2007; Kilduff et al., 2015; Kilduff et al., 2010). Competitive intensity represents a perceived breaking point at which managers believe their competitors may use competitive tactics against their firms (Chen et al., 2007).

Using sports as an analogy, Kilduff et al. (2010) suggest that competitive intensity between a firm and its rivals is similar to the intensity of rivalry between sports teams; there is a winner and loser (i.e., it is a zero sum game), and both parties use available information to interpret and react to moves by the opposing party in order to improve the likelihood of winning. Similarly, Barnett (1997: 130) defines competitive intensity as "the magnitude of effect that an organization has on its' rivals life chances [of survival]...[and] the probability of competition [that] varies from market to market." Under weak competitive intensity, a focal firm is not as concerned about a rival harming performance as under strong competitive intensity (Barnett, 1997).

There are three related conceptual characteristics of competitive intensity that may help explain proprietary costs and managers' corresponding inclination to disclose proprietary information. First, competitive intensity is relational, meaning that it involves managers' evaluations of rivals (e.g., Kilduff et al., 2010). Specifically, Kilduff et al. (2010: 945) suggest that a rivalry between firms is "a subjective competitive relationship that an actor has with another actor that entails increased psychological involvement and perceived stakes of competition for the focal actor, independent of the objective

characteristics of the situation." Whereas a sizeable portion of the extant literature on proprietary costs focuses on objective industry-related characteristics (e.g., Ali et al., 2014; Li, 2010), competitive intensity recognizes a subjective and perceptual rivalry between two (or a small set of) firms. Similar to the concept of competitive asymmetry (Baum & Korn, 1999), competitive intensity recognizes some managers are more concerned about competitors responding to proprietary information than other managers. Kilduff et al. (2010) suggest managers perceive greater levels of intensity when rival firms are more similar, when firms have repeated interactions, and when managers think the stakes are relatively high. Ultimately, there is a psychological component integrated in competitive intensity, such that managers are inclined to withhold proprietary information due to the fear of rivals "winning" (Chen & Miller, 2015; Kilduff et al., 2010; Tauer & Harackiewicz, 2004; Zajonc, 1968).

Second, competitive intensity directly addresses rivals' propensity to respond to new information (e.g., Gimeno & Woo, 1999). Competitive intensity is greater when rivals are able to extract rents, decrease performance, or undermine the sustained competitive advantage of a focal firm (Gimeno & Woo, 1996, 1999). Indeed, competitive intensity considers the "competitive interaction within focal-market rivals, and it is therefore influenced by the competitive behavior of those rivals" (Gimeno & Woo, 1999: 242). When competition is more intense, rivals react quicker and with greater ferocity to new information (Baum & Korn, 1996; Boeker et al., 1997; Young, Smith, & Grimm, 1997). In other words, rivals' propensity to respond to strategic actions (e.g., new information) is almost synonymous with competitive intensity. Connecting this to proprietary costs, I suggest that firms competing more intensely with rivals are subject to

faster and greater competitive responses when releasing information. Thus, when competitive intensity is higher, potential proprietary costs are higher.

Finally, competitive intensity is time variant, such that there is a fluid and evolving trigger-response sequence between competitors (e.g., Barnett, 1997). At its core, competitive intensity focuses on the moves and countermoves of rivals over an extended period of time (Chen & Miller, 2015; Yu & Cannella, 2007). Using a density-dependent model, Barnett (1997) conceptualizes competitive intensity within the confines of organizational ecology. In doing so, competitive intensity is perceived as a temporally indefinite construct wherein any specific moment of intensity represents both an accumulation of triggers and actions and a subjective evaluation of position within a competitive ecology. Over time, as competitive intensity increases and decreases, firms enter and exit in their markets due to rivals acting and responding to triggers (Baum & Korn, 1996). In the case of proprietary information, competitive intensity may represent proprietary costs more or less depending on the recent interactions between firms.

Each of these three related characteristics of competitive intensity represents differences from industry concentration as a conceptualization of proprietary costs. Whereas industry concentration is objective and rigid, competitive intensity is relational, fluid, and represents asymmetrical abilities to use new information competitively. Competitive intensity also allows for the conceptualization of managerial choice—which is a primary characteristic of voluntary disclosure (Healy & Palepu, 2001; Verrecchia, 1990b). As competitive intensity shifts over time and as managers perceive these shifts differently, proprietary costs may increase or decrease. Therefore, perceptions of competitive intensity over time may influence proprietary information disclosure.

Proprietary costs and information disclosure. As competitive intensity increases, I expect managers assess a higher cost of disclosing information and are less likely to reveal material inside information. Indeed, Graham, Harvey, and Rajgopal (2005) find that concerns over competitors gaining a competitive edge from inside information is one of the most significant factors influencing what information managers disclose. Using a novel survey of over 400 managers, Graham et al. (2005: 62) document that "nearly three-fifths of survey respondents agree or strongly agree that giving away company secrets is an important barrier to more voluntary disclosure." In fact, these authors notice that CFOs are highly aware of proprietary costs and "do not want to reveal sensitive proprietary information 'on a platter' to competitors, even if such information could be partially inferred by competitors from other sources…" (Graham et al., 2005: 64-65). Connecting voluntary disclosure theory (Dye, 2001; Verrecchia, 2001) and the survey conducted by Graham et al. (2005), I suggest managers are less likely to reveal inside information when competitive intensity is higher than lower.

Justifications. The use of justifications in the SEO prospectus involves identifying specific reasons or rationale for issuing the SEO prospectus. When managers provide justifications, they allow outsiders the opportunity to know about both future strategic initiatives that the firm plans to pursue and how much capital managers are dedicating to those initiatives. Providing justifications both decreases information asymmetry and increases the ability for outsiders to rationalize the strategic activities of the firm. Further, outsiders may place more confidence in managers who appear to have specific strategies defined when they issue an SEO. Autore et al. (2009) suggest that firms which issue justifications in the SEO prospectus tend to perform better in the following years. To

provide justifications, managers might explain that the firm is going to use the capital to pursue plant or retail expansion in new markets. They may also indicate that the firm is going to consider acquisitions of other firms to bolster a specific technology.

In contrast, when competitive intensity is higher, managers issuing an SEO may perceive a greater potential for their core rivals to respond competitively to justifications provided in the prospectus (Chen & Miller, 2015; Kilduff et al., 2010). Perhaps they may have concerns that their competitors may preempt them into new markets, or may consider acquisition targets before the SEO-issuing firm does. Consequently, managers may have trepidations about providing a roadmap of future strategic activity to competing firms. Therefore, I expect managers are less likely to provide justifications for the SEO issuance when they perceive greater levels of competitive intensity.

> Hypothesis 1: Competitive intensity is negatively related to the number of justifications in the SEO prospectus.

Information clarity. Information clarity involves managers disclosing information in such a way that it is easier to read, consume, and process by outsiders. Less information clarity involves opaque language, convoluted sentences, and unfamiliar nomenclature, and more information clarity involves easy-to-read language, short sentences, and typical business and financial nomenclature (Lehavy et al., 2011; Loughran & McDonald, 2014). Although some scholars suggest the ability to present information clearly is a skill managers possess (Kimble, 1994), other scholars suggest managers may intentionally use opaque language and less clarity when they want to dissuade outsiders from delving too deeply into the information (Dougal et al., 2012; Easley & O'Hara, 2004). For example, managers may present less clear information to try to conceal information from journalists (e.g., Dougal et al., 2012), analysts (e.g., Lehavy

et al., 2011), and investors (e.g., Lawrence, 2013). Ultimately, scholarship in this area contends that managers vary in terms of the clarity of the information they disclose.

Connecting information clarity to competitive intensity, I suggest managers are less likely to provide clear information when they perceive greater levels of competitive intensity. Managers may intentionally use opaque and superfluous language in their SEO prospectuses to dissuade their competitors from understanding the information contained in the document. For example, managers could engage in less information clarity by burying important information about the SEO issuance in long, wordy, and poorly-written sentences. Conversely, managers could use more information clarity by composing quick bullet points identifying important information. Managers' concerns could also extend to competitors receiving analyzed information from security analysts and business press. Consequently, managers may want to engage in less information clarity so that analysts and press are less likely to cogently evaluate information in the prospectus (Dougal et al., 2012; Lehavy et al., 2011; Loughran & McDonald, 2011) and then disseminate that information to sources which competitors can access.

> Hypothesis 2: Competitive intensity is negatively related to information clarity in the SEO prospectus.

Casting a positive organizational image. Whereas the use of justifications or information clarity provides greater insight into the inner workings of a firm, casting a positive organizational image may not provide any new or material information about the firm. As I addressed previously, scholars in this area suggest that managers attempting to create a positive organizational image often focus on unrelated positive elements of the organization (Benner & Ranganathan, 2012; Graffin et al., 2016) or the framing in which information is presented (Cornelissen & Werner, 2014; Westphal & Zajac, 1998; Zajac &

Westphal, 1995). In either case, managers working to cast a positive organizational image point to positive elements of their organization.

As it relates to competitive intensity and the corresponding proprietary costs of voluntary disclosure, there are two related rationales that may suggest a positive relationship between the competitive intensity and casting a positive organizational image. First, proprietary costs relate only to disclosing material proprietary information (Dye, 2001; Healy & Palepu, 2001; Verrecchia, 1990b, 2001). In the case of casting a positive organizational image, managers do not disclose material information. Rather they either highlight positive aspects of the firm or frame information in specific ways. Thus, there are essentially no proprietary costs associated with casting a positive organizational image. However, casting a positive organizational image adds length and verbiage to the SEO prospectus. The literature and arguments about information clarity suggest this comes at a cost. When proprietary costs are higher, managers may focus on the benefits of projecting a positive image with less concern for the costs.

Second, scholars suggest that managers are likely to trumpet their accomplishments and positive characteristics of their firms when competition is fiercer (Eliashberg & Robertson, 1988; Porter, 1980; Rindova, Becerra, & Contardo, 2004). The logic is that companies with more positive attributes can point to these characteristics in hopes of dissuading competitors from entering their market, attacking, or responding to an action (Eliashberg & Robertson, 1988). As Rindova et al. (2004) highlight, when a firm perceives greater rivalry with specific competitors, managers are likely to use language to signal that it has access to more resources and has better capabilities. The

authors suggest that managers do this because they hope to deter competitors from entering product-markets and to rally support from key stakeholders.

Managers may a cast a positive organizational image in the SEO prospectus in a number of ways. For example, managers may identify recent performance accomplishments of the firm relative to its competitors, may highlight accolades received by top managers (e.g., recognition in business press), or may actively use positive language to describe the activities of the firm. In this study, I suggest the use of positive language and tone relative to negative language and tone can represent casting a positive organizational image. When competitive intensity is high, I expect managers want to look favorable to outsiders and competitors.

> H3: Competitive intensity is positively related to the appearance of positive organizational images in the SEO prospectus.

Security Analyst Reactions – Consequences

In the previous section, I explored the antecedents of the use of information in the SEO prospectus through the theoretical constructs of proprietary costs and competitive intensity. I argued the competitive intensity represents an antecedent of information disclosure and is connected to information releases via the mechanism of proprietary costs. In this section, I turn my focus to the outcomes of the use of information in the SEO prospectus. I argue are security analysts' reactions represent the outcomes of information disclosure. Specifically, I suggest that analyst reactions are a benefit to providing information in the SEO prospectus.

Security analysts and their reactions to information. Security analysts represent one of the most important information intermediaries with whom managers can interact (Benner & Ranganathan, 2012). Security analysts are individuals tasked with becoming

experts on a particular firm or sector in order to professionally evaluate the activities of a firm and make recommendations to potential investors (i.e., analysts' clients) (Feldman, Gilson, & Villalonga, 2013; Pfarrer et al., 2010). Firms tend to have relatively few security analysts (approximately between 2 and 20) who distil information from the firms and provide expert analysis for investors. In general, security analysts are in high demand because investors often have neither the time nor the expertise to comprehensively evaluate the performance prospects of a given firm or set of firms (Barber et al., 2001; Feldman et al., 2013). As a result, security analysts are often able to sway the perspectives of millions of investors based on their analysis of a firm, its activities, and its ability to generate performance for its shareholders (Barber et al., 2001; Chung & Jo, 1996).

In general, security analysts complete two tasks for their clients. The first task involves creating pro forma earnings projections, often referred to as earnings forecasts (Feldman et al., 2013; Washburn & Bromiley, 2013). These forecasts help investors to understand analysts expert perspectives on future earnings, which in turn help investors make informed decisions (Barber et al., 2001). These earnings forecasts are fluid, meaning that analysts may revise their forecasts as managers announce new strategic initiatives (Abarbanell & Lehavy, 2003; Plumlee, 2003).

The second task analysts complete involves making recommendations of whether or not they believe investors should buy a firm's stock or not (Barber et al., 2001; Benner & Ranganathan, 2012; Luo et al., 2015). These stock recommendations come in the form of discrete evaluations, such as "strong buy", "buy", "hold", "sell", or "strong sell" (Wiersema & Zhang, 2011). When analysts make or revise a recommendation, millions

of investors are left to interpret whether or not they want to follow the advice of the experts (Barber et al., 2001; Fanelli, Misangyi, & Tosi, 2009). Research suggests, however, that investors can earn better returns by following the recommendations of security analysts (Barber et al., 2001; Fanelli et al., 2009; Jegadeesh & Kim, 2009). This is particularly true during SEO issuances because analysts are thought to have more sophisticated information about the firm and a greater ability to navigate information asymmetry (Bowen, Chen, & Cheng, 2008; Dechow, Hutton, & Sloan, 2000).

Because analysts influence many investors, and owing to the partially subjective nature of their evaluations, scholars have examined how managers might maintain relationships with analysts (e.g., Pfarrer et al., 2010; Westphal & Clement, 2008; Zuckerman, 1999). Scholars believe that analysts tend to respond more favorably to a firm's announcements when its managers have a good relationship with analysts (Washburn & Bromiley, 2013; Westphal & Clement, 2008). In fact, Westphal and Clement (2008: 873) suggest maintaining a relationship with security analysts represents a "primary responsibility" for managers. Holding such a relationship with analysts may help the firm in a variety of ways, including bringing more legitimacy to the firm (Zuckerman, 1999) and influencing analysts to provide recommendations more consistent with what managers believe (Barber et al., 2001; Chung & Jo, 1996).

A sizeable portion of the literature on managers' relationships with analysts connects the information managers provide to the quality of the relationship (Pfarrer et al., 2010; Washburn & Bromiley, 2013). Research suggests analysts prefer a greater quantity of salient information about the inter-workings of the firm and its strategic initiatives (Libby & Tan, 1999; Skinner & Sloan, 2002; Washburn & Bromiley, 2013).

For example, Washburn and Bromiley (2013: 852) describe how "managers can voluntarily issue predictions of their firm's future performance" in order to help analysts with their task of projecting earnings. As another example, Pfarrer et al. (2010) describe how managers can provide information to analysts in order to help decrease analysts' uncertainty about the firm and make more informed recommendations to investors. This literature suggests that managers can benefit from being forthcoming with analysts.

There are two related reasons why open communication channels between managers and analysts may benefit managers, both of which originated in the literature on earnings management of earnings surprises.[2] First, providing more information to analysts can improve reactions because analysts' reputations are often damaged when they are unable to predict strategic activities in advance of an announcement (Barron, Byard, & Yu, 2008). In the context of SEOs, if managers do not provide information to indicate for what they will use the capital raised, analysts may hold concerns that a future strategic announcement using those funds may arrive unexpectedly, thus hurting their reputation with their clients. Second, providing more information may benefit managers because of analysts' individual biases that arise when they are under-informed (Hirshleifer & Teoh, 2003; Houston, James, & Ryngaert, 2001). When analysts do not have sufficient information about a firm or strategic activity, they often resort to individual biases about surprising or new information. These biases are almost always associated with negative reactions, especially when the information involves a potentially

[2] Earnings surprise refers to an instance when the actual quarterly earnings of a firm are inconsistent with the earnings forecasts analysts had previously projected (Libby & Tan, 1999; Pfarrer et al., 2010; Westphal & Clement, 2008). In such instances, analysts tend to respond especially negatively, prompting managers to often communicate information prior to an earnings announcement in order to avoid surprises (Libby & Tan, 1999; Washburn & Bromiley, 2013).

controversial activity like an SEO (Brown et al., 2015, 2016; Houston et al., 2001). In fact, Westphal and Clement (2008) describe how managers may go to such lengths as rendering favors for analysts in order to shift analysts to have more favorable perceptions of (and thus biases toward) the firm.

Justifications. When issuing an SEO, managers may provide more information to security analysts in order to avoid these negative outcomes. One way they may do so involves the use of justifications in the SEO prospectus. Previously, I described the use of justifications as providing reasons and rationale for issuing the SEO. When managers use justifications, analysts are more informed about the ongoing activities of the firm. All else equal, analysts then face less of a surprise when a firm announces a strategic activity, and thus are less likely to have concerns over reputational damage or rely on their biases when activities are announced.

I also postulate that providing justifications in the SEO prospectus may influence analysts to respond more favorably to the SEO issuance on the basis of less perceived controversy. I previously argued that SEOs represent controversial activities and that capital market participants are often skeptical of the managers' motivations for issuing the SEO (Cornett & Tehranian, 1994; DeAngelo et al., 2010; Loughran & Ritter, 1995). I expect that using justifications will reduce the information asymmetry between managers and capital market participants, thus eliciting fewer concerns over the motivations underlying the SEO issuance. By providing justifications, managers can point to tangible outcomes associated with the SEO issuance.

I contend justifications are beneficial both because they help avoid the negative analyst reactions associated with future surprises and because they may limit the

perceived controversy associated with the SEO issuance. Further, given that scholars posit analysts substantially influence investors' trading behavior (Barber et al., 2001; Feldman et al., 2013), I expect the benefits of providing more information via justifications will distil to better stock market reactions. Given that I expect SEOs to receive generally negative analyst responses, I am concerned primarily with how uses of information in the prospectus influence analyst downgrades of their stock recommendations for the firm following the SEO announcement. Analyst downgrades are important outcomes because they tend to influence investors more than upgrades (Westphal & Clement, 2008) and because analysts are apt to downgrade following a controversial activity to maintain credibility with their clients (Brown et al., 2015).

> Hypothesis 4: The number of justifications in the SEO prospectus is negatively related to the number of analysts downgrading in the period following the SEO issuance.

Information clarity. Scholars have suggested that the way in which information is provided affects analysts' interpretation of and reactions to that information (Lehavy et al., 2011). In a recent line of research in the finance and accounting literatures, scholars suggest that information which is cumbersome, too complex, poorly written, or unclear is often associated with negative reactions from capital market participants, including security analysts (e.g., Bodnaruk, Loughran, & McDonald, 2015; Lehavy et al., 2011; Loughran & McDonald, 2014). The general argument for this relationship is that "lower readability of firm financial disclosures increases the cost of processing the information in these disclosures" (Lehavy et al., 2011: 1089). Put differently, financial documents that are unclear make it more difficult for analysts and investors to consume, process, and evaluate the information contained within them, thereby leading to negative reactions. In

an article about how firms may communicate the financial constraints they face, Bodnaruk et al. (2015) suggest that opaque language or poorly written documents make it harder for outsiders to find relevant information to include in their evaluations.

There are two related reasons why analysts might dislike information that is communicated poorly or not in a clear fashion, both of which stem from the costs associated with processing information (Hirshleifer & Teoh, 2003; Lehavy et al., 2011; Plumlee, 2003). The first reason involves analysts' limited attention and that more complex information requires more processing time. Hirshleifer and Teoh (2003) suggest that analysts (like all humans) have limited attention, meaning that analysts "attention must be selective and requires effort (substitution of cognitive resources from other tasks)" (2003: 341). This perspective is consistent with bounded rationality and satisficing (Cyert & March, 1963; Kahneman, 2003; Scott & Davis, 2007). Second, analysts have to spend more time gathering supplemental information when primary information is difficult to understand or process (Aldrich & Fiol, 1994; Basdeo et al., 2006; Rindova et al., 2006; Washburn & Bromiley, 2013). Taken together, processing and evaluating unclear or vague information is associated with opportunity costs from limited attention and gathering information. Analysts tend to dislike such opportunity costs and therefore respond negatively to activities that increase these costs (Hirst, Koonce, & Venkataraman, 2008; Plumlee, 2003; Washburn & Bromiley, 2013).

In a recent stream of research in the management literature, some scholars have suggested that analysts' distaste for complex information or activities influences information disclosure practices (Benner & Zenger, 2016; Litov et al., 2012). Benner and Zenger (2016) even suggest that managers may go to extreme lengths to avoid potentially

confusing analysts, and may even choose less valuable but easy-to-evaluate strategies in order to avoid adverse analyst reactions to complicated information. Similarly, Litov et al. (2012) suggest analysts may choose to ignore value-creating information when that information is complex and time-consuming to evaluate but that managers can improve analyst reactions by decreasing the time it takes to evaluate the information provided.

I suggest that managers engaging in more information clarity can reduce the costs associated with evaluating information and can improve analyst reactions to the SEO. Much like the financial documents that extant work has analyzed (e.g., Bodnaruk et al., 2015; Lehavy et al., 2011; Loughran & McDonald, 2014; Loughran & McDonald, 2015), SEO prospectuses require written communication to explain the parameters of the equity issuance itself, the landscape and competitive environment of the firm, and the potential uses of the equity the firm is raising. As I suggested earlier, managers increase information clarity when they compose this document in such a way that it is readable, it uses conventional business nomenclature, and it does not use opaque language. In these instances, I expect analysts to spend less time reading and processing the information in the SEO prospectus. Additionally, if managers use opaque language or are generally unclear, the analysts might not decipher the information. This leads to more uncertainty about the information and negative analyst reactions (Zhang, 2006a). Thus, I anticipate analysts to have lower opportunity costs from limited attention and gathering information associated with analyzing the SEO.

> Hypothesis 5: Information clarity in the SEO prospectus is negatively related to the number of security analyst downgrading in the period following the SEO issuance.

Casting a positive organizational image. Recent scholarship in management has examined how and when managers might present information to capital market participants in order to improve their reactions to announcements of strategic activities (e.g., Fiss & Zajac, 2006; Graffin et al., 2016; Pfarrer et al., 2010; Washburn & Bromiley, 2013). In fact, Washburn and Bromiley (2014) suggest that managers may strategically use tactics specifically aimed at security analysts with the intention of persuading them to react more favorably to a firm's announcements. Typically, security analysts are well-informed individuals who deal in facts rather than anecdotes or images about an organization (Zhang, 2006a). However, many scholars suggest that analysts are susceptible to influence activities like all individuals. In their article, Washburn and Bromiley (2013: 851) suggest "analysts are sensitive to managerial influence practices", such as projecting positive information to help analysts to make more favorable decisions. Similarly, Fanelli and Misangyi (2006) suggest that analysts may produce more favorable recommendations when they experience positive affect about the organization. Taken together, I posit that analysts will respond more favorably to SEO issuances that are accompanied by prospectuses that cast a positive organizational image.

There are three reasons why projecting a positive organizational image may influence analysts (and other capital market participants) to respond more favorably to the SEO issuance. First, creating a positive organizational image may help analysts to weigh the potentially positive elements of the SEO stronger than the negative elements (Mishina et al., 2010; Washburn & Bromiley, 2013). Analysts tend to put more emphasis on negative information compared to positive information when making their analyses (De Bondt & Thaler, 1990; Hong, Kubik, & Solomon, 2000). However, managers can

influence analysts to either discard negative information in favor of positive information (Pfarrer et al., 2010) or perceive the information more positively (Mishina et al., 2010; Washburn & Bromiley, 2013). For example, casting a positive organizational image may work in the following way: Analysts could fixate on equity valuations of the SEO that they perceive as potentially uncompromising or negative, but may instead focus on the potential growth of the organization.

Second, casting a positive organizational image may help analysts deal with the complex task of evaluating an SEO issuance (Washburn & Bromiley, 2013; Zhang, 2006a). Washburn and Bromiley (2013) suggest that because analysts' tasks require so much complex cognitive processing, positive information (whether or not it is even germane to the task at hand) may influence them to distil the information into more favorable outcomes. In other words, analysts will seek cues about how to interpret complex information such that they can infer the value of the activity (Rao, Greve, & Davis, 2001). When managers can provide positive cues like casting a positive organizational image, analysts tend to filter and process that information more favorably for the organization (Rindova et al., 2006; Washburn & Bromiley, 2013).

Finally, analysts (and investors) have individual biases against activities that are perceived as potentially controversial (Barberis, Shleifer, & Vishny, 1998; Bergman & Roychowdhury, 2008; Hirshleifer & Teoh, 2003). Consistent with work about the negative reactions when firms conduct potentially image-threatening activities (e.g., Elsbach, 2014; Elsbach, Sutton, & Principe, 1998; Gao et al., 2016), casting a positive organizational image may help dissuade analysts' biases or negative sentiment against the controversial nature of an SEO issuance. In other words, when managers cast a positive

organizational image, analysts may interpret the otherwise controversial signals (e.g., capitalizing on overvaluation) associated with the SEO more favorably (Mishina, Block, & Mannor, 2012; Washburn & Bromiley, 2013).

This is not to suggest that analysts are incapable of objectively evaluating the merits of an SEO and responding accordingly. Instead, I suggest that analysts, by the nature of their jobs, are likely to respond negatively to SEO issuances because of the complexities associated with the SEO and the controversial nature of the activity. Since they are still tasked with evaluating it, however, I predict managers can induce more positive affect by casting positive organizational images, thus improving analyst reactions (or decreasing negative reactions) to the SEO issuance.

> Hypothesis 6: The appearance of positive organizational images in the SEO prospectus is negatively related to the number of security analysts downgrading in the period following the SEO issuance.

Moderating effects of information clarity. I also expect the use information clarity will compound the benefits associated with the use of justifications in the SEO prospectus. In other words, I expect that using justifications in the absence of information clarity may not provide many benefits to security analysts. Because justifications provide more information, they may actually contribute to more perceived information asymmetry when the information provided is not clear (Jiang, Lee, & Zhang, 2005; Zhang, 2006a, 2006b). Stated differently, I suggest simply providing more information is often unhelpful unless that information is easy to process.

Providing justifications without doing so clearly is tantamount to decreasing the signal-to-noise ratio of the information, which is sometimes associated with outcomes such as information overload (Agnew & Szykman, 2005; O'Reilly, 1980) and increased

cognitive processing demands (Hirshleifer & Teoh, 2003; Paas, Van Gog, & Sweller, 2010; Tversky & Kahneman, 1985). Scholars from a variety of disciplines spanning management (e.g., O'Reilly, 1980), economics (e.g., Kahneman & Tversky, 1979), accounting (e.g., Plumlee, 2003), finance (e.g., Zhang, 2006a), and psychology (e.g., Bargh & Thein, 1985) suggest that this type of information overload negatively impacts decision-makers (in this case security analysts).

However, managers who can couple justifications with information clarity may receive even more benefits from providing those justifications. This is to say that using justifications may elicit even more favorable responses from security analysts when the SEO prospectus is easier to read. In this circumstance, analysts are not only able to better rationalize and make sense of the SEO issuance, but are also able to do so in a way that minimizes the cognitive taxation associated with evaluating the information; this, in turn, simultaneously decreases perceived information asymmetry, the costs associated with limited attention, and the costs associated with gathering information.

> Hypothesis 7: Information clarity in the SEO prospectus moderates the relationship between justifications and security analyst downgrades; the relationship is more negative when information clarity is high and less negative when information clarity is low.

I also expect the benefits from casting positive organizational images change as information clarity varies. Although it may appear as though creating positive organizational images in the SEO prospectus is costless, doing so comes at the expense of added length that may not perceive the information as pertinent to the SEO. For example, framing information positively may require more text in order to explain the framing (e.g., Fiss & Zajac, 2006), and using positive language to manage impressions may involve more text to accommodate positive language (e.g., Graffin et al., 2016).

Regardless of how casting a positive organizational occurs, it comes at the expense of added length to the SEO prospectus.

In the above sections I outlined the reasons why analysts dislike more, as opposed to less, text in financial documents (Lehavy et al., 2011; Zhang, 2006a). Analysts may especially dislike such information when it does not directly pertain to data they can use to value the firm and evaluate its financial performance. Some scholars have even suggested that capital market participants disapprove of any information that is not perceived as pertinent to their evaluations (Giorgi & Weber, 2015). I expect this distaste is exacerbated when information is not easily read and processed. Consequently, I predict that managers will benefit from coupling positive organizational images in the SEO prospectus with information clarity. When managers can make the SEO prospectus clearer, positive organizational images will not only resonate more with readers but will also decrease the potential for analysts to react negatively from information overload.

> Hypothesis 8: Information clarity in the SEO prospectus moderates the relationship between positive organizational images and security analyst downgrades; the relationship is more negative when information clarity is high and less negative when information clarity is low.

CHAPTER 4

METHODOLOGY AND EMPIRICAL ESTIMATION

Sample

The sample for this study is all SEO issuances in the years 2000-2015. I selected this time period because it spans several global and domestic macroeconomic cycles (www.bls.gov) and because it follows an IPO boom in the previous decade, such that SEOs became more conventional in the years following (Certo et al., 2009; DeAngelo et al., 2010; Loughran & Ritter, 1995). I gathered the SEO issuance from the Thomson Reuters SDC Platinum "New Issues" database. This database contains all of the SEO issuances and some descriptive information about the offering and the firm. I retained only those SEO issuances that actually occurred (i.e., removed announcements that dissolved) from firms with headquarters in the United States. This initial search yielded 33,415 total SEOs, many of which did not meet the data screening criteria I describe next.

Following research on SEOs (e.g., Gao & Ritter, 2010; Henry & Koski, 2010) and consistent with my description of the type of issuance in which I am interested in this study, I retained only those conventional SEO issuances wherein the firm issued equity to shareholders in exchange for capital. In other words, I removed SEO issuances that reflect large exchanges of shares on the secondary market or the conversion of share type, which are referred to as SEOs for regulatory reasons but are not of interest for this study (Kalay & Shimrat, 1987).

I also removed SEO issuances of firms in industries that do not compete in the traditional sense (e.g., financial intermediaries, public utilities, government services, social services) (e.g., Arrfelt et al., 2015; Misangyi et al., 2006). A complete list of

industries removed from the sample is included in Table 4. Removing these industries was important because one of my primary independent variables reflects firms' competition (i.e., competitive intensity). Such highly regulated industries may distort how managers perceive competition, and thus they may contaminate my sample (Chen & Miller, 2012; Park & Mezias, 2005). Further, I retained only those SEO issuances from firms listed in S&P 1500 index and that had at least two security analysts tasked with monitoring the firms in the SEO-issuing year. This is important because my final dependent variable represents security analyst reactions, therefore firms with fewer than two analysts will not feature any variance on the dependent variable.

Finally, I retained only those SEO issuances with dates I could manually verify with the actual SEO prospectus. I located the prospectuses on the Securities and Exchange Commission's (SEC) EDGAR website. Because of some of the legal nuances associated with SEO issuance dates, announcement dates, and effective dates, the date SDC Platinum lists does not always align with the date the SEC has on file. A representative of Thomson Reuters suggested this occurred due to errors from its internal employees tasked with coding the SEO issuances. Appropriately, I used the dates listed from the SEC, and I removed observations with dates I could not verify.

Because of these data cleaning procedures, I wanted to ensure my final sample is representative of the broader population of SEO issuers. I employed a Kolmogorov-Smirnov (K-S) test to ensure my final sample is similar to original pull of all the SEOs. To do so, I used several firm- and SEO-level characteristics such as size, issuance amount, growth, and performance (Gibbons & Chakraborti, 2011; Smirnov, 1939; StataCorp, 2015). After performing these procedures, I had 1,324 SEO issuances. After

accounting for missing data from SDC, the SEC, and the other databases I used (e.g., Compustat, CRSP, IBES), my final sample was 842 usable SEO issuances.

Testing the Antecedents of the Uses of Information

Figure 1 depicts the theoretical framework in this study. Given that the model includes both antecedents and outcomes of the uses of information, there are two different sets of empirical analyses to test my hypotheses. Competitive intensity represents the antecedent of uses of information in the SEO prospectus and is featured on the left side of the figure. This section corresponds to the portion of the figure denoted as "Empirical Model 1."

Dependent variables. Justifications was measured as the number of uses of funds listed in the "Uses of Proceeds" section of the SEO prospectus (e.g., Autore et al., 2009). Thus, justifications represents a count of the number of uses of the proceeds that the firm lists in the section. I created this count using the "uses of proceeds" variable from the SDC Platinum database, which lists one to nine reasons why the firm issued the SEO. Since my variable justifications is intended to capture reasons or rationale for the issuance (Gao et al., 2016; Porac et al., 1999; Rhee & Fiss, 2014), I did not include uninformative reasons. Because every firm in the sample lists "general corporate purposes" as a potential use of the proceeds, my variable does not include this as a descriptive justification. Firms that listed only "general corporate purposes" received a value of 0 for the justifications variable, which occurred 231 times.

SDC platinum categorizes eight broad categories of justifications which firms tend to use in their SEO prospectuses. To ensure their accuracy, I independently coded the uses of proceeds and arrived at the same at broad categories. These categories include

financing future acquisitions, paying down debt, funding a stock repurchase program, financing capital expenditures, capitalizing fees and expenses, financing the purchase of marketable securities, capitalizing external loans, and improving working capital. For the purposes of this study, I assume each of these justifications is equally informative. Thus, I consider each justification added as representing more information provided. I do not detect any significant differences in market reactions to different justifications listed, therefore I believe my assumption is reasonable.[3]

Information clarity involves presenting information in the SEO prospectus in such a way that outsiders can read and process it quickly. I measured information clarity as the number of words per sentence in the SEO prospectus. Research in finance and accounting has examined an exhaustive list of variables that could represent information clarity (or readability) as a construct for financial documents (Bodnaruk et al., 2015; Lehavy et al., 2011; Loughran & McDonald, 2014, 2015). These scholars looked at variables such as the number of words per sentence, the file size of document, the number of words in a document, the number of complex words in the document, a score for the cognitive processing language, and the percentage of business-relevant nomenclature (Lehavy et al., 2011; Loughran & McDonald, 2011, 2014, 2015).

Overwhelmingly, the literature suggests that the number words per sentence in the document exhibits a number of advantages as a measure for information clarity (Lehavy et al., 2011; Li, 2008; Loughran & McDonald, 2014). Lehavy et al. (2011) describe how former SEC chairman Christopher Cox uses this measure to examine information complexity. He stated, "Just as the Black-Scholes model is commonplace when it comes

[3] As a robustness check, I standardized all of my information variables by industry. The results are substantively similar to those reported.

to compliance with the stock option compensation rules, we may soon look to [words per sentence-based] models to judge the level of compliance with the plain English rules" (Cox, 2007). This is consistent with research in psychological and communications that also suggests words per sentence represents an appropriate measure for how clearly information is communicated (Flesch, 1948; Hunt, 1983; Kimble, 1994). These scholars suggest that short sentences result in clear and effective writing, which aligns with the "plain English" SEC mandates that Cox (2007) references.

Casting a positive organizational image involves speaking positively about, or framing information around, favorable aspects of the organization. To measure this, I used a dictionary that captures the use of positive and negative language in a document. This dictionary was created by the software developers of Linguistic Inquiry and Word Count (LIWC), which is a computer-aided text analysis software package (Pennebaker, Booth, & Francis, 2007; Pennebaker & Francis, 1996). These dictionaries have been validated in a variety of contexts and are frequently used to represent the degree to which the author of a document takes a positive tone or perspective (Bednar, 2012; Pfarrer et al., 2010; Zavyalova et al., 2012).

Following recent work in the management literature, my measure is the score for positive language minus the score for negative language (e.g., Bednar et al., 2014; Bednar, Boivie, & Prince, 2013; Zavyalova et al., 2012). Scholars indicate they prefer this measure over other types of positive sentiment measures because of its validity and interpretability (Bednar et al., 2013; Zavyalova et al., 2012).[4]

[4] As robustness checks, I also measured this variable as the total score for positive language while simply controlling for negative language and as a ratio of positive-to-negative language. The results were substantively similarly.

Independent variable. Competitive intensity was measured using the number of competitive actions in an industry for a given year (Chen & Miller, 2012; Nadkarni, Chen, & Chen, 2015; Smith, Ferrier, & Grimm, 2001). Following research in the area, I examined the number of product- or service-related activities reported in the media for each firm in all of the industries (by the three-digit SIC code) represented by firms in the S&P 1500 (Andrevski, Brass, & Ferrier, 2016; Nadkarni et al., 2015; Rindova, Ferrier, & Wiltbank, 2010). I used the Ravenpack database to identify the product- or service-related actions by all firms comprising these industries. Ravenpack is a database that aggregates news and press releases about firms, and it collates the news into several different categories. For example, a news story or press release could be about earnings, revenue, trading, labor, acquisition, products/services, orders, and many other topics. For the purposes of this study, I was interested in the products/services category, as this represents externally directed competitive actions (Andrevski et al., 2016; Ferrier, Smith, & Grimm, 1999; Rindova et al., 2010). The product- or service-related activities include competitive actions such as receiving a new contractual agreement for a product/service, launching a new product/service, discontinuing a product/service, increase or decreasing the price of a product/service, and applying/withdrawing regulatory approval for a product/service. To create my measure, I divided the number of competitive actions per 3-digit SIC code by the total number of firms in the industry.[5]

Empirical estimation. I employed seemingly unrelated regression to examine the effects of competitive intensity on each of the three different uses of information variables. Seemingly unrelated regression is appropriate when the hypothesized and

[5] Following Nadkarni et al. (2015), as a robustness check, I divided the number of competitive action in an industry by the Herfindahl-Hirschman Index (HHI) for that industry. The results are substantively similar.

control independent variables are the same between models with a different dependent variable, such as is the case with my data (Cameron & Trivedi, 2010; Reuer et al., 2013). Seemingly unrelated regression uses feasible generalized least-squares regression in one simultaneous model to estimate coefficients when multiple dependent variables may share contemporaneous error (Cameron & Trivedi, 2010; Greene, 2011; Zellner, 1962). The test to determine if the errors between the multiple models are independent is referred to as the Breusch-Pagan Chi^2 measure (Krause & Semadeni, 2013; Reuer et al., 2013; Zellner, 1962). The Breusch-Pagan Chi^2 for my data rejected the null that my models were independent ($\chi 2=104.4$; $p=0.000$), which suggested seemingly unrelated regression represents an appropriate model.

I employed two robustness checks in addition to the seemingly unrelated regression. First, I employed three different models to examine the effects of competitive intensity on each of the three different uses of information variables. To test the relationship between competitive intensity and justifications, I employed a zero-inflated negative binomial model. A zero-inflated negative binomial model is appropriate because there are several observations with the value zero (Long, 1997; Vuong, 1989) and the data are over-dispersed (Greene, 2011; Kennedy, 2008). I employed linear regression in the second stage in the models featuring casting a positive organizational image and words per sentence because these variables are continuous (Baum, 2006; Kennedy, 2008). In all three cases, I employed robust standard errors that were clustered by the firm because same firms appeared more than once in the sample (Baum, 2006). These results were substantively similar to those of the seemingly unrelated estimator. However, I retained the seemingly unrelated estimator because of the dependence

between the three models and because it allowed me to compare coefficients between the three dependent variables.

Second, I employed Heckman two-stage models because I was concerned about the potential for an unmeasured variable to influence both the decision to issue an SEO and the uses of information in the SEO prospectus, thus creating sample selection bias (Heckman, 1990; Kennedy, 2008). The Heckman model featured two stages. In the first stage, the model predicted the probability of a firm issuing an SEO. The population for my Heckman model was all firms in the S&P 1500 with at least two security analysts in any given year for the years in my sample. Thus, the sample for the Heckman model included 12,708 observations not associated with an SEO and 842 firms that issued an SEO. The second stages of the models predicted the dependent variables of interest using the same estimating techniques described above and included an adjustment factor (referred to as a hazard lambda) computed from the first stage estimation (Baum, 2006; Certo et al., 2016; Wooldridge, 2010).

Research on Heckman models suggests a Heckman estimator is appropriate when the independent variable from the first stage is a significant predictor in the first stage, there are at least two exclusion restrictions (which are the analog of instruments in other two stage models), and the inverse Mills ratio is a significant predictor in the second stage (Certo et al., 2016; Sartori, 2003; Wooldridge, 2010). In my model, competitive intensity does not significantly predict inclusion in the sample and the inverse Mills ratios are not significant in the second stage, despite the fact I have two strong exclusion

restrictions.[6] Therefore, a Heckman model is inappropriate and I proceeded using the seemingly unrelated regression.

Testing the Consequences of the Uses of Information

In the above section, I described the empirical models corresponding to the antecedents of the uses of information. In this section, I turn to the outcomes of the uses of information. This is depicted on the right side of Figure 1 and is accompanied by the header "Empirical Model 2." As I describe below, all of the independent variables here were derived from the SEO prospectuses. Thus, there was no possibility for sample selection bias, since sample selection bias can only occur when the independent variable appears in a broader population of the sample used in the study (Certo et al., 2016; Wooldridge, 2010). Accordingly, the sample for testing the consequences of the uses of information is the 842 observations from the second stages in the previous models.

Dependent variables. Security analyst downgrades represents the number of security analysts who downgraded their stock market recommendation of the firm in the monthly period following the SEO issuance.[7] I gathered these data from the "Detail" section of the Institutional Brokers' Estimate Database (I/B/E/S). Analyst downgrades are an important outcome because they are frequently associated with decreased equity valuations, a strong effect of trading behavior, and less access to capital markets (Frankel, Kothari, & Weber, 2006; Westphal & Clement, 2008).

[6] My exclusion restrictions were the number of SEOs in the industry within the previous three years and the debt-to-current assets of the ratio of the firm. Both of these significantly predicted inclusion in the sample but not any of the information-related variables from the SEO prospectuses.

[7] As a robustness check, I measured this variable also as the ratio of downgrades to total security analysts. While the coefficients were different, the significance tests were nearly identical. I retained a count of the downgrades because it is perhaps more straightforward to interpret than a proportion.

Following Westphal and Clement (2008), I measured downgrades instead of analyst upgrades for two reasons. First, research on SEOs suggests analysts tend to respond negatively to an SEO issuance, and thus analyst downgrades are a more appropriate outcome. In other words, I suggest managers work to prevent analysts from downgrading their recommendation of the firm. Second, analyst downgrades tend to have a more significant effect on investor trading than do analyst upgrades (Frankel et al., 2006; Womack, 1996).

Independent variables. The independent variables relating to the outcomes of information in the SEO prospectus are represented by the dependent variables from the previous section (i.e., the antecedents of information). The measures for *justifications*, *casting a positive organizational image*, and *information clarity* remained the same in these models as they did for the models describe above.

Empirical estimation. I employed two-stage zero-inflated negative binomial models (2SZINB) to examine the relationships between the uses of information in the SEO prospectus and the extent to which analysts downgrade their recommendation of the firm following the SEO issuance. I did so because I am concerned about the possibility of unmeasured factors that might influence both the uses of information in the SEO prospectus and the capital market outcomes. As a result, conventional single-stage estimators might produce parameter estimates that are biased from endogeneity (Bascle, 2008; Semadeni, Withers, & Certo, 2014). Much like the Heckman models described above, 2SZINB models consist of two stages; the first stage predicts the independent variable (i.e., uses of information) and the second stage predicts the dependent variable of interest (i.e., capital market outcomes) (Hamilton & Nickerson, 2003; Kennedy, 2008;

Semadeni et al., 2014). I employed robust standard errors clustered by firm in both stages of the models.

The first stage in the 2SZINB model must feature instruments, which are variables that are significantly related to the uses of information in the SEO prospectus but are not related to analyst downgrades (i.e., uncorrelated with the error term in the second stage regression) (Baum, 2006; Semadeni et al., 2014). Following the recommendations of scholarship in the area, I used two instruments (Hamilton & Nickerson, 2003; Semadeni et al., 2014). *Total character length* represents the total number of characters in the SEO prospectus. As managers use more characters in the SEO prospectus, there is a greater likelihood for justifications and casting a positive organizational image, while there is a lower likelihood for information clarity (i.e., there are likely more words per sentence). *HHI* is the Herfindahl index for the 3-digit SIC code in which the firm competes. Some scholars also suggest that competitive intensity is represented by the density of firms in an industry (Kotha & Nair, 1995; Li, Poppo, & Zhou, 2008; Ramaswamy, 2001; Su, Dhanorkar, & Linderman, 2015). As Li et al. (2008: 391) suggest, HHI is "a popular indicator of the competitive intensity that captures the number and market share distribution of firms in an industry." The HHI significantly relates to all of the uses of information for all the reasons hypothesized since it is similar to competitive intensity, but it is correlated with competitive intensity at only 0.15 and it does not appear to affect analyst recommendations of a specific firm. These relationships are displayed in the "Instruments" section of Table 3.

As a robustness check, I also examined the relationship between the three uses of information and security analyst downgrades using structural equation modeling (SEM).

As Shook et al. (2004: 397) describe, “SEM has a unique ability to simultaneously examine of series of dependence relationships, while also simultaneously analyzing multiple dependent variables.” As it relates to my study, SEM allowed me simultaneously include all of my independent variables and their instruments in the same model instead of in separate two-stage models or a system of equations model (Bollen, 2014; Chadwick, Super, & Kwon, 2014; Shook et al., 2004). Since my dependent variable required a negative binomial estimator, I employed generalized SEM (GSEM), which is the only method to incorporate non-linear modeling into SEM estimation (Anderson & Gerbing, 1988; StataCorp, 2015).

The results from a GSEM were similar to those from the 2SZINB model I describe, except the parameter estimate for positive organizational image cannot be differentiated from zero. Three fit statistics suggest SEM is not an appropriate model for my analyses. First, the CFI was 0.286, whereas an appropriate minimum is approximately 0.90. Second, the RMSEA was 0.107, whereas an appropriate maximum is approximately 0.05/ Third, the Tucker-Lewis index was 0.05, whereas values should approach 1 (Kline, 2015; StataCorp, 2015; Williams, Vandenberg, & Edwards, 2009). These poor fit statistics likely occurred because SEM is typically appropriate when there are latent variables, of which my model has none (Kline, 2015; Shook et al., 2004). Accordingly, I reserved these SEM analyses as a robustness check only.

Control Variables (Both Models)

The control variables described in this section were employed in each of the models corresponding to both the antecedents and consequences of the uses of information. Some of the control variables are specific to the SEO issuances. Thus, these

controls were employed only in the second stage of the Heckman models. Accordingly, I denote such variables in Table 2 under the "Second Stage Only Controls" section. All of the control variables are lagged one fiscal year unless they relate specifically to the SEO issuance or are otherwise denoted.

Given that SEOs represent a stock market-based activity, I measured several market-based controls. *Stock return volatility* represents the standard deviation of monthly stock returns in the 12 months preceding the SEO issuance. Higher stock return volatility suggests higher expected returns for investors and may change the perceptions of how analysts view SEO issuances and how managers use language in the prospectus (French, Schwert, & Stambaugh, 1987; Khan, 2010). *Market capitalization* reflects a firm's stock price multiplied by its outstanding shares. In other words, it is a market-based measure for firm size. Scholars suggest that firms across different sizes behave differently in several ways, some of which include information disclosure and outsiders' evaluations of the firm (Healy & Palepu, 2001; Josefy et al., 2015; Lu, Chen, & Liao, 2010).[8] *Stock returns* captures the industry-year adjusted stock market returns in the 12 months preceding the SEO issuance. This variable determines a firm's momentum and how successful it has been in the time leading up to the SEO issuance. Managers of more successful firms may interpret more discretion about what they can and should disclose, and analysts may perceive these firms differently than unsuccessful firms (Bamber & Cheon, 1998; Krishnan et al., 2010). *Market-to-book ratio* is the market value of the firm's equity divided by the book value of the firm's equity (Cho & Pucik, 2005). This variable represents the growth the market expects for a firm (Crossland & Hambrick,

[8] Market capitalization, cash and equivalents, and issue size were all logged to account for skewness in the data (Quigley & Hambrick, 2014).

2011; Quigley & Hambrick, 2014). Higher growth firms issuing SEOs may expect more favorable analyst reactions (Krishnan et al., 2010).

I also controlled for characteristics of the firm unrelated to the stock market. *Cash and equivalents* represents the liquid assets the firm has on its balance sheet. Firms with more liquid assets may have different reasons for issuing equity in exchange for capital, and firms with less liquid assets may need the capital more so than those with liquid assets, and such issuances may be met with more suspicion from analysts (Autore et al., 2009; DeAngelo et al., 2010). *Industry dynamism* represents the variance in the sales growth of an industry over the previous five years (Arrfelt, Wiseman, & Hult, 2013; Dess & Beard, 1984). Industries with higher dynamism are more unstable, and managers competing in those industries may have to make more judicious decisions (Arrfelt et al., 2013; Crossland et al., 2014; March & Simon, 1958). *Duality* takes the value of 1 if the firm has a CEO who is also the chairman of the board of directors and 0 if not. CEOs with duality may experience different levels of discretion than CEOs without duality (Busenbark et al., 2016; Krause, Semadeni, & Cannella, 2014). *Litigation* represents the total number of lawsuits in which the firm is engaged in the SEO-issuing year. Scholars suggest the extent to which a firm is involved is engaged in litigation will shape how it discloses information (Lin, Officer, & Zou, 2011; Thompson & Thomas, 2004).

Since the dependent variable to test to the consequences of the uses of information involves security analysts, I controlled for several variables related to security analysts. All of the analyst-related controls were measured in the fiscal year of the SEO issuance. *Mean analyst recommendation* reflects the average recommendation across all of a firm's analysts in a given time period. Analyst recommendations take

values between 1 and 5, where 1 represents "strong buy" and 5 represents "strong sell." This variable captures analysts' general evaluations of a firm's performance prospects (Wiersema & Zhang, 2011; Zhang, 2006a). *Analyst recommendation dispersion* captures the standard deviation (or dispersion) of the numerical values associated with analysts' recommendations of a firm. Higher values depict less analyst consensus about the firm's prospects. Scholars suggest that when recommendation dispersion is higher, analysts are more uncertain about the activities of a firm and may benefit more from additional information than when recommendation dispersion is low (Baginski et al., 1993; Barron & Stuerke, 1998). *Total number of analysts following* reflects the total number of analysts who issued recommendations about a firm in the given time period. I also controlled for whether or not firms had high reputation analysts covering the firm in the SEO-issuing year. High reputation analysts may both monitor the firm more closely and may influence other analysts to react. Following research in the area, I code whether or not a firm had an analyst covering it who was named to Institutional Investor Magazine's *All-Star analyst* list (e.g., Boivie, Graffin, & Gentry, 2016; Ertimur, Mayew, & Stubben, 2011; Stickel, 1992).

I also controlled for several characteristics of the SEO issuance itself. *Shelf issuance dummy* took the value of 1 if the SEO issuance is associated with a shelf offering and 0 if not. Shelf offering refers to SEC Rule 415, and it occurs when an SEO is placed on a proverbial "shelf," whereby investors can contribute capital at multiple occasions over the life of the issuance (Henry & Koski, 2010). Although I removed all subsequent issuances associated with a shelf offering, this dummy denotes if the first issuance may be associated with future issuances. *More than 1 SEO issuance dummy*

represents instances when a firm issued more than 1 SEO in a fiscal year (not as a part of a shelf offering). To eliminate problems with nonspherical disturbances (e.g., Kennedy, 2008), to ensure my observations are independent, and to maintain variance in the independent variables across each observation, I removed any SEO issuance that occurred after the first issuance in a fiscal year. In such cases, I assigned this dummy variable to account for potentially unique characteristics associated with these firms that I could not measure. *Size of the issuance* measures the amount of capital the firm received in exchange for equity in the SEO issuance. Larger issuances are higher profile and have potentially greater implications for shareholder value and analyst perceptions than smaller issuances (Bowen et al., 2008). This variable was logged.

I also controlled for *reactive language* in the SEO prospectus. The order in which competitive moves occur may influence how managers disclose information. For example, a firm first announcing a strategy may not disclose as much information in order to prevent competitors from copying the activity as would a firm reacting to a strategic move by a competitor (Chen & Miller, 2012; Smith et al., 2001). Since my measure for competitive intensity captures the competitive actions of the firms in an industry, this control variable attempts to capture whether or not managers appeared to be focused on past actions (i.e., reactive competition) or future actions (i.e., preemptive competition).

CHAPTER 5

RESULTS

Table 1 displays the correlations and descriptive statistics for the variables in this study. The correlations between covariates appear sufficiently low enough to not introduce problems from multicollinearity. Among the highest correlations between non-hypothesized covariates are some of the size-related variables, such as the total number of analysts following the firm and the market capitalization of the firm, as well as the degree to which a firm was involved in litigation. To ensure these variables did not contaminate the empirical modeling, I employed Stata's -*nestreg*- command. This command shows the parameter estimates with and without specified controls. This procedure did not produce any substantively different results than the final results included in this study. The remaining correlations between variables are consistent with small or moderate effect sizes (Cohen, 1992; Cohen et al., 2003), which I do not expect to introduce problems in the analyses. In addition, the correlations between the instruments and/or exclusions restrictions and the variables of interest are sufficiently high enough to imply they are strong instruments (Certo et al., 2016).

Table 2 displays the results corresponding to Hypotheses 1-3, which represent the antecedent of the uses of language in the SEO prospectus. I used seemingly unrelated regression to test these hypotheses. In Hypothesis 1, I predicted a negative relationship between competitive intensity and the number of justifications a firm provides in the SEO prospectus. Table 1 column "Justifications" provides support for this hypothesis (β=-0.095; p=0.022). In Hypothesis 2, I argued that there is a negative relationship between competitive intensity and information clarity. Column "Information Clarity" in Table 2

provides support for this hypothesis (β=-0.234; p=0.040). As I describe above, I inverted words per sentence such that the measure and construct are in the same direction. Thus, this parameter estimate suggests that managers use more words per sentence (i.e., are less clear) as competitive intensity increases. Finally, in Hypothesis 3 I posited a positive relationship between competitive intensity and casting a positive organizational image in the SEO prospectus. The column "Positive Organizational Image" in Table 2 demonstrates support for this hypothesis (β=0.048; p=0.012).

Amongst the several advantages seemingly unrelated regression provides that I describe above, it also computes an R-squared value that compares the relative variance explained between the models and a baseline prediction (Greene, 2011; StataCorp, 2015). Table 2 contains the R-squared values associated with each of the models. As displayed in Table 2, the R-squared value associated with information clarity (R^2=0.520) is drastically higher than it is for justifications (R^2=0.266) or for positive organizational image (R^2=0.172). Interestingly, the incremental R^2 for each part of the model from adding competitive intensity is approximately identical (R^2 is approximately 0.06).

Table 3 displays the results corresponding to Hypotheses 4-8. I used a two-stage zero-inflated negative binomial model to test these hypotheses. The first stage of the two-stage model predicts the independent variable of interest from the second stage of the model. I used all of the control variables as well as the two instruments listed in Table 3 in the first stage prediction. For the sake of parsimony, the only first stage estimates displayed in Table 3 correspond to the two instrumental variables. Table 3 displays the parameter estimates for competitive intensity and total words in the prospectus on the sub-header "Instruments."

For each Hypothesis 4-8, I predicted a negative relationship between the uses of information in the SEO prospectus and security analyst downgrades following the SEO issuance. In Hypothesis 4, I predicted a negative relationship between the number of justifications provided in the SEO prospectus and analyst downgrades. The column "Justifications" in Table 3 provides support for this hypothesis (β=-0.811; p=0.002). This coefficient translates into approximately one fewer analyst downgrade for every two justifications provided, or it translates to approximately 2.5 times fewer analysts downgrading on average for each justification.

In Hypothesis 5, I posited a negative relationship between information clarity and security analyst downgrades. The column "Information Clarity" in Table 3 depicts the opposite actually occurs in my sample (β=0.293; p=0.047). Put differently, this suggests that analysts actually respond better when managers use more words per sentence. Finally, in Hypothesis 6 I predicted a negative relationship between casting a positive organizational image and analyst downgrades. The column "Positive Organizational Image" in Table 3 provides moderate support for this hypothesis (β=-3.069; p=0.045). Using one standard deviation more positive language in a prospectus than average results in approximately two times fewer analyst downgrades than average.

In Hypotheses 7-8, I predicted that information clarity moderates the relationship between both justifications and positive organizational image with analyst downgrades. I suspected that information clarity will strengthen these relationships, such that fewer analysts will downgrade when information is clearer. The column "Interactions" in Table 3 shows the estimates corresponding to these hypotheses. I find support for Hypothesis 7, which posited that the negative relationship between justifications and analysts

downgrades will become even more negative when information clarity is high (β=-0.076; p=0.033). I do not find support for Hypothesis 8, which predicted the negative relationship between positive organizational image and analyst downgrades will become even more negative when information clarity is high (β=-1.392; p=0.153).[9]

[9] It is important to note that I tested these interactions in separate models. A fully specified model with all of the interactions could not converge because of an identification issue associated with using the same two instruments for each of the variables.

CHAPTER 6

DISCUSSION

In this study, I suggest managers possess valuable proprietary information about their firms which they can voluntarily disclose. I expect that outsiders want this proprietary information, but such disclosures may both help and/or harm the disclosing organization. On one hand, managers can provide information to security analysts to reduce information asymmetries and improve capital market perceptions of their firms (Gao & Ritter, 2010; Healy & Palepu, 2001; Washburn & Bromiley, 2014). On the other hand, competitors can use that same information to give their own firms a competitive edge (Chen & Miller, 2012; Lang & Sul, 2014; Verrecchia, 2001). This presents a problem for managers: They want to provide information to help improve capital market reactions but are hesitant to do so because it may erode their competitive position. The problem is particularly true when managers are engaging in potentially controversial activities, such as seasoned equity offerings, since outsiders such as security analysts are apt to view the activity skeptically (Bowen et al., 2008; Henry & Koski, 2010).

The purpose of the current study is to investigate this very problem. Looking specifically at SEO issuances, I identify three ways managers can disclose proprietary information, and these three techniques vary in terms of the amount of proprietary information disclosed. I suggest that providing justifications for the SEO reveals a great deal of proprietary information, using information clarity helps outsiders process information but may not always involve providing proprietary information, and casting a positive organizational image often does not reveal any proprietary information. I then look at the antecedents and consequences of providing information in each of these three

ways. I suggest that competitive dynamics research helps to inform the antecedents, and corporate governance research helps highlight the consequences of disclosing proprietary information.

I hope to provide a number of contributions with this dissertation. First, I introduce competitive dynamics as an antecedent of revealing proprietary information. Specifically, I suggest that competitive intensity drives the type of proprietary information managers disclose. I predict and find managers provide fewer justifications and less information clarity when facing higher levels of competitive intensity. I also find that managers cast a more positive organizational image when competitive intensity is higher. Put differently, I suggest that managers are more concerned about releasing proprietary information and doing so with information clarity when facing more intense competition. At the same time, managers are more apt to speak positively about their organizations when competition is more intense. I suggest this is because managers are more concerned about the costs associated with revealing proprietary information when competition is more intense.

Second, I introduce security analyst reactions to SEO issuances as an outcome associated with revealing proprietary information. I predict that all three uses of information influence security analysts, who have reasons to dislike SEO. I find that security analysts tend to react less negatively to SEO issuances when managers provide more justifications, and they react even less negatively when managers provide justifications clearly. I also find that analysts react less negatively when managers cast a positive organizational image. Interestingly, I find that analysts tend to react more

negatively as managers provide information more clearly, which conflicts with my hypothesis but may support the theory on obfuscation (e.g., Graffin et al., 2011).

Third, I introduce voluntary disclosure theory as a guiding framework underlying when managers would choose to disclose proprietary information (Guidry & Patten, 2012; Lewis et al., 2013). At its core, voluntary disclosure theory is simple: Managers will disclose inside information when the benefits outweigh the costs (Guidry & Patten, 2012; Lewis et al., 2013). To my knowledge, this is the first study that seeks to explicitly lay out the costs and benefits of providing information, as well as what types of information managers can reveal, all at the same time. When managers reveal information and what types of information they reveal, however, represents an important characteristic of a great number of theories within strategic management research (e.g., Connelly et al., 2011; Elsbach, 2014; Graffin et al., 2016; Zavyalova et al., 2012). Using voluntary disclosure theory in this way can help scholars better understand information disclosure. Further, voluntary disclosure theory itself has received scant attention in the management literature. I expect this study will not only advance the constructs within the theory but will help proliferate the theory itself.

Fourth, this study contributes to the corporate governance literature about market reactions by examining how analysts respond to strategic announcements. I predict and find that analysts may possess some skepticism about the purposes underlying an SEO issuance and that managers can assuage this skepticism by providing justifications for the SEO. Put differently, analysts often believe managers issue SEOs simply to capitalize on overvaluation (Henry & Koski, 2010), even when managers may have value-creating reasons that they can list as uses of the proceeds. I find that managers who provide

justifications are met with fewer analyst downgrades following the issuance and that this is especially true when managers can provide justifications clearly. I also suggest that analysts may hold some negative dispositions about SEOs simply because they are controversial and not due to the merits of the SEO itself (Brown et al., 2015; De Bondt & Thaler, 1990; Hong et al., 2000). I predict and find that managers can mitigate these negative dispositions by casting a positive organizational image, which is consistent with the voluminous literature on organizational perception management (e.g., Elsbach, 2014; Elsbach & Sutton, 1992; Graffin et al., 2016; Zavyalova et al., 2012).

Research on the market for corporate control suggests that reactions from capital market participants—namely analysts—to strategic announcements will shape the choices managers make (Benner & Zenger, 2016; Finkelstein et al., 2009; Misangyi & Acharya, 2014). This presents a problem for managers who are anticipating pursuing a strategy they believe may efficacious but are faced with security analysts may who react negatively to the announcement of the strategy (Litov et al., 2012). As Benner and Zenger (2016) point out, managers may knowingly select less profitable strategies because they think these are the strategies to which analysts will respond more favorably, which is a problem corporate governance mechanisms tend to exacerbate. My hypotheses and findings point to some ways managers can use their insider information to attenuate this problem.

Fifth, this study contributes to the literature on proprietary costs, which is a term scholars use to denote the downsides associated with revealing inside information. I offer a theoretical rationale to help guide researchers' understanding of when the costs of disclosing proprietary information are higher or lower. I introduce competitive dynamics

(specifically the construct of competitive intensity) to help better theorize about how managers' perceptions of their competitive environment will shape their evaluations when to reveal proprietary information. Competitive intensity provides a valuable theoretical lens because it recognizes that managers' decisions are borne out of their perceptions of the competitive environments they face; information disclosure is driven by managers' perceptions about industry forces (Chen & Miller, 2015; Kilduff et al., 2010). Although the proprietary cost literature is important because it examines what influences the information managers provide to outsiders (Healy & Palepu, 2001; Verrecchia, 1990b, 1990a), scholarship in the area suggests that there is currently very little theoretical basis for conceptualizing and measuring proprietary costs (Ali et al., 2014; Lang & Sul, 2014). Integrating the competitive dynamics literature helps resolve this problem.

Finally, I contribute to the competitive dynamics literature by helping to further conceptualize what competitive intensity entails. I connect competitive intensity to information disclosure, which works to extend the theoretical conceptualization that competitive intensity involves how managers perceive their environments instead of competitive intensity being simply a characteristic of an environment. I find that managers are less likely to reveal proprietary information when competitive intensity increases. This is consistent with a recent line of research that suggests competitive intensity is relational and idiosyncratic, meaning that it involves managers' perceptions and their corresponding actions (e.g., Kilduff et al., 2015; Kilduff et al., 2010).

My conceptualization of competitive intensity as a managerial perception that elicits action is also consistent with the broader competitive dynamics literature that is

focused on the strategic actions of a firm and its close set of rivals (Chen & Miller, 2012; Yu & Cannella, 2007, 2013). However, the majority of research conceptualizes competitive intensity as a static industry characteristic, such as concentration or density (e.g., Ang, 2008; Barnett, 1997; Kotha & Nair, 1995; Li et al., 2008; Ramaswamy, 2001; Su et al., 2015). I suspect this because when Barnett (1997) first theoretically conceptualized competitive intensity, he suggested the construct is perhaps best represented by the density or concentration of firms in a given market. My hope is that by marrying competitive intensity to information disclosure, and conceptualizing them as more action-orientated industry characteristics, scholarship will move in the direction of seeing these constructs as more relational and idiosyncratic.

Limitations

Like all research, this study is not without its limitations. I measure competitive intensity using competitive actions at the industry level, which can only merely represent a proxy for managers' perceived competitive intensity. Some scholars have suggested that competitive intensity is relational and idiosyncratic, meaning that it varies from manager-to-manager in each firm (e.g., Chen & Miller, 2015; Kilduff et al., 2015; Kilduff et al., 2010). My measure does not capture differences in managers between firms. In an ideal setting, I may have accessed managers to either very closely study their information disclosure or survey them about how they perceive their rivals and the costs of providing information.

Another limitation of this study involves my assumptions about security analysts. One may question whether or not analysts will appreciate having more information (i.e., justifications) as much as I suggest in this study. After all, would not analysts respond

negatively if competitive intensity is high and firms tip their hats to competitors by disclosing information? Further, perhaps analysts' reactions depend on how the information changes the competitive dynamics between the focal and rival firms. While this is certainly possible, a good deal of the literature on security analysts (and the perspective I employ in this study) contends that analysts are self-interested individuals primarily concerned with their own job security and reputations (Brown et al., 2015, 2016; Ertimur et al., 2011). This research suggests that analysts are most interested in remaining informed (Zhang, 2006a), being able to process strategies quickly (Litov et al., 2012), and being able to provide information to their clients (Brown et al., 2015). Accordingly, scholars have shown that managers can improve analyst reactions to strategic actions simply by maintaining positive relationships with them (Westphal & Clement, 2008; Westphal & Graebner, 2010), not to mention by providing analysts with more information (Washburn & Bromiley, 2014; Whittington et al., 2016). Nevertheless, I recognize that analysts interpreting competitive intensity and responding negatively to information disclosure represents an assumption and limitation of this study.

How I measure security analysts' reactions is another limitation of this study. I suggest that recommendation downgrades reflects analysts' distaste for an SEO issuance and that fewer downgrades mean analysts perceived the SEO more favorably. Admittedly, this variable is simply a proxy for analysts' preferences about how much information they are provided. By observing fewer downgrades when managers provide information, I assume that analysts preferred the information. A cleaner measure is to survey analysts about their preferences and why they responded more or less positively in one instance over another (e.g., Brown et al., 2015; Brown et al., 2016). This would help

me better approach the mechanisms connecting information disclosure to analyst reactions, as currently there are any number of reasons why I may find a positive relationship between providing more justifications and analyst reactions.

Studying only SEOs represents another limitation, and expanding the strategic activities I examine may have helped better illuminate the mechanism underlying the empirical relationships I found. As I discuss in the study, SEOs represent a relatively unique paradigm as a controversial activity that requires information disclosure. By only looking at SEOs, I may have missed some important information that security analysts tend to consider when evaluating strategic activities (e.g., acquisitions, stock repurchases, expanding, downsizing). Further, I used SEOs both as the event in which I am interested and as the medium by which managers communicate information. I could have expanded this to look at conference calls, press releases, media coverage, interviews, annual reports, or any number of other information mediums. My reason for examining the SEO prospectus is clear—it eliminates some of the problems associated with cheap talk (e.g., Almazan et al., 2008; Whittington et al., 2016). Regardless, expanding the events and information mechanisms in my sample may strengthen or attenuate the relationships I found. I suspect that limiting my sample to only SEO issuances helps reduce noise and contamination empirically, but there is no way to definitively test that with my current sample.

This study also carries an assumption that managers maintain some degree of discretion over the information they disclose. I believe this is a reasonable assumption given how the research on information disclosure describes managers as being able to manipulate at least some of the information revealed in SEO prospectuses (Autore et al.,

2009; Walker & Yost, 2008). Still, other research has shown that managerial discretion can vary drastically due to a variety situations, dimensions, and constraints (Crossland & Hambrick, 2011; Daily & Schwenk, 1996; Hambrick & Quigley, 2013). I do not include managerial discretion as a theoretical or empirical construct in this study, although it could potentially inform how managers perceive the costs of disclosing information and maybe even the benefits of doing so.

Finally, my conceptualization of the costs and benefits comprising voluntary disclosure theory is not completely comprehensive. One can imagine how competitive dynamics scholars may find benefits to disclosing inside information. For example, perhaps firms are aware their competitors do not have sufficient resources to contend in a market and may release their intentions in hopes of baiting their competitors to waste resources (Chen et al., 2007). Similarly, one can envision circumstances when providing information to outsiders does not elicit positive reactions. If the information provided points to negative characteristics of the organization or relates to bad news, the capital market will surely react poorly (Donelson et al., 2012; Skinner, 1994). The purpose of this study was to paint with broad strokes to suggest these theories typically represent the costs and benefits of providing information, not that they always do. \

Future Directions

The goals of this study are to examine the theoretical and empirical relationships I discuss throughout this manuscript and to motivate future research. Accordingly, I envisage a great number of future works related to the theories, data, and empirical estimation in this study. I seek to resolve some of the limitations of this study in future work, and I hope to expand the scope of my findings to new contexts and to solidify the

theoretical mechanisms I describe throughout this manuscript. In this section, I describe several future studies I intend to build from this research.

The costs and benefits of perception management. I expect to build off the tenets of voluntary disclosure theory to better examine when and why managers provide information to outsiders. For instance, there is a broad literature on impression management and how managers can provide information to outsiders, and thus improve reactions to strategic announcements (e.g., Elsbach, 2003; Graffin et al., 2016; Graffin et al., 2011; Washburn & Bromiley, 2014; Westphal et al., 2012). Research has been noticeably quiet, however, about when one impression management tactic is more effective than another. I suspect this is because scholars have not fully explored when information is more or less costly to provide and when the benefits are greater or smaller. Building on voluntary disclosure theory and the findings of this study, I can investigate the circumstances and situations when managers are apt to pursue one tactic over another. I can use the costs of providing proprietary information from competitive intensity and the benefits of providing information to security analysts to determine the types of activities that may benefit from more or less information provision.

Specifically, I can look at the competitive intensities managers face and the potential benefits managers will receive for revealing information to outsiders, and I can connect these to what kind of impression management technique they may choose to employ. For example, perhaps managers facing less intense competition will provide more descriptive information to outsiders about a potentially controversial activity (e.g., stealing thunder) than would managers facing more intense competition. Alternatively, perhaps those managers in more intense competitive environments are likely to choose an

obfuscation technique that does not reveal proprietary information (e.g., strategic noise or impression offsetting). I can test this by examining the range of impression management techniques managers employ around a controversial event. An estimator such as a multinomial probit would allow me to examine how competitive intensity drives the likelihood of choosing one technique over another.

Upper echelons theory and perceptions of costs/benefits. I can build on the research about managerial qualities, characteristics, and dispositions to better understand how managers perceive the costs and benefits of disclosing information—namely the work that uses upper echelons theory (Carpenter, Geletkanycz, & Sanders, 2004; Hambrick & Mason, 1984). Indeed, a vast literature seeks to explain how managers' unique perspectives and situations inform how they interpret their environments and develop corresponding strategies (e.g., Busenbark et al., 2016; Finkelstein et al., 2009; Mannor et al., 2016). I expect to incorporate this research to better understand the perceived costs and benefits that comprise voluntary disclosure theory.

For instance, I can examine how executive compensation influences managers' perceptions of the benefits associated with disclosing information. Following behavioral agency theory, perhaps managers with in-the-money options are less concerned about capital market reactions and will perceive fewer benefits to disclosing information than managers with out-of-the-money options (Sanders & Carpenter, 2003; Wiseman & Gomez-Mejia, 1998). Perhaps managers with in-the-money options will perceive more costs associated with releasing information, too, since they are not as interested in taking potential risks (Devers et al., 2007; Martin, Gomez-Mejia, & Wiseman, 2013). I also expect to explore managers' personal characteristics, such as risk aversion. Maybe

managers who are more risk averse will perceive greater costs to disclosing proprietary information than managers who are less risk averse, despite experiencing identical levels of competitive intensity at an industry level (Christensen et al., 2014; Kahneman & Tversky, 1979).

I can also examine managers' situational constraints, such as the structure of their firms. Perhaps managers of diversified firms with several business units will perceive different gains or losses from disclosing information about a business unit, especially when units have different performance prospects or effects on firm performance (Arrfelt et al., 2013; Arrfelt et al., 2015; Busenbark et al., forthcoming). Ultimately, there are many theoretical lenses that inform how managers perceive their environments and make strategic decisions, many of which I think can act as important moderators in better investigating the costs and benefits associated with voluntary disclosure theory.

Competitive intensity and information disclosure. I intend to explore the link between competitive intensity and proprietary information disclosure. As I mentioned previously, introducing proprietary costs as a theoretical mechanism linking competitive intensity to information disclosure represents a novel contribution of this study, but future work can focus more specifically on that connection to clarify the relationship between the two constructs. Particularly, I can focus directly on the theoretical dimensions underlying competitive intensity and how these might relate to proprietary costs.

In the current study, I suggested several ways in which competitive intensity can help theoretically inform managers' perceptions of the costs of disclosing information. Competitive intensity can be idiosyncratic, it is often relational, it focuses on managers' perceptions, and it directly addresses competitive responses. Here, I focused primarily on

the competitive responses element of competitive intensity. In future work, I can more directly investigate each manager's perceived competitive intensity and how it may connect to how they estimate costs associated with information disclosure. I can do this either by qualitatively observing managers, conducting surveys, executing a simulation or lab experiment, or drafting a theoretical manuscript about these relationships. Put differently, I can craft future studies to parse apart each of the theoretical elements comprising competitive intensity to see how they drive information disclosure.

Performing experiments or simulations in a lab setting represents one intriguing method I may use to better understand when managers think disclosing proprietary information is more or less costly. I can image a simulation where participants are provided valuable proprietary information that competitors can use to achieve a goal before the focal participant. At the same time, I can stipulate rewards for providing that information (such as increased reciprocal information from competitors or new abilities to advance the participant toward achieving a goal). Doing so will demonstrate the relative costs and benefits associated with disclosing information. I could manipulate the number, competency, motivation, and stakes for and of competitors to see how that informs participants' decisions to disclose information.

Differing stakeholder perceptions of proprietary information. I can expand the potential benefits of information disclosure to contexts beyond security analysts. Indeed, analysts represent only one of several key stakeholders about whom managers are likely concerned (Agle, Mitchell, & Sonnenfeld, 1999; Hillman & Keim, 2001; Luoma & Goodstein, 1999). While I explored the benefits associated with more favorable analyst reactions, managers may be interested in responses from other stakeholders such as the

media (e.g., Bednar, 2012), other executives (e.g., McDonald & Westphal, 2011), regulators (e.g., Beyer et al., 2010), communities (e.g., McDonnell & King, 2013), investors (e.g., Graffin et al., 2016), or creditors (e.g., Klock, Mansi, & Maxwell, 2005). It is quite likely that information disclosure will affect these other stakeholders in different ways, such that some may respond more positively and others more negatively. Put differently, the reactions of stakeholders to information disclosure may represent both the benefits and costs associated with voluntary disclosure theory. In future studies, I can examine how managers balance the potential tensions of different stakeholder reactions so I can determine when the benefits of disclosing truly are greater.

New contexts beyond SEOs. I can also examine other strategic decisions beyond SEOs. As I argue throughout this study, SEOs represent an interesting context because of their controversial nature and because they are necessarily associated with some information disclosure. Strategy scholars have identified several other important strategic decisions that may not be as controversial or may not require as much information disclosure; these may include acquisition announcements (e.g., Haleblian et al., 2009), stock repurchases (e.g., Westphal & Zajac, 2001), corporate downsizing (e.g., Worrell, Davidson, & Sharma, 1991), divestitures (e.g., Laamanen, Brauer, & Junna, 2014), or strategic alliances (e.g., Hoetker & Mellewigt, 2009). I am particularly interested to see how managers perceive the costs and benefits of information disclosure across a myriad of these strategic decisions, especially when no information disclosure is required.

Conclusion

In this study, I suggested that agency theory and theories within competitive dynamics provide potentially competing hypotheses about when and why managers

would disclose inside information about their firms. I highlighted how voluntary disclosure theory may help to coalesce these two competing predictions. Using voluntary disclosure theory, I posited that research in competitive dynamics helps to explain the costs associated with providing information and agency theory highlights the benefits associated with providing more information. I then identified three ways managers can use information in SEO prospectuses. Justifications involve providing more information to reduce asymmetry, information clarity involves how coherently information is communicating, and casting a positive organizational image involves how positive managers speak in the SEO prospectus. I hypothesized that competitive intensity represents the costs associated with disclosing proprietary information and that outsiders (e.g., analysts) may prefer managers to provide more, clearer, and positive information about the SEO and their firms. I found support for many of my hypotheses.

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APPENDIX A

FIGURE AND TABLES FOR THIS STUDY

Figure 1 – Overview of the Model

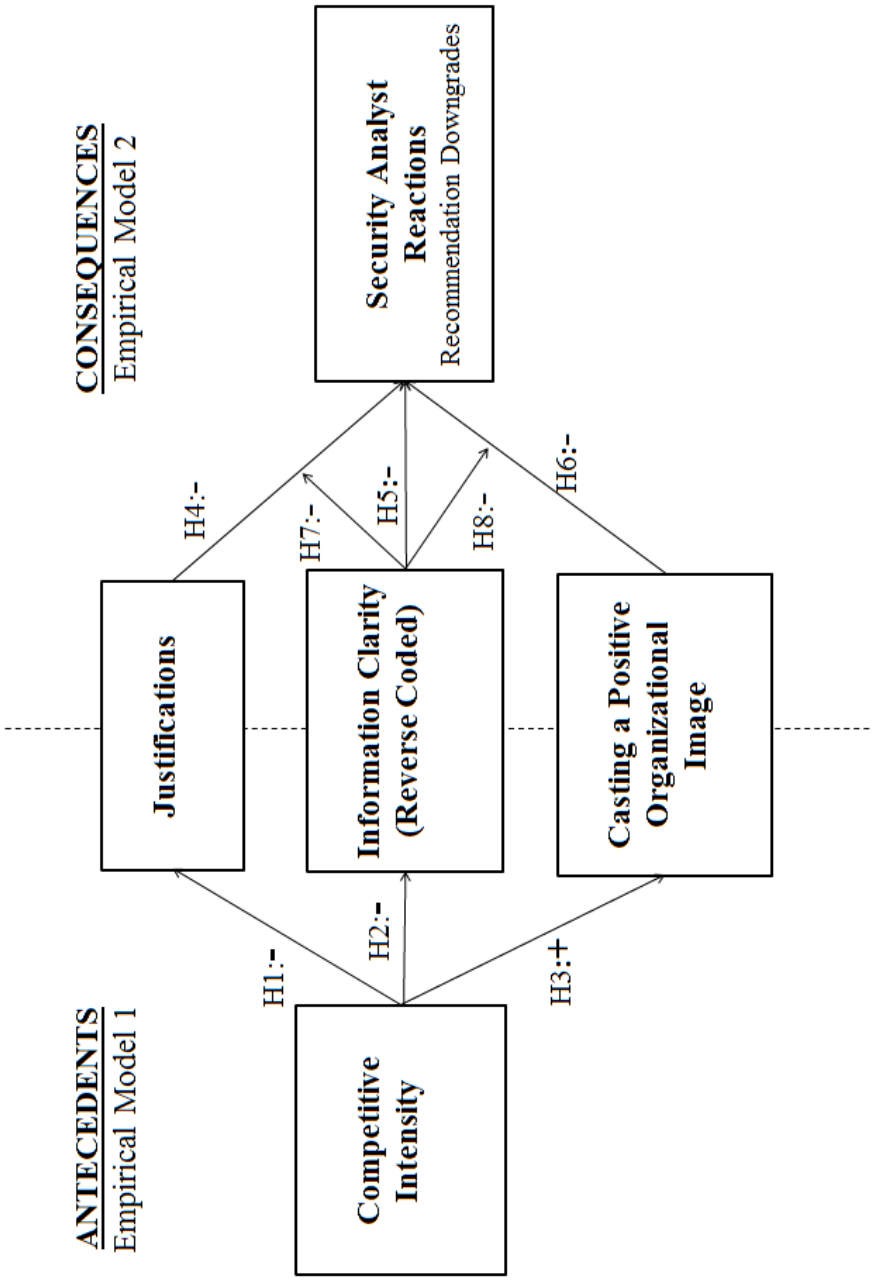

Table 1—Descriptive Statistics and Correlations

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1 Number of analysts downgrading	0.16	0.50																							
2 Justifications	2.21	1.81	-0.14																						
3 Information clarity	-32.11	6.13	0.07	-0.18																					
4 Positive organizational image	2.44	0.78	-0.03	0.04	-0.47																				
5 Competitive intensity	63.83	98.82	-0.04	-0.11	-0.04	0.08																			
6 Stock return volatility	2.15	18.98	0.03	-0.10	0.11	-0.10	0.00																		
7 Cash and equivalents	5.23	2.03	0.20	-0.08	-0.19	0.12	-0.03	-0.01																	
8 Market capitalization	7.84	1.57	0.24	-0.12	-0.16	0.17	0.02	-0.17	0.70																
9 Stock returns (industry-year adjusted)	9.21	120.54	0.01	0.00	0.01	-0.04	-0.01	0.00	0.04	0.07															
10 Market-to-book ratio	2.99	43.69	0.01	0.01	0.02	-0.02	-0.01	-0.01	0.02	0.04	0.01														
11 Mean analyst recommendation	2.30	0.48	0.02	0.00	-0.20	0.08	0.08	-0.03	0.07	0.03	-0.04	-0.03													
12 Analyst recommendation dispersion	0.80	0.26	0.02	-0.01	-0.22	0.13	-0.02	-0.03	0.09	0.15	0.01	0.01	0.01												
13 Total number of analysts following	11.68	7.64	0.27	-0.17	-0.19	0.16	-0.05	-0.02	0.55	0.74	0.09	0.03	0.05	0.18											
14 All star analysts	1.91	2.32	0.26	-0.22	-0.05	0.16	0.04	-0.01	0.45	0.60	0.07	0.01	0.02	0.13	0.58										
15 Industry dynamism	1.16	3.87	-0.02	0.02	-0.13	0.09	0.02	0.00	0.01	0.01	0.00	0.06	0.00	0.01	0.04	-0.04									
16 Shelf issuance dummy	0.63	0.49	0.02	0.04	-0.29	0.16	0.05	-0.04	0.10	0.07	0.02	-0.03	0.07	0.17	0.11	0.04	0.02								
17 More than 1 SEO issuance dummy	0.13	0.33	0.00	-0.10	0.07	-0.02	0.01	0.00	-0.03	0.00	-0.04	0.02	-0.12	-0.07	-0.03	-0.02	-0.05	0.00							
18 Size of the issuance	4.40	1.50	0.03	0.19	-0.13	0.17	-0.03	-0.05	0.15	0.25	0.04	0.04	0.06	0.06	0.14	0.12	0.02	-0.18	-0.06						
19 Reactive language	1.25	0.31	-0.03	0.05	0.33	-0.18	0.04	-0.07	-0.09	0.02	0.00	0.02	-0.05	-0.09	-0.17	-0.03	-0.01	-0.36	0.01	0.05					
20 Litigation	0.72	1.93	0.17	-0.02	0.05	0.05	-0.07	0.00	0.33	0.36	0.10	0.00	-0.01	0.05	0.25	0.28	-0.01	-0.02	0.03	0.04	-0.01				
21 Duality	0.51	0.50	0.04	-0.01	0.03	-0.01	0.04	0.01	0.09	0.14	-0.01	0.01	-0.01	0.03	0.06	0.21	0.00	-0.04	-0.04	0.05	0.06	0.07			
22 Total words in the prospectus	33145.54	25416.10	-0.10	0.27	-0.13	-0.05	-0.03	-0.08	0.03	0.04	-0.03	0.00	0.03	-0.01	-0.10	0.00	0.05	-0.21	-0.05	0.21	0.50	-0.05	0.04		
23 Number of SEOs in the industry-year	23.75	64.47	0.09	-0.03	0.18	-0.15	-0.77	0.01	0.00	-0.07	0.02	0.01	-0.11	-0.01	0.01	-0.08	-0.02	-0.12	0.05	-0.04	0.01	0.01	-0.05	-0.07	
24 Debt-to-current assets	1.00	1.53	-0.04	-0.05	-0.24	0.12	0.14	-0.03	-0.12	0.16	-0.04	0.00	0.06	0.00	0.10	0.08	-0.03	0.07	0.04	0.13	-0.03	-0.05	0.01	0.10	-0.17

When $r > 0.07$, $p<0.05$

The mean and standard deviation for competitive intensity displayed here is the raw value of competitive actions per industry-year. In the models it is standardized by industry size. This creates a mean and standard deviation of 0 and 1, respectively.

Table 2—Testing the Antecedents of the Uses of Proceeds

Variables	Justifications			Information Clarity			Positive Organizational Image		
Controls	***Estimate***	***SE***	***P-Value***	***Estimate***	***SE***	***P-Value***	***Estimate***	***SE***	***P-Value***
Constant	2.029***	0.557	0.000	-32.601***	1.522	0.000	2.143***	0.256	0.000
Stock return volatility	-0.011	0.009	0.188	0.036	0.024	0.126	-0.010*	0.004	0.012
Cash and equivalents	0.007	0.044	0.876	-0.292*	0.121	0.016	-0.009	0.020	0.663
Market capitalization	-0.030	0.063	0.638	-0.550***	0.173	0.001	0.056+	0.029	0.056
Stock returns (industry-year adjusted)	0.000	0.002	0.794	0.007+	0.004	0.099	-0.001+	0.001	0.066
Market-to-book ratio	0.000	0.000	0.902	0.000	0.001	0.871	0.000	0.000	0.661
Mean analyst recommendation	-0.223+	0.116	0.054	-0.505	0.316	0.110	-0.015	0.053	0.772
Analyst recommendation dispersion	-0.317	0.197	0.108	-0.667	0.538	0.215	0.077	0.090	0.393
Total number of analysts following	-0.037**	0.014	0.009	0.007	0.038	0.862	0.003	0.006	0.634
All-star analysts	-0.272	0.134	0.043	-0.396	0.365	0.278	0.036	0.061	0.554
Industry dynamism	-0.264	0.207	0.201	0.224	0.564	0.692	0.077	0.095	0.418
Shelf issuance dummy	0.365**	0.126	0.004	-1.385***	0.344	0.000	0.116*	0.058	0.045
More than 1 SEO issuance dummy	-0.257	0.165	0.120	-0.612	0.451	0.175	0.026	0.076	0.736
Size of the issuance	0.207***	0.040	0.000	-0.053	0.108	0.625	0.066***	0.018	0.000
Reactive language	0.682**	0.200	0.001	2.785***	0.545	0.000	-0.255***	0.092	0.005
Litigation	0.141*	0.062	0.023	0.345*	0.169	0.041	0.022	0.028	0.444
Duality	-0.013	0.115	0.909	0.167	0.314	0.594	-0.019	0.053	0.722
Hypothesized Variable									
Competitive intensity (Industry competitive actions)	-0.096*	0.042	0.022	-0.234*	0.114	0.040	0.048*	0.019	0.012
Model Statistics									
Sample size		842			842			842	
R^2		0.266			0.520			0.172	
RMSE		1.583			4.322			0.726	
F-Stat		9.55***			28.53***			5.48***	

The results in this model are from a simultaneous seemingly unrelated regression.
***p<0.001; **p<0.010; *p<0.050; +p<0.100—added to the hypothesized variables where appropriate.
The model includes year fixed effects (not reported).

Variables	Justifications			Information Clarity			Positive Organizational Image			Interactions		
Controls	***Estimate***	***SE***	***P-Value***	***Estimate***	***SE***	***P-Value***	***Estimate***	***SE***	***P-Value***	***Estimate***	***SE***	***P-Value***
Constant	-3.645*	1.646	0.027	3.655	4.829	0.449	121.030	73.821	0.101	2.753	5.080	0.588
Stock return volatility	-0.005	0.009	0.600	0.000	0.012	0.969	-0.013	0.015	0.409	-0.006	0.011	0.601
Cash and equivalents	-0.016	0.088	0.854	0.099	0.085	0.247	-0.041	0.089	0.641	0.083	0.082	0.308
Market capitalization	-0.051	0.134	0.702	0.346*	0.136	0.011	0.295*	0.123	0.017	0.176	0.150	0.240
Stock returns (industry-year adjusted)	0.000	0.003	0.872	-0.002	0.003	0.441	0.001	0.003	0.793	-0.001	0.002	0.795
Market-to-book ratio	0.002	0.003	0.444	0.001	0.002	0.591	0.001	0.002	0.619	0.001	0.001	0.507
Mean analyst recommendation	0.169	0.256	0.510	0.290	0.220	0.187	0.186	0.207	0.369	0.105	0.228	0.646
Analyst recommendation dispersion	-0.933*	0.468	0.046	-0.102	0.401	0.799	-0.389	0.396	0.326	-0.377	0.425	0.374
Total number of analysts following	-0.011	0.020	0.600	0.049**	0.018	0.008	0.049**	0.018	0.008	0.040*	0.018	0.024
All star analysts	-0.100	0.280	0.720	0.325	0.255	0.202	0.344	0.257	0.181	0.161	0.267	0.547
Industry dynamism	0.323	0.244	0.186	0.182	0.275	0.508	0.436	0.307	0.155	0.027	0.318	0.933
Shelf issuance dummy	0.270	0.246	0.273	0.639*	0.316	0.043	0.242	0.228	0.290	0.394	0.309	0.202
More than 1 SEO issuance dummy	0.007	0.338	0.983	0.136	0.297	0.646	-0.049	0.292	0.866	-0.081	0.289	0.778
Size of the issuance	0.217*	0.109	0.047	0.032	0.070	0.647	0.182	0.113	0.107	0.113	0.078	0.147
Reactive language	-0.085	0.440	0.848	-1.035+	0.596	0.083	0.068	0.335	0.838	-0.137	0.663	0.836
Litigation	0.283*	0.121	0.019	-0.022	0.122	0.855	0.089	0.110	0.418	0.093	0.126	0.460
Duality	-0.077	0.286	0.786	-0.235	0.211	0.266	-0.187	0.210	0.371	-0.165	0.210	0.432
Instruments												
HHI 3-digit SIC	-0.962***	0.300	0.001	-3.906	2.921	0.182	0.401*	0.188	0.034			
Total words in the prospectus	0.002***	0.000	0.044	-0.004***	0.000	0.000	0.003***	0.000	0.000			
Hypothesized Variables												
Justifications	-0.811**	0.268	0.002							-2.958*	1.200	0.014
Information clarity				0.293*	0.147	0.047				0.227	0.151	0.134
Positive organizational image							-3.069*	1.528	0.045	-0.033	0.171	0.845
Information clarity x Justifications										-0.076*	0.036	0.033
Information clarity x Positive image										-1.392	0.974	0.153
Model Statistics												
Sample size	842			842			842			842		
Wald $\chi 2$	57.52**			110.17***			110.28***			134.07***		
Pseudo R^2	0.077			0.116			0.116			0.126		

Each of the models in this table is a two-stage zero-inflated negative binomial model. The first stage predicts the independent variable described in the column header.

***p<0.001; **p<0.010; *p<0.050; +p<0.100—added to the hypothesized variables where appropriate.

Each model includes year fixed effects (not reported).

Table 4 — Industries Removed from This Sample

Industry Name
Agriculture and production crops, livestock, and services
Oil and gas extraction
Tobacco
Petroleum refining and related
Pharmaceutical
United States Postal Services
Air transportation
Utilities providers (e.g. gas, electric, water)
Depository and credit institutions
Security and commodities brokers
Insurance carriers and agents
Holding companies
Health services
Legal services
Education services
Social services
Government and regulatory agencies