

## ABSTRACT

Title of Dissertation: INFORMATION EXCHANGE IN THE  
MARKETPLACE: TWO ESSAYS ON FIRM  
STRATEGIES AND STAKEHOLDER PERCEPTIONS

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This dissertation consists of two essays that examine the role of information exchange in the marketplace and how firm strategies shape stakeholder perceptions of this information. In Essay 1, I develop a theoretical framework of Perceived Information Quality (PIQ), the extent to which stakeholders consider information useful in their evaluations of firm behavior. As PIQ increases, stakeholders' information asymmetry and evaluation costs decrease, thereby potentially leading to more transactions between the firm and its stakeholders, greater access to resources for the firm, and ultimately, a greater probability of the firm achieving economic success.

However, stakeholders may perceive certain types of information about the firm to be more useful than others, depending on whether the firm is engaging in conforming or non-conforming behavior and whether information about these behaviors is received directly or through a mediated channel.

Essay 2 looks at the relationships among firm intangible assets, investor perceptions, and financial outcomes. In Chapter 1, I examine the influence of firm

reputation and celebrity on the likelihood of the firm announcing either a positive or negative earnings surprise. In Chapter 2, I examine the impact of reputation and celebrity on investors' reactions to the surprise announcement.

Using a matched sample of 291 firms over a 15-year period, results show support for financial reputation decreasing the likelihood of positive and negative surprises, whereas one measure of firm celebrity, strategic deviance, predicts an increase only in the likelihood of negative surprises. Two additional celebrity measures, visibility and positive emotion, predict a greater likelihood of positive surprises and a lower likelihood of negative surprises respectively.

In addition, results of post-hoc paired t-tests among six firm categories that group firms according to varying combinations of intangible assets show that reputation and visibility enhanced the returns of firms' announcing positive earnings surprises, but only reputation provided a buffer for negative surprises. Tests also showed that firms high in both reputation and visibility performed worst among the six groups. Thus, certain levels of reputation or visibility may enhance investor perceptions of the firm amid deviant behavior, but high levels of both may not.

INFORMATION IN THE MARKETPLACE: TWO ESSAYS ON FIRM STRATEGIES  
AND STAKEHOLDER PERCEPTIONS

by

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## DEDICATION

For Melissa

*amor et fides*

## ACKNOWLEDGEMENTS

I would like to thank my advisory committee; those faculty and staff of the Department of Management & Organization, the Robert H. Smith School of Business, and the University of Maryland; my colleagues in the Academy of Management and fellow Ph.D. students; and my family and friends for their assistance, support, and encouragement throughout my doctoral studies. Your wisdom and generosity are truly appreciated and never forgotten.

*ex scientia veritas*

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# **A THEORETICAL FRAMEWORK OF PERCEIVED INFORMATION QUALITY**

## **ABSTRACT**

I develop a theoretical framework of Perceived Information Quality (PIQ), the extent to which stakeholders consider information useful in their evaluations of firm behavior. As PIQ increases, stakeholders' information asymmetry and evaluation costs decrease, thereby leading potentially to more transactions between the firm and its stakeholders. However, stakeholders may perceive certain types of information (available or specific) about the firm to be more useful than others depending on what types of actions the firm is taking (conforming or non-conforming) and how information about these actions is received (directly or indirectly).

## A THEORETICAL FRAMEWORK OF PERCEIVED INFORMATION QUALITY

Information plays a key role in the marketplace; it helps stakeholders evaluate and make sense of firm actions. When firms provide information that stakeholders consider useful in assessing firm strategies, stakeholders become more likely to exchange in transactions with the firm. As these transactions increase, the firm can gain greater access to resources that stakeholders control (Rindova & Fombrun, 1999; Rindova, Williamson, Petkova, & Sever, 2005; Shapiro, 1982, 1983).<sup>1</sup>

Not all information about the firm is useful for stakeholders in their evaluation process, however. In fact, stakeholders often must incur search costs in order to differentiate between useful information and “noise” (Heil & Robertson, 1991; Maltz, 2000). In addition, information between the firm and its stakeholders is often asymmetric. That is, there is often a gap between what the firm and its stakeholders know (Corts, 1997; Fombrun & Shanley, 1990; Stiglitz, 2002; Zeithaml, Parasuraman, & Berry, 1990). More specifically, stakeholders often do not have complete information or the means to access it in order to evaluate firm actions effectively (Boyce & Lepper, 2002; Davies, 2001; Elcock, 2001). As these search costs and information asymmetries increase, the probability of misevaluations also increases, thereby decreasing the likelihood of firm-stakeholder interaction as well as the chances for the firm gaining access to resources under stakeholder control.

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<sup>1</sup> Firm behaviors can create positive, negative, neutral, or ambivalent perceptions among stakeholders. Generally, stakeholder evaluations will be enhanced by quality information regardless of its valence, thereby leading to a higher *probability* of interacting with the firm. The PIQ framework is constructed under this assumption. Of course, if the current information about the firm is negative, stakeholders may not immediately engage in transactions with the firm, but as long as the negative information is *quality* information, stakeholders will be more likely to interact with the firm in the long run, because the information they are receiving about it reduces their search costs and information asymmetries. I expand on this in the Discussion.

In order to reduce stakeholders' search costs and information asymmetries, enhance the usefulness of stakeholder evaluations, and increase the probability of economic success, the firm must focus on the quality of information it provides to stakeholders. Firms that send high-quality information to stakeholders signal their intentions, what they stand for, and the likelihood of future behavior (Heil & Robertson, 1991; Stiglitz, 2002). Such information helps reduce uncertainty and search costs among stakeholders regarding firm actions, and thus can be a source of competitive advantage for the firm. In contrast, when information is not of high quality, stakeholder evaluations and feedback can be muddled, thereby hampering the firm's chances at interacting with stakeholders and subsequently acquiring resources under their control.

Depending on the circumstances, however, stakeholders may perceive certain types of information as being of higher quality than others. Perceived information quality (PIQ) is the extent to which stakeholders consider the firm's messages to be useful to the evaluation process (Maltz, 2000). Broadly, PIQ can be described as the extent to which information is useful, good, current, important, and accurate (Rieh, 2002). Useful information has value to stakeholders—it is complete and relevant (Tan & Chua, 2004), and it provides them with “facts, arguments, attributes, and benefits” when they receive it (Woltman Elpers, Wedel, & Pieters, 2003: 438). In other words, stakeholders perceive information to be of high quality when it reduces asymmetries and when its usefulness and value in understanding firms' strategies outweighs the costs incurred to obtain it.

Stakeholders' perceptions of what connotes quality information are not absolute, however. Stakeholders may value certain types of information over others depending on what types of strategies the firm is employing (conforming or non-conforming) and how

information about these actions is disseminated (directly or indirectly). Thus, PIQ can also be viewed as a ratio of value to cost, with value defined as the utility that stakeholders derive from a given piece of information. Given that stakeholders will vary in the costs they are willing to incur for valuable information depending on the circumstances (Carter, 1978; Chew, 1994), the firm must determine what information attributes stakeholders perceive to be of higher quality than others under particular circumstances, and how best to deliver this information to enable useful stakeholder evaluations. If the firm is successful in doing so, it can increase its access to resources and its chances at economic success.

In this paper, I develop a theoretical framework of PIQ. I explore its attributes as well as the contingent effects of firm strategies and channels of communication on how stakeholders perceive firm messages to be of high quality. Specifically, I address 1) the relationship between two meta-characteristics of information—specificity and availability; 2) how firm strategies—non-conforming and conforming—moderate stakeholder perceptions of specific and available information as quality information; and 3) how the channels of communication—direct and mediated—moderate stakeholder perceptions of specific and available information as quality information.

My theoretical framework expands interdisciplinary organizational research that has traditionally focused on the components of information quality but has spent less time on the how they interrelate. Past PIQ research has not identified how contingencies, specifically, firm behavior and the channel of communication, can alter what stakeholders perceive as quality information. For example, stakeholders may associate specific rather than available information with quality information when a firm is

engaging in non-conforming behavior. In contrast, they may perceive available information to be of higher quality when the firm delivers it through mediated rather than direct communication channels.

I also contribute to the development of stakeholder theory and mass communications research by expanding their current models of the firm-stakeholder relationship. To date, research in both fields has treated information exchange between a firm and its stakeholders in a coarse-grained manner, ignoring information attributes like availability and specificity as well as the contingent effects on stakeholder perceptions of what serves as “quality information” that are generated by firm behavior and how the information is delivered. By identifying the components of PIQ and the potential trade-offs associated with different firm behaviors and delivery mechanisms, I provide a more in-depth view of how firms communicate with their stakeholders, how stakeholders determine information quality under various circumstances, and how firms may gain greater access to resources under stakeholder control.

In the remainder of the paper, I first provide a literature review of past PIQ research. Next, I discuss the main effect of my model—the relationship between information attributes and stakeholders’ perceptions of information quality. I then turn to discussing the moderating effects of this relationship. That is, how do firm strategic actions and the channel of communication affect how stakeholders perceive information about the firm to be of high quality? I conclude with a discussion of the PIQ framework’s applicability and then suggest several ways that empirical tests of its propositions might be designed.

## **PERCEIVED INFORMATION QUALITY RESEARCH**

Generating high-quality information through the reduction of information asymmetry and search costs is a key tenet in several research streams, including the accounting, communications, economics, information sciences, management, marketing, and stakeholder literatures. In addition, the importance of quality information has been recognized as central to the firm-stakeholder interaction process across several disciplines. Table 1 provides definitions of PIQ across multiple research disciplines as well as selected sources of these definitions. In general, there are many definitions of PIQ, but most research has focused on PIQ being a function of source credibility and stakeholder demands as well as the extent to which information is useful to stakeholders in evaluating firm behavior. In other words, PIQ is information that is good, current, important, relevant, and accurate (Rieh, 2002; Tan & Chua, 2004); it provides value and benefits to stakeholders (Woltman Elpers et al., 2003); it is determined by stakeholder needs; and the firm's credibility influences stakeholder perceptions of the information's quality.

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Insert Table 1 about here  
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For example, economics and economics-based research in finance and accounting has long recognized the central role of information exchange between a firm and its stakeholders (cf. Hayek, 1945; Verrechia, 2001). Information asymmetry can lead to increased evaluation costs for stakeholders (Chalmers & Godfrey, 2004; Stiglitz, 2000, 2002)—they either have too little information about the firm or lack the means to access it. However, when information is of high quality, that is, when stakeholders perceive it to



be useful to the evaluation process, asymmetry and monitoring costs can be reduced. As the firm continues to generate high-quality information, it develops credibility with stakeholders. Credibility is the perception of stakeholders that a firm exhibits honesty, trustworthiness, reliability, and expertise in its transactions with them (Goldsmith, Lafferty, & Newell, 2000; Mercer 2004). As credibility increases, stakeholders should therefore be able to reduce their evaluation costs (Boyce & Lepper, 2002), thereby enhancing their perceptions of the quality of information the firm is providing them. In summary, economics-based definitions of what is seen as PIQ focus on the reduction of asymmetries, uncertainty, and search costs (Arrow, 1979; Hayek, 1945; Stiglitz, 2000, 2002) as well as the importance of firm credibility. PIQ allows stakeholders to better evaluate firm actions and also nurture trust over time between the firm and its constituents (Boyce & Lepper, 2002).

Similarly, accounting research discusses “voluntary disclosure” as a form of PIQ (cf. Verrechia, 2001). Specifically, “voluntary disclosure” is used in the accounting literature to denote information that firms provide in addition to mandatory disclosure, such as the quarterly and annual reporting of earnings as required by the SEC. The purpose of voluntary disclosure from an accounting standpoint is largely to reduce information asymmetry between the firm and its stakeholders in order to build trust, enhance performance, and to help overcome potential agency problems (Core, 2001; Dye, 2001; Healy and Palepu, 2001; Verrechia, 2001). Normally, firms disclose only positive information about themselves (Skinner 1994, Suijs 2005). However, some accounting research has also focused on the disclosure of negative information in order to reduce the likelihood of adverse market reactions, including a decline in stock price or shareholder

lawsuits (e.g., Field, Lowry, and Shu 2005, Kasznik and Lev 1995, Mercer 2005, Skinner 1994, Suijs 2005). Thus, voluntary disclosure, as shown in Table 1, is perceived by stakeholders as high quality information amid varying firm behaviors as long as it reduces information asymmetry, builds trust, and enhances the usefulness of stakeholder evaluations.

Research in the information sciences (IS) echoes the role of credibility in reducing asymmetry and thus increasing PIQ (Maltz, 2000; Rieh, 2002; Xu & Koronios, 2005). The firm's credibility adds to information's utility, or usefulness in assisting stakeholders in making evaluations of firm actions (Xu & Koronios, 2005). When stakeholders can trust the source of the information, asymmetry is reduced and firm-stakeholder interaction is enhanced. In turn, they will be more likely to use it in their evaluations of firm behavior (Rieh, 2002). Thus, the core concept emerging from the economics and IS literatures is the importance of credibility in reducing stakeholder evaluation costs and thus reducing information asymmetry. When asymmetry is reduced, PIQ is enhanced, thereby increasing the opportunities for the firm to acquire resources under stakeholder control (Rindova & Fombrun, 1999).

In addition, IS research focuses on PIQ being defined by the stakeholder (Miller, 1996). Overall, it appears from Table 1 that information sciences research views PIQ as the extent to which stakeholders view the information about the firm as useful and valuable to their evaluation process (Maltz, 2000; Rieh, 2002; Xu & Koronios, 2005). Table 1 also lists those information characteristics or attributes that can lead to stakeholders perceiving information to be of high quality. They include relevance,

accuracy, timeliness, completeness, accessibility, appropriateness, and conciseness, among others.

Building on these concepts, communications, management, and marketing research further emphasize the role of the stakeholder in determining what information is high quality and what is not (Chew, 1994; Grunig, Grunig, & Dozier, 2002; Winseck, 2002). In these literatures, PIQ is inherently a consumer judgment (Davies, 2001; Zeithaml, 1988). The firm must recognize what information the stakeholder finds useful under particular circumstances (Menon & Varadarajan, 1992; Toften & Rustad, 2005). That is, the firm must recognize that diverse stakeholder groups may perceive information as being high quality differently, depending on their needs and goals of interacting with the firm (Menon & Varadarajan, 1992). As the firm continues to be successful in meeting stakeholder expectations, however, it develops credibility among stakeholder groups, reducing their evaluation costs and increasing its chances at economic success (O'Reilly, 1982).

For example, Table 1 provides examples of PIQ definitions from communications that focus on information that meets stakeholder needs (Chew, 1994), that assist stakeholders in evaluations of firm behavior (Winseck, 2002), and that stakeholders believe comes from a trusted source (Grunig et al., 2002). Similarly, management research views PIQ as that information that conforms to stakeholder expectations (Reeves & Bednar, 1994), is useful to stakeholder evaluations (Heil & Robertson, 1991), is relevant, specific, reliable, accurate, and timely; and conveys quality and credibility (Heil & Robertson, 1991; Reeves & Bednar, 1994). Marketing research listed in Table 1 echoes these same definitions, describing PIQ as socially constructed in the eyes of the firm's

stakeholders (Davies, 2001; Menon & Varadarajan, 1992; Zeithaml, 1988) as well as being credible, accurate, specific, useful, and timely (Miller, 2005; Toften & Rustad, 2005). Finally, stakeholder research reiterates the role of PIQ as contributing to better firm-stakeholder relationships through the dissemination of useful information to assist stakeholders in their evaluations of firm behavior (Philips, 2003).

In summary, past interdisciplinary research has focused primarily on the importance of certain information attributes, such as availability and specificity, as well as source credibility, in enhancing information quality through the reduction of asymmetries and stakeholder evaluation costs. In addition, several research streams have emphasized that information quality is a byproduct of firm-stakeholder interaction and inherently a function of stakeholder perception. I integrate each of these concepts into my PIQ framework. That is, the PIQ framework draws from past research and assumes that information availability and specificity, as well as source credibility and the role of the stakeholder, are important aspects of stakeholder perceptions of information quality. Logically, information and its source must be credible in order for stakeholders to properly evaluate the firm, regardless of the availability or specificity of the news. If credibility is lacking, the firm's ability to deliver information that stakeholders perceive as useful to their evaluations of firm behavior is lowered. Credible information is reliable and believable. It comes from a trusted source, and it is consistent, accurate, objective, and understandable. In short, credible information is a "reflection of the truth" (Maltz, 2000: 114).

However, the various theoretical perspectives described above, while recognizing the importance of source credibility and the role of the stakeholder, have not been

concerned with the potentially competing facets of available or specific information or the possible contingent factors that may affect stakeholder perceptions of information quality. That is, past research does it investigate how stakeholders may perceive information quality differently depending on the firm's strategies or the channel through which the information is communicated. The PIQ Framework described below therefore focuses on the potential contingent effects of firm behavior and channel of communication on how stakeholders perceive available and specific information. If PIQ does indeed vary under different circumstances, then managers and stakeholders will benefit from recognizing those firm strategies and delivery mechanisms that enhance PIQ, and thus enhance firm-stakeholder interaction, and those that diminish it.

## **A THEORETICAL FRAMEWORK OF PERCEIVED INFORMATION QUALITY**

Information is a "vital good" in the marketplace (Philips, 2003: 26). Stakeholders require it to make informed decisions on firm actions and to provide valuable feedback (Fombrun & Shanley, 1990; Toften & Rustad, 2005). Firms in turn make future decisions based on the feedback they receive from stakeholders (Rindova & Fombrun, 1999). Not all information is the same, however. Given the vastness of information available to stakeholders in today's marketplace, separating quality information from noise can be difficult and costly (Hansen & Haas, 2001; Menon & Varadarajan, 1992; O'Reilly, 1982). Thus, if the information that stakeholders receive from firms is of poor quality or is costly to obtain, it will be difficult for them to make useful evaluations and may therefore reduce their interest in transacting with the firm. In other words, if the value of the information does not outweigh the costs stakeholders incur to obtain it, their

evaluations of firm behavior will be less clear, and they will be less likely to interact with the firm. In turn, this will limit the firm's access to resources under stakeholder control, and perhaps even its chances at economic success (Rindova et al., 2005).

What differentiates information in general from quality information? Broadly, information quality can be described as the extent to which information is useful, good, current, important, and accurate (Rieh, 2002). For my purposes, I view information quality from the stakeholders' viewpoint: information quality is that information that is *perceived* as useful and valuable for stakeholders in the evaluation of firm actions (cf. Maltz, 2000; Zeithaml, 1988). Perceived information quality (PIQ) reduces information asymmetries between the firm and its stakeholders and lowers stakeholders' costs in obtaining it. In addition, PIQ adds value over the costs stakeholders incur to obtain the information, with value defined as the utility stakeholders derive from a given piece of information. I therefore define PIQ as stakeholders' perceived value or usefulness of information relative to its cost. As PIQ increases, stakeholders are able to make more useful evaluations of firm behavior, and thus are more likely to interact with the firm. Given that stakeholders control resources of value for firms (Rindova & Fombrun, 1999), firms that provide valuable information to stakeholders that enables them to make useful evaluations increase the likelihood of acquiring resources, which can lead to increased market share and an enhanced competitive position of the firm (Miller, 2005; Xu & Koronios, 2005).

Figure 1 depicts the PIQ Framework. Two information attributes, specificity and availability, are directly related to PIQ. That is, stakeholders perceive specific and available information to be useful in their evaluations of firm behavior—they can reduce

information asymmetries and search costs. However, the relationship between information attributes and PIQ as shown in Figure 1 is moderated by firm behavior (Level of Non-conformity) and the channel of communication (Information Delivery) that the firm chooses to deliver the information. Thus, stakeholders may perceive specific or available information as being higher quality information—that is, they may find one or the other more useful to their evaluations—depending on how the firm is behaving (non-conforming or conforming) and how the information is delivered (directly or through the media).

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Insert Figure 1 about here  
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### **Information Specificity and Availability**

Past research across multiple disciplines (see Table 1) has described PIQ as a function of specificity and availability, two meta-attributes ascribed to information that stakeholders perceive as valuable and useful. Extending this past research, I propose that information specificity and availability can be perceived as two distinct continua—the degree to which information is specific, detailed and relevant, and the degree to which it is available, accessible, and cheap to acquire. For example, specific information can be clear (Davies, 2001), compatible (Miller, 1996), complete (John Martin, 1984; Miller, 1996), concise (Xu & Koronios, 2005), relevant (Davies, 2001; O'Reilly, 1982; Xu & Koronios, 2005), responsive (Toften & Rustad, 2005), and rich (Maltz, 2000). In contrast to less specific, or more generalized information, specific information provides more value to stakeholders and they are thus willing to pay more for it (Tan & Chua, 2004).

Similarly, available information is useful to stakeholders because it is cheap and easy to acquire. Referring again to Table 1, available information is accessible (Miller, 1996), current (Rieh, 2002), frequent (Miller, 2005), and timely (Miller, 1996; O'Reilly, 1982; Xu & Koronios, 2005). In contrast, as information becomes less available, accessible, and cheap (i.e., more costly), its utility to stakeholders declines. However, how specific and available information relate to PIQ, and thus information value for stakeholders, can be contingent on firm behaviors and how the information is disseminated. Nevertheless, I first examine the direct relationship between specific and available information and stakeholders' perceptions of information quality.

Specific information is useful to different stakeholder groups—it speaks directly to their needs and expectations. Specific information is thus responsive, clear, relevant, nuanced, and compatible. For example, information about a specific product launch, merger, or restructuring might be considered more specific information. In contrast, general information does not speak directly to stakeholder needs, lacks nuance, and may not be relevant to specific stakeholder groups. General information may include internet coverage of firms on various financial sites like MSNBC or Yahoo!. Overall, then, specific information should provide more value to stakeholders than general information, and thus enhance PIQ (Tan & Chua, 2004).

Another information attribute, availability, has a similar impact on PIQ. Available information is easily accessible to stakeholders, is current, and arrives quickly, frequently, and on time. For example, annual reports or quarterly press releases that report earnings figures would be deemed more available information. Available information is thus cheap and easy for stakeholders to acquire, and may be perceived as



providing more value under particular circumstances (higher PIQ) than more costly information.

All else being equal, stakeholders may perceive available or specific information to be quality information. But information that is easily accessible is rarely completely responsive to a particular stakeholder's demands, and the most specific information often can be costly—it takes time and effort to acquire. In addition, stakeholders often must make evaluations with imperfect information (Elcock, 2001). Given cognitive, time, and cost constraints, stakeholders may not be able to evaluate all information pertaining to a firm and its actions (March & Simon, 1958), nor may they want to, instead relying on information that is “cheap” to acquire (Chew, 1994) and that which is relevant or useful to their evaluations (Fiske & Taylor, 1991). Indeed, stakeholders' “need to know” can vary by situation (Carter, 1978; Chew, 1994: 677), and they may not attend to all firm actions equally (cf. Hoffman & Ocasio, 2001). In addition, certain stakeholders may not be concerned with firm actions at all (Price, 1992; Van Leuven & Slater, 1991).<sup>2</sup> Thus, both specific and available information can lead to increased PIQ, but not necessarily simultaneously, and only when all other contingencies are held constant.

*P1a: The more specific the firm's information, the greater its perceived quality to stakeholders (ceteris paribus).*

*P1b: The more available the firm's information, the greater its perceived quality to stakeholders (ceteris paribus).*

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<sup>2</sup> An implicit assumption in the paper is that the firm has recognized that its stakeholders are the most salient stakeholder group over the long-run. Salient stakeholders are those that have the most legitimacy, power, and urgency of claims (Mitchell, Agle, & Wood, 1997). Consequently, firms that are the most effective in transmitting information quality are those that more heavily weight and respond to salient demands versus those from other stakeholder groups. Naturally, salient stakeholders can change as issues change—stakeholders might not be the firm's most salient stakeholders at a particular time or for a particular event. (See Pfarrer, DeCelles, Smith, & Taylor [2008] for an in-depth description of stakeholder salience as well as the firm-stakeholder interaction process.)

The direct relationship between *Specific Information*, *Available Information*, and *Perceived Information Quality* is depicted by the two horizontal arrows in Figure 1. The figure shows that each has a positive impact on PIQ. When PIQ increases, the value of the information rises relative to its costs, stakeholders can make more useful assessments of firm behavior, and they are more likely to feel that their needs have been met. In turn, if stakeholders gain greater confidence that their needs will be met through the information they receive from the firm, they are more likely leading to engage in transactions with the firm. As these transactions increase, the firm can increase its chances gaining access to resources under stakeholder control (Rindova & Fombrun, 1999; Rindova et al., 2005; Shapiro, 1982, 1983).

In summary, past research has posited that stakeholders perceive information as being of high quality when it is available and specific. As we have seen above, however, specific and available information operate on two distinct continua (a level of specificity/detail/relevance and a level of availability/access/cost). In addition, past research on PIQ has not discussed how stakeholders perceive each of these attributes as contributing more to PIQ depending on how the firm is behaving (non-conforming or conforming) and how the information is delivered (directly or through the media). Each of these moderating effects on the PIQ model is discussed in turn below.

### **FIRM BEHAVIOR, INFORMATION ATTRIBUTES, AND PIQ**

If PIQ is the extent to which stakeholders view information as useful to the evaluation process and where value outweighs cost, under what circumstances will stakeholders value specific more so than available information, and under what circumstances is this preference reversed? Addressing this question can help the firm be

more effective in delivering information, which in turn should enhance its ability to interact with stakeholders and acquire resources under their control.

### **Non-Conforming Firm Behavior and PIQ**

Specific information is useful for stakeholders in the sense that it speaks directly to their needs. Specificity emphasizes personalized interaction between a firm and its stakeholders as well as direct feedback between the two. Stakeholders will value specific information over available information when the information in question is related to firm strategies that deviate from the status quo, or when firm behavior is “non-standard”, that is, when it is unfamiliar or novel (Maltz, 2000). A firm’s behavior is considered deviant when it differs from a particular set of expectations set by its stakeholders (Heckert & Heckert, 2002; Warren, 2003). The firm may differentiate itself from competitors in order to acquire needed resources, obtain competitive advantage, and maximize performance (cf. Barney, 1991; Deephouse, 1999; Porter, 1991). Being different also allows the firm to avoid excess competition from rivals (Laurila & Lilja, 2002). Thus, when firms deviate from expected behavior patterns, stakeholders will require specific information in order to make useful evaluations of their intentions.<sup>3</sup>

Stakeholders will also prefer specific information when firm actions directly affect their interests. For example, stakeholders may value specific information about the firm in the wake of negative events, such as investment fraud or environmental violations. In each case salient stakeholder groups (e.g., financial institutions, activists, or

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<sup>3</sup> In this section, I distinguish only between non-conforming and conforming behaviors, consolidating both positive and negative forms of firm deviance into a non-conforming category. However, research has shown that stakeholders respond to positive and negative events differently and that negative events tend to have more salience and prominence than positive ones (Fiske & Taylor, 1991; Willemssen & Keren, 2002). Thus, stakeholders may assign more weight to negative non-conformity and thus react more strongly to firms that engage in such behaviors. I expand on these findings in the Discussion.

the local community), will demand an explanation for the wrongdoing and expect the firm to focus its energy on rebuilding its identity and reputation (Pfarrer, DeCelles, Smith, & Taylor, 2008; Seeger & Ulmer, 2001, 2002). By providing specific information to its stakeholders, the firm can limit innuendo and avoid potential distortion of the events in the media (Grunig et al., 2002).

Social cognition research also supports the desire for specific information when a firm is acting in a non-conforming manner. Put differently, stakeholders will focus their attention on firm's engaging in salient, or out-of-the-ordinary behavior. Salience, the extent to which a firm's actions stand out relative to others (Fiske & Taylor, 1991), is derived from behavior that is extreme, either positively or negatively (Willemsen & Keren, 2002). In addition, non-conforming behavior is often more vivid in the minds of stakeholders, meaning that the firm's behavior grabs the attention of stakeholders and implies an emotional attachment (Fiske & Taylor, 1991; Hastie & Dawes, 2001). Thus, as stakeholders' attention is drawn to the non-conforming behavior, overshadowing normal, everyday conforming behavior, stakeholders are apt to demand more specific information to help them evaluate those firm actions that appear deviant.

Therefore, the firm should sacrifice availability of information (e.g., reach and accessibility) when it is engaging in non-conforming or deviant behavior, or when it has received challenges from salient stakeholder groups. By transmitting specific information, the firm ensures that its message is clear and that the concerned group's feedback is properly addressed.

*P2a: The more non-conforming a firm's strategy, the greater the effect of information specificity on stakeholders' perceptions of information quality.*

*P2b: The more non-conforming a firm's strategy, the weaker the effect of information availability on stakeholders' perceptions of information quality.*

### **Conforming Firm Behavior and PIQ**

In reality, however, specific information can be costly and time-consuming, and oftentimes, stakeholders may not need a level of nuance in order to usefully evaluate a firm. In other words, the cost of specific information may outweigh the value stakeholders perceive in it. In essence, stakeholders may choose between greater accuracy and effort versus availability and ease (Davies, 2001; O'Reilly, 1982). Put another way, stakeholders don't always demand complete information. Instead, they often demand only sufficient information in order to make an evaluation (Winseck, 2002).

Unlike specific information, available information is easily accessible to stakeholders, is up-to-date, and arrives quickly and frequently. It is also not normally directed at particular stakeholder groups. Instead, available information is general information distributed by or about the firm, typically during standard periods or when it is conforming to stakeholder expectations of its behavior. For example, quarterly press releases, annual reports, and general media coverage of a firm provide information to stakeholders that is readily available and current, but that normally lacks nuance and specifics of behavior that may be non-conforming. These pieces of information tend to focus on the behavior of the firm in general and may suffice for stakeholders when the firm is engaging in conforming behavior.

In contrast to deviant or non-conforming behavior, whether viewed positively or negatively, which may cause stakeholders to question the usefulness of their evaluations,

conforming behavior allows stakeholders to more easily associate current behavior with past firm actions, making evaluations more accurate, and interaction more probable. This is most likely to occur when the relationship between the firm and its stakeholders is “business as usual”, or when firm behavior conforms to the status quo. Thus, when a firm is engaging in conforming behavior, the speed and timeliness of available information outweighs the costs associated with stakeholders’ attempting to acquire more specific information—and therefore is perceived by stakeholders to be more useful and of higher quality than specific information.

*P3a: The more conforming a firm’s strategy, the greater the effect of information availability on stakeholders’ perceptions of information quality.*

*P3b: The more conforming a firm’s strategy, the weaker the effect of information specificity on stakeholders’ perceptions of information quality.*

The moderating relationships between *Firm Behavior: Level of Non-conformity* and *Perceived Information Quality*, along with their posited (+/-) relationships, are depicted by the vertical arrows in Figure 1. Having analyzed how firm behaviors moderate the impact of available and specific information on stakeholders’ perceptions of quality, I now turn to examining how the channel of communication affects this relationship.

### **COMMUNICATION CHANNEL, INFORMATION ATTRIBUTES, AND PIQ**

In order to facilitate stakeholders’ receipt of high-quality information, the firm can choose either to directly deliver the information or to utilize the media in its dissemination.<sup>4</sup> The firm’s decision to deliver information either directly or indirectly

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<sup>4</sup> I recognize that information can be delivered indirectly in multiple ways—through financial analysts, consumer groups, regulatory agencies, and other intermediaries. Given the reliance of stakeholders on the business press as a primary source of indirect information (cf. Alvesson, 1990), I limit my discussion primarily to these sources.

also involves an expectation of what it perceives as most important information attributes for stakeholders at that particular time. Unlike the level of non-conformity discussed above, direct and mediated channels of communication are orthogonal—either stakeholders receive information directly from the firm, or they do not. However, like the level of a firm’s non-conforming behavior, each delivery method enhances a particular facet of PIQ, and thus has inherent tradeoffs.

### **A Direct Communication Channel and PIQ**

Specific information is personalized, responsive, and relevant to multiple stakeholder issues. Given the level of nuance needed in specific information, it is best delivered directly from the firm to its stakeholders. Face-to-face communication limits information distortion and permits straightforward feedback (Hewitt, 1997; Westley & MacLean, 1957). The direct approach also provides the firm with flexibility—it can better manage multiple stakeholder perceptions of it by altering its message to different stakeholder groups (Pratt & Foreman, 2000; Zuckerman, Kim, Ukanwa, & von Rittman, 2003). Thus, the firm can gauge stakeholder perceptions and therefore more accurately respond to stakeholder demands. The firm is better able to control what information each stakeholder group receives, and how it receives it.

A direct channel of communication may have some disadvantages, however. Information delivered this way is often not as accessible to stakeholders. It may arrive slowly, less frequently, and be less topical than information available through the media. Direct information can also be costly—it can sacrifice availability of information and require time and effort for the firm to transmit, and for stakeholders to acquire. Thus, a face-to-face approach allows for flexibility and heterogeneity in information

dissemination, but it inherently limits a firm's ability to utilize certain techniques to manage its message. Direct stakeholder contact sharply curbs the use of pseudo-actions, ambiguous, impression-management behaviors whose primary purpose is to influence stakeholders without admitting the firm's intentions (Alvesson, 1990; Boorstin, 1961). If a primary goal of many firms is to attempt to control the content of information that stakeholders receive, a direct strategy may limit this opportunity.

Sending multiple messages to stakeholders also may cause problems for the firm. Whereas heterogeneity can allow for flexibility in dealing with conflicting stakeholder demands (Pratt & Foreman, 2000), it can also lead to confusion among stakeholders, who may be unable to rectify its present behavior with its past actions. This inability of stakeholders to determine "what the firm is" can lead to decreased attention, which can reduce a firm's access to resources, and thus threaten its survival (Hsu & Hannan, 2005; Rindova & Fombrun, 1999; Zuckerman et al., 2003). Too-direct information also may place the firm in conflict with stakeholder groups that have unique expectations and dissimilar agendas, thereby creating a potential Catch-22 situation that has no easy solution (Merton, 1968; Pratt & Foreman, 2000). For example, the NY-NJ Port Authority, amid a dilemma to serve commuters and provide the homeless with free shelter, ran afoul of both groups at different times when it was perceived to be too accommodating to one at the expense of the other (Dutton & Dukerich, 1991).

*P3a: A direct communication channel will increase the effect of information specificity on stakeholders' perceptions of information quality.*

*P3b: A direct communication channel will decrease the effect of information availability on stakeholders' perceptions of information quality.*



In other words, the direct method of information delivery will improve stakeholders' perceptions of information quality when they associate specific information with quality information, but it will lower PIQ when they associate available information with quality information. That is, the direct method of communication increases the value of specific information relative to its costs more so than for direct information.

### **A Mediated Communication Channel and PIQ**

Given today's hypercompetitive environment, the rise of multiple and variegated stakeholder groups, and the need for the firm to swiftly and widely disseminate quality information, it appears that some form of a mediated strategy is warranted under most circumstances (Alvesson, 1990). In fact, most firm-stakeholder relationships are mediated—rarely do stakeholders get information directly (Alvesson, 1990), and the media is often the source of this information as well as the forum where the firm and its stakeholders debate the value of the firm (Rindova & Martins, 2006). In general, the mass media function as intermediaries in transmission of information between the firm and its stakeholders. Firms often are unable to effectively reach multiple stakeholder groups unassisted (Pollock & Rindova, 2003; Zuckerman, 1999). Similarly, stakeholders rely on the media to remove uncertainty about firm behavior and assist them in the evaluation process (Alvesson, 1990; Corts, 1997; Fombrun, 1996; Rindova et al., 2005). The media thus connect the firm to its stakeholders, cutting through the jumble of firm activities and signaling to stakeholders that the firm is legitimate (Lounsbury & Glynn, 2001; Pollock & Rindova, 2003).

A mediated strategy can help disseminate information to stakeholders more swiftly and widely than can a direct approach. But media-disseminated information about

the firm may lack the nuance necessary to address certain stakeholder groups' expectations. Oftentimes the media smoothes and levels information (Allport & Postman, 1947), presenting it in a more generalized or cognitively simpler fashion that may remove or obscure specific information helpful to stakeholders in evaluating the firm (Albert & Whetten, 1985; Chen & Meindl, 1991). Since many firms interact with various stakeholder groups with dissimilar, or even competing agendas, firms that rely on a mediated strategy run the risk of delivering information that can be undifferentiated or even counterproductive for their relationships with certain groups. Contrary to a direct strategy, which can allow for flexibility in information dissemination but also confusion among stakeholders (Hsu & Hannan, 2005; Zuckerman et al., 2003), delivering information indirectly can backfire when a firm needs to address a specific issue or stakeholder group.

*P4a: A mediated communication channel will increase the effect of information availability on stakeholders' perceptions of information quality.*

*P4b: A direct communication channel will decrease the effect of information specificity on stakeholders' perceptions of information quality.*

Thus, the mediated method of information delivery will improve stakeholders' perceptions of information quality when they associate available information with quality information, but it will lower PIQ when they associate specific information with quality information. That is, the mediated method of communication increases the value of available information relative to its costs more so than for direct information. This moderating relationship between *Information Delivery: Direct or Mediated* and *Perceived Information Quality* is depicted by the vertical arrow in Figure 1.

Taking the logic developed in Propositions 2-4, I can posit more broadly about the effects of a firm's strategies and its choice of communication channel on the relationship between information attributes and stakeholders' perceptions of information quality. These relationships are depicted in the table below. Looking at the table, one sees that firms can achieve high levels of PIQ by transmitting specific information directly when engaging in non-conforming (deviant) behavior and by transmitting available information indirectly (through a mediated channel) when engaging in conforming behavior. In other words, these two cells provide stakeholders with the highest perceived usefulness and value of information relative to the costs they incurred to obtain it. When operating outside these cells, PIQ may be lower, reducing the information's relative value to its costs, and thereby adversely affecting stakeholder evaluations and jeopardizing access to resources and chances at longer-term success.

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Insert Table 2 about here  
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## **DISCUSSION**

In this paper, I develop a theoretical framework of Perceived Information Quality (PIQ). I extend previous research on firm-stakeholder relationships by identifying 1) the relationship between two characteristics of information—specificity and availability; 2) how firm strategies—non-conforming and conforming—moderate stakeholder perceptions of specific and available information as quality information; and 3) how the channels of communication—direct and mediated—moderate stakeholder perceptions of specific and available information as quality information.

Below, I discuss the PIQ framework's applicability for managers and future research, and then suggest several ways that empirical tests of its propositions might be designed.

### **Model Applicability**

Traditional interdisciplinary research on information exchange has failed to incorporate the potential contingent effects of firm behavior and channels of communication on how stakeholders perceive information and how stakeholders can thus reduce asymmetries and search costs. By providing a more-nuanced framework of PIQ creation, I inform 1) managers of the effects of firm behavior and choice of information distribution channels on stakeholder perceptions and 2) stakeholders on the vagaries of PIQ under different circumstances. In turn, manager and stakeholder awareness of the contingent effects of PIQ can increase the likelihood of firm-stakeholder interaction, firm access to resources, and ultimately, the firm's ability to achieve economic success.

Still, the framework does not incorporate five key issues that affect the firm's relationship with other market actors—the firm's ability to control what information it will disseminate; market actors' reactions to information that is positive, neutral, or negative about the firm; the salience and breadth of those stakeholder groups that are affected by and that evaluate information about the firm; the role of firm credibility; and the potential negative effects of passive and highly-mediated communication channels. I discuss each in turn below.

**Firm impression management techniques.** Firms obviously have some control over the information that is received by stakeholders and also how this information is spun or perceived. Whereas quality information enhances firm-stakeholder interaction,

how do stakeholders truly know that the information they are receiving is quality information, and not simply misinformation?

I recognize that firms may attempt to positively spin the facts and circumstances surrounding events, especially negative ones, and that certain stakeholder groups may not recognize this organizational falsity or insincerity (cf. Westphal & Zajac, 2001). For example, firms often downplay a negative incident in order to avoid embarrassment (Benoit, 1995; Tyler, 1997). Even when there is public knowledge that an event has occurred, the firm may still communicate multiple “accounts” designed to positively influence stakeholders’ perceptions and depict the firm in the most favorable light (Benson, 1985; Benoit, 1995; Elsbach, 1994, 2003).

Nevertheless, due to the nearly inevitable public awareness of many firm strategic behaviors, I contend that actions undertaken to misinform stakeholders and other stakeholder groups will fail at some point, because firms are monitored and scrutinized by both internal and external stakeholders. Thus, whereas some stakeholder groups may be deceived at certain times, most likely others over time will not. Over the long run, then, it probably behooves the firm to disclose its actions forthrightly (Pfarrer et al., 2008), lest it suffer greater reputational and performance damage than had it not (Lee, Peterson, & Tiedens, 2004; Marcus & Goodman, 1991; Salancik & Meindl, 1984; Siegel & Brockner, 2005).

**Information valence and non-conforming behavior.** The major premise of the PIQ framework is that useful and valuable information leads to increased transactions between a firm and its stakeholders, which can subsequently lead to greater access to resources as well as increased chances of economic success. This makes sense if the

information that stakeholders receive is favorable to the firm, but what if the information is unfavorable? Will negative information still increase the likelihood of stakeholders perceiving the information to be quality information, and will it also increase the likelihood of stakeholders transacting with the firm? Negative information can certainly be quality information—it can reduce search costs and information asymmetries and it can be useful for stakeholders in the evaluation process. But does negative information enhance the firm-stakeholder relationship? In the immediate short-run, the answer is most likely no. But *how* the firm handles the dissemination of negative information will determine how stakeholders (and other stakeholder groups) will interact with it over time. Thus, negative information, like positive information, *can* enhance PIQ and firm-stakeholder interaction. Future research could investigate if negative information is perceived as useful in a similar fashion to positive information, or if the two are actually distinct continua (cf. Rindova et al., 2006).

In addition, the PIQ framework assumes that firm behavior operates along a non-conforming-conforming continuum. However, as I alluded to in footnote 3 above, past research in psychology and social cognition has recognized that negative deviant behavior has greater salience, and thus holds greater weight, than positive deviant behavior among stakeholders (Fiske & Taylor, 1991; Willemsen & Keren, 2002). Thus, firms that engage in negative deviance such as underperformance or even fraud will potentially engender stronger, more prolonged, and more complex reactions from stakeholders than those that engage in positive deviance (Fiske & Taylor, 1991; Willemsen & Keren, 2002). Future research could examine a more nuanced continuum that places conforming behavior in the middle of negative and positive non-conformity,

developing theory and empirical tests that further explore the differences in how stakeholders perceive the value of information related to different types of non-conforming behavior.

**Stakeholder salience and breadth.** The PIQ framework remains silent on how various stakeholder groups might perceive the affects of certain information attributes, firm strategies, or channels of communication on information quality differently. Firms operate in multidimensional environments (Grunig, 1992; Thompson, 1967), and demands from heterogeneous stakeholders can vary. A firm may be able to satisfy the demands of certain stakeholder groups only at the expense of others (Emerson, 1962; Post, Preston, & Sachs, 2002). In addition, stakeholder salience can vary by firm action (Mitchell, Agle, & Wood, 1997; Pfarrer et al., 2008). Salient stakeholders are those individuals or groups that most legitimacy, power, and urgency of claims (Mitchell et al., 1997). That is, depending on the firm's behavior, different stakeholder groups may be more prominent than others and thus demand more attention under particular circumstances. When this is the case, PIQ again will vary among stakeholder groups. That is, different stakeholder groups may perceive different types of information about the firm as more useful or valuable to them, depending on the circumstances. In addition, various groups may perceive the costs associated with obtaining the information, as thus its relative value to the evaluation process, differently. Future research should look at how the PIQ model may be altered based on how different stakeholder groups evaluate firm information as useful, and if there is either conflict or concurrence among particular groups for a given firm action. For example, environmental groups would most likely value specific information on a firm's pollution controls more highly than would certain

individual investors, and would also thus be willing to incur more costs for it to be delivered directly to them.

**Firm credibility.** An underlying assumption of the PIQ model is that a certain level of source or firm credibility is needed for stakeholders to perceive any information, whether available or specific, as quality information, regardless of firm behavior or how the information is disseminated. In general, firm credibility increases the likelihood that stakeholders will interact with the firm and finds its information useful (Berens & van Riehl, 2004; Goldsmith et al., 2000; Newell & Goldsmith, 2001; Pornpitakpan, 2004). Thus, in the PIQ model presented above, firm or source credibility is seen as a *constant*.

However, future research could investigate firm credibility as a *variable*. For example, does firm credibility have more effect when actions are novel or complex (LaBarbera, 1982; Pornpitakpan, 2004)? High firm credibility may assist in shaping stakeholders' perceptions positively by reducing information asymmetries and costs associated with stakeholders' acquiring specific information about novel behavior. In contrast, the impact of credibility may wane as the firm's behavior trends more toward the status quo. Here, stakeholders are familiar with firm actions and do not need credibility to assist in their acquisition of available information or their perceptions of information quality.

Similarly, future research could investigate if firm credibility plays a role in the relationship between how the information is delivered and stakeholders' perceptions of it. Firm credibility may have more power on information delivered indirectly to stakeholders than messages that are delivered directly (Pornpitakpan, 2004). If a stakeholder receives information through mediated channels, the potential for information



to become distorted along the way increases. The firm's credibility may therefore serve as mechanism to potentially smooth out any potential incongruities associated with the distorted message. In contrast, messages delivered directly to stakeholders face limited distortion, thus lessening credibility's impact.

**Effects of passive and highly-mediated communication with stakeholders.**

The PIQ framework examines how information attributes, firm strategies, and channels of communication affect stakeholders' perceptions of information quality. However, regarding communication channels, it does not take into account that a firm will choose not to engage with its stakeholders (a passive strategy) or that it may opt to repeatedly select a mediated communication channel (a highly-mediated strategy). Firms that opt for either of these extremes may affect the relationship between available and specific information and PIQ differently from what is shown in the model.

For example, firms utilizing a passive approach may hamper stakeholder efforts at evaluating them, which can lead to an increase in search costs and information asymmetries, and may heighten innuendo and conjecture about the firm's intentions (Pfarrer et al., 2008). In essence, a passive strategy can stall the PIQ-construction process, thereby decreasing the likelihood of meeting stakeholder needs as well as gaining access to resources under stakeholder control.

Like the passive approach, a highly-mediated one can also lead to adverse affects on stakeholder evaluations of firm behavior. As the firm increases its reliance on a mediated strategy to disseminate information, it allows for swifter and more widespread distribution of firm actions, but it also can create distortion in stakeholder perceptions (Lounsbury & Rao, 2004; McCombs & Shaw, 1972; Whetten & Godfrey, 1998). This

can therefore potentially create a gap between how the firm views PIQ and how stakeholders perceive it (Zeithaml et al., 1990). If the highly-mediated strategy continues, the firm's stakeholders will provide feedback to the firm based on altered and non-representative information, which may cause the firm to errantly adjust its behavior and even misallocate resources (Gioia et al., 2000; Rindova & Martins, 2006).

In addition, engaging the media in transmitting information automatically invites attention to the firm from an external actor whose role otherwise would have been minimized. Media scrutiny can be a double-edged sword for the firm (Brooks, Highhouse, & Moore, 2003; Ocasio, 1997; Sutton & Galunic, 1996). It can be associated with success, but it can also illuminate negative attributes of the firm that it would otherwise wish would remain hidden.

Finally, the firm may become "hypervigilant" or preoccupied with providing media-friendly messages about itself in order to gain attention and reach stakeholders (Adler & Adler, 1989; Alvesson, 1990; Stryker, 1980; Sutton & Galunic, 1996: 212). This preoccupation with the firm's "media self" (Adler & Adler, 1989; Martins 2005) can also lead to a diversion of resources wherein the firm sacrifices the potential for long-term competitive advantage for the easy translation, diffusion, and quick feedback of short-term image management (Alvesson, 1990; Gioia et al., 2000, 2002; Sutton & Galunic, 1996).

Thus, it would be interesting to test the impact of a passive or highly-mediated strategy on stakeholders' perceptions of information quality. Perhaps there is an inflection point where too little or too much information can either fail to illuminate or crowd out quality information, which will ultimately affect stakeholders' desire to

transact with the firm. Using earnings estimates as a proxy for information quality, one could first test to see if media coverage, as measured by article counts, decreases the likelihood of meeting estimates (i.e., increases the likelihood of surprising the market) at either the upper or lower end, whereas moderate amounts of coverage increases the likelihood of meeting consensus expectations. In turn, one could then test to see if this coverage also has a curvilinear relationship with the firm's economic success. That is, does too little or too much media coverage hurt firm performance over a specific time frame?

### **Empirical and Methodological Implications**

In addition to the future research directions outlined above, the PIQ framework lends itself to other empirical tests. Content analysis techniques that analyze the corpus of texts about the firm can assist in coding information as either available or specific (e.g., Duriau, Reger, & Pfarrer, 2007; Smith, Grimm, & Gannon, 1992). For example, quarterly press releases that simply report earnings figures would be deemed more available information while information about a specific product launch, merger, or restructuring might be considered more specific information. Similarly, stakeholders might consider press releases, regardless of content, more direct information than information received from media sources.

Regarding firm behavior, empirical measures of strategic conformity or deviance (cf. Finkelstein & Hambrick, 1990) exist to generate variables that analyze a firm's strategic decisions vis a vis its peers across multiple categories, including R&D investments; advertising expenses; new property, plant, and equipment expenditures; non-production overhead, inventory levels, and financial leverage.

In terms of measuring the level of mediation in the firm-stakeholder communication process, content analysis of texts can again assist in deducing whether the firm is delivering information directly to its stakeholders or whether it relies on the media to spread news of its actions. For example, a measure comparing the number of press releases issued *by* the firm to the number of articles written *about* the firm would provide a good understanding of how the firm chooses to disseminate information about itself, and, linking back to the firm's type of behavior (conforming or non-conforming), could also provide information as to what methods of dissemination it chooses based on the behavior it is engaging in.

Regarding the dependent construct, PIQ, a measure of stock volume or the number of analysts covering the firm could serve as a proxy for useful information, especially for a particular stakeholder group, investors. Financial and accounting research has shown that firms that provide quality information, that is, useful information to the evaluation process show larger volume and analyst coverage than those firms that do not (MacKinlay, 1997). Another measure of investor PIQ could be derived from the firm's actual earnings relative to earnings estimates. Given that the market does not like earnings surprises (Kasznik, 1999; Williams, 1996), firms that consistently report actual earnings that are very close to analysts' consensus estimates can be said to be providing quality information to investors.

Finally, analyses that codify the moderating effects of firm behavior and the channel of communication, as discussed above, could be run to empirically examine their impact of stakeholders' perceptions of information quality. In addition, Table 2, which lists potential double interactions, could also be tested to generate a range of PIQ across

multiple moderators. For example, if a measure of PIQ for investors is the lack of earnings surprises (i.e., meeting consensus estimates), how do firm behaviors, the channel of communication, and these two effects together influence the likelihood that a firm will manage or meet earnings within a few cents? Alternatively, Table 2 could be decomposed so that the effect size of each moderating variable on PIQ is weighed against the others, thus creating a range of high, moderate, and low impact on PIQ.

**TABLE 1**  
**Definitions of Perceived Information Quality**

<b>Discipline</b>	<b>Definition</b>	<b>Sources</b>
Accounting	Reduction of asymmetry in order to build trust, enhance performance, and to overcome agency problems; voluntary disclosure of information	Core, 2001; Dye, 2001; Field et al., 2005; Healy & Palepu, 2001; Kasznik & Lev, 1995; Skinner, 1994; Suijs, 2005; Verrechia, 2001
Communications	Information that understands and meets stakeholder needs	Chew, 1994
	Symmetric information; that which can be trusted	Grunig et al., 2002
	Information that is sufficient to meet stakeholder needs and assist them in evaluations of firm behavior	Winseck, 2002
Economics	Reduction of uncertainty	Arrow, 1979
	Reduces asymmetries and nurtures trust	Boyce & Lepper, 2002
	Reducing asymmetries and costs of evaluation	Hayek, 1945; Stiglitz, 2000
Info. Sciences	The highest price actor is willing to pay for information	Denant-Boemont & Petiot, 2003
	Extent to which stakeholders view information as valuable; function of credibility, comprehensibility, timeliness, richness, relevance	Maltz, 2000
	Defined by stakeholder; has 10 dimensions: relevance, accuracy, timeliness, completeness, coherence, format, accessibility, security, validity, and compatibility	Miller, 1996
	Extent to which information is useful, good, current, important, and accurate	Rieh, 2002

**TABLE 1, cont.**  
**Definitions of Perceived Information Quality**

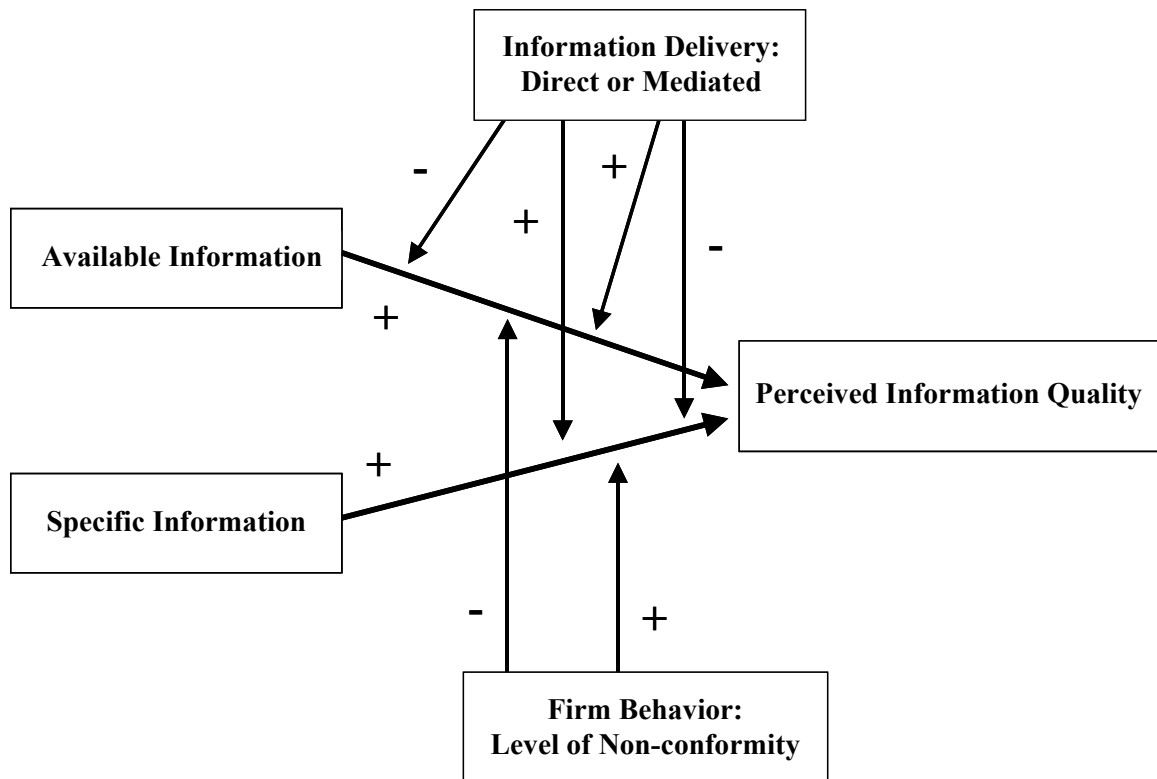
<b>Discipline</b>	<b>Definition</b>	<b>Sources</b>
Info. Sciences	IQ is determined by its utility for stakeholders; dimensions include accessibility, appropriateness, relevance, credibility, completeness, conciseness, consistency, accuracy, timeliness, and understandability	Xu & Koronios, 2005
Management	Information that is useful for stakeholders to make evaluations; convey product quality and reputation	Heil & Robertson, 1991
	Information that is relevant, specific, accurate, reliable, and timely	O'Reilly, 1982
	Excellence, value, conformance to stakeholder specifications; what customers perceive as quality	Reeves & Bednar, 1994
Marketing	PIQ is a set of stakeholder judgment criteria, including clarity and relevance	Davies, 2001
	Information that is credible, realistic, accurate, specific, consistent, complete, valid, and useful	John & Martin, 1984
	PIQ is socially constructed--in eyes of stakeholder; It is useful, meaningful, relevant, valid, and innovative	Menon & Varadarajan, 1992
	PIQ based on timeliness and completeness; it must be accurate, believable, objective, reliable, relevant, appropriate, understandable, consistent, concise, accessible, useful, frequent, and easy to use	Miller, 2005
	How useful, complete, relevant, and truthful info is	Tan & Chua, 2004
	PIQ is a function of reliability, responsiveness, assurance, credibility, accuracy, specificity, consistency, comprehensiveness, validity, relevance, usefulness, and timeliness	Toften & Rustad, 2005
	PIQ is a consumer's judgment about overall excellence or superiority	Zeithaml, 1988
Stakeholder	Information that contributes to fairness and better relationships with stakeholders	Philips, 2003

**TABLE 2**  
**The Relationship between Information Attributes, Firm Strategies, and Communication Channels on the Level of Perceived Information Quality**

<b>PIQ Attribute</b>	<b>Firm Strategy/Communication Channel</b>			
	<i>Conforming/Direct</i>	<i>Conforming/Mediated</i>	<i>Deviant/Direct</i>	<i>Deviant/Mediated</i>
<i>Available</i>	Moderate	High	Low	Moderate
<i>Specific</i>	Moderate	Low	High	Moderate



**FIGURE 1**  
**A Theoretical Framework of Perceived Information Quality**



## **ESSAY 2**

### **FINANCIAL DEVIANCE: STRATEGIC PREDICTORS AND MARKET REACTIONS**

#### **ABSTRACT**

Essay 1 and Essay 2 look at the nature of information exchange in the marketplace, their link being specifically the relationship between non-conforming firm behavior and stakeholder evaluations of it. Essay 1 theorizes in part on the moderating impact of non-conforming behavior on stakeholder perceptions of information quality. When firms engage in non-conforming behavior, stakeholders find specific information more useful in their evaluations of firm actions than available information. Thus, specific information is perceived by stakeholders to be of higher quality when firms are engaging in deviant behavior. If the information that stakeholders receive is not useful to their evaluation process, then the likelihood of their transacting with the firm may diminish, thereby decreasing the firm's chances at gaining access to resources under their control.

Essay 2 links to the "firm behavior" effect of the PIQ model in Essay 1 by providing an empirical test of the reactions of a specific stakeholder group, investors, to non-conforming behavior among firms. More specifically, Essay 2 examines 1) the relationship between two intangible assets, reputation and celebrity, and the likelihood of the firm engaging in deviant financial behavior, that is, generating earnings surprises; and 2) how investors subsequently evaluate deviant (non-conforming) behaviors engaged in by reputable and celebrity firms.

## CHAPTER 1

### STRATEGIC PREDICTORS OF FINANCIAL DEVIANCE

Deviance is behavior that departs from the regular and expected behavior patterns of society (Bettenhausen & Murnighan, 1991; Kelly, 1996; Merton, 1968; Warren, 2003). A *firm's* behavior is considered deviant when it departs from a particular set of expectations set by its stakeholders (Heckert & Heckert, 2002; Warren, 2003). Firm deviance may be viewed as positive behavior, like altruism, charity, and even outperformance (Heckert & Heckert, 2002; Warren, 2003), or it may be construed as negative behavior—actions that violate norms and evoke a negative response from stakeholders—like poor product quality, poor customer service, or underperformance (Vardi & Wiener, 1996).<sup>5</sup>

A particular type of non-conforming behavior, *financial* deviance, may be used to describe several firm behaviors, such as accounting fraud, misstatement of earnings, earnings management, and even earnings surprises. Earnings surprises occur when a firm's actual earnings vary from analysts' estimated forecasts. Earnings surprises may be either positive or negative, that is, a firm's actual earnings may either be above (positive) or below (negative) analysts' estimates.

Research in accounting and finance recognizes earnings surprises as a form of deviant or non-conforming behavior that is also uncommon (Kasznik, 1999; Tan, Libby, & Hunton, 2002). That is, there is substantial evidence over the last decade that firms tend to “manage their earnings” in order to minimize earnings surprises (cf. Burgstahler

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<sup>5</sup> Negative deviance may also include illegal activities, like fraud and antitrust violations. Given that norms violations are viewed inherently differently than illegal actions (cf. Simpson, 2002), the negative deviance portrayed here is limited to those firm actions that may underconform to industry norms (cf. Heckert & Heckert, 2002) but that are still legal.

& Dichev, 1997; Degeorge, Patel, & Zeckhauser, 1999; Frankel, McNichols, & Wilson, 1995; Kasznik, 1999; Matsunaga & Clark, 2001; Payne & Robb, 2000; Tan et al., 2002). Earnings surprises can damage a firm's credibility and signal to analysts and investors that it is unreliable, unpredictable, and ultimately unworthy of investment (Hirst, Koonce, & Miller, 1999; Kasznik, 1999; Mercer, 2004; Tan et al., 2002; Williams, 1996). In essence, the marketplace expects firms to meet the consensus earnings estimates that have been forecasted for them. When firms do not, their performance will likely suffer, because analysts and investors rely on accurate predictions of firm behavior for the proper functioning of the market (Hirst et al., 1999; Mercer, 2004; Williams, 1996).

What the finance and accounting literatures have not investigated, however, is the influence of a firm's attributes and strategic behaviors on the likelihood of its engaging in financial deviance (cf. King, 1996; Matsumoto, 2002). Given that earnings surprises, whether positive or negative, are examples of financial deviance, it is possible that certain firm characteristics encourage specific strategic behaviors, which in turn encourage the likelihood of financial deviance occurring, whereas others decrease this likelihood. In this chapter, I examine the impact of two firm intangible assets, reputation and celebrity, on the likelihood that a firm will engage in financial deviance. A firm's reputation signals to its stakeholders that it is able to produce quality goods (Rindova & Fombrun, 1999; Rindova, Williamson, Petkova, & Sever, 2005). As it continues to do so, its reputation grows (Weigelt & Camerer, 1988). Reputation, then, can be thought of as a function of the firm's track record of meeting stakeholder expectations. Thus, from a financial perspective, investors associate a firm's reputation with *consistent* behavior—there are no surprises and they know what to expect based on the firm's past actions (Clark &

Montgomery, 1998). Reputable firms, then, should be less likely to engage in financial deviance due to their consistent track record of meeting analysts' and investors' earnings expectations.

Distinct from reputation, another intangible asset, firm celebrity, is associated with *non-conforming* behavior. A basic argument in strategic research is that firms should differentiate themselves from competitors in order to acquire needed resources, obtain competitive advantage, and maximize performance (cf. Barney, 1991; Porter, 1991). Firms gain celebrity status in part by operating on the edge of normative acceptability—they are proactively engaging in non-conforming, novel actions in order to differentiate themselves from competitors, gain attention from the media, and generate positive emotional responses among stakeholders (Rindova et al., 2006). Thus, from a financial perspective, investors associate a firm's celebrity with *non-conforming* behavior — celebrity firms may be more apt to generate earnings surprises due to the differentiating and unpredictable nature of their actions.

Thus, it appears that the possession of certain intangible assets—reputation and celebrity—may affect the likelihood of a firm's engaging in financial deviance differently. I predict that firm reputation will have a negative impact on the likelihood of financial deviance, whereas firm celebrity will have a positive impact. Specifically, firm reputation will decrease the likelihood of both positive and negative earnings surprises, whereas celebrity will increase the chances of both occurring.

This chapter contributes to research on intangible assets and their relationship to firm-level outcomes. For the last three decades, management scholars have theorized about and empirically tested the impact of these assets on a firm's competitive advantage.

Certain intangibles, like reputation, legitimacy, and status, have been linked across several studies with having a positive impact on firm performance (e.g., Deephouse, 1999; Roberts & Dowling, 2002; Washington & Zajac, 2005). However, there has been no research on the effect of intangible assets on firms' strategic behaviors that may lead to financially deviant outcomes. By linking firm characteristics (intangible assets) to strategic behaviors to financial outcomes, this chapter begins to assist researchers, investors, and managers in predicting, and subsequently dealing with, "surprise" behavior.

In addition, research in accounting and finance has often investigated the impact of earnings surprises on firms' stock prices, but it has done little in determining what firm characteristics increase or decrease the likelihood of this type of financial deviance. By linking the possession of certain intangible assets to the likelihood of a firm surprising analysts and investors, this research should also assist accounting and finance researchers as well as the marketplace in broadening their understanding of why some firms surprise and why some do not.

In the next section, I expand on my description of earnings surprises as financial deviance. I then follow with hypotheses derived from an examination of reputable and celebrity firms.

### **EARNINGS SURPRISES AS FINANCIAL DEVIANCE**

For several years, accounting and finance scholars have recognized the importance of firms meeting analysts' earnings forecasts in order to maintain credibility and predictability among market participants (cf. Burgstahler & Dichev, 1997; Degeorge et al., 1999; Frankel et al., 1995; Kasznik, 1999; Matsunaga & Clark, 2001; Payne &

Robb, 2000; Tan et al., 2002). In order to consistently meet these forecasts, many firms routinely engage in earnings management, “the use of flexible accounting principles that allow managers to influence reported earnings, thereby causing reported income to be larger or smaller than it would otherwise be” (Davidson, Jiraporn, Kim, & Nemec, 2004: 267). Indeed, managing earnings has become commonplace in order for the firm to avoid large swings in its stock price and even the threat of legal action from investors (cf. Kasznik, 1999; Tan et al., 2002). In addition, more than two-thirds of firms regularly provide quarterly earnings guidance to analysts and investors.<sup>6</sup> Earnings guidance involves firms’ relaying information to the marketplace prior to an earnings announcement that helps analysts and investors better predict future performance. In other words, guidance provides short-term predictions about the company’s future expectations and should help eliminate earnings surprises and subsequent whipsaws in the firm’s stock price. Thus, firms that meet analysts’ earnings expectations either exactly or within a few cents are the norm, whereas large earnings surprises, either positive or negative, appear to be indicative of abnormal, or deviant behavior. In order to isolate this phenomenon and to provide a conservative measure of financial deviance, I focus primarily on what I consider “material surprises”, or the largest 25% of positive and negative earnings surprises per year. If earnings surprises are indeed indicative of financial deviance, then do specific strategic behaviors associated with firm reputation and celebrity influence the likelihood of their occurring?

## **THE EFFECTS OF FIRM REPUTATION ON FINANCIAL DEVIANCE**

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<sup>6</sup> Data from the National Investor Relations Institute [www.niri.org](http://www.niri.org).

A firm's reputation is an outward manifestation to stakeholders about its past actions and future expectations (Fombrun, 1996). It embodies the strategies that a firm has used and will likely use again (Axelrod, 1984). Reputation, then, can be thought of as a function of the firm's track record of meeting stakeholder expectations. Stakeholders perceive firms with high reputations as being durable and consistent—there are no surprises in their behavior, and stakeholders know what to expect based on the firm's past actions (Clark & Montgomery, 1998). As the firm's reputation grows, it reduces stakeholders' uncertainty about its future behavior, thereby inducing stakeholders to engage in transactions with the firm (Rindova et al., 2005). In turn, this increases access to resources under stakeholder control, and ultimately, the chances for economic success (Rindova & Fombrun, 1999). Indeed, numerous studies have empirically uncovered a positive relationship between firm reputation and firm performance (e.g., Deephouse, 2000; Fombrun & Shanley, 1990; Rindova et al., 2005; Roberts & Dowling, 2002).

Firm reputation is constructed through stakeholder evaluations of the firm's ability to consistently produce quality products (Rindova & Fombrun, 1999; Shapiro, 1982). When the firm acts in a consistent manner, it removes uncertainty about the quality of its products, and thus increases the likelihood that stakeholders will transact with it (Rindova et al., 2005; Shapiro, 1982; 1983). A good reputation then, begets firm-stakeholder interaction, which begets a better reputation, but it also begets higher expectations among stakeholders for the firm to remain consistent in its behavior.

From an accounting perspective, firms generate positive reputations from investors and analysts by consistently meeting earnings forecasts. There is a fundamental belief in the marketplace that there should be no earnings surprises (Tan et al., 2002)—in



fact, the difference between earnings estimates and actuals is zero on average (Kasznik, 1999). Surprises hurt firms' and analysts' reputations and create whipsaws in the stock price (Kasznik, 1999). Thus, analysts and investors like accuracy and consistency. For the former, it allows them to place a solid stake in the ground regarding expectations for a given firm—inaccurate and inconsistent forecasts can damage an analyst's reputation (Williams, 1996). In turn, consistent performance begets greater and more in-depth coverage from analysts. From an investor's perspective, consistency begets trust, which in turn means the potential for more interest in the firm's stock, greater volume, and even a higher price (Kasznik, 1999; Williams, 1996). In addition, consistency creates a cognitive expectation among analysts and investors—the firm has met earnings before, so they expect it to continue (Bernhard, 1993; Koehler, 1993). Regardless of whether or not these expectations of meeting earnings are unrealistic, reputable firms with a track record of performance are expected to fulfill these demands.

These demands from analysts and investors for consistency and accuracy in meeting earnings estimates can lead to earnings management from firms, especially those with track-records to upkeep (Frankel et al., 1995; Kasznik, 1999; Matsunaga & Park, 2001; Payne & Robb, 2000; Tan et al., 2002). In other words, reputable firms generate economic rents by consistently meeting stakeholder expectations. In contrast, financial deviance in terms of positive and negative earnings surprises can create uncertainty among analysts and investors and signal to them that the firm is less credible, unreliable, or unstable (Kasznik, 1999). Thus, it seems unlikely that reputable firms would risk this threat to their economic success.

*H1a: Firm reputation is negatively related to the likelihood of a positive earnings surprise.*

*H1b: Firm reputation is negatively related to the likelihood of a negative earnings surprise.*

## **THE EFFECTS OF FIRM CELEBRITY ON FINANCIAL DEVIANCE**

Distinct from a firm's reputation, which forms on stakeholders' expectations of the firm's future actions conforming to its past behavior (Clark & Montgomery, 1998; Weigelt & Camerer, 1988), a firm's celebrity forms in part on stakeholders' expectations that it will deviate from the status quo. A basic argument in strategic research is that firms should differentiate themselves from competitors in order to acquire needed resources, obtain competitive advantage, and maximize performance (cf. Barney, 1991; Porter, 1991).

Firm celebrity derives from the firm's operating on the edge of normative acceptability—it is proactively engaging in non-conforming, deviant actions in order to differentiate itself from competitors and gain media attention (Rindova et al., 2006). In addition, these non-conforming actions generate positive emotional responses from stakeholders (Rindova et al., 2006). Given a celebrity firm is inherently deviant, however, the possession of celebrity status as an intangible asset may lead to the firm engaging in either positive or negative deviant behavior.

From an accounting perspective of *financial* deviance, little has been said about firms that act differently from their peers. Above, I noted that analysts and investors like consistency in performance; thus, reputable firms with established track records are more likely to manage earnings relative to other firms in order to meet these external

expectations of performance placed on them—and thus are less likely to engage in financial deviance. However, for celebrity firms that have engaged in deviant strategic behaviors, consistency and generating a track record do not seem like high priorities. In fact, celebrity firms count on their *lack* of consistency to generate positive returns for the firm. This behavior, in turn, should manifest itself in financial deviance as measured by a greater likelihood to create both positive and negative earnings surprises. More specifically, in contrast to firms with higher reputations (and those with lower celebrity), higher-celebrity firms are more likely to materially beat and miss analysts' consensus earnings forecasts. Both kinds of material surprises appear symptomatic of a firm that wishes to differentiate itself from competitors and the status quo, and continue to draw positive attention to its behavior.

*H2a: Firm celebrity is positively related to the likelihood of a positive earnings surprise.*

*H2b: Firm celebrity is positively related to the likelihood of a negative earnings surprise.*

## **CHAPTER 2**

### **MARKET REACTIONS TO FINANCIAL DEVIANCE**

As we learned in Chapter 1, there is a fundamental belief in the marketplace that there should be no earnings surprises (Tan et al., 2002)—in fact, the difference between earnings estimates and actuals is zero on average (Kasznik, 1999). Thus, firms attempt to avoid financial deviance if possible (cf. Kasznik, 1999; Tan et al., 2002). Given that analysts and investors reward consistency and accuracy in earnings reporting, many firms attempt to manage their earnings so as to avoid surprises. Earnings surprises can hurt a firm's reputation and ultimately its market value, as analysts shy away from coverage and investors decline to purchase an unpredictable stock. But surprises do happen. In Chapter 1, I linked specific intangible assets, firm reputation and celebrity, to strategic behaviors that could decrease or increase the likelihood of earnings surprises. In this chapter, I examine the market's reactions to these surprises. This analysis links directly to the moderating aspects of the PIQ framework described in Paper 1. There, I posited that firm behaviors, whether conforming or non-conforming, would affect how stakeholders perceive information about the firm as useful. In turn, how stakeholders perceive information about the firm will affect the firm's ability to access resources under stakeholder control, and ultimately, achieve economic success. In this chapter, I empirically test this aspect of the PIQ framework by analyzing how non-conforming firm strategies affect investors' reactions to information about the firm and how the possession of certain intangible assets also impacts investors' perceptions of firms that are engaging in deviant financial behavior. Specifically, I examine the stock performance of "surprisers" in the immediate period surrounding positive and negative earnings

announcements and whether the firms' intangible assets, reputation and celebrity, affect investors' evaluations differently.

Firm reputation is constructed through stakeholder evaluations of the firm's ability to consistently produce quality products (Rindova & Fombrun, 1999; Shapiro, 1982). Reputation is thus a function of the firm's track record to meet stakeholder expectations of its behavior (Clark & Montgomery, 1998). When the firm acts in a consistent manner, it removes uncertainty about the quality of its products, and thus increases the likelihood that stakeholders will transact with it (Rindova et al., 2005; Shapiro, 1982, 1983). A good reputation then, leads to greater firm-stakeholder interaction, which should also lead to higher expectations among stakeholders for the firm to remain consistent in its behavior.

In contrast, firm celebrity is derived in part from deviant actions—those that depart from the regular and behavior patterns expected by stakeholders (Bettenhausen & Murnighan, 1991; Warren, 2003)—and about how these actions generate positive emotional responses from stakeholders as well as media scrutiny (Rindova et al., 2006; Sutton & Galunic, 1996). Deviant actions can help differentiate the firm from its competitors, thereby reducing rivalry and increasing access to resources (Deephouse, 1999; Porter, 1980). In addition, actions that differentiate the firm from its competitors and that deviate from the status quo will tend to get noticed by the media and stakeholders more so than conforming or consistent behaviors (Rindova et al., 2006; Shoemaker & Reese, 1996).

It appears then that reputation and celebrity may induce different expectations from investors. Reputation is inherently about consistency—investors are willing to pay a

price premium in order to reduce uncertainty and assuage their concerns about quality (Rindova et al., 2005; Shapiro, 1982, 1983). In contrast, celebrity is derived from deviant behavior—like reputable firms, the marketplace also rewards firms that differentiate themselves from competitors (Deephouse, 1999; Porter, 1980). I hypothesize that a firm's reputation, due to the market's expectations of consistent behavior, will dampen the effect of positive surprises while exacerbating the effect of negative surprises. In contrast, firm celebrity, due to the market's lack of expectations about predictable behavior (it will be deviant, but how?) as well as the positive emotions associated with this non-conformity, will increase the effect of positive surprises while muting the effect of negative ones. Specifically, I examine investor evaluations of these strategic behaviors through a measure of abnormal stock returns in the immediate windows surrounding either a positive or negative earnings announcement.

I expand research on firm intangible assets by investigating the potentially differing impacts of firm reputation and celebrity on investor evaluations of firm behavior. Specifically, I investigate if reputation and celebrity moderate the impact of investor evaluations of earnings surprises differently, and if so, in what direction? Whereas past organizational research has begun uncovering the positive and negative aspects of firm reputation as well as one aspect of firm celebrity, media visibility (cf. Brooks, Highhouse, Russell, & Moore, 2003; Rhee & Haunschild, 2006), research on intangible resources functioning as potential firm liabilities is extremely new. Also, organizational research has not contrasted the impacts of reputation and celebrity on investor evaluations nor has it identified the potential asymmetries associated with

investor evaluations of positive and negative deviance engaged in by firms with specific intangible assets.

In addition, the accounting and financial research streams, while recognizing the impact of earnings surprises on firm performance, have failed to use a finer-grained approach to investigate the firm characteristics or strategic behaviors that may lead to financial deviance (cf. King, 1996; Tan et al., 2002), nor have they examined the potential asymmetries that may be associated with investors' reactions to earnings surprises from firms in possession of dissimilar intangible assets (cf. Kasznik, 1999). Thus, this chapter links organizational and financial research by integrating studies on intangible assets and firm strategic behaviors with their impact on investor evaluations of such behavior under divergent (positive and negative) circumstances. My findings also contribute to management practice by assisting managers in deciding how to best gain access to stakeholder resources—either through developing a positive reputation through repeatedly meeting stakeholder expectations, or by engaging in deviant behavior that draws the positive attention of stakeholders, but that may draw their ire as well. In other words, I assist managers by investigating the circumstances under which it may be better for the firm to simply “stay the course” versus “letting its freak flag fly”.

Finally, this paper extends recent organizational research on firm celebrity through empirical testing and by developing more nuanced theoretical constructs. Traditionally, firm celebrity has been equated with visibility, i.e., how often a firm appears in different media outlets (cf. Brooks et al., 2003; Rhee & Haunschild, 2006). By utilizing a more detailed definition of firm celebrity that entails not only firm visibility, but also incorporates those non-conforming actions a firm takes that evoke *positive*

emotional responses in investors (cf. Rindova et al., 2006), this paper differentiates firm celebrity from simple visibility and provides future researchers with a richer construct with which to test the impact of this intangible asset in multiple settings.

### **REPUTATION AND CELEBRITY: INTANGIBLE ASSETS *AND* LIABILITIES?**

As mentioned above in Chapter 1, a firm's reputation signals to its stakeholders that it is able to produce quality goods over a period of time (Rindova & Fombrun, 1999; Rindova et al., 2005). Reputation is thus a function of the firm's track record of meeting stakeholder expectations. Stakeholders perceive firms with high reputations as being durable and consistent—there are no surprises in their behavior, and stakeholders know what to expect based on the firm's past actions (Clark & Montgomery, 1998). As the firm's reputation grows, it reduces stakeholders' uncertainty about its future behavior, thereby inducing stakeholders to engage in transactions with the firm (Rindova et al., 2005). In turn, this increases access to resources under stakeholder control, and ultimately, the chances for better performance (Deephouse, 2000; Fombrun & Shanley, 1990; Rindova & Fombrun, 1999; Rindova et al., 2005; Roberts & Dowling, 2002).

In contrast to reputation, which forms on stakeholders' expectations of consistent behavior over time (Clark & Montgomery, 1998; Weigelt & Camerer, 1988), the firm may also benefit by engaging in non-conforming or deviant behavior (Deephouse, 1999; Rindova et al., 2006), thereby inviting media attention (Shoemaker et al., 1991). By doing so, the firm and media jointly construct the firm's "celebrity" (Rindova et al., 2006).

A celebrity firm "attract[s] a high level of public attention and generate[s] positive emotional responses from stakeholders" (Rindova et al., 2006: 51). Celebrity also implies



that the firm is operating on the edge of normative acceptability—it is engaging in non-conforming, novel actions in order to differentiate itself from competitors and gain attention (Heckert & Heckert, 2002; Rindova et al., 2006). In contrast, reputation implies that the firm is already known (it has attracted sufficient attention) and is operating within social boundaries of acceptable behavior (cf. Ashforth & Gibbs, 1990; Phillips & Zuckerman, 2001). Thus, the celebrity firm generates economic rents in part *because* it attracts attention (Rindova et al., 2006). When stakeholders view these deviant actions positively, the firm has effectively differentiated itself from competitors, and its celebrity, like its reputation, serves as an *asset*.

However, recent research has begun to examine how intangible assets like firm reputation and celebrity (specifically, visibility) may function as *liabilities* in situations where stakeholders evaluate firm behavior negatively. For example, high-reputation automobile manufacturers that recalled defective products suffered more market penalties than less reputable firms due to an expectancy violation effect (Rhee & Haunschild, 2006). In other words, stakeholders punished those firms that they expected to be leaders in product quality. By punishing high-reputation firms more than poor ones, stakeholders were implying that the defects were a breach of the implicit promise to receive high-quality goods (Rhee & Haunschild, 2006). Similarly, celebrity firms attract high levels of media scrutiny due to their novel and interesting behavior (Sutton & Galunic, 1996). Thus, celebrity, like reputation, can be a double-edged sword for the firm. For example, Brooks and her colleagues (2003) found that celebrity (i.e., highly-visible) corporations were admired and condemned more frequently than lesser-known firms, based on the

circumstances surrounding their behavior. That is, stakeholders evaluated “famous” firms more positively *and* negatively than lesser-known firms, based on the circumstances.

It appears, then, that intangible resources can function as both assets and liabilities for the firm. Depending on the circumstances, reputation and celebrity may effect investors’ evaluations of positive and negative financial deviance differently. Do reputable firms get a “mulligan” or “waiver” for financial deviance, both positive and negative, relative to celebrity firms (cf. Mercer, 2005) when earnings surprises are announced, or do investors punish firms with consistent track records more and reward them less than their non-conforming, attention-generating, feel-good counterparts?

### **The Moderating Affects of Reputation on Investor Evaluations**

As a firm’s reputation for producing quality products grows, stakeholders become more certain of its future behavior. That is, the firm builds up expectations from its stakeholders, and its behavior can eventually become taken for granted. What occurs, then, when a reputable firm engages in deviant behavior, i.e., when it has a positive or negative earnings surprise?

If reputation is about being consistent, meeting investor expectations, and decreasing the likelihood of engaging in financial deviance, as discussed in Chapter 1, then deviation from this may create uncertainty in stakeholders’ minds about future firm behavior, and thus adversely affect their evaluations. Called the expectancy violation affect, reputable firms that engage in deviant behavior inherently breach the implicit promise they made to stakeholders to behave consistently (cf. Rhee & Haunschild, 2006). When this happens, stakeholder evaluations turn negative. For example, high-reputation automobile manufacturers that recalled defective products suffered more market penalties

than lesser-known firms (Rhee & Haunschild, 2006). By punishing higher-reputation firms more than lower ones, stakeholders were implying that the defects were a breach of the implicit promise to receive high-quality goods (Rhee & Haunschild, 2006).

Research in accounting, while not explicitly discussing the expectancy violation effect, shows similar responses from analysts and investors to inconsistent earnings behavior. Financial deviance in terms of positive and negative earnings surprises can create uncertainty among analysts and investors and signal to them that the firm is less credible, unreliable, or unstable (Kasznik, 1999). Thus, analysts and investors like consistency. For the former, it allows them to make accurate predictions regarding expectations for a given firm—inaccurate forecasts can damage an analysts' reputation (Chalmers & Godfrey, 2004; Williams, 1996). In turn, consistent performance leads to greater and more in-depth coverage from analysts. From an investor's perspective, consistent behavior generates trust, which in turn means the potential for more interest in the firm's stock, greater volume, and even a higher price. In addition, consistency creates a cognitive expectation among analysts and investors—it's happened before, so they expect it to continue (Bernhard, 1993; Koehler, 1993).

We can therefore reason that reputable firms that announce positive or negative earnings surprises will be held with skepticism by investors more so than the average firm, given that this behavior deviates from past behavior—it violates stakeholder expectations. Thus, investors are loath to reward the reputable firm with greater stock market performance than would be expected *sans* the deviant event, and they are apt to punish the reputable firm for any negative surprises.

*H3a: Firms with high reputations will experience a smaller market response to a positive earnings surprise than firms with low reputations.*

*H3b: Firms with high reputations will experience a larger market response to a negative earnings surprise than firms with low reputations.*

In other words, reputation will have a negative effect on the returns associated with both positive and negative earnings surprises—muting gains and exacerbating losses.

### **The Moderating Affects of Celebrity on Investor Evaluations**

Concerning firm celebrity, one potential outcome of deviant actions, media attention, and stakeholder familiarity is desirability, whereas another can be contempt (Brooks et al., 2003; Wade, Porac, Pollock, & Graffin, 2006; Zajonc, 1968). In a study of Fortune 500 firms, Brooks and her colleagues (2003) found that highly familiar corporations were admired and condemned more frequently than lesser-known firms, based on the circumstances surrounding their behavior.

But are the penalties for negative deviance so great? Celebrity firms may not be particularly worried that they may suffer because of their nonconforming and even illegitimate behavior (Deephouse, 1999; Phillips & Zuckerman, 2001). Such firms can accumulate “idiosyncrasy credits” that allow them to absorb stakeholder challenges without penalty (Deephouse & Carter, 2005; Hollander, 1958). Celebrity firms are therefore “emboldened to deviate” from industry norms (Phillips & Zuckerman 2001: 380). In contrast, non-celebrity firms are more concerned about the legitimacy of their actions and seek to “demonstrate their conformity to accepted practice” in the industry (Phillips & Zuckerman, 2001: 382).

From an accounting perspective, non-conformity may also have an impact on investors' evaluations of firm behavior amid positive and negative surprises (cf. Hirst, Jackson, & Koonce, 2003). Reputable firms develop track records among analysts and investors and thus are likely to be punished for their financial deviance. In contrast, celebrity firms do not develop consistent track records and thus analysts and investors may be less willing to punish these "violations of expectations" because frankly, there were none (Hirst et al., 2003; Williams, 1996). In addition, celebrity should generate positive emotions among market actors, thereby rewarding the celebrity firm for its positive financial deviance but shielding it from the negatives associated with missing earnings more so than for reputable or non-celebrity firms.

*H4a: Firms with high celebrity will experience a larger market response to a positive earnings surprise than firms with low celebrity.*

*H4b: Firms with high celebrity will experience a smaller market response to a negative earnings surprise than firms with low celebrity.*

In other words, celebrity will have a positive effect on the returns associated with both positive and negative earnings surprises—increasing gains and muting losses.

To summarize, Chapter 1 tests the relationship between a firm's possession of specific intangible assets, reputation and celebrity, and the likelihood of the firm's engaging in financial deviance through the announcement of a material earnings surprise. I hypothesize that celebrity firms will be more likely than reputable firms to engage in both positive and negative financial deviance. Given these findings, Chapter 2 examines investor evaluations of those firms that did engage in financial deviance. I hypothesize that reputation will mute the positive effects associated with positive earnings surprises

and exacerbate the negative effects associated with negative earnings surprises, and that celebrity will have the opposite effect.

## CHAPTER 3

### METHODS

#### Sample

The sample consists of 291 firms over a 15-year period, 1991-2005. Of these 291 firms, 80 have appeared in either the top 25 of the *Fortune's* Most Admired Companies or in the top 25 of the Harris Interactive/*Wall St. Journal's* rankings during the time period. The 80 firms represent 30 different two-digit SIC codes. Using these 80 “top 25” firms as the foundation for my sample, I then created a matched sample of non-ranked firms for comparison. I selected 211 additional firms from the Compustat active universe ( $N = 9,691$ ). I matched firms on size (assets), revenues, and SIC code, paying particular attention to firms that had multiple years of data. I first limited the Compustat universe to those firms in the same 30 SIC codes that had greater than \$100 million in assets and/or revenues during select years of the time period (1991, 1996, 2001, 2005). This reduced the universe to 2,417 firms. Starting at the 4-digit level, I then selected 2-3 firms to match with the 80 reputable firms, creating a matched sample of 291 companies. Where strong matches were not found at the 4-digit level, I proceeded to look at 3-digit and 2-digit SIC codes for similarities (cf. Combs & Skill, 2003). Although 4-digit SIC codes most likely contain the most similar firms, past research has shown that 2-digit SIC codes capture most of the variation among firm financial metrics (Clarke, 1989; Alford, 1992) and that most firms make peer and performance comparisons down to the 2-digit level (Antle & Smith, 1986; Porac, Wade, & Pollock, 1999). 129 firms were matched at the 4-digit level, 32 at the 3-digit, and 50 at the two-digit SIC code level. To confirm the effectiveness of the matching process, I conducted t-tests to check for differences in firm size (assets),

revenues (sales), and performance (ROA). Using assets as a measure of firm size, the t-test ( $t = -0.352$ , n.s.) showed no significant differences between the 80 “top 25” firms and the 211 matched companies. However, there was a significant positive difference in the revenues and performance of the “top 25” firms versus the rest of the sample, with the “top 25” firms having mean sales and ROA more than twice that of the 211 matched companies (\$35.1BB vs. \$16.8BB,  $p < .0001$ ; 8.97 vs. 4.28,  $p < .0001$ ).<sup>7</sup> It is also worth noting that the 80 “top 25” firms are also, for the most part, very large firms and many are well-known. Thus, finding suitable matches for these exemplary companies resulted in an overall matched sample of very large and mostly very well-known companies. The 291 firms and their 4-digit SIC codes are shown in Table 1. The 80 firms selected from the two top 25 rankings are in bold.

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Insert Table 1 about here  
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In order to generate earnings data for the sample, I utilized the I/B/E/S database, a service of Thomson Financial. I/B/E/S data is available for over 45 countries and over 12,000 companies. I/B/E/S International Inc. created its Academic Research Program over 30 years ago to provide both summary and individual analyst forecasts of company earnings, cash flows, and other important financial items, as well as buy-sell-hold recommendations. I/B/E/S is available electronically through Wharton Research Data Services (WRDS), a database center maintained by the Wharton School of the University of Pennsylvania. Utilizing the I/B/E/S summary program, which provides consensus

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<sup>7</sup> Given the positive empirical relationship between firm performance and reputation (cf. Deephouse, 1999; Rindova et al., 2005; Roberts & Dowling, 2002), this observation is not surprising.



analyst forecasts for firm earnings, I downloaded the number of analysts covering the firm, their annual estimates, the standard deviation of their estimates, and the high, low, and median analysts' estimates on an annual basis. In addition, the actual annual earnings of the company were also reported. In order to establish a benchmark with which to compare the firm's actual earnings, I created an annual consensus estimate that was a mean of the *latest* forecast estimates of all analysts covering the company (Kinney et al., 2002; Matsunaga & Park, 2001).<sup>8</sup> Since forecasts vary throughout the year and firms will manage earnings expectations over this time period (i.e., trend toward the forecasts), a conservative measure of true surprisers would match actual year-end earnings with the consensus final month estimates of analysts. Thus, each firm has one line of data with its actual earnings and the mean analyst estimate for each year it reported earnings over the twelve-year period. The 4,365 firm-year observations of the full sample were reduced to 3,107 due to missing data; omitted firm-year observations were missing actual earnings, estimates, or both. Due to the drop in firm observations, I again ran t-tests to look for differences between the full sample (4,365 firm-years) and the reduced sample (3,107 firm-years) among assets, revenues, and ROA. Results showed significant differences across all three categories, with those firms with earnings data being larger (\$54.1BB vs. \$46.8BB,  $p < .05$ ), having greater sales (\$18.7BB vs. \$15.11BB,  $p < .0001$ ), and performing better (5.52 vs. 2.15,  $p < .0001$ ). In addition, differences among the 80 "top 25" firms (357 firm-years) and the rest of the sample that had earnings data were significant for sales (\$35.1BB vs. \$16.6BB,  $p < .0001$ ) and performance (8.97 vs. 5.09,  $p$

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<sup>8</sup> Analyst coverage of public companies varies widely and estimates are given throughout the year. In my sample, analyst coverage ranges from 1-48 analysts ( $\mu = 16$ ) for a given firm in a given year. Thus for firms with multiple analysts' estimates, actual earnings are compared to the mean of latest annual forecast.

< .0001), but not for size (\$55.1BB vs. \$53.8BB,  $t = 0.212$ , n.s.). Despite the significant differences, however, it is important to note that all firms in the sample are very large and generate large amounts of revenue vis a vis most other publicly traded companies.

To test hypotheses 3-4, I relied on a subsample of positive and negative earnings surprises. Namely, this sample consists only of those firm-years within the matched sample that recorded positive and/or negative earnings surprises during the fifteen-year period. More information on the methodology is described in the next section.

### **Dependent Variables**

To measure *earnings surprises*, I first created a percentage measure from the difference of the actual earnings and analysts' last consensus estimate. For example, if a firm reported actual earnings of \$2 and the analysts' final consensus estimate was \$1.50, then the firm would have generated a positive percentage surprise of 33%. Conversely, if the firm had reported \$1.50 against an estimate of \$2.00, its negative percentage surprise would have been -25%.<sup>9</sup> *Positive surprise* events were delineated as top quartile, greater than 1% above estimates, and all non-zero, positive estimates. *Negative surprises* were delineated as bottom quartile, greater than 1% below estimates, and all non-zero, negative estimates. A further description of the methodology is described below, and the accompanying table (Table 2) summarizes the number of surprises and their median percentage difference from consensus estimates.

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<sup>9</sup> It follows that a firm can also have positive and negative surprises if actual and estimated earnings are 1) both positive, 2) both negative, or 3) either positive or negative. Although calculating positive and negative surprises under these circumstances are not exactly the same mathematically, the logic is.

To test hypotheses 1 and 2, I first delineated large or *material* surprises from small or immaterial ones.<sup>10</sup> The percentile calculations to derive annual surprisers were derived from the initial universe of 2,417 firms from Compustat that were in each of the matched sample's 30 SIC codes and that had greater than \$100 million in annual assets and/or revenues (described above), not simply from the 291 firms in the matched sample. By doing so, this gave me a greater number of peer firms with which to generate yearly earnings averages and with which to compare the sample. I also notated positive and negative surprises that were greater than 1% and simply above or below consensus estimates.

In addition, financial and accounting research has recognized that firms do indeed manage earnings, and thus, in effect, manage earnings expectations (Frankel et al., 1995; Kasznik, 1999; Matsunaga & Park, 2001; Payne & Robb, 2000; Tan et al., 2002).

Therefore, many firms may attempt to minimize fluctuations in the market caused by earnings surprises and may thus provide “whisper numbers” or earnings guidance to analysts and the market in advance (McKay, 2007). As noted above, more than two-thirds of firms provide regular earnings guidance to analysts and investors (please see footnote 4). Since analysts provide and adjust annual estimates throughout the year, firms will also adjust their forecasts, mimicking changes in the market's expectations. In fact, analysis of

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<sup>10</sup> Due to the longitudinal, repeated-measures design of the sample, firms may 1) surprise more than once and 2) generate either positive, negative, or both types of surprises. For the 291 firms in the sample, 263 (90.4%) recorded 1839 positive surprises, an average of 7.0 per firm over the 15-year period. Note that the most liberal measure of positive surprises, as with negative surprises, is simply a non-zero difference between the firm's actual earnings and the final consensus forecast, with positive surprise being delineated as a difference greater than 0 and a negative surprise being less than 0. When using a more conservative measure of 770 top-quartile surprises, the aforementioned numbers are reduced to 229 firms (78.7%), an average of 3.4 per firm.

Similarly, 246 of the 291 firms in the sample recorded 945 negative surprises, an average of 3.8 surprises per firm over the 1991-2005 period. For bottom-quartile surprises, 236 (81.1%) firms announced 754 negative surprises, an average of 3.2 surprises per firm.

analysts' and company estimates for this sample show a trend where the two forecasts may start far apart, but gradually converge over the 12-month period. Thus, my measure of earnings surprises is measured against the *final* consensus estimate prior to the earnings announcement. By using this estimate, my measure of surprisers is indeed a stronger measure because these firms that exceeded or missed analysts' latest forecasts did indeed surprise, given that the presumed to-and-fro information game taking place over the year in which both analysts and firms adjust their earnings expectations accordingly, failed to reach a middle ground.<sup>11</sup>

"Material", or "large" earnings surprises have been alternatively measured as being greater than 1% of a firm's stock price (Kasznik & Lev, 1995) or greater than 25 cents from analysts' consensus estimates (Brown, 2001). In order to eliminate potential confounds from small surprises as well as comparison problems with using an absolute monetary value, I follow Kinney, Burgstahler, & Martin's (2002) use of percentiles to support "material" surprises. To differentiate further between positive and negative earnings surprises, I delineated the top and bottom quartiles of annual surprises as those firms who had surprisingly large positive and/or negative differences in actual earnings from analysts' consensus estimates. *Positive surprises* were labeled "1" if the percentage difference between the firm's actual earnings and analysts' estimates was in the top quartile of surprises, whereas *negative surprises* were labeled "1" if the percentage difference was in the bottom quartile of surprises. On average over the fifteen-year period

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<sup>11</sup> Of course, some firms do not offer "whisper numbers" or earnings guidance—up to one-third of public firms with the trend increasing, according to the National Investors Relations Institute (see footnote 1, *supra*). For example, Berkshire Hathaway, Coca-Cola, Walt Disney, and ExxonMobil do not offer guidance to Wall Street prior to quarterly earnings announcements. Thus, these firms' surprises should indeed be less surprising to the marketplace, due to the unpredictability of their performance, and should be captured as a form of non-conforming behavior as predicted in H2 and H4.

of the study (1991-2005), the top quartile of earnings surprises beat estimates by 3% and the bottom quartile of missed estimates by 1%. Similarly, the median positive surprise was 2.2% and the median negative surprise was –3.2%. These estimates, of course, vary by year due to overall market fluctuations.

As a robustness check, however, I also generate positive and negative material surprises based on an absolute 1% surprise (or failure) as well as any non-zero positive or negative surprises. A table listing the number of surprisers and their median return for each of the six categories is shown below.

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 Insert Table 2 about here  
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To test hypotheses 3-4 in Chapter 2, my dependent variable is the firm's *cumulative abnormal adjusted return* (CAR) over the selected windows surrounding the earnings surprise announcement. CARs are the sum of abnormal adjusted returns (ARs), which are actual returns – expected returns for a given security *j* at time *t* based on its sensitivity to an underlying market (Combs & Skill, 2003). ARs are generated from the regression equation:

$$R_{it} = \alpha_j + \beta_i R_{mt} + \varepsilon_{it}$$

where  $R_{it}$  is the return for security *j* on day *t*,  $R_{mt}$  is the market return for the designated market (e.g., CRSP universe or S&P 500), and  $\beta$  is the beta of stock *j*,  $\alpha$  is the intercept, and  $\varepsilon$  is the error term over an estimation period *t*. Subsequently, a firm's abnormal adjusted return is calculated as:

$$AR_{it} = R_{it} - (a_i + b_i R_{mt})$$

where  $a$  and  $b$  are OLS parameter estimates generated from the regression. In other words, ARs are returns adjusted for “normal” expectations of a specific security given its relation to the market (beta) over a specific time period or window. CARs are thus the cumulative sum of daily ARs over the selected window.

The CARs were calculated using the EVENTUS program available through the WRDS online database center, located at the Wharton School, University of Pennsylvania, and described above. The regression equation described above was estimated over a period between 255 and 46 trading days prior to earnings announcement date. 255 is the approximate number of trading days in one year ( $365 - [2 \text{ weekend days} * 52 \text{ weeks}] = 255$ ). Using the 46th trading day as the estimation end-point is the equivalent of stopping the estimation approximately two months prior to the event date ( $5 \text{ trading days per week} * 9 \text{ weeks} = 45$ ). This window is common for event studies (cf. Wade et al., 2006). In addition, I utilized the “Autodate-Yes” command in WRDS: if a given date occurred on a non-trading day (e.g., Saturday, Sunday, or holiday), the first subsequent business day was utilized.

To generate CARs for the positive and negative surprise events, I took each instance of an earnings surprise and calculated the firm’s three-day return (day before + day of + day after the surprise announcement), delineated as  $(-1, +1)$  relative to three underlying indices (S&P 500 and CRSP equal- and value-weighted indices). In addition, I report the firm’s six-day  $(-3, +3)$  and ten-day  $(-5, +5)$  CARs as well as the cumulative returns in the days immediately preceding  $(-1, 0)$  and following  $(0, +1)$  the earnings announcement.

Whereas most event study research recognizes the importance of limiting event windows surrounding an announcement date to three days or less in order to control for the impact of exogenous events as I described above (McWilliams & Siegel, 1997), I report the longer (6- and 10-day) windows in order to show trends in the market's reaction to earnings surprises. In order to control for potentially confounding events that can occur during these longer windows, however, I took a subsample of 10% of the positive (180 events) and negative surprisers (90 events) and checked the *Wall Street Journal* for potentially exogenous factors that may skew CARs (cf. McWilliams & Siegel, 1997). Exogenous factors can be events such as contract awards, executive changes, firm restructuring, merger/acquisition/joint venture activity, major litigation, and product changes or announcements. Using an online archive of the *Wall Street Journal* through the ProQuest search engine, I took a sample of 180 positive and 90 negative surprises and eliminated any events that had confounding news within the 5-day window surrounding the earnings announcement. Both positive and negative surprise events were reduced by one-third. These results are then provided below in addition to the (-1, +1), (-1, 0), (0, +1), (-3, +3), and (-5, +5) window measures on the full sample.

The cumulative abnormal adjusted return was measured against three market proxies: the CRSP value-weighted index, the CRSP equal-weighted index, and the S&P 500. The Center for Research in Security Prices (CRSP) maintains the most comprehensive collection of security price, return, and volume data for the NYSE, AMEX and NASDAQ stock markets. CRSP is a research center at the University of Chicago Graduate School of Business, and maintains historical data spanning from December 1925 to the present. The S&P 500 provides broad industry representation of

the U.S.'s largest firms. The index represents 75% the U.S.'s market capitalization. Given that the matched sample contains many large, highly-visible firms, using the S&P 500 in addition to the CRSP indices provides an effective robustness check to my analyses.

### **Independent Variables**

Firm reputation and celebrity are complex constructs. Each measure is multifaceted and has financial (firm-centric) and social (stakeholder-centric) components. In order to properly test the effects of these intangible assets on the likelihood of financial deviance as well as investor evaluations, I develop multiple measures for each variable (cf. Rindova et al., 2005). By doing so, the results can help illuminate those aspects of firm reputation and celebrity that drive the impulse to engage in financial deviance as well as what aspects of these strategic behaviors most impact investor evaluations of the firm.

**Financial reputation.** Consistent performance is important to analysts and investors in order to make accurate evaluations about the firm's future behavior. As a firm consistently outperforms others in the industry, its reputation rises, as does the market's expectations that it will not engage in financial deviance. Indeed, firm performance is highly related to a firm's reputation (Fryxell & Wang, 1994; Roberts & Dowling, 2002). Thus, I use the firm's historical financial performance as a proxy of its *financial reputation*. *Financial reputation* is measured by the three-year rolling average of a firm's ROA relative to its peers (Roberts & Dowling, 2002). To construct this measure, I use a firm's two-digit SIC code as a proxy for the firm's industry and its competitors (Porac et al., 1999; Wade et al., 2006). The firm's ROA performance is then



standardized relative to the industry average and standard deviation, and a three-year rolling average is created.

**Social reputation.** Additionally, firm reputation can be more social, or stakeholder-driven. Both *Fortune* and the *Wall Street Journal* publish rankings of the U.S.'s most reputable firms in the first quarter of each year. Criteria include ability to attract and retain talented people, quality of management, social responsibility to the community and the environment, innovativeness, quality of products or services, wise use of corporate assets, financial soundness, long-term investment value, and emotional appeal. Both companies use a two-part survey methodology in which companies are first nominated as being “highly reputable” and then scored on multiple criteria. Finally, a reputation score is computed to determine that year’s most reputable firms.

More specifically, the *Fortune* list has been developed since 1997 in conjunction with the Hay Group. The methodology begins with all firms in the *Fortune* 1,000—the 1,000 largest U.S. companies ranked by revenue. The companies are then sorted by industry, creating 65 groups of firms. Hay then asks over 16,000 senior executives, directors, and analysts to rate companies in their *own industry* on eight criteria: ability to attract and retain talented people; quality of management; social responsibility to the community and the environment; innovativeness; quality of products or services; wise use of corporate assets; financial soundness; and long-term investment value.

To create the top 20 and overall list of Most Admired Companies, the Hay Group then asks the same industry survey respondents to select the ten companies they admired most. They chose from a list made up of the companies that ranked among the top 25% in last year's survey, plus those that finished in the top 20% of their industry. Anyone could

vote for any company in any industry. For 2005, a total of 611 companies in 70 industries were surveyed.

Concerning the Harris/*Wall Street Journal* rankings, the Harris-Wirthlin Brand Strategy Consulting group in conjunction with Harris Interactive and the Wall Street Journal have been ranking the reputations of the 60 most visible U.S. firms since 1999. In Phase 1 of the rankings, Harris asks the general public (6977 phone/online interviews) to list two firms that they consider the highest in reputation and two they consider to be the lowest in reputation. In Phase 2, the list of high/low reputation firms is then culled to the top 60 vote getters (high or low). Then, Harris distributes online surveys to the general public, asking them to rate these top 60, or “most highly visible” firms on 20 reputational attributes across 6 dimensions (social responsibility, emotional appeal, vision and leadership, financial performance, workplace environment, and product and services). In 2005, Harris distributed 19,564 surveys, with each of the 60 firms averaging about 650 ratings. Both *Fortune* and the *Wall Street Journal* publish the previous year’s rankings in March of the following year.

In order to generate a reputation variable from these two rankings, I created a dummy variable of each of the 80 discrete firms listed on either the *Fortune’s Most Admired* (FMA) or the Harris Interactive/*Wall Street Journal* (WSJ) list in the 15-year period of my sample. In addition, I also used a rank measure for each of the firms in the FMA or WSJ list.

For the period 1991-2005, I took the top 25 firms mentioned on either list, generating a sample of 80 firms. From 1991-1996, I used the top 25 firms from *Fortune’s* list, which provided a list of 300-400 firms with a range of reputation scores. Thus, firms

at the bottom of these lists had lower scores, and therefore lower reputations. For 1997-1998, Fortune eliminated the overall lists, limiting its rankings to a top 10. From 1999, the first year of the Harris/WSJ poll, to 2005, I combined the Fortune top 10 with the Harris/WSJ top 25 to generate a list of discrete firms. Since 1999, Harris/WSJ has provided reputation scores on what it terms the U.S.'s 60 "most visible companies". These 60 are created through the survey method mentioned above. Although firms are ranked 1-60 based on their reputation scores, a rank of 40 does not necessarily imply a poor reputation, although one of 57 or more usually does. Thus, in order to be conservative, I limited my sample of reputable firms to ones that ranked either in the Fortune or Harris/WSJ top 25 (where applicable) over the 15-year period. Due to the dearth of firms in 1997 and 1998, analyses are run both with and without these two years. Results are substantively the same.

Of the 25 separate firms listed in the FMA top-ten list over the 1999-2005 period, 22 were also named in the WSJ top-25 at some point. The 25 FMA firms were listed a total of 80 times over the 7-year period. Of those 80 times, they were mentioned 64 times in the WSJ. Only 1 of 64 times was the firm not in the WSJ top 30.<sup>12</sup>

The phi coefficient measuring the association between FMA and WSJ firms for the 1999-2005 time period is .403 ( $p < .001$ ). The phi coefficient is a measure of the degree of association between two binary variables. This measure is similar to the correlation coefficient in its interpretation. Thus, the two lists seem moderately highly correlated in their membership and thus should serve as a functional combined measure of social reputation.

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<sup>12</sup> Three firms named on the FMA list during the 1999-2005 period were not on WSJ list at any time—American Express, Goldman Sachs, and Charles Schwab.

In summary, I have coded reputation with multiple dummy variables to signify the top 25 members of the 1) Most Admired list, 2) the Harris/*WSJ* list, and 3) either list for a given firm-year. Although highly correlated with a firm's performance (Deephouse, 2000), the Most Admired list rates firms on eight criteria, from investment value to social responsibility, and it has been used as a proxy for reputation in numerous studies (e.g., Deephouse, 2000; Roberts & Dowling, 2002; Rindova et al., 2005). For the regression analyses depicted in Tables 4-54 below, I rely on a dummy measure of social reputation that codes a firm "1" if it was a member of *either* the FMA or *WSJ* lists in a given year and "0" otherwise. Additionally, I measure a firm's reputation as the actual rank of the firm in *Fortune's* annual Most Admired list or the Harris/*WSJ* rankings.<sup>13</sup>

**Strategic deviance.** *Firm celebrity* is derived from three sources—deviant behavior, media attention, and the generation of positive emotional responses from market actors toward this behavior (Rindova et al., 2006). In order to measure the extent of a firm's *strategic deviance* relative to others in the industry, I use a measure of strategic (non-)conformity (Finkelstein & Hambrick, 1990; Miller & Eden, 2006), which uses six financial variables to create an overall measure: advertising intensity (advertising expenses/sales); R&D intensity (R&D expenses/sales); net plant and equipment newness (net/gross plant and equipment); non-production overhead (SGA expenses/sales); inventory levels (inventory/sales); and financial leverage (debt/equity). For each year, each dimension is first standardized by the firm's two-digit industry. That is, the industry

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<sup>13</sup> Note that rank is often reverse coded (i.e., the firm with the most employees in the industry is ranked 1 [cf. Rindova et al. 2005].) The Most Admired list follows the same procedure, ranking the firm with the *highest* reputation 1. Reverse coding, of course, requires the reader to interpret the signs of regression coefficients differently. Thus, a *positive* relationship between a firm's reputation ranking and the likelihood of financial deviance would imply that as reputation *decreases*, the likelihood of earnings surprises *increases*.

mean of each corresponding measure was first subtracted from the firm's mean measure. This difference was then divided by the industry's standard deviation. The absolute value of the standardized measure is then taken across each dimension. Finally, the sum of the six absolute difference scores creates a measure of firm *strategic deviance*, which is viewed as a predictor of firm celebrity.

Thus, the greater its value, the more deviant the firm is in its strategic behaviors. Due to the relative paucity of advertising intensity and R&D intensity in Compustat, I also constructed a second measure using only the latter four dimensions (cf. Finkelstein & Hambrick, 1990). In addition, I calculated a second measure of strategic deviance using Euclidean-distance approach. That is, the industry average is again subtracted from the firm's measure, but not standardized. This difference is then squared before each dimension is summed. Finally, the square-root of the sum of each squared difference is taken. For the regression analyses shown in Tables 4-54 below, the summed absolute values measure of strategic deviance is reported

**Firm visibility.** The social, or stakeholder-centric dimension of firm celebrity involves media attention and positive emotional responses from stakeholders. To measure *firm visibility* through media attention (cf. Fombrun & Shanley, 1990), I counted the number of articles in which a firm appears annually in *Business Week*. Each firm should have a variable ranging from 0 to n per year (for 15 years). Unlike the Wall Street Journal, which is recognized as providing neutral reporting on firms (Park & Berger, 2004; Kuzyk, McCluskey, & Ross, 2005), *Business Week* is known as a leading publication for its "stories" of firms and industries (Madrack, 2001). Thus, its contents should be more conducive to generating an emotional content measure. Indeed, research

has shown a high correlation between prominent media outlets like *Business Week* and the distribution of richer, more emotionally-laden articles (Rindova, Petkova, & Kotha, 2007).

The count variable was developed through LexisNexis Academic software. LexisNexis Academic provides full-text documents from over 5,900 news, business, legal, medical, and reference publications with a variety of flexible search options. Since LexisNexis Academic does not allow programming (e.g., script writing) on its software, I engaged batch processors to search and download articles on each firm in the matched sample ( $N = 291$ ) for the 1991-2005 period. The search procedures were as follows: 1) Select “Business” then “Business News”; 2) In Step 1, select “General News”; 3) In Step 2 select “Magazines and Journals”; 4) In Step 3 enter search terms and choose desired search criteria—e.g., “Headline, Lead Paragraph(s), Terms”; 5) In Step 4, enter the proper date range (i.e., 1/1/1991 to 12/31/2002); 6) In Step 5 enter “Business Week” for selected journal.

In addition, in order to avoid potential “false negatives” such as finding articles on “apples” for “Apple Inc.”, I worked with the batch processors to generate an algorithm that would provide a best efforts search on each firm based on the content of the article. Finally, care was taken to avoid “front and back matter”, such as table of contents, firm listings, stock reports, and similar verbiage that would not be considered an article about the firm.

Batch processing generated output of 42,657 articles sorted by firm and by year. A spreadsheet showing the number of yearly articles mentioning each of the 291 firms was also generated. To create a measure of firm visibility, I created a dummy variable

based on the yearly article count for each firm in the sample. I used a binary variable to maintain a comparable measure to the *reputation* variable described above. For each year, a firm was labeled “1” if it was in the top 25 of the sample based on the number of articles written about it and “0” otherwise. It is important to note that given the distribution of the number of articles written about firms in the sample is highly skewed—the top 25 firms each year averaged 55 mentions in articles versus only 8 for firms in the top quartile and only 2 for the median firm—using a dichotomous variable to measure firm visibility is warranted (Rindova et al., 2007). For the 15-year period, there were 386 visibility firm-years for 55 discrete companies. This is similar to the 357 firm-years for 80 discrete companies generated by the reputation variable described above. Thus, use of a visibility dummy variable created a “top 25” similar in construction and size to the reputation measure.

As a robustness check, however, I also used a “top quartile” measure, which created a dummy variable labeled “1” on an annual basis for each of the firms in the top quartile of companies in terms of yearly article counts. For the 15-year period there were 1,130 celebrity firm-years for 141 discrete companies. Thus, slightly more than half of the firms were never ranked in the top quartile of yearly articles, while nearly half were ranked in the top quartile an average of eight times in the 15-year period. I thus determined that firms in the top quartile or higher were truly “visible” firms; meanwhile, this created a variable similar to the reputation measure described above. As a final robustness check, I also used the 90<sup>th</sup> percentile, which resulted in 300 firm-years for 56

discrete firms. Results using the top quartile and 90<sup>th</sup> percentile measures in place of the “top 25” measure for firm visibility caused no substantive change in results.<sup>14</sup>

**Positive emotion.** The third measure of firm celebrity is the amount of *positive emotion* the firm generates among its stakeholders. Capturing the emotional content of articles requires an analysis of the article’s corpus. To generate this measure, I first had LexisNexis reduce the 42,657 *Business Week* articles to a maximum of 13 per year per firm. Since more than 75% of the sample had, on average, less than 10 articles per year, this truncation did not affect most firms. For those it did, I believe that picking the longest 13 articles per year should provide a strong representation of the emotional content surrounding the firm’s actions in a given year, especially since the top 13 articles were limited to 1-2 per month. Given *Business Week*’s annual publication of between 50-52 issues, 13 articles also assured me that no more than four weeks would elapse between coverage. But, the 13-article limit is actually a bit misleading. When generating this number, I had LexisNexis create a field that listed all firms mentioned in a given article. Thus, there were 14,159 *unique* articles pulled down, but within these 14,519 articles, there were 48,158 mentions of the 291 firms in the sample. Therefore, a given firm could be mentioned, and thus the article’s content analyzed, on much more than 13 articles per year where applicable.

To measure the emotional content generated from a celebrity firm’s deviant behavior, I created a continuous variable, *positive emotion*, that was developed through Linguistic Word Count Software (LiWC). LiWC is able to calculate the degree to which

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<sup>14</sup> A continuous measure, *article count*, was also substituted for the binary measure of firm visibility. *Article count* measures the annual number of *Business Week* articles in which a given firm appeared. Although not reported here, use of the continuous measure revealed similar, but slightly less predictive results than the binary variables.



people use different categories of words across a wide array of texts. Within emails, speeches, poems, or transcribed daily speech, LiWC allows you to determine the rate at which the authors/speakers use positive or negative emotion words, self-references, big words, or words that refer to sex, eating, or religion. The LiWC maintains a dictionary with 2,300 words across 74 categories and four dimensions (Standard Linguistics, Psychological—emotion, cognition, sensory, social; relativity—time/space; personal—job/leisure/religion/money/health). For the emotion category, LiWC maintains a list of 241 positive and 345 negative words. To test its internal validity, six judges rated each of the 74 categories separately. No IRR was below 86%. As a test of LiWC's external validity, the creators analyzed 4,578 files of 1,695 subjects and 1.6 million words from 43 studies of writing, speech, and random pages from 30 best sellers. Specifically, the LiWC creators generated 20 studies of 2,028 files of 768 emotional studies analyzing 665,184 words; 15 studies of 1,473 files of 469 non-emotional (control group) studies analyzing 443,668 words; one study of 300 files of 30 best sellers analyzing 200,016 words; and 7 oral/speech studies of 777 files of 428 subjects analyzing 306,439 words.<sup>15</sup>

Using LIWC output and judges' ratings, Pearson correlational analyses were performed to test LIWC's external validity. The results showed a strong correlation of .63 (positive emotion) and .75 (negative emotion) with the judges internal decisions. These findings suggest that LiWC successfully measures positive and negative emotions, a number of cognitive strategies, several types of thematic content, and various language composition elements. The level of agreement between judges' ratings and LiWC's objective word count strategy provides support for LiWC's external validity.

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<sup>15</sup> For more information, please go to [www.liwc.net](http://www.liwc.net).

On average, *Business Week*'s articles had a positive/negative ratio of 2.0/0.92 compared to 2.7/2.6 for LiWC's subsample of emotional writing; 1.7/0.6 for non-emotional writing (control group; described mundane, everyday tasks or events); 2.2/1.6 from random pages of 30 best-sellers; and 2.7/1.3 for speech/oral communications.

Using the output from LexisNexis, the LiWC program generated positive, negative, and total emotional content (as a percentage) associated with each article. Since celebrity deals inherently with positive emotions, I then generated a ratio of positive emotions to the total affectual content of the article because using just the raw positive emotion score can be misleading. An article may have both high positive and negative emotional content, thus creating more of a neutral tenor overall. Thus, an emotion ratio can often be a better measure of the overall positive (or not) tenor of an article (cf. Rindova et al., 2007). In addition, the *Business Week* texts in my sample contained twice as much positive emotional than negative emotional content on average.

Finally, I created an index variable, *celebrity*, which combined measures of firm visibility and positive emotion. The index that was the sum of two standardized variables—article count, which served as a proxy of firm visibility, and the positive emotion ratio described above. Although not reported in the tables below, the celebrity index variable showed no predictive power across tests of each of the four hypotheses.

### **Control Variables**

Firm-level controls include firm size (assets), trading volume, and the number of analysts covering a firm's stock. Although most of the firms in the sample are large and there are no differences in size between the 80 "Top 25" firms and their matched counterparts, variation does exist. I therefore control for firm size as the natural log of

firm assets. Stock volume and analyst coverage have been linked to earnings management and the decreased likelihood of financial deviance (MacKinlay, 1997). A firm's coverage will often increase as its volume and market value increase. Any surprises that threaten the ability for analysts to accurately cover a stock can result in a loss of coverage and thus a potential drop in volume. Since volume decreases price spreads and can heighten demand, it behooves firms to avoid surprises that may threaten their coverage.

Industry-level controls include year-dummies (to control for rise/fall in surprises as well as the economic cycle) and industry dummies at the 2-digit SIC code level (to control for variance surprises across industries).

Finally, I lagged each of the predictor variables to rule out reverse causality (Kenny, 1979) and as a check against potential endogeneity (Wooldridge, 2002).

### **Estimation Procedures**

The sample consists of pooled time series data with repeated measures, i.e., each firm has up to fifteen years of data and can surprise multiple times. Since the dependent variable in hypotheses 1-2 is binary and is continuous in hypotheses 3-4, I first describe each of these regression procedures in general terms, followed by more specific descriptions appropriate for either logistic or continuous regression models.

The general equation for cross-sectional ordinary least squares (OLS) regression is:

$$y_{it} = \beta x_{it} + u_{it}$$

with  $x$  as a vector of predictor variables that can change across  $i$  and  $t$ ;  $\beta$  as a vector of coefficients to be estimated; and  $u$  as the error term.

Cross-sectional OLS regression assumes that  $x$  and  $u$  are not correlated—a potentially spurious assumption with panel data with repeated measures over multiple years. The Huber-White sandwich estimate (HWS) is one method used to handle potential correlation between predictor variables and the error term. The *cluster* command in Stata 8.2 for pooled OLS regression introduces the HWS estimate by adjusting standard errors to be robust to within-firm autocorrelation (i.e., heteroskedasticity between the predictor variables and the error term [Huber, 1967; White, 1980; Wooldridge, 2002]). In effect, using the Huber-White sandwich estimate is akin to adding an unobserved variable,  $c$ , to the error term, described in more detail below. Thus, cross-sectional OLS regression becomes *pooled* OLS regression through the use of the HWS estimator and the assumption that each observation is pooled, or clustered, across iterations and time.

Two other forms of regression, random effects with generalized least squares (GLM) estimators and conditional fixed effects with OLS estimators also offer benefits to estimating panel data. Unlike cross-sectional OLS but similar to pooled OLS, random and fixed effects models include an omitted variables component to the regression equation:

$$y_{it} = \beta x_{it} + c_i + u_{it}$$

with  $x$  as a vector of predictor variables that can change across  $i$  and  $t$ ;  $\beta$  as a vector of coefficients to be estimated;  $c$  as an unobserved variable treated as either a “random” or “fixed” effect; and  $u$  as the error term.

Unlike cross-sectional models, pooled, random and fixed effects regression models help deal with potential unobserved heterogeneity between predictor and unobserved variables (Petersen, 1993). Not controlling for unobserved heterogeneity,

especially in longitudinal samples with repeated measures, can cause misestimations of variables' effects and significance (Petersen, 1993). Pooled OLS and random effects GLS models both assume that the observed variables are not correlated with the unobserved ones ( $E[c_i | x_i] = 0$ ), and random effects models also make the assumption that the predictor variables are strictly exogenous from the error term ( $E[u_{it} | x_i, c_i] = 0$ ); where  $u$  = the error term,  $x$  = the predictor variable(s), and  $c$  = the unobserved variable(s) (Wooldridge, 2002). It is this second assumption in GLS models, the strict exogeneity between  $x$  and  $u$ , that makes them potentially more consistent estimators than pooled OLS models, *ceteris paribus*. A GLS framework is constructed to exploit the potential serial correlation of  $c + u$  better than OLS (Wooldridge, 2002).

Unlike pooled OLS and random effects models, fixed effects models are robust to the assumption that observed and unobserved variables are orthogonal (Wooldridge, 2002). Fixed effects models assume, like pooled OLS and random effects models, no correlation between  $x$  and  $u$ , but they specifically allow correlation between  $x$  and  $c$  (Wooldridge, 2002). Fixed effects models can thus control for all unmeasured variables and can get consistent estimates of predictors' coefficients (Petersen, 1993). It appears, then, that fixed effects models are the most conservative estimation procedures for panel data with repeated measures. However, this improvement in consistent coefficient estimation may come at a cost: fixed effects models tend to use data less efficiently than pooled or random effects estimators because they fail to handle time-invariant variables and may poorly estimate those variables that change slightly over time (Wooldridge, 2002). Thus, pooled OLS and random effect models may be more efficient than fixed effect models in terms of estimating all variables in a regression equation. Because of

this, pooled discrete models as well as random effects models may use the data more efficiently and may “better” represent the effects of the predictor variables on the dependent variable. Put another way, discrete and random effects models test the variance between firms, whereas fixed effects models look only at changes within a firm. Thus, if the tests are predominantly concerned with inter-firm relationships, as mine are here, discrete and random effects models may represent relationships among the data more efficiently.

Finally, a Hausman test (Hausman, 1978) can explore whether or not the coefficients generated through a fixed estimation procedure differ significantly from those generated through random estimation. If the differences are non-significant, then a general guide is that the random effects estimator provides the most efficient use of the variables in the model. Working from general conclusion from several iterations of the Hausman test that the differences in coefficients are indeed non-significant (see below), I report and interpret results from the random effects model only. However for brevity and to allow for more nuanced interpretations of the results (Petersen, 1993), I also ran each model with pooled and fixed effects estimators. Results were substantively the same with the pooled estimator, whereas results were weaker with the fixed estimator. Given the results of the Hausman tests, however, the fact that I am concerned primarily with inter-firm relationships, and that certain predictor variables are mostly time-invariant, the random-effects estimator appears to be the most appropriate procedure to test hypotheses 1-4.

**Random effects regression with a binary dependent variable.** Hypotheses 1-2 test the probability that a firm will have an earnings surprise contingent on its level of reputation or celebrity:

$$\ln[(P)/(1-P)] = \beta x_{it} + c + a$$

with  $P$  as the probability of a firm having a positive or negative earnings surprise;  $x$  as a vector of predictor variables that can change across  $i$  and  $t$ ;  $\beta$  as a vector of coefficients to be estimated;  $c$  as an unobserved variable treated as either a “random” or “fixed” effect; and  $a$  as the constant.

As a test of the “efficiency” of the random effects estimator, I ran a Hausman test (Hausman, 1978) to compare the differences between the fixed and random effects coefficients. Its non-significance (Prob.  $> \chi^2 = .1833$  [positive surprises] and (Prob.  $> \chi^2 = .4858$  [negative surprises]) indicated that a random effects procedure is likely sufficient to estimate the model.

**Regression with a continuous dependent variable.** For hypotheses 3-4, I used an event study method (cf. MacKinlay, 1997; McWilliams & Siegel, 1997) and the *Eventus* software to determine the cumulative abnormal return in the one-day window (and other windows) surrounding the earnings surprise announcement for those firms previously labeled positive or negative “surprisers”. The *Eventus* software performs event studies that compute abnormal returns for specific corporate actions or events using data directly from the CRSP or Compustat stock database. Simplistically, a stock’s abnormal return is that return that is in excess of the stock’s expected return based on its systematic risk and the performance of the general market (here, the S&P 500 index and CRSP universe, which includes returns from stocks listed on the AMEX, NASDAQ, and

NYSE). Abnormal returns are “assumed to reflect the stock market’s reaction to the arrival of new information” (McWilliams & Siegel, 1997: 628).

After generating the CARs as my dependent variables, I then tested to see if there was a relationship between reputation, celebrity, and the level of performance associated with positive and negative earnings surprises. Like hypotheses 1-2, I report results for H3-4 from a random effects regression, here with generalized least squares estimators (GLS). A Hausman test showed a non-significant difference between the fixed and random estimators’ coefficients for positive surprises ( $\text{Prob.} > \chi^2 = .1833$ ), but a significant difference for negative surprises ( $\text{Prob.} > \chi^2 = .0343$ ), indicating that a fixed effects model may offer the most accurate interpretation of the regression coefficients associated with negative earnings surprises. Additional analyses using pooled and fixed estimators for both positive and negative surprises showed no difference in results. As I mentioned above, given that I am interested primarily in inter-firm relationships and since certain predictor variables are mostly time-invariant, I report the results of the random effects estimator in the tables below.

## **CHAPTER 4**

### **RESULTS**

Table 3 presents descriptive statistics and a correlation matrix for the control and predictor variables used in testing hypotheses 1-4.

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Insert Table 3 about here  
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Tables 4-5 present the results of logistic regression using random effects estimation procedures. These tables are used to present the results of hypotheses 1-2. In column one, the effects of the financial predictors—financial reputation and strategic deviance (a component of celebrity)—are tested. Column two removes the financial variables and tests the impact of the social predictors—social reputation, firm visibility, and positive emotion. Finally, column three tests a “full model” of financial and social predictors.

Instead of coefficients, I report odds ratios (OR) in order to allow for easier interpretation of result effects. Odds ratios range in value from 0 to 1. Odds ratios greater than 1 correspond to a positive coefficient, and thus a positive relationship between a predictor and dependent variable. Odds ratios less than 1 correspond to a negative coefficient and negative relationship between the independent and dependent variable.

For example, an odds ratio of 0.60 for social reputation in predicting positive earnings surprises indicates that for firms with high reputation, the odds of their announcing a positive surprise is only 0.6 times as large for firms without high reputations. Conversely, an odds ratio of 1.50 would indicate that for highly reputable firms, the odds of announcing a positive surprise are 1.5 times larger than for firms without high reputations (Pedhazur, 1997; Roncek, 1991).<sup>16</sup>

Tables 6-7 present the results of linear regression using random effects estimation procedures for top and bottom quartile surprises. These tables are used to present the results from hypotheses 3-4. Like Tables 4-5, Tables 6-7 each have three columns. In

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<sup>16</sup> Please note that odds ratios are *not* probabilities (cf. Pedhazur, 1997; Roncek, 1991). Thus, an odds ratio of 0.65 does not equate to a *probability* of 0.65 nor does it equate to using the phrase “65% as likely”. To convert odds to probabilities, solve for P in the equation  $OR = P/(1-P)$ . Thus, an odds ratio of 0.60 equates to a probability of 37.5% and an odds ratio of 1.50 is equal to a probability of 60%.

column one, the effects of the financial predictors—financial reputation and strategic deviance (a component of celebrity)—are tested. Column two removes the financial variables and tests the impact of the social predictors—social reputation, firm visibility, and positive emotion. Finally, column three tests a “full model” of financial and social predictors.

In addition, Tables 8-9 provide full model results of the positive and negative surprises tested with each of the three estimation procedures across four supplemental event windows—([-1, 0], [0, +1], [-3, +3], [-5, +5]). Table 10 provides the ten-day window (-5, +5) results of a subsample of positive and negative surprises that have been screened for possible confounding events. The subsamples initially consisted of a random sample of 10% of positive (n = 180) and negative (n = 90) surprise events. After eliminating approximately one-third of positive (n = 57) and negative (n = 29) surprises, Table 10 shows the results of the event study using random effects GLS estimators.

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Insert Tables 4-5 about here  
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## **H1-2: Financial Predictors of Positive and Negative Earnings Surprises**

**Financial reputation.** H1 tests the effects of reputation on the likelihood of the firm engaging in positive and negative earnings surprises. I predict that reputation, in its two measured forms, financial and social, will decrease the likelihood of the firm announcing earnings surprises. Starting with Table 4, columns 1 and 3 show that financial reputation is significantly and negatively related to the likelihood of yearly, top quartile positive earnings surprises (column 1: OR = 0.58,  $p < .001$ ; column 3: OR = 0.60,

$p < .001$ ). Thus, as financial reputation increases, the odds of announcing a positive earnings surprise is only about 58% as large as it would be for non-reputable firms. In terms of probability, then, reputable firms are about 40% as likely to announce a positive earnings surprise than non-reputable firms (please see footnote 16 *supra*).

H1 also predicts that reputation will have a negative effect on the likelihood of a firm announcing *negative* earnings surprises. Like with positive surprises, financial reputation shows a significant, negative relationship with the likelihood of the firm's announcing a negative surprise. (Table 5, column 3: OR = 0.75,  $p < .05$ ). Overall, it appears that financial reputation provides strong support for hypothesis 1. That is, an increase in financial reputation decreases the likelihood of the firm engaging in positive and negative earnings surprises, especially material surprises.

**Strategic deviance.** In contrast to H1, H2 predicts that firm celebrity will increase the likelihood of positive and negative surprises. Like reputation, celebrity is multi-faceted. I measure celebrity in three ways: strategic deviance, firm visibility, and positive emotional content. I first discuss the impact of strategic deviance, a predictor of firm celebrity, on the likelihood of earnings surprises.

Table 4 show the results of random effects logistic regression. In both the financial (column 1) and full (column 3) models, strategic deviance shows no predictive value in affecting the likelihood of a positive earnings surprise.

Regarding negative surprises (Table 5), strategic deviance shows more substantial results. For random effects estimators, strategic deviance shows decent predictive power in line with H2—strategic deviance has a positive effect on the likelihood of negative earnings surprises (Table 5, column 1: OR = 1.10,  $p < .05$  and column 3: OR = 1.10,  $p <$

.05). An interpretation of the OR suggests that firms with high levels of strategic deviance are about 52% more likely to announce negative earnings surprises.

In sum, celebrity, as measured by strategic deviance, does not positively predict positive earnings surprises, but it does show strength as a positive predictor of negative surprises, which is in line with H2.

**Social reputation.** Besides financial reputation, a firm can be deemed reputable along a social, or stakeholder-driven dimension. Social reputation is reported a dummy variable coded “1” if a firm is listed in either the *Fortune’s* Most Admired or Harris/*Wall Street Journal* top 25 for a given year. Tables 4-5, columns 2 and 3 test the impact of social reputation on H1. Like financial reputation, I predict that social reputation should decrease the likelihood of positive and negative earnings surprises. However, this prediction receives no support for both positive and negative surprises.

Note that social reputation and one aspect of celebrity, visibility, are somewhat highly correlated (Table 3:  $r = 0.32$ ,  $p < .05$ ). In addition, a firm coded “1” for social reputation can also be coded “1” on celebrity-visibility. Of the 357 firm-years labeled “1” on social reputation, 140 (39.2%) are also coded “1” for visibility. In order to address this issue, I eliminated all confounds between social reputation and visibility, creating discrete social reputation and visibility measures as part of post-hoc exploratory analyses (please see below as well as Tables 11-14).

**Firm Visibility.** A second aspect of firm celebrity is its visibility in the media. Like social reputation, firm visibility is a dummy variable coded “1” if a firm was in the top 25 of all sample firms for the number of *Business Week* articles for a given year. Like

strategic deviance, H2 predicts that firm visibility should have a positive impact on the likelihood of positive and negative earnings surprises.

Visibility shows moderate predictive power for increasing the likelihood of positive surprises (Table 4: column 2: OR = 1.71,  $p < .01$ ). Interpretation of the OR shows that high visibility firms are 63% more likely to engage in positive financial deviance than other firms. For negative surprises (Table 5), however, visibility shows no significant effects. Thus, while H2 is moderately supported for positive surprises, visibility has no effect on the likelihood of the firm engaging in negative surprises.

**Positive Emotion.** A third aspect of firm celebrity is the positive emotion that the firm creates in media reporting and among stakeholders. As described above, positive emotion is a ratio of positive emotions to the total affectual content of the article. Like strategic deviance and firm visibility, H2 predicts that positive emotion will increase the likelihood of positive and negative earnings surprises. For all random effects logistic models predicting positive and negative surprises (Tables 4-5), positive emotion shows no support for H2.

Finally, as I mentioned above, I also used a celebrity index measure that combines firm visibility and positive emotion. Although not shown in the tables, the index variable showed no predictive support for H1 or H2.

### **H3-4: Reputation and Celebrity Effects on the Stock Performance of Earnings Surprisers**

Hypotheses 3-4 test the effects of reputation and celebrity on the market's reaction to earnings surprises. Creating a subsample of positive and negative earnings surprises across top and bottom quartile surprises, I then regressed the firm's three-day (-

1, +1) cumulative abnormal stock return on the control variables, two measures of reputation, and three measures of celebrity via random-effects GLS estimation procedures. H3 predicts that reputation will negatively impact the returns of both positive and negative surprisers; i.e., it will mute positive gains and exacerbate negative losses. In contrast, H4 predicts that celebrity will heighten positive surprisers' gains and temper losses. These results are shown in Tables 6-7.

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 Insert Tables 6-7 about here  
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Overall over the three-day window (-1, +1), 1,763 positive surprisers averaged a cumulative abnormal return of 1.18% versus the market, while 916 negative surprisers averaged -0.46%. Two tests, a Patell Z (13.15,  $p < .0001$ ; -5.10,  $p < .0001$ ) and a Generalized Sign Z (8.58,  $p < .001$ ; -1.654,  $p < .05$ ) show that positive and negative surprisers generated returns significantly above and below the market. Thus, the models in aggregate are useful to my analysis. That is, positive and negative earnings surprises have a significant effect on the stock performance of announcing firms.

**Financial reputation.** H3 predicts that reputation will negatively effect the stock market's reaction to positive and negative earnings announcements. Financial reputation is one of two measures of firm reputation. For positive and negative surprises, there is no support for this hypothesis (Tables 6-7). In fact, financial reputation's only significant result is *contra* H3 (Table 4, column 3:  $\beta = 0.34$ ,  $p < .05$ ). That is, financial reputation *increases* the market's response to a positive earnings surprise.

**Strategic deviance.** H4 predicts that celebrity will positively effect the stock market's reaction to positive and negative earnings announcements. Strategic deviance is a predictor of a firm's celebrity. For positive and negative surprises, there is no support for H4.

**Social reputation.** Social reputation, using random effects regression models, shows no support for H3.

**Firm visibility.** Like social reputation, visibility has no significant effect on the stock performance of positive and negative surprisers.

**Positive emotion.** Positive emotion, the third measure of firm celebrity, has a marginally significant impact on the market's response to positive earnings surprises, consistent with H4 (Table 5, column 2:  $\beta = 1.28$ ,  $p < .10$ ). This effect is not evident, however, for negative surprisers.

In summary, only positive emotion showed support for H4, but only for positive surprisers. That is, an increase in the relative positive emotional content of articles written about the firm had a positive, significant impact on the three-day cumulative abnormal return for positive surprisers. Two other variables, strategic deviance and visibility, showed no support for H4, and the reputation variables, financial and social, showed no support for H3.

I also substituted the celebrity index variable described above for firm visibility and positive emotion. Although not shown in the tables, the index variable showed no predictive support for H3 or H4.

Finally, I tested hypotheses 3-4 using multiple event study windows. Tables 8-9 present the random effects GLS models for positive and all negative surprisers. Results as

compared to Tables 6-7 are substantively the same in that there is minimal support for H3-4 across all predictor variables.

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Insert Tables 8-9 about here  
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**Controlling for confounding events over a 10-day (-5, +5) window.**

Recognizing that confounding events may occur, especially for windows greater than the immediate days surrounding the announcement (-1, +1), I generated a random subsample of each of the positive and negative surprises. In Excel, I downloaded each of the approximately 1,800 positive and 900 negative surprise events. Using a random number generator, I then created a random number for each of the events, sorting them in ascending order. I then took the top 10% of positive (N = 180) and negative (N = 90) surprise announcements. Using a ProQuest search engine, I searched the *Wall Street Journal* for articles related to each firm in the seven calendar days before and after the earnings announcement. Using seven calendar days ensured that I would cover the ten-day (-5, +5) window surrounding the announcement. Using McWilliams' & Siegel's (1997) criteria for confounding events that may affect the firm's stock price, I eliminated those firms that had similar events. In general, confounding events may include contract awards, executive turnover, restructuring, merger/acquisition activity, joint ventures, major litigation, earnings guidance, downsizing, layoffs, bankruptcy, expansion plans, product recalls/defects, regulatory changes or violations, outsourcing, or stock repurchase programs. For positive surprisers, I reduced the sample to 123 from 180, and for negative



surprisers, confounding events reduced the sample to 61 from 90. Both subsamples were therefore reduced by about one-third.

Using these new subsamples of 123 positive and 61 negative surprise events, I reran the regressions shown in Tables 8-9, column 4. The output is shown in Table 10. In order to preserve observations as well as variance, I eliminated the strategic deviance variable and industry and year dummies from the analyses.

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Insert Table 10 about here  
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After removing the confounding events from the sample of positive surprisers, results show marginally negative relationships between social reputation (Table 10, column 1:  $\beta = -1.18$ ,  $p < .10$ ) and visibility (Table 10, column 1:  $\beta = -1.14$ ,  $p < .10$ ) and the firm's five-day performance surrounding a positive earnings announcement. However, these effects disappear for negative surprisers. In fact, visibility is dropped from the regression due to lack of within firm variance.

**Additional post-hoc tests for the (-5, +5) window.** As an additional analysis related to Table 10, I ran t-tests comparing the mean return of positive and negative surprisers before and after controlling for confounding events. For the 1,763 positive surprise announcements, the mean cumulative return over the ten-day (-5, +5) period surrounding the event was 1.76% compared to 3.44% for the subsample of 122 surprisers that I generated by randomly selecting 10% of the events from the sample of positive surprisers and then eliminating those events ( $n = 57$ ) that contained confounding events. A t-test showed a significant difference between the means of the two samples ( $p <$

.0001). Similarly, the subsample of 60 negative earnings announcements showed a difference in return versus the full sample of 916 events. The subsample firms returned –0.34% versus –0.74% for the full sample in the ten-day (-5, 5) window surrounding the announcement. Although the full sample’s cumulative mean return was more than twice as poor as the subsample, a t-test revealed only marginal significance in their differences ( $p < .10$ ). In summary, removing confounding events from the event study using the ten-day window showed significantly higher returns amid positive surprise announcements and marginally significantly less negative returns amid negative announcements (results not shown).

### **Robustness Checks**

As I mentioned above in the variable descriptions, I generated alternative measures of each of the predictor variables. For example, I used a cumulative three-year rolling ROA measure in place of the average three-year ROA reported in the tables. For strategic deviance, I substituted Euclidean and squared distance measures for the Finkelstein & Hambrick measure shown in the tables. Instead of using a dummy variable to code social reputation, I used the firm’s rank in either the *Fortune* or *Harris/Wall Street Journal* poll. For visibility, I substituted annual article count for the current dummy variable, and I also generated a dummy variable coded “1” to signify those firms in the top decile of article counts instead of the top quartile measure shown in the tables.

Finally, I substituted two measures for the positive emotion ratio—a dummy variable that codes an article “1” if it is above the mean positive emotion ratio (i.e., above .69) as well as the Janis-Fadner (JF) coefficient of article tenor imbalance (Deephouse, 2000; Janis & Fadner, 1965; Pollock & Rindova, 2003). The JF coefficient equals:

$$(P^2 - PN)/V^2 \text{ if } P > N; 0 \text{ if } P = N; \text{ and } (PN - N^2)/V^2 \text{ if } N > P$$

where  $P$  is the number of positive articles written about a firm in a given year,  $N$  is the number of negative articles, and  $V$  is the total annual article count. The JF coefficient range is from  $-1$  to  $1$  with  $-1$  equal to all negative coverage and  $1$  equal to all positive coverage.

Use of any of these alternative measures did not substantively alter results (although some performed more similarly than others) for any of the four hypotheses. Due to the multiple permutations possible, these results are not reported in the tables below.

Finally, regarding robust estimation procedures, I ran each of the regressions testing H1-H4 with both pooled and fixed effects models. Results were substantively the same, although they significance tended to be lower with the fixed effects models. Given the results of the Hausman tests mentioned above, however, it appears that random effects models make best use of the data as well as being the most reflective of the inter-firm relationships posited by the theories used to support my hypotheses. I also ran each of the models omitting the years 1997-1998. In each of these years, *Fortune* only provided a top 10 listing, and the Harris/*WSJ* poll had not yet been created. Despite fewer “reputable” firms in these years, the results were unchanged.

## **POST-HOC EXPLORATORY ANALYSES: RESULTS OF TWO SAMPLE T-TESTS ON STOCK PERFORMANCE**

The mostly-inconclusive results of the regression testing reported above led me to a wider investigation of the effect of intangible assets on stock market performance, rather than the more narrowly defined question of their effect on responses to surprises. This broader exploration is consistent with the general theme in research on intangible

assets that they are related to performance, but speaks to the relative lack of research on the potentially different value of different types of intangibles (Rindova et al., 2007). Given the multi-faceted nature of reputation and celebrity, Tables 11-12 are post-hoc exploratory analyses that take different groups of firms with positive and negative earnings surprises and measure their CARs over the 3-day (-1, +1) window surrounding the surprise through paired t-tests of unequal variances. Unlike H3-4, these tests do not look at the predictive power (positive or negative) of firm intangibles on the market's response to earnings surprises. Instead, the paired t-tests compare the performance of different groups of firms high and low in specific combinations of firm reputation and celebrity—and thus how the market views and perhaps values different combinations of intangible assets. In other words, the H3-4 regressions look at relationship between firm intangible assets and a 3-day CAR, asking, how do reputation and celebrity relate positively or negatively to market response (CAR)? The t-tests ask a complementary question: how does the market value different combinations of intangible assets, i.e., what is the CAR of different groups amid positive and negative earnings surprises and how does the market return of a given group compare to that of other groups? For example, whereas H3 predicted a negative market response to surprises for highly reputable firms, the more nuanced paired t-tests find that groups high in social reputation but low in visibility receive a premium in market return versus other groups for positive surprises and suffer less performance damage than other groups amid negative surprises.

Consequently, significant results from the paired t-tests, while not direct indicators of the predictions made in H3-4, begin to reveal performance differences among firms that possess different combinations of intangible assets and how the market

values such firms in the wake of positive and negative financial deviance. Thus, when the results of the paired t-tests are related to the expected findings of H3-4 predicted above, they should be viewed as *complementary to*, and not *substitutes for* the regression analyses. That is, the t-test results do not reflect a relationship between firm intangible assets and market responses amid deviant (surprise) behavior as hypothesized in H3 and H4, but they do begin to reflect a broader proposition derived from H3-H4 that different intangible assets have different value in the marketplace amid surprise firm behavior.

Therefore, while specific support for H3-4 is limited, the results of the post-hoc analyses should better illuminate the potentially differing market effects and valuations of firms with varying combinations of intangible assets, and therefore can be viewed as an entrée into future research on the relationship between intangible assets, firm strategies, and market evaluations of deviant behavior.

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Insert Tables 11-12 about here

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Tables 11 and 12 investigate how particular groups of firms performed amid positive and negative earnings surprises. Each table shows six categories of firms along with the size of the subsample and its cumulative abnormal return (CAR) over the three-day (-1, +1) window surrounding the surprise announcement.

In Table 11, I provided significance results for six firm categories for top-quartile, 1%, and all positive surprisers. Referring back to the independent variable descriptions above, “Soc. Rep.” is the category for social reputation. Firms in the *Fortune* or *Harris/Wall Street Journal* top 25 for a given year receive a “1”. “Visibility” assigns a

“1” to each firm that ranks in the top quartile of *Business Week* articles for a given year. “Rep. x Vis.” assigns a “1” to each firm in a given year that receives a 1 for both social reputation and visibility. “Rep. (no Vis.)” is a subset of “Soc. Rep.” that removes any observations that also receive a “1” for “Visibility”. That is, some firms coded as “1” in the “Soc. Rep.” category could also have been coincidentally coded “1” on Visibility. “Rep. (no Vis.)” removes those firms that received a “1” in both categories, leaving a only those rated high on social reputation. In contrast, “Vis. (no Rep.)” is a subset of “Visibility” that has had those “Soc. Rep.” firms removed. Last, “None” are those firm-year observations where the firm is coded “0” for both “Soc. Rep.” and “Visibility”. To clarify, in Table 11, there are 175 “Soc. Rep.” firm-years for all positive surprises, 204 “Visibility” firm-years, and 81 firm-years that are coded “1” for both “Soc. Rep.” and “Visibility”. Thus, 94 firm-years are high on reputation but low on visibility [“Rep. (no Vis.)”], 123 firm-years are high on visibility but low on reputation [“Vis. (no Rep.)”], and 1,380 firm-years are “None”—coded neither “1” for social reputation, nor “1” for visibility, nor “1” for both.

For each of the three grids, the mean cumulative adjusted return (CAR) for the (-1, +1) time period for each category is given, followed by significance symbols. For top quartile positive surprisers, firms high on reputation (but not visibility) outperformed all other categories [“Rep. (no Vis.)” CAR = 2.65], with firms high on both reputation and visibility performing worst [“Rep. x Vis.” CAR = 0.69]. The difference between the worst performer and all the other groups was significant to varying degrees, including the difference between firms that had neither high reputation nor visibility (“None”) [  $p < .001$ ]. However, “None” underperformed firms that were high on either reputation ( $p <$

.001) or visibility only ( $p < .001$ ). These expanded results indicate mixed support for the broader proposition explained above that different intangible assets are viewed and valued by the marketplace amid surprise firm behavior in varying ways. On one hand, it appears that reputation and visibility alone enhance performance versus firms that possess either both or neither of these characteristics. In contrast, firms possessing both characteristics significantly underperform all other categories, suggesting that too much reputation and visibility together can mute the positive returns generated from a positive earnings surprise. I elaborate more on this surprise finding in the Discussion.

For positive earnings surprises greater than 1%, the results of the paired t-tests are substantively the same. Firms high on visibility returned the most [“Vis. (no Rep.)” CAR = 2.23], while “Rep. (no Vis.)” firms again significantly outperformed nearly all other categories, shedding doubt on the negative relationship between reputation and market evaluations. “Rep. x Vis.” firms again returned the worst (CAR = 0.34), significantly underperforming all other categories, including “None”.

For all non-zero positive surprisers, the results are highly similar. Again, firms high in reputation and visibility generated significantly worse returns than all other categories, even losing value relative to the market (CAR = -0.08). In addition, firms high in visibility but not reputation [“Vis. (no Rep.)”] significantly outperformed firms high in reputation (“Soc. Rep.”) as well as firms that did not have either reputation or visibility characteristics (“None”). Firms that had neither high reputation nor visibility (“None”) outperformed those with high reputation (“Soc. Rep.”) and both high reputation and visibility (“Rep. x Vis.”), but not visibility alone. These results begin to show that social reputation will mute the impact of positive earnings surprises, but given the high

performance of “Rep. (no Vis.)” firms in each of the three positive surprise categories, it appears that reputation enhances performance amid positive earnings announcements more so than it diminishes it.

Table 12 performs the same exercise for categories and groups of negative surprisers. Negative surprise categories have fewer significant indicators than positive surprise categories. For bottom quartile surprises, “None” is the worst performer (CAR = -0.55) whereas “Rep. (no Vis.)” and “Soc. Rep.” are the best (CAR = -0.06, -0.11). This appears to offer some support that reputation will mute the negative market effects associated with negative earnings surprise announcements. For negative surprises greater than 1%, firms high in reputation but low in visibility [“Rep. (no Vis.)”] are punished least (CAR = 0.22), actually *gaining* value in the three days surrounding the announcement. Interestingly, “Rep. (no Vis.)” firms significantly outperform “Rep. x Vis.” and “Vis. (no Rep.)” firms. Instead of exacerbating negative returns, reputation seems to act as a buffer for firms that generate negative earnings surprises. In addition, each of the three categories containing visibility characteristics [“Visibility”, “Rep. x Vis.”, and “Vis. (no Rep.)”] significantly underperform the “Rep. (no Vis.)” and “None” categories, providing some evidence that one aspect of firm celebrity, firm visibility, exacerbates the market’s evaluation of negative deviant behavior. Finally, firms low in reputation and visibility (“None”) also significantly outperform all other categories other than “Soc. Rep.” Thus, in the post-hoc exploratory tests comparing the CARs of varying combinations of intangible assets amid firm negative surprises, reputation *mutes*, not exacerbates, the effect of negative surprises relative to firms that do not share this



characteristic, and celebrity *exacerbates*, not mutes, the effect of negative surprises vis a vis those firms that do not exhibit this characteristic.

Last, looking at all negative surprises, firms high in reputation but low in visibility [“Rep. (no Vis.)”] again outperform all others (CAR = -0.02), with significant differences from “None” firms. Meanwhile, “None” firms perform the worst (CAR = -0.53). Here, it appears that reputation again acts as a buffer to negative earnings surprises.

It is also worth noting that firms high in reputation and visibility, “Rep. x. Vis.”, again show middling-to-poor results among categories for negative surprises. Although this group is not consistently the lowest performer as was the case with positive earnings surprises, firms high in reputation and visibility significantly underperform “Rep. (no Vis.)” and “None” firms for those negative earnings surprises greater than 1%.

In summary, the paired t-tests of unequal variances shed additional light on the impact of reputation and one aspect of celebrity, visibility, on investors’ reactions to positive and negative earnings surprises. Whereas the t-tests compare returns of firms in possession of different combinations of intangible assets and do not actually look at the significant relationships between intangible assets and market responses to surprises, they still provide insights into how the market values different combinations of intangible assets amid deviant firm behavior, and thus complement in broader terms the relationships put forth in H3 and H4. In addition, these post-hoc exploratory analyses can serve as a starting point for further research on the relationship between intangible assets, firm strategies, and market responses to firm actions.

In general, it appears that reputation actually enhances returns around positive surprises and mutes losses around negative surprises, both being contrary to predictions in H3, which posits that reputation should weaken the market response to positive surprises and exacerbate the response to negative surprises. For firms high on visibility alone, this characteristic tends to support H4 on one level—highly visible firms tend to outperform those firms that do not have this characteristic (the “None”s) for near all measures of positive and negative surprises as well as “Soc. Rep.” firms for positive surprises—but it contradicts H4 on another level—highly visible firms tend to underperform reputable firms for negative surprises. Thus, visibility tends to be beneficial for firms when they surprise the market with good news, but it tends to be detrimental when they announce bad news. Finally, firms that share both reputation and visibility characteristics (“Rep. x Vis.”) tend to underperform the other categories in most tests of positive and negative surprises, suggesting that too much reputation or visibility together can mute the effects of good news while exacerbating the effects of bad.

#### **Post-hoc Test Including “Positive Emotion” Category**

In addition to the six categories listed in Tables 11-12, I created a seventh category, “Positive Emotion”, that assigned a dummy variable to each firm ranked in the top 25 for positive emotional content for each year in the sample (1991-2005). The “top 25” method was used for consistency—this measure equates the top 25 yearly generators of positive emotions with the top 25 yearly generators of reputation (“Soc. Rep.”) and visibility (“Visibility”). Sample sizes for the top 25 positive emotion firms were thus similar to the other two categories (see below). Using the same paired t-tests with unequal variances methodology shown in Tables 11-12, I provide results of these post

hoc exploratory tests in Tables 13-14. Please note that the “Positive Emotion” t-tests were run separately from Tables 11-12 because in the original regressions, the variable positive emotion was continuous, whereas social reputation and firm visibility were binary. I therefore had to create a positive emotion category to allow for comparisons across each of the groups.

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Insert Tables 13-14 about here

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Table 13 reveals that the “Positive Emotion” category significantly outperformed most other categories as measured by its market-adjusted, cumulative abnormal return (CAR) over the (-1, +1) window for positive surprises. Specifically, top quartile positive surprisers returned 3.54% (n = 62), surprisers greater than 1% returned 2.64% (n = 124), and all positive surprisers returned 2.30% (n = 174). The results begin to indicate that firms that generate positive emotion in the marketplace are rewarded more when announcing positive surprises.

For negative surprisers, results were less conclusive (Table 14), but positive emotion firms still performed near the top of the six other categories. Bottom quartile “Positive Emotion” firms returned -0.11% (n = 67), surprisers greater than 1% returned -0.03% (n = 66), and all negative surprisers returned -0.05% (n = 85), nearly non-negative outcomes. Like with positive surprises, each of these returns were better than the other six groups across nearly all surprise measures, although few were significant. Nevertheless, these post hoc results may begin to indicate that firms that generate positive emotions in the marketplace are punished less for negative surprises. It appears from

these paired t-tests, then, that positive emotion, even more so than reputation, may function as positive resource for the firm—increasing levels of positive emotion allows firms to benefit from good news and be buffered from bad. Interestingly, additional post hoc analyses to check for interaction effects among reputation, visibility, and positive emotion were not conducted due to the very small sample resulting from the different combinations, which could potentially skew results. Of the 377 firm-years coded “1” for high levels of positive emotion, only 10 were also coded “1” for “Social Reputation” and only 2 were coded “1” for “Visibility”. Interestingly, only 1 firm in 1 firm-year (2005), Proctor & Gamble, was labeled “1” for reputation, visibility, and positive emotion. In contrast, of the 357 “Soc. Rep.” and 386 “Visibility” firm-years, 140 were coded “1” on both. Naturally, this lack of interaction between positive emotion, firm reputation, and firm visibility generates interesting opportunities for future research to further investigate the relationships and potential trade-offs between each of these intangible assets. In addition, these preliminary results can offer insight to managers and analysts in better understanding the impact of reputation and celebrity amid deviant behavior and potentially help the firm better understand the optimal level of each in order to maximize performance.

## CHAPTER 5

### DISCUSSION

Essay 2 in its two chapters looks at the relationships among firm intangible assets, firm strategies, investor perceptions, and financial outcomes. In Chapter 1, I examine the influence of two multi-faceted firm intangible assets, reputation and celebrity, on the likelihood of a firm engaging in financial deviance—that is, on the likelihood of the firm announcing either a positive or negative earnings surprise. In Chapter 2, I examine how the market reacts to different kinds of firms that engage in financial deviance. Specifically, I test to see if certain firm characteristics, reputation and celebrity, create different market reactions in the wake of earnings surprises.

Although current results are mixed, there remain some important findings both in support of and contrary to my *a priori* hypotheses. I will summarize these first, followed by a discussion of Essay 2's theoretical, empirical, and practical contributions. I conclude with a discussion of this study's limitations and opportunities for future research.

#### **Implications of Results**

Chapter 1 predicted that firm reputation, as measured by consistent outperformance as well as the firm's ranking in two major media polls, would decrease the likelihood that a firm would engage in financial deviance through the generation of positive or negative earnings surprises. Past organizational research has recognized reputation as a function of a firm's track record (Fombrun, 1996). Reputable firms are known as being durable and consistent, and stakeholders learn to gauge future expectations from this past behavior (Clark & Montgomery, 1998). From an accounting perspective, firms generate positive reputations from investors and analysts by

consistently meeting earnings forecasts, given that surprises are considered deviant behavior (Tan et al., 2002). Analysts and investors like accuracy and consistency because it solidifies the former's reputation and assists both in properly evaluating the firm (Williams, 1996).

Thus, it appears that it behooves reputable firms to avoid positive and negative earnings surprises. One proxy measure of reputation, a firm's financial performance, shows strong predictive power in reducing the likelihood of a firm generating both types of earnings surprises. In other words, firms that have established track records of outperforming their peers have also created expectations from the marketplace that their performance is predictable. Does this therefore promote high-performing firms, industry leaders, and more generally, reputable firms, to manage earnings or offer earnings guidance in order to avoid earnings surprises, whipsaws in their stock price, and perhaps loss of investor confidence? Future research could investigate the relationship between measures of reputation and the likelihood of consistently meeting earnings expectations more deeply. For example, a *post-hoc* binomial probability test does indeed show that the frequency of highly reputable firms that met earnings exactly is significantly higher than the frequency of highly reputable firms that announced either a positive or negative surprise.<sup>17</sup>

Another measure of a firm's reputation, its inclusion in either *Fortune's* or the *Wall Street Journal's* annual rankings, showed very little significance in decreasing the

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<sup>17</sup> As Table 2 shows, 10.4% of the sample met consensus earnings estimates exactly, i.e., were non-surprisers. Overall, there were 357 firm-years coded "1" for reputation in a sample of 3107 surprisers (11.5%) versus 46 for the 323 firm-years that were non-surprisers (14.2%). A binomial probability test of the two frequencies showed that the non-surprisers had a significantly higher proportion of highly-reputable firms than the overall sample ( $p < .0001$ ). In contrast, the frequency of celebrity firms ( $32/323 = 9.9\%$ ) meeting earnings exactly was significantly lower than celebrity surprisers ( $386/3107 = 12.42\%$ ) [ $p < .0001$ ].

likelihood of positive or negative earnings surprises. Given the methodologies used to establish the rankings, it is possible that in these instances, reputation is confounded with one aspect of firm celebrity, visibility, and thus may affect its power in predicting financial deviance. Indeed, the two variables are rather highly correlated ( $r = .32$ ). Future research could look to develop other reputation measures that serve as effective proxies of stakeholders' perceptions of a firm's reputation (cf. Rindova et al., 2005). For example, KLD Research & Analytics integrates environmental, social and governance factors into rating firm "reputations". The group rates over 3100 companies as "strong" or "weak" in seven major areas: community, corporate governance, diversity, employee relations, environment, human rights, and product innovation, quality, and safety.<sup>18</sup> In addition, measures of reputation and celebrity that eliminate confounds, like the groups compared in the t-tests shown in Tables 11-14, may help better illuminate the true effects of reputation on firms' strategic behavior as well as investors' perceptions.

Chapter 1 also predicted that celebrity firms would be more likely to engage in financial deviance, given that part of being a celebrity firm was engaging in non-conforming behavior in order to differentiate the firm from competitors (Deephouse, 1999; Heckert & Heckert, 2002; Rindova et al., 2006). Thus, here I expect again that strategic behaviors will be predictive of financial outcomes, albeit in the opposite fashion—whereas reputation should decrease the likelihood of financial deviance, celebrity should increase it.

One proxy measure of a firm's likelihood to engage in financial deviance, strategic non-conformity, increased the likelihood of a firm generating a negative earnings surprise, but provided little support for positive surprises. Although this proxy

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<sup>18</sup> Please see <http://www.kld.com/> for more information.

has been used in organizational research for the last two decades (e.g., Finkelstein & Hambrick, 1990; Deephouse, 1999; Miller & Eden, 2006), use of archival data in order to construct the measure can lead to missing data issues and perhaps a misrepresentation of what strategic deviance is. Future research should look to develop additional measures of strategic deviance that perhaps incorporate surveys or questionnaires to gauge how managers perceive their firm as acting differently from its peers across relevant dimensions.

Firm celebrity, of course, is not just about non-conforming behavior; it also relies on generating attention in the marketplace as well as positive emotional responses from stakeholders (Rindova et al., 2006). A second measure of firm celebrity, media visibility, showed solid predictive power for increasing the likelihood of positive surprises, but not negative ones. Perhaps firms that garner much media attention also enjoy the jump in stock price associated with a positive surprise, and thus manage their earnings in such a way to periodically get this attention in the press. In contrast, highly visible firms may indeed attempt to avoid negative surprises as much as possible, since their salience in the marketplace may make them greater targets of punishment than would other firms that are less well known (cf. Brooks et al., 2003; Sutton & Galunic, 1996). Indeed, this aspect of firm celebrity, media visibility, has been shown to be a double-edged sword for firms (cf. Ashforth & Gibbs, 1990), and thus this finding, that visibility predicts a greater likelihood of positive, but not negative surprises, is *a posteriori* perhaps a likely result. Future research could investigate whether the three aspects of celebrity, deviant behavior, firm visibility, and positive emotional responses, work in tandem or actually offer conflicting views of the firm among stakeholders, who therefore may provide conflicting



feedback to the firm on the impact of its strategies. In turn, this ambiguous feedback may hamper the firm's future efforts to implement strategies that lead to competitive advantage and higher performance.

Finally, firm celebrity also involves the generation of positive emotions in stakeholders who interact with the firm. In contrast to the omnibus prediction that celebrity would increase the likelihood of negative earnings surprises, emotion appears, at least marginally, to decrease this likelihood. Again, this result *a posteriori* may not seem too surprising, given that firms that generally garner positive emotions, much like attention in general, will probably attempt to avoid bad news, since they may be punished more strongly than firms that generate ambivalent emotions among stakeholders (Rhee & Haunschild, 2006; Sutton & Galunic, 1996). In summary, the contrasting results generated by the three different measures of celebrity leave future research to distinguish how best a firm can manage its levels of non-conforming behavior, media attention, and emotional reactions from stakeholders in order to maximize its opportunities for gaining sustainable competitive advantage.

**Implications from Chapter 2.** Chapter 2 predicted that reputable firms that had announced earnings surprises would generate poorer returns than other firms as a result of the surprises, while celebrity firms' stock would benefit from surprise announcements relative to other firms in the sample. Since reputation is a function of firm's track record to meet stakeholder expectations (Clark & Montgomery, 1998), theory dictates that not only should reputable firms be less likely to generate earnings surprises, as predicted in Chapter 1, but those that did should be punished in the marketplace more so than other firms, since an earnings surprise could be seen as a breach of the implicit promise made

to investors that the firm would operate in a consistent manner (Rhee & Haunschild, 2006). Earnings surprises can create uncertainty among analysts and investors and thus signal to them that the firm is less credible, unreliable, and unstable (Kasznik, 1999). In turn, the marketplace will reward reputable firms less than others in the immediate window surrounding a positive surprise and punish them more amid negative surprises.

Event study regression analysis showed little support for the predictive negative relationship between reputation and a firm's cumulative adjusted abnormal return (CAR) in the windows surrounding an earnings surprise. However, a randomly-generated subsample of surprisers that eliminated potential confounds did show a negative relationship between a firm's social reputation and CAR for positive surprisers, thus supporting H3 (Table 10).

In contrast, finer-grained t-tests (Tables 11-12) show support for reputation *enhancing* the effect of positive surprises and *muting* the effect of negative ones. The exploratory findings tend to contrast with Chapter 2's predictions in H3-4 and are thus worthy of future examination. Since Tables 11-12 eliminated any potential visibility confounds from the reputation measure (and vice-versa), it would be interesting to further investigate the true impact of reputation on stakeholders' perceptions of firm behavior while controlling for the potential impact of visibility and other facets of firm celebrity on their reactions.

To note, the post-hoc t-tests did not test the relationship between the possession of intangible assets and the market's response to earnings surprises, but instead looked at the performance of groups of firms with various combinations of intangible assets, such as high reputation/low visibility, high reputation/high visibility, and "None". Thus, the

results here should be viewed as providing complementary, not substitute information regarding the relationships tested in H3-4. Nevertheless, the information provided in the exploratory analyses may be helpful for future research on the relationship between firm intangible assets, firm strategies, and market reactions to these strategies, especially non-conforming ones.

Chapter 2 also looked at the impact of firm celebrity on the market's reactions to earnings surprises, predicting that the three facets of firm celebrity, deviant behavior, media visibility, and positive emotional reactions from stakeholders, would enhance the impact of positive surprises while muting the impact of negative ones. Like the reputation measures, strategic deviance and visibility showed no real predictive power in influencing stock market returns in each of the three regression procedures. However, positive emotion did have a significant, positive impact on the CARs of positive surprisers, indicating that investors who have good feelings about a firm will tend to bid up its price relative to other firms in the wake of a positive earnings announcement. Here it seems that the emotional aspect of firm celebrity has the effect that H4 would predict. That is, an increase in the positive emotional content of a firm's media coverage will increase the firm's stock returns in the period surrounding a positive earnings surprise.

Like with the reputation measures, paired t-tests revealed some more information that may have been muted in the regression analyses. For example, highly visible firms, like highly reputable firms, performed near the top of the six groups for positive earnings surprises, suggesting that media visibility, as predicted by H4, enhances returns. However, unlike highly reputable firms that seem to generate a buffer from investors after negative earnings surprises (*contra* H3), highly visible firms, as shown in Table 12,

appear to perform poorly, which suggests, contrary to H4, that firm visibility, while beneficial for positive deviant behaviors, is detrimental for negative ones. Perhaps an aspect of firm celebrity, as measured by media visibility, is indeed a double-edged sword (Ashforth & Gibbs, 1990; Sutton & Galunic, 1996)—the media giveth, and the media taketh away.

In addition, firms high on both reputation and visibility underperformed all other categories of positive and negative surprisers across nearly all measures of earnings surprises. This finding recalls the possibility that perhaps there is an inflection point where the combination of reputation and visibility can lead to overexposure, and thus muted expectations from investors when things are going well and harsh treatment when things go poorly.

In general, current results do not generate any steadfast relationships between firm characteristics and market performance amid a deviant event, but the data do offer some intriguing insights into how reputable and celebrity firms are treated in the marketplace. Perhaps one alternative explanation for the lack of results in the regression analyses is that the market is agnostic and does not really care about the kind of firms that generate earnings surprises—each is rewarded or punished equally. For negative surprises, this may quite possibly be the case, due to the nearly complete lack of results from the regressions and t-tests. However, reputation's enhancement effect for positive surprises as well as its buffering effect for negative ones, and the overall poor performance of firms both high in reputation and visibility in the paired t-tests indicates that future research on the impact of these intangible assets, as well as whether there is a point where too much of either or both is a bad thing, is certainly warranted.

## Theoretical Contributions

Essay 2's theoretical contributions include 1) adapting research in deviance to organizational and financial settings; 2) expanding organizational research on intangible assets to include their potential role as liabilities; 3) expanding financial research on earnings surprises to include the impact of specific firm characteristics; and 4) linking organizational and financial research to study something of scholarly and practical importance—the relationship between firm characteristics, strategic behaviors, and financial outcomes.

Traditional research on individual and organizational deviance has been primarily limited to sociological and criminological areas of study (e.g., Kelly, 1996; Merton, 1968). Although the term “deviance” may connote negative behavior for many readers, in essence, deviance can be any type of behavior that differs from the status quo or that which departs from stakeholder expectations (Heckert & Heckert, 2002; Warren, 2003). In this paper, financial deviance was limited to *norms* violations and did not focus on *illegal* activities. Further research could investigate how stakeholders might respond to firms' negative deviant behaviors that also are either civil or criminal offenses, such as fraud, antitrust issues, collusion, and even environmental violations. Given that much organizational research has focused on the impact of conforming versus non-conforming behavior (e.g., Barney, 1991; Deephouse, 1999; DiMaggio & Powell, 1983), theoretical developments of firm deviance, whether financial or organizational, normative or illegal, seem appropriate.

In addition, this paper, while focusing on the potential asymmetric reactions from investors regarding the relationship between a firm's intangible assets and its committing

an earnings surprise, did not differentiate between investors' potential asymmetric reactions to positive and negative deviance. Research in psychology and social cognition has shown that market actors react to positive and negative events in ways that are not mirror images of each other (cf. Fiske & Taylor, 1991; Willemsen & Keren, 2002). In other words, whereas positive events normally result in prosocial behaviors from observers, negative events may conjure both positive and negative emotions from individuals, depending on the cause of the negative event and the amount of control the observer had over the event (Fiske & Taylor, 1991). In short, actors' emotional responses to negative events tend to be more complex than their reactions to positive ones.

In addition, given that most people tend to be optimistic, negative events, when they occur, often garner more salience and prominence than negative ones (Hastie & Dawes, 2001). Because of this, market actors are thus more apt to give greater weight and consideration to negative events than positive ones, *ceteris paribus* (Willemsen & Keren, 2002). Thus, further research that investigates the potentially asymmetric market reactions to positive and negative deviance that may accrue *in addition* to the intangible assets a firm possesses would enhance current research on the relationship between firm intangible assets, firm strategies, and market outcomes.

Second, Essay 2's theoretical development of the role of intangible assets as potential liabilities offers promise. Like in Essay 1, the crux of Essay 2's theorizing involves contingent effects on the relationship between strategic behaviors, especially non-conforming actions; investors perceptions, and financial outcomes. Specifically, Essay 2 develops theory around the impact of intangible assets on the likelihood of deviant behavior as well as investors' perceptions of this behavior. In this way, Essay 2

expands traditional organizational research on intangible assets that has focused primarily on how intangible assets lead to competitive advantage, but has not looked at 1) how certain intangible assets may lead to deviant behaviors nor 2) how certain intangible assets, when connected with deviant behavior, affect stakeholder perceptions of the firm. In addition, whereas organizational research has begun to view certain intangible assets as potential liabilities under particular circumstances (cf. Rhee & Haunschild, 2006), there appears to be much room for further development in this area, given the long-standing management research that has focused on intangible assets as positive contributors to a firm's competitive advantage and performance (e.g., Deephouse, 2000; Fombrun & Shanley, 1990; Rindova et al., 2005; Roberts & Dowling, 2002).

Third, Essay 2 expands financial and accounting research by integrating theory on intangible assets and their role in influencing firm performance into this domain. While financial research has recognized the importance of earnings surprises, it has remained rather agnostic in deducing why surprises occur or why investors may act differentially to them, depending on the firm announcing the surprise. In other words, financial research has examined the impact of earnings surprises on a firm's stock price, but it has not investigated those characteristics of firm strategies that may lead to earnings surprises nor has it theorized on the potential reactions among market participants to surprisers with different attributes.

Finally, Essay 2 links theory and past research from two similar but often non-aligned streams—management and finance. Superficially, one can see where these two fields could overlap—management research is often concerned with how firm strategies lead to competitive advantage or superior performance, and financial research often

investigates market reactions to firm behaviors. To date, however, management research has underutilized financial methodologies to analyze market reactions, nor has it maintained a focus on investors being perhaps the primary stakeholder group of public companies. In addition, finance research has failed to incorporate management theory about the firm as well as multiple firm-level measures that help differentiate firms from one another. By utilizing organizational theories in a financial setting, Essay 2 begins to bridge this gap.

### **Empirical Contributions**

A major empirical contribution of Essay 2 is inherently linked to the last theoretical contribution above—the merging of organizational and financial research to generate a study important to scholars, managers, and investors. In addition, Essay 2's empirical contributions lie in its specific tests, measures, and methodology.

In general, Essay 2 provides a new setting for the testing of the impact of firm intangible assets on strategic behaviors and financial performance. Using reputation and celebrity to predict deviant behavior as well as market reactions expands traditional tests of the relationship between intangible assets and firm performance. In addition, Essay 2 expands recent research that has looked at the contingent effects of intangible assets—that is, under what circumstances do they function as assets for the firm and under what circumstances might they actually function as liabilities? By doing so in a new setting, that of earnings surprises, Essay 2 provides an empirical contribution to both organizational and financial research.

Regarding measures, Essay 2 expands research on firm reputation by measuring the construct across financial and social dimensions with sometimes conflicting results,



indicating the reputation is indeed a multi-faceted construct (cf. Rindova et al., 2005) and that it behooves firms to decide how to maximize the effects of reputation on investors' and all stakeholders' perceptions. More specifically, the different dimensions of reputation may be perceived differently by different stakeholder groups (cf. Mitchell et al., 1997; Pfarrer et al., 2008). Thus, the firm must decide under what circumstances which stakeholders, and therefore which aspects of reputation, are most salient.

More emphatically, Essay 2 provides the first empirical test of firm celebrity as a multi-faceted construct. Traditionally, firm celebrity has been synonymous with firm visibility (cf. Brooks et al., 2003). By developing an empirical measure that looks at celebrity as part deviance, part attention, and part positive emotions, Essay 2's results help illuminate the potentially conflicting aspects of firm celebrity and provide a foundation for future empirical tests. In addition, the paired t-tests illuminated the differences in performances not just between reputable and celebrity firms, but also among all groups in the sample, highlighting the possibility of more fine-grained research on these intangible assets as well as the search for an inflection point where reputation and celebrity provide maximum benefits.

Finally, Essay 2's use an event study across multiple windows and an in-depth content analysis of the emotional tenor of more than 14,000 articles shows a richness of analysis that can assist researchers in future queries about the role of intangible assets in predicting firm strategies and financial outcomes. Advanced content analysis techniques like those presented in this paper can help bridge the gap between large-sample, archival research that may suffer from internal validity issues and small-sample research that allows for the collection of primary data and in-depth analyses but that may suffer from

external validity problems (Duriau, Reger, & Pfarrer, 2007). Analyzing the emotional content of a firm's press releases, media coverage, or even stakeholder-driven blogs should help give credence to more archival-driven data that has been previously criticized as lacking a human element while maintaining the richness of data that only large-sample research can provide.

### **Contributions to Industry and Practice**

Essay 2 also provides guidance to managers, analysts, and investors. An overarching question for managers as well as research scholars asks, "Is it better to be different or to be the same?" (cf. Deephouse, 1999). Organizational research has long tackled this question with mixed results. Essay 2 confronts this conundrum again in a new setting: "Is it better to conform to industry standards and meet earnings expectations, or is it more beneficial to be unpredictable?" On the whole, the marketplace does not like surprises. So, on the surface, firms are expected to be predictable—to conform. But surprises do happen. When they do, what sort of track record benefits the firm in the wake of this deviant or surprise event? Managers are always searching for ways to handle surprises, and surprises, whether good or bad, are often what firms are remembered for. Thus, since surprises are (almost) inevitable, how should a firm position itself in the long run? Essay 2 begins to get at this question by showing that overexposure—being high in reputation and visibility—is nearly always more detrimental to firm performance than being high in one category or the other or not being high in both. In addition, there is some evidence that "reputation sells", that is, that reputation enhances positive surprises and mutes negative ones, and that generating positive emotion in the marketplace also benefits the firm. If this is so, does that mean that firms should strive to limit earnings

surprises through guidance and earnings management as well as stay out of the press in order to benefit from positive surprises when they do happen (“Wow, they must’ve really done well!”) and get a mulligan from the market when bad news arrives (“Oh, they’re good folks. This is a blip on the radar.”)? In contrast, there also appears to be some evidence that one aspect of firm celebrity, media visibility, appears to be a double-edged sword: it serves as an intensifier for *both* positive and negative movements in stock price in the wake of earnings surprise announcements. The choice remains then: Does it pay for the firm to “stay the course” or let “its freak flag fly?” Put in financial terms, would the firm rather be a convertible bond, participating to some extent in a rising market but protected from large losses, or a high-flying growth stock, that reaps rewards in bull markets but suffers the most in bear markets?

Nevertheless, it appears that one of Essay 2’s implicit results, as shown in the post-hoc analyses, is that some reputation or celebrity is a good thing, but too much of both can be detrimental. More specifically, results seem to show that reputation (and positive emotion) benefits the firm amid good and bad news while visibility allows for large up and down swings. Perhaps it is better to be good (and well thought of) than to be known after all (Rindova et al., 2005), but trying to do both hurts the firm—perhaps trying to be “all things to investors” takes the firm’s attention away from providing investors quality information and investors’ attention away from making useful evaluations of firm strategies (Hansen & Haas, 2001). This lack of focus can therefore result in poorer performance amid good *and* bad news—an important result for managers, investors, and analysts.

### **Limitations and Future Research Directions**

I have already illustrated some potential limitations and areas of future research in the paragraphs above. However, in this last section, I'd like to specifically highlight a few areas worthy of discussion, namely: 1) measures, 2) methods, and 3) results.

**Measures.** Essay 2 identified a specific type of deviance—earnings surprises. It would be interesting to investigate the role of reputation, celebrity, and other firm intangible assets or characteristics on other forms of non-conforming behavior like restatements, product recalls, charitable giving, or environmental overcompliance. Does reputation or celebrity impact the likelihood of engaging in these strategic behaviors in similar ways that they influence the likelihood of engaging in financial deviance?

In addition, although I was careful to control for year and industry effects in the regression analyses, it is still possible that investors' perceptions of what constitutes deviant behavior or a "material" surprise may differ by industry or firm. Anecdotally, it appears that the market expects greater gyrations in earnings performance among newer firms and industries, so might firm and industry age make a difference above and beyond controlling for firm size and industry SIC code? In addition, perhaps investors perceive earnings surprises differently from reputable firms or industries, as well as celebrity firms or industries, in the sense that an earnings surprise greater than, say, 1% may be viewed as more (or less) "material", and thus more (or less) deviant, depending on the type of firm that announced it or the industry with which the firm is associated. Although Essay 2 begins to address these questions, a finer-grained approach to how firm intangible assets, age, and perhaps industry affiliation affect investors' perceptions of what deviant behavior actually is may yield fruitful insights.

Similarly, Essay 2 identified a specific stakeholder—the firm’s investors. It would be interesting to investigate the relationships put forth in this paper as they relate to other stakeholder groups like the government, regulators, NGOs, employees, and the firm’s customers. It seems likely that different stakeholder groups will react differently to different types of firm deviance (cf. Pfarrer et al., 2008). Other measures of stakeholder behavior, such as regulatory sanctions, boycotts, company turnover, and lawsuits could then be compared to investors’ reactions in the stock market to check for similarities or differences in stakeholder perceptions of firm deviance.

Finally, Essay 2 did not delineate between celebrity executives and celebrity firms (cf. Chen & Meindl, 1991; Hayward, Pollock, & Rindova, 2004; Park & Berger, 2004; Wade et al., 2006). Whereas organizational and communications research often equate the actions of CEOs and other top management team (TMT) members with those of the firm as a whole (Park & Berger, 2004, Hayward et al., 2004; Wade et al., 2006), and the media, through synecdochic means, often portray firms and their leaders as synonymous (Chen & Meindl, 1991; Lounsbury & Glynn, 2001; Pollock & Rindova 2003), it would be interesting to see if TMT and firm celebrity do indeed converge or if, in fact, they are separate continua. For example, did Jack Welch’s celebrity status at General Electric cause similar or different stakeholder reactions to him and the firm? What about Steve Jobs at Apple or Lee Iacocca at Chrysler? In contrast, do the actions of low profile, non-celebrity CEOs at Mercedes-Benz, DuPont, or American Express correlate to their firms’ high visibility? Further research that investigates the potential dichotomies, benefits, and drawbacks of competing TMT and firm celebrity would be interesting.

**Methods.** Regarding methods, the regressions used in testing the hypotheses yielded mixed results, especially for H3-4. Given the multi-faceted make-up of reputation and celebrity, perhaps a path analysis (cf. Rindova et al., 2005) would help better determine what aspects of behavior impact the firm's decision to engage in deviance as well as the market's reaction to such behavior. In addition, event studies, while effective for short-term results, cannot get at long-term effects of the firm's decision to engage in deviant behavior due to the potential for confounding events. Progress needs to be made to develop methodologies to get at the implications of firm decisions over time.

**Results.** Regarding results, the results of the event study subsample show promise. Future research could look at extending event windows through a thorough examination of all firms in a given sample and perhaps devising a method where certain confounding effects cancel each other out or in fact lead to one another. For example, should a negative earnings surprise CAR be eliminated because of layoffs five days later, or are the layoffs a direct result of the negative surprise and thus should be included? Blending of content analysis techniques and enhanced event study methodologies could help answer this question.

In addition, the relative dearth of significant findings related to negative surprises should lead to further research on the differences in how stakeholders deal with positive and negative news. Do firm characteristics and media attention matter when things are going well, but do all firms, regardless of fame or fortune, sink equally in the wake of negative news?

Finally, the returns associated with firms high in reputation and visibility begin to reveal that perhaps there is a cost associated with "being good *and* being known"

(Rindova et al., 2005). Given that these firms underperformed all other groups for nearly all measures of positive and negative surprises, but that some amount of reputation, positive emotion, or celebrity provided benefits, it appears that there is indeed some sort of inflection point of reputation, visibility, and celebrity that firms should strive for. Perhaps the aphorism, “In all things, moderation” can become the motto for scholars, managers, and investors of the future; else, the marketplace will be consistently challenged to determine when it is better to be different and when it is better to be the same.

**TABLE 1**  
**Companies in Matched Sample**

<b>Company Name</b>	<b>SIC Code</b>	<b>Company Name</b>	<b>SIC Code</b>
<b>FLUOR CORP</b>	<b>1600</b>	GENENTECH INC	2834
FOSTER WHEELER LTD	1600	GLAXOSMITHKLINE PLC -ADR	2834
HALLIBURTON CO	1600	<b>JOHNSON &amp; JOHNSON</b>	<b>2834</b>
CONAGRA FOODS INC	2000	<b>LILLY (ELI) &amp; CO</b>	<b>2834</b>
GROUPE DANONE -ADR	2000	<b>MERCK &amp; CO</b>	<b>2834</b>
NESTLE SA -ADR	2000	NOVARTIS AG -ADR	2834
<b>SARA LEE CORP</b>	<b>2000</b>	NOVO-NORDISK A/S -ADR	2834
<b>UNILEVER NV -ADR</b>	<b>2000</b>	<b>PFIZER INC</b>	<b>2834</b>
CAGLE'S INC -CL A	2015	SCHERING-PLOUGH	2834
<b>BEN &amp; JERRY'S HOMEMDE -CL A</b>	<b>2024</b>	WYETH	2834
HEINZ (H J) CO	2030	AMGEN INC	2836
PIERRE FOODS INC	2030	<b>PROCTER &amp; GAMBLE CO</b>	<b>2840</b>
MAUI LAND & PINEAPPLE CO	2033	CLOROX CO/DE	2842
<b>GENERAL MILLS INC</b>	<b>2040</b>	COLGATE-PALMOLIVE CO	2844
KELLOGG CO	2040	BANDAG INC	3011
CADBURY SCHWEPES PLC -ADS	2060	<b>COOPER TIRE &amp; RUBBER CO</b>	<b>3011</b>
HERSHEY CO	2060	<b>GOODYEAR TIRE &amp; RUBBER CO</b>	<b>3011</b>
ARCHER-DANIELS-MIDLAND CO	2070	<b>NIKE INC -CL B</b>	<b>3021</b>
<b>COCA-COLA CO</b>	<b>2080</b>	JACUZZI BRANDS INC	3080
<b>PEPSICO INC</b>	<b>2080</b>	ARMSTRONG HOLDINGS INC	3089
<b>ANHEUSER-BUSCH COS INC</b>	<b>2082</b>	NEWELL RUBBERMAID INC	3089
KIRIN BREWERY LTD -ADR	2082	PACTIV CORP	3089
MOLSON COORS BREWING CO	2082	<b>RUBBERMAID INC</b>	<b>3089</b>
DIAGEO PLC -ADR	2085	TUPPERWARE BRANDS CORP	3089
<b>LEVI STRAUSS &amp; CO</b>	<b>2300</b>	BROWN SHOE CO INC	3140
VF CORP	2300	K-SWISS INC -CL A	3140
CINTAS CORP	2320	WOLVERINE WORLD WIDE	3140
POLO RALPH LAUREN CP -CL A	2320	CROWN HOLDINGS INC	3411
WARNACO GROUP INC	2320	<b>GILLETTE CO</b>	<b>3420</b>
BENETTON GROUP SPA -ADR	2330	STANLEY WORKS	3420
JONES APPAREL GROUP INC	2330	FORTUNE BRANDS INC	3490
KELLWOOD CO	2330	APPLIED MATERIALS INC	3559
<b>LIZ CLAIBORNE INC</b>	<b>2330</b>	INGERSOLL-RAND CO LTD	3560
KIMBALL INTERNATIONAL -CL B	2520	ITT CORP	3561
<b>MILLER (HERMAN) INC</b>	<b>2520</b>	<b>HEWLETT-PACKARD CO</b>	<b>3570</b>
HNI CORP	2522	HITACHI LTD -ADR	3570
<b>KIMBERLY-CLARK CORP</b>	<b>2621</b>	<b>APPLE INC</b>	<b>3571</b>
SVENSKA CELLULOSE AB -ADR	2621	<b>DELL INC</b>	<b>3571</b>
UPM-KYMMENE CORP -ADR	2621	<b>GATEWAY INC</b>	<b>3571</b>
TEMPLE-INLAND INC	2631	NEC CORP -ADR	3571
<b>3M CO</b>	<b>2670</b>	SUN MICROSYSTEMS INC	3571
AVERY DENNISON CORP	2670	EMC CORP/MA	3572
BEMIS CO INC	2670	NETWORK APPLIANCE INC	3572
SEALED AIR CORP	2670	QUANTUM CORP	3572
BASF AG -ADR	2800	SANDISK CORP	3572
BAYER AG -ADR	2800	WESTERN DIGITAL CORP	3572
<b>DU PONT (E I) DE NEMOURS</b>	<b>2820</b>	3COM CORP	3576
ABBOTT LABORATORIES	2834	<b>CISCO SYSTEMS INC</b>	<b>3576</b>
ASTRAZENECA PLC -ADR	2834	JUNIPER NETWORKS INC	3576
<b>BRISTOL-MYERS SQUIBB CO</b>	<b>2834</b>	CANON INC -ADR	3577



Company Name	SIC Code	Company Name	SIC Code
LEXMARK INTL INC -CL A	3577	CONTINENTAL AIRLINES INC -CL B	4512
<b>XEROX CORP</b>	<b>3577</b>	DELTA AIR LINES INC	4512
DIEBOLD INC	3578	NORTHWEST AIRLINES CORP	4512
NCR CORP	3578	<b>SOUTHWEST AIRLINES</b>	<b>4512</b>
PITNEY BOWES INC	3579	UAL CORP	4512
KONINKLIJKE PHILIPS ELC -ADR	3600	UNITED AIRLINES INC	4512
MATSUSHITA ELECTRIC -ADR	3600	US AIRWAYS GROUP INC	4512
TOSHIBA CORP	3600	<b>FEDEX CORP</b>	<b>4513</b>
ELECTROLUX AB -ADR	3630	VODAFONE GROUP PLC -ADR	4812
<b>MAYTAG CORP</b>	<b>3630</b>	<b>AT&amp;T INC</b>	<b>4813</b>
WHIRLPOOL CORP	3630	<b>BELLSOUTH CORP</b>	<b>4813</b>
<b>SONY CORP -ADR</b>	<b>3651</b>	BT GROUP PLC -ADR	4813
NORTEL NETWORKS CORP	3661	DEUTSCHE TELEKOM AG -ADR	4813
ERICSSON (L M) TEL -ADR	3663	FRANCE TELECOM -ADR	4813
<b>MOTOROLA INC</b>	<b>3663</b>	NIPPON TELEGRAPH & TELE -ADR	4813
NOKIA CORP -ADR	3663	SPRINT NEXTEL CORP	4813
ADVANCED MICRO DEVICES	3674	TELEFONICA SA -ADR	4813
<b>INTEL CORP</b>	<b>3674</b>	VERIZON COMMUNICATIONS INC	4813
KYOCERA CORP -ADR	3674	CBS CORP	4833
TEXAS INSTRUMENTS INC	3674	<b>DISNEY (WALT) CO</b>	<b>4833</b>
MOLEX INC	3678	COMCAST CORP	4841
<b>CORNING INC</b>	<b>3679</b>	AMERISOURCEBERGEN CORP	5122
TDK CORP -ADS	3679	<b>CARDINAL HEALTH INC</b>	<b>5122</b>
<b>DAIMLERCHRYSLER AG</b>	<b>3711</b>	MCKESSON CORP	5122
FIAT SPA -ADR	3711	ASHLAND INC	5160
FORD MOTOR CO	3711	<b>ENRON CORP</b>	<b>5172</b>
<b>GENERAL MOTORS CORP</b>	<b>3711</b>	TENNESSEE GAS PIPELINE CO	5172
<b>HONDA MOTOR LTD -AM SHARE</b>	<b>3711</b>	<b>HOME DEPOT INC</b>	<b>5211</b>
NISSAN MOTOR CO LTD -ADR	3711	<b>LOWE'S COMPANIES INC</b>	<b>5211</b>
PACCAR INC	3711	BELK INC	5311
<b>TOYOTA MOTOR CORP -ADR</b>	<b>3711</b>	DILLARDS INC -CL A	5311
VOLVO AB SWE -ADR	3711	FEDERATED DEPT STORES	5311
DELPHI CORP	3714	KOHL'S CORP	5311
UNITED TECHNOLOGIES CORP	3720	PENNEY (J C) CO	5311
<b>BOEING CO</b>	<b>3721</b>	SAKS INC	5311
TEXTRON INC	3721	BIG LOTS INC	5331
HONEYWELL INTERNATIONAL INC	3728	DOLLAR GENERAL CORP	5331
GENERAL DYNAMICS CORP	3730	DOLLAR TREE STORES INC	5331
TRINITY INDUSTRIES	3743	FAMILY DOLLAR STORES	5331
UNION TANK CAR CO	3743	SEARS HOLDINGS CORP	5331
<b>HARLEY-DAVIDSON INC</b>	<b>3751</b>	<b>TARGET CORP</b>	<b>5331</b>
<b>EASTMAN KODAK CO</b>	<b>3861</b>	<b>WAL-MART STORES INC</b>	<b>5331</b>
FUJIFILM HOLDINGS CORP -ADR	3861	BJ'S WHOLESALE CLUB INC	5399
OCE NV -ADR	3861	<b>COSTCO WHOLESALE CORP</b>	<b>5399</b>
CON-WAY INC	4210	<b>ALBERTSON'S INC</b>	<b>5411</b>
TNT NV -ADR	4210	KONINKLIJKE AHOLD NV -ADR	5411
<b>UNITED PARCEL SERVICE INC</b>	<b>4210</b>	KROGER CO	5411
UNITED STATES POSTAL SERVICE	4210	PUBLIX SUPER MARKETS INC	5411
YRC WORLDWIDE INC	4213	SAFEWAY INC	5411
AMR CORP/DE	4512	SUPERVALU INC	5411

Company Name	SIC Code	Company Name	SIC Code
BRINKER INTL INC	5812	ING GROEP NV -ADR	6311
DARDEN RESTAURANTS INC	5812	METLIFE INC	6311
DENNYS CORP	5812	PRUDENTIAL PLC -ADR	6311
<b>MCDONALD'S CORP</b>	<b>5812</b>	<b>BERKSHIRE HATHAWAY</b>	<b>6321</b>
SONIC CORP	5812	AETNA INC	6324
<b>STARBUCKS CORP</b>	<b>5812</b>	CIGNA CORP	6324
WENDY'S INTERNATIONAL INC	5812	HUMANA INC	6324
YUM BRANDS INC	5812	<b>UNITEDHEALTH GROUP INC</b>	<b>6324</b>
RITE AID CORP	5912	AMERICAN R E PTRS -LP	7011
WALGREEN CO	5912	HILTON HOTELS CORP	7011
BARNES & NOBLE INC	5940	INTERCONTINENTAL HOTELS -ADR	7011
BORDERS GROUP INC	5940	KOOR INDUSTRIES LTD -ADR	7011
OFFICE DEPOT INC	5940	<b>MARRIOTT INTL INC</b>	<b>7011</b>
STAPLES INC	5940	<b>PROMUS HOTEL CORP</b>	<b>7011</b>
<b>TOYS R US INC</b>	<b>5945</b>	STARWOOD HOTELS&RESORTS WRI	7011
<b>AMAZON.COM INC</b>	<b>5961</b>	INTERPUBLIC GROUP OF COS	7311
CDW CORP	5961	OMNICOM GROUP	7311
ABN AMRO HOLDING NV -ADR	6020	WPP GROUP PLC -ADR	7311
BANK OF AMERICA CORP	6020	INTL LEASE FINANCE CORP	7359
<b>BANK ONE CORP</b>	<b>6020</b>	EBAY INC	7370
BARCLAYS PLC/ENGLAND -ADR	6020	ELECTRONIC DATA SYSTEMS CORP	7370
DEUTSCHE BANK AG	6020	<b>GOOGLE INC</b>	<b>7370</b>
HSBC HOLDINGS PLC -ADR	6020	<b>INTL BUSINESS MACHINES CORP</b>	<b>7370</b>
<b>JPMORGAN CHASE &amp; CO</b>	<b>6020</b>	<b>YAHOO INC</b>	<b>7370</b>
NATIONAL AUSTRALIA BK -ADS	6020	CA INC	7372
SUNTRUST BANKS INC	6020	<b>MICROSOFT CORP</b>	<b>7372</b>
WACHOVIA CORP	6020	<b>ORACLE CORP</b>	<b>7372</b>
WELLS FARGO & CO	6020	SYMANTEC CORP	7372
ASTORIA FINANCIAL CORP	6035	LEVEL 3 COMMUNICATIONS INC	7373
<b>GOLDEN WEST FINANCIAL CORP</b>	<b>6035</b>	<b>LUCENT TECHNOLOGIES INC</b>	<b>7373</b>
HUDSON CITY BANCORP INC	6035	UNISYS CORP	7373
SOVEREIGN BANCORP INC	6035	AUTOMATIC DATA PROCESSING	7374
WASHINGTON MUTUAL INC	6035	FIRST DATA CORP	7374
FEDERAL HOME LOAN MORTG CORP	6111	AZTAR CORP	7990
HSBC FINANCE CORP	6141	BOYD GAMING CORP	7990
FORD MOTOR CREDIT CO	6159	HARRAHS ENTERTAINMENT INC	7990
GENERAL ELECTRIC CAP CORP	6159	<b>MIRAGE RESORTS INC</b>	<b>7990</b>
GENERAL ELECTRIC CAPITAL SVC	6159	STATION CASINOS INC	7990
GMAC LLC	6172	E.ON AG -ADR	9997
<b>AMERICAN EXPRESS CO</b>	<b>6199</b>	<b>GENERAL ELECTRIC CO</b>	<b>9997</b>
<b>CITIGROUP INC</b>	<b>6199</b>	SIEMENS AG -ADR	9997
BEAR STEARNS COMPANIES INC	6211		
<b>GOLDMAN SACHS GROUP INC</b>	<b>6211</b>		
LEHMAN BROTHERS HOLDINGS INC	6211		
MERRILL LYNCH & CO INC	6211		
MORGAN STANLEY	6211		
<b>SCHWAB (CHARLES) CORP</b>	<b>6211</b>		
AMERICAN INTERNATIONAL GROU	6311		
AXA -ADR	6311		
HARTFORD LIFE INSURANCE CO	6311		

80 Most Admired/WSJ Rankings firms in **bold**.

For 211 matched firms: 129 matches at 4-digit SIC code level, 32 at 3-digit, and 50 at 2-digit level.

Firms matched on SIC code, assets and revenues.  
No significant differences in assets between 80 and 211, but significant difference in revenues.

**TABLE 2**  
**Earnings Surprises and Median Returns**

<b>Surprise</b>	<b>Measure</b>	<b>Number</b>	<b>Median Surprise</b>
Positive	All ( $> 0$ )	1839	2.2%
Positive	$> 1\%$	1342	3.7%
Positive	top quartile	770	7.2%
Negative	All ( $< 0$ )	945	-3.2%
Negative	$> 1\%$	714	-5.9%
Negative	bottom quartile	754	-5.4%

*3,107 firm-years of earnings data.*

*323 firm-years (10.4%) of non-surprises where actual = estimate.*

**Table 3**  
**Descriptive Statistics**

Variable <sup>a</sup>	Mean	s.d.	1	2	3	4	5	6	7	8	9
1. Pos. 75th	0.25	0.43	1.00								
2. Pos. 1 Pct.	0.43	0.50	0.66 *	1.00							
3. All Pos.	0.59	0.49	0.48 *	0.72 *	1.00						
4. Neg. 25th	0.24	0.43	-0.32 *	-0.49 *	-0.68 *	1.00					
5. Neg. 1 Pct.	0.23	0.42	-0.31 *	-0.48 *	-0.66 *	0.88 *	1.00				
6. All Neg.	0.30	0.46	-0.38 *	-0.58 *	-0.80 *	0.86 *	0.83 *	1.00			
7. 1-day Ret.	0.15	1.55	0.11 *	0.14 *	0.15 *	-0.13 *	-0.11 *	-0.15 *	1.00		
8. Size (ln)	11.48	1.90	0.00	-0.04 *	0.00	0.04 *	0.01	0.01	-0.05 *	1.00	
9. Volume (ln)	12.14	2.17	-0.03	0.01	0.07 *	-0.16 *	-0.17 *	-0.14 *	0.01	0.19 *	1.00
10. Estimates	15.72	9.75	-0.12 *	-0.07 *	0.01	-0.15 *	-0.15 *	-0.08 *	0.01	0.14 *	0.65 *
11. Fin. Rep.	0.09	0.61	-0.13 *	-0.08 *	0.02	-0.12 *	-0.13 *	-0.09 *	0.00	-0.17 *	0.17 *
12. Soc. Rep.	0.08	0.27	-0.07 *	-0.07 *	0.00	-0.05 *	-0.05 *	-0.02	-0.03	0.13 *	0.20 *
13. Fin. Dev.	2.24	2.89	0.05 *	0.05 *	0.00	0.02	0.01	0.00	-0.03	-0.07 *	-0.04
14. Visibility	0.09	0.28	0.03	0.02	0.03	-0.03	-0.03	-0.03	-0.01	0.27 *	0.33 *
15. Pos. Emot.	0.69	0.11	-0.03	0.02	0.04	-0.04 *	-0.04	-0.05 *	0.01	-0.17 *	0.01
			10	11	12	13	14	15			
10. Estimates			1.00								
11. Fin. Rep.			0.20 *	1.00							
12. Soc. Rep.			0.25 *	0.19 *	1.00						
13. Fin. Dev.			-0.12 *	-0.12 *	0.01	1.00					
14. Visibility			0.32 *	-0.01	0.32 *	-0.02	1.00				
15. Pos. Emot.			-0.06 *	0.08 *	-0.02	0.00	-0.04 *	1.00			

<sup>a</sup> Year and industry dummies omitted; \*  $p < .05$

**Table 4: Results of Random Effects Logistic Regression--Positive Earnings Surprises**

<b>Top Quartile Surprises</b>			
	<b>1. (N = 1819)</b>	<b>2. (N = 2285)</b>	<b>3. (N = 1482)</b>
<b>Variables<sup>a</sup></b>	<b>Odds Ratio</b>	<b>Odds Ratio</b>	<b>Odds Ratio</b>
Firm size (ln)	0.96	0.98	0.99
Volume (ln)	1.08	1.07	1.15 *
Estimates	0.96 ***	0.96	0.96 ***
Financial Rep.	0.58 ***		0.60 ***
Strat. Deviance	1.01		1.02
Social Rep.		0.73	0.60
Visibility		1.71 **	1.57
Pos. Emotion		0.62	0.34

**Table 5: Results of Random Effects Logistic Regression--Negative Earnings Surprises**

<b>Bottom Quartile Surprises</b>			
	<b>1. (N = 1819)</b>	<b>2. (N = 2285)</b>	<b>3. (N = 1482)</b>
<b>Variables<sup>a</sup></b>	<b>Odds Ratio</b>	<b>Odds Ratio</b>	<b>Odds Ratio</b>
Firm size (ln)	1.17 **	1.17 **	1.14 †
Volume (ln)	0.89 *	0.91 †	0.88 †
Estimates	0.99	0.97 **	0.99
Financial Rep.	0.82		0.75 *
Strat. Deviance	1.10 *		1.10 *
Social Rep.		0.86	1.02
Visibility		1.12	1.04
Pos. Emotion		0.44	0.54

†  $p < .10$ ; \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$  paired t-tests with unequal variances.

**Table 6: Random Effects Regression--Performance of Positive Surprises**  
**Top Quartile Surprises**

	1. (N = 419)	2. (N = 520)	3. (N = 333)
<b>Variables<sup>a</sup></b>	<b>Coefficient</b>	<b>Coefficient</b>	<b>Coefficient</b>
Firm size (ln)	-0.15 *	-0.04	-0.06
Volume (ln)	0.07	0.12 *	0.10
Estimates	-0.01	0.00	-0.01
Financial Rep.	0.19		0.34 *
Strat. Deviance	-0.06		-0.09
Social Rep.		0.11	0.09
Visibility		-0.16	-0.15
Pos. Emotion		1.28 †	1.26

**Table 7: Random Effects Regression--Performance of Negative Surprises**  
**Bottom Quartile Surprises**

	1. (N = 402)	2. (N = 517)	3. (N = 333)
<b>Variables<sup>a</sup></b>	<b>Coefficient</b>	<b>Coefficient</b>	<b>Coefficient</b>
Firm size (ln)	0.15	0.10	0.11
Volume (ln)	-0.02	-0.09	-0.08
Estimates	-0.01	-0.01	-0.01
Financial Rep.	0.01		-0.02
Strat. Deviance	-0.03		-0.03
Social Rep.		-0.06	-0.14
Visibility		-0.01	-0.11
Pos. Emotion		0.14	-0.33

†  $p < .10$ ; \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$  paired t-tests with unequal variances.

**Table 8: Regression Results Predicting Performance of All Positive Surprises**

	(-1, 0) Window	(0, +1) Window	(-3, +3) Window	(-5, +5) Window
Variables <sup>a</sup>	Coefficient	Coefficient	Coefficient	Coefficient
Firm size (ln)	-0.02	0.04	-0.01	0.00
Volume (ln)	0.03	0.07	0.06	0.06 <sup>†</sup>
Estimates	0.00	-0.07	-0.08	0.00
Financial Rep.	-0.06	0.05	0.05	0.04
Strat. Deviance	-0.05	-0.04	-0.02	-0.03
Social Rep.	-0.04	0.07	-0.11	-0.14
Visibility	0.04	-0.39 <sup>†</sup>	-0.10	-0.18
Pos. Emotion	0.60	0.90	0.53	0.43

**Table 9: Regression Results Predicting Performance of All Negative Surprises**

	(-1, 0) Window	(0, +1) Window	(-3, +3) Window	(-5, +5) Window
Variables <sup>a</sup>	Coefficient	Coefficient	Coefficient	Coefficient
Firm size (ln)	0.03	0.08	0.06	0.05
Volume (ln)	0.03	-0.12	-0.01	-0.03
Estimates	0.00	0.00	-0.07	0.01
Financial Rep.	0.18	-0.15	-0.11	0.05
Strat. Deviance	-0.01	-0.03	-0.02	-0.01
Social Rep.	0.12	0.03	-0.12	-0.25
Visibility	-0.22	-0.09	-0.02	-0.05
Pos. Emotion	0.08	-0.39	0.33	1.20 <sup>†</sup>

**Table 10: Regression Results of Surprise Subsamples (Window [-5, 5])**

	1. Positive Surprises	2. Negative Surprises
Variables <sup>a</sup>	Coefficient	Coefficient
Firm size (ln)	-0.04	0.18
Volume (ln)	0.11	-0.19
Estimates	0.01	-0.02
Financial Rep.	0.26	0.12
Social Rep.	-1.18 <sup>†</sup>	-1.18
Visibility	-1.14 <sup>†</sup>	<i>dropped</i>
Pos. Emotion	0.30	0.59

<sup>†</sup>  $p < .10$ ; \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ ; two-tailed tests.

<sup>a</sup> Industry and year dummies included in analyses; omitted from table. All variables lagged (t-1).

**Table 11**  
**Paired T-Tests Significance Testing for Performance Differences among Positive Surprisers**

	(n = 58) Soc. Rep.	(n = 95) Visibility	(n = 24) Rep. x Vis.	(n = 34) Rep. (no Vis.)	(n = 71) Vis. (no Rep.)	(n = 564) None
<b>CAR (-1, +1)</b>	1.84	1.85	0.69	2.65	2.25	1.74
<b>Top Quartile</b>						
<b>Soc. Rep.</b>	---					
<b>Visibility</b>	n.s.	---				
<b>Rep. x Vis.</b>	†	†	---			
<b>Rep (no Vis.)</b>	n.s.	n.s.	*	---		
<b>Vis. (no Rep.)</b>	n.s.	n.s.	†	n.s.	---	
<b>None</b>	n.s.	n.s.	***	***	*	---

	(n = 104) Soc. Rep.	(n = 146) Visibility	(n = 49) Rep. x Vis.	(n = 55) Rep. (no Vis.)	(n = 97) Vis. (no Rep.)	(n = 1013) None
<b>CAR (-1, +1)</b>	1.22	1.59	0.34	1.99	2.23	1.31
<b>&gt; 1%</b>						
<b>Soc. Rep.</b>	---					
<b>Visibility</b>	n.s.	---				
<b>Rep. x Vis.</b>	*	**	---			
<b>Rep (no Vis.)</b>	*	n.s.	**	---		
<b>Vis. (no Rep.)</b>	*	†	**	n.s.	---	
<b>None</b>	n.s.	†	***	***	***	---

	(n = 175) Soc. Rep.	(n = 204) Visibility	(n = 81) Rep. x Vis.	(n = 94) Rep. (no Vis.)	(n = 123) Vis. (no Rep.)	(n = 1380) None
<b>CAR (-1, +1)</b>	0.56	0.85	-0.08	1.12	1.47	1.17
<b>All</b>						
<b>Soc. Rep.</b>	---					
<b>Visibility</b>	n.s.	---				
<b>Rep. x Vis.</b>	*	**	---			
<b>Rep (no Vis.)</b>	†	n.s.	**	---		
<b>Vis. (no Rep.)</b>	**	*	**	n.s.	---	
<b>None</b>	***	*	***	n.s.	*	---

†  $p < .10$ ; \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$  paired t-tests with unequal variances.



**Table 12**  
**Paired T-Tests Significance Testing for Performance Differences among Negative Surprisers**

	(n = 58)	(n = 61)	(n = 19)	(n = 39)	(n = 42)	(n = 590)
	Soc. Rep.	Visibility	Rep. x Vis.	Rep. (no Vis.)	Vis. (no Rep.)	None
<b>CAR (-1, +1)</b>	-0.11	-0.26	-0.23	-0.06	-0.27	-0.55
<b>Bottom Q'tile</b>						
<b>Soc. Rep.</b>	---					
<b>Visibility</b>	n.s.	---				
<b>Rep. x Vis.</b>	n.s.	n.s.	---			
<b>Rep (no Vis.)</b>	n.s.	n.s.	n.s.	---		
<b>Vis. (no Rep.)</b>	n.s.	n.s.	n.s.	n.s.	---	
<b>None</b>	*	n.s.	†	*	n.s.	---

	(n = 54)	(n = 59)	(n = 17)	(n = 37)	(n = 42)	(n = 547)
	Soc. Rep.	Visibility	Rep. x Vis.	Rep. (no Vis.)	Vis. (no Rep.)	None
<b>CAR (-1, +1)</b>	-0.13	-0.89	-0.89	0.22	-0.89	-0.39
<b>&gt; 1%</b>						
<b>Soc. Rep.</b>	---					
<b>Visibility</b>	n.s.	---				
<b>Rep. x Vis.</b>	n.s.	n.s.	---			
<b>Rep (no Vis.)</b>	n.s.	n.s.	*	---		
<b>Vis. (no Rep.)</b>	n.s.	n.s.	n.s.	*	---	
<b>None</b>	n.s.	*	*	**	*	---

	(n = 83)	(n = 81)	(n = 27)	(n = 56)	(n = 54)	(n = 717)
	Soc. Rep.	Visibility	Rep. x Vis.	Rep. (no Vis.)	Vis. (no Rep.)	None
<b>CAR (-1, +1)</b>	-0.11	-0.31	-0.29	-0.02	-0.32	-0.53
<b>All</b>						
<b>Soc. Rep.</b>	---					
<b>Visibility</b>	n.s.	---				
<b>Rep. x Vis.</b>	n.s.	n.s.	---			
<b>Rep (no Vis.)</b>	n.s.	n.s.	n.s.	---		
<b>Vis. (no Rep.)</b>	n.s.	n.s.	n.s.	n.s.	---	
<b>None</b>	*	n.s.	n.s.	**	n.s.	---

†  $p < .10$ ; \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$  paired t-tests with unequal variances.

**Table 13**  
**Paired T-Tests Significance Testing for Performance Differences among Positive Surprisers**

	(n = 58) Soc. Rep.	(n = 95) Visibility	(n = 62) Emotion	(n = 24) Rep. x Vis.	(n = 34) Rep. (no Vis.)	(n = 71) Vis. (no Rep.)	(n = 564) None
<b>CAR (-1, +1)</b>	1.84	1.85	3.54	0.69	2.65	2.25	1.74
<b>Top Quartile</b>							
<b>Soc. Rep.</b>	---						
<b>Visibility</b>	n.s.	---					
<b>Emotion</b>	**	**	---				
<b>Rep. x Vis.</b>	†	†	**	---			
<b>Rep (no Vis.)</b>	n.s.	n.s.	n.s.	*	---		
<b>Vis. (no Rep.)</b>	n.s.	n.s.	*	†	n.s.	---	
<b>None</b>	n.s.	n.s.	***	***	***	*	---

	(n = 104) Soc. Rep.	(n = 146) Visibility	(n = 124) Emotion	(n = 49) Rep. x Vis.	(n = 55) Rep. (no Vis.)	(n = 97) Vis. (no Rep.)	(n = 1013) None
<b>CAR (-1, +1)</b>	1.22	1.59	2.64	0.34	1.99	2.23	1.31
<b>&gt; 1%</b>							
<b>Soc. Rep.</b>	---						
<b>Visibility</b>	n.s.	---					
<b>Emotion</b>	**	**	---				
<b>Rep. x Vis.</b>	*	**	***	---			
<b>Rep (no Vis.)</b>	*	n.s.	n.s.	**	---		
<b>Vis. (no Rep.)</b>	*	†	n.s.	**	n.s.	---	
<b>None</b>	n.s.	†	***	***	***	***	---

	(n = 175) Soc. Rep.	(n = 204) Visibility	(n = 174) Emotion	(n = 81) Rep. x Vis.	(n = 94) Rep. (no Vis.)	(n = 123) Vis. (no Rep.)	(n = 1380) None
<b>CAR (-1, +1)</b>	0.56	0.85	2.30	-0.08	1.12	1.47	1.17
<b>All</b>							
<b>Soc. Rep.</b>	---						
<b>Visibility</b>	n.s.	---					
<b>Emotion</b>	***	***	---				
<b>Rep. x Vis.</b>	*	**	***	---			
<b>Rep (no Vis.)</b>	†	n.s.	**	**	---		
<b>Vis. (no Rep.)</b>	**	*	†	**	n.s.	---	
<b>None</b>	***	*	***	***	n.s.	*	---

†  $p < .10$ ; \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$  paired t-tests with unequal variances.

**Table 14**  
**Paired T-Tests Significance Testing for Performance Differences among Negative Surprisers**

	(n = 58) Soc. Rep.	(n = 61) Visibility	(n = 67) Emotion	(n = 19) Rep. x Vis.	(n = 39) Rep. (no Vis.)	(n = 42) Vis. (no Rep.)	(n = 590) None
<b>CAR (-1, +1)</b>	-0.11	-0.26	-0.13	-0.23	-0.06	-0.27	-0.55
<b>Bottom Q'tile</b>							
Soc. Rep.	---						
Visibility	n.s.	---					
Emotion	n.s.	n.s.	---				
Rep. x Vis.	n.s.	n.s.	n.s.	---			
Rep (no Vis.)	n.s.	n.s.	n.s.	n.s.	---		
Vis. (no Rep.)	n.s.	n.s.	n.s.	n.s.	n.s.	---	
None	*	n.s.	*	†	*	n.s.	---

	(n = 54) Soc. Rep.	(n = 59) Visibility	(n = 66) Emotion	(n = 17) Rep. x Vis.	(n = 37) Rep. (no Vis.)	(n = 42) Vis. (no Rep.)	(n = 547) None
<b>CAR (-1, +1)</b>	-0.13	-0.89	-0.03	-0.89	0.22	-0.89	-0.39
<b>&gt; 1%</b>							
Soc. Rep.	---						
Visibility	n.s.	---					
Emotion	n.s.	n.s.	---				
Rep. x Vis.	n.s.	n.s.	n.s.	---			
Rep (no Vis.)	n.s.	n.s.	n.s.	*	---		
Vis. (no Rep.)	n.s.	n.s.	n.s.	n.s.	*	---	
None	n.s.	*	†	*	**	*	---

	(n = 83) Soc. Rep.	(n = 81) Visibility	(n = 85) Emotion	(n = 27) Rep. x Vis.	(n = 56) Rep. (no Vis.)	(n = 54) Vis. (no Rep.)	(n = 717) None
<b>CAR (-1, +1)</b>	-0.11	-0.31	-0.06	-0.29	-0.02	-0.32	-0.53
<b>All</b>							
Soc. Rep.	---						
Visibility	n.s.	---					
Emotion	n.s.	n.s.	---				
Rep. x Vis.	n.s.	n.s.	n.s.	---			
Rep (no Vis.)	n.s.	n.s.	n.s.	n.s.	---		
Vis. (no Rep.)	n.s.	n.s.	n.s.	n.s.	n.s.	---	
None	*	n.s.	**	n.s.	**	n.s.	---

†  $p < .10$ ; \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$  paired t-tests with unequal variances.

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