

NONPROFESSIONAL INVESTORS' PERCEPTIONS OF CORPORATE GOVERNANCE FACTORS

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Abstract

At a fundamental level, corporate governance mechanisms promote ethical business relationships and actions. Having the proper governance mechanisms in place is especially important to the less informed, nonprofessional class of investors who may not have the ability, power or influence to monitor management. This paper presents a study of nonprofessional investors' perceptions of the importance of corporate governance mechanisms. Based on prior literature and archival studies of corporate governance mechanisms, four broad categories of corporate governance are identified. A survey assessing investors' perceptions of 22 corporate governance mechanisms from these broad categories was administered to 438 participants. The results from factor analysis indicate that a 10-factor solution best describes the constructs underlying investors' perceptions of the 22 corporate governance mechanisms included in this survey. This measure is compared to corporate governance measures developed in prior literature from factor analyses of archival data. The comparison reveals

several similarities between these measures and highlights areas of corporate governance that are important to investors but are not fully addressed or included in the archival studies. The information provided about investors' perceptions of corporate governance mechanisms and the measure of corporate governance developed in this paper will be useful in aiding the design of future research investigating investors' reactions to corporate governance information.

INTRODUCTION

In recent years, corporate failures, fraud, dubious accounting practices, abuses of corporate power, and excessive executive compensation are common news items. In response to corporate scandals, corporate governance has become the focus of much public attention. Many feel that improved corporate governance mechanisms are necessary to enforce ethical business practices in the interest of protecting investors (Falk, 2003; Sama and Shoaf, 2005). Public outcry over corporate scandals led to regulatory measures such as the Sarbanes-Oxley Act of 2002 (SOX), which takes steps to remedy weaknesses in systems of corporate governance and restore investor confidence. The European Union also acted to enhance corporate governance disclosures in an effort to provide investors with better information (Modernising Company Law, 2003).

As a result, there has been increased emphasis placed on research investigating corporate governance. One of the most common forms of corporate governance research analyzes archival stock market data to derive the elements of corporate governance that have the most impact on firm performance and investor decisions. However, corporate governance covers a large number of distinct concepts and corporate characteristics, making it a difficult concept to examine (Arjoon, 2005; Brink, 2010). A few

recent studies try to develop an overall measure of corporate governance based on numerous specific mechanisms (e.g., Bebchuk et al., 2009; Brown and Caylor, 2006; Dalton et al., 1998; Dey, 2008; Gompers et al., 2003; Larcker et al., 2007). However, while some of these studies find correlations between measures of corporate governance and dependent variables such as firm performance, many have found little evidence to support the proposition that corporate governance factors have a significant incremental effect when other available data are taken into consideration. As a result, Larcker et al. (2007) call for further research on measures of corporate governance and the importance of various corporate governance mechanisms.

This study contributes to that call for research. However, it differs from prior research by focusing on nonprofessional investors' perceptions of corporate governance mechanisms. Corporate governance, in essence, exists to solve moral hazard problems for investors. At a fundamental level, corporate governance promotes ethical business relationships and actions (Arjoon, 2005). Having the proper governance items in place is especially important to the less informed, nonprofessional class of investors who do not have the ability, power or influence to monitor management. In the recent financial scandals many nonprofessional investors suffered substantial harm (Cianci and Kaplan, 2007). Therefore, it is the confidence of individual investors and potential investors that recent regulatory acts are designed to restore (Hogan, 2003).

Individual investors are a significant group as they represent forty-five percent of stock ownership (Browning et al., 1999), have increasing participation in the market (Barber and Odean, 2002; Ip, 1998; SEC, 2001 2), and empirical evidence suggests that individual investor behavior affects market prices (Daniel et al., 2002; Shleifer and Summers, 1990). While the impact of corporate governance mechanisms on investor behavior remains an empirical question, experimental evidence suggests that some changes in corporate governance can have an impact on non-

professional investors' perceptions of financial reporting credibility (Almer et al., 2008). This study provides further evidence regarding nonprofessional investors' perception of corporate governance and how specific corporate governance items influence their perceptions of corporate credibility.

Based on prior literature and archival studies of corporate governance mechanisms, four broad categories of corporate governance are identified: board of director characteristics, ownership and compensation, investor rights and limitations of managerial power, and audit. Twenty-two specific corporate governance mechanisms within these categories are included in a survey designed to elicit individual investors' views on corporate governance. The results from 421 completed surveys indicate that 10 underlying constructs best explain an overall picture of corporate governance from the nonprofessional investor's viewpoint. As predicted, these ten factors are related to the four broad categories of corporate governance identified in the literature review.

Specifically, two factors emerge from the corporate governance mechanisms related to the board of director characteristics: Board and CEO Checks and Board Size. Three factors are identified from the corporate governance mechanisms related to ownership and compensation: Outsider Ownership, Insider Ownership, and Compensation Committee Strength. Three additional factors emerge from the corporate governance mechanisms related to investor rights and limitations of managerial power: Shareholder Power, Anti-Takeover Measures, and Term Limitations. Finally two factors encompass the constructs underlying audit: Audit Strength and Audit Intensity.

The corporate governance measure resulting from this analysis is then compared to two corporate governance measures developed using factor analysis in combination with archival data (Larcker et al., 2007 and Dey, 2008). This triangulation of methodologies leads to a more comprehensive picture of the interrelations between numerous detailed corporate governance

mechanisms. Despite differences in data sources and specific corporate governance mechanisms, a number of similarities exist among these three measures. For example, all three studies indicate that there are multiple constructs underlying the corporate governance mechanisms that relate to board of director characteristics. Further, there seems to be consensus that outsider and insider ownership represent two distinct corporate governance constructs.

However, results from the current study provide more information about mechanisms related to investor rights, as these mechanisms were not included in the archival data analyses. Further, the comparison reveals that while investors perceive audit-related mechanisms as belonging to separate constructs from other mechanisms, Larcker et al. (2007) find that audit-related mechanisms measured through archival data merge with factors related to the board and compensation committees. Thus, these results provide important information about the similarities and differences between the way investors perceive corporate governance mechanisms and the measures obtained from analyses of archival data.

The information provided about investors' perceptions of corporate governance mechanisms and the measure of corporate governance developed in this paper will be particularly useful in aiding the design of future experimental studies in regard to nonprofessional investors' reactions to corporate governance information. Such studies would contribute to a better understanding of how the presence or absence of corporate governance information influences investor perceptions and behavior. Further experimental studies regarding the effect of corporate governance on investor behavior will make it possible to obtain evidence on ethics-related measures that are not directly observable in archival data (Almer et al., 2008). The results of this paper provide guidance in regard to the mechanisms that may be most important to nonprofessional investors, and are therefore of primary interest for future investigations.

BACKGROUND AND LITERATURE REVIEW

Corporate governance is a broad term, which includes all of the legal and contractual precautions investors use to minimize agency costs of management (Easterbrook, 2002). Despite the number of research articles investigating corporate governance, there still isn't a clear definition of the concept (Brink, 2010). While corporate governance is a difficult concept to define and measure, some of the more recent literature has tried to develop a more comprehensive picture of corporate governance. Dalton et al. (1998) performed a meta-analysis in an attempt to reconcile the varying findings of prior literature and found no significant relation between board composition or board leadership and firm performance.

Others have used proprietary rating systems as their measure of corporate governance. For example, Gompers et al. (2003) studied the correlations between corporate governance factors followed by the Investor Responsibility Research Center (IRRC) and firm value and stock returns. Using all twenty-four provisions followed by the IRRC, they constructed a governance index to proxy for the level of shareholder rights for large firms during the 1990s.

They found that firms with stronger shareholder rights had higher firm value, higher profits, higher sales growth, lower capital expenditures, and made fewer corporate acquisitions. Bebchuk et al. (2009) extended this study by investigating which of the twenty-four corporate governance factors followed by the IRRC mattered most in regard to firm value and stockholder returns. They proposed an index based on only six institutional and takeover readiness provisions concluding that only a small subset of corporate governance provisions was of real significance. They suggested that future research would be more valuable if it tries to identify and focus on key harmful provisions.

Brown and Caylor (2006) investigated the relation between firm performance and corporate governance strength using items from the measure of corporate governance by Institutional Shareholder Services. They found that the strength of corporate governance was positively related to stock returns and firm profitability. In contrast with Dalton et al. (1998) and Bebchuk et al. (2009), of the four corporate governance categories included in their measure, board composition was identified as the most important factor, and takeover defenses were identified as the least important factor.

In an attempt to provide a comprehensive yet parsimonious measure of corporate governance, Larcker et al. (2007) used principal components factor analysis to examine a broad set of corporate governance factors. They used archival data from 2003 on 39 measures of corporate governance. The factor analysis resulted in 14 acceptable governance factors. They tested the relation between this measure of corporate governance and various measures of managerial behavior and organizational performance. The results indicated that the 14 governance factors exhibit some ability to explain future operating and stock price performance. However, they have only a modest ability to explain “accounting manipulations” or other managerial behavior. They call for additional research investigating measures of corporate governance.

Using a similar methodological approach, Dey (2008) used archival data to investigate the relation between corporate governance mechanisms and the presence of agency conflicts. To determine the quality of corporate governance, Dey applied principal components analysis to 22 corporate governance factors and obtained a 7-factor corporate governance measure. Her results indicate that governance structures, particularly those related to the audit committee, auditor, and board of directors, are positively related to the level of agency conflicts in firms.

In summary, researchers have had difficulty in obtaining consistent results with various measures of corporate governance

derived from archival data. Inconsistent results might be due, in part, to the elusive nature of corporate governance. Because corporate governance can encompass so many measures, it may be difficult to identify the relations between specific corporate governance items and firm performance indicators consistently. A different approach to the study of corporate governance, which may help clarify our overall understanding of the topic, would be to investigate how investors perceive it. Picou and Rubach (2006) find evidence of increased stock price reactions following announcements of a corporation's enactment of corporate governance guidelines. They conclude that this provides support for the assertion that good governance matters to institutional investors.

Preliminary experimental evidence indicates that some specific corporate governance items impact investor perceptions and behaviors. Almer et al. (2008) find that some changes in corporate governance can have an impact on non-professional investors' perceptions of financial reporting credibility following restatements. However, there are many items that can contribute to corporate governance, and very little evidence exists about how individual nonprofessional investors view these governance mechanisms.

Ethically, management has an important fiduciary duty to fulfill toward current and potential investors (Cianci and Kaplan, 2008). Many nonprofessional investors suffered great losses as a result of the recent financial scandals. The Sarbanes-Oxley Act and other corporate governance reforms have aimed to restore the confidence of individual investors, especially nonprofessional or potential investors (Hogan, 2003). As a significant part of the market, the actions of individual investors have been linked to market behavior in analytical models (Dye, 1998), and market fluctuations have been attributed to the reactions of investors (Bartov et al., 2000). In addition, individual investors have increasing participation in the market (Barber and Odean, 2002; Ip, 1998), and empirical evidence suggests that individual investor

behavior affects market prices (Daniel et al., 2002). Therefore, having a better understanding of what influences nonprofessional, potential investors' decisions is an important component of understanding the concept of corporate governance.

This study investigates the construct of corporate governance from the nonprofessional investor's perspective. Using theory as well as the findings of prior research, a survey instrument was developed to gather information from individual investors and potential investors in order to develop a measure of corporate governance. The next section summarizes the corporate governance mechanisms investigated.

CORPORATE GOVERNANCE MECHANISMS

Agency theory outlines the need for strong corporate governance. According to agency theory, managers have incentives to act in their own best interests even if such actions are detrimental to shareholders (Fama and Jensen, 1983; Watts and Zimmerman, 1986). Therefore, contracts, including a variety of corporate governance mechanisms, are established to monitor managers' behavior.

Thus, the essential function of corporate governance mechanisms is to protect the individual investor and promote ethical business practices. Based on prior corporate governance literature, four broad categories of corporate governance mechanisms are identified in this paper: board of director characteristics, ownership and compensation, investor rights and limitations of managerial power, and audit. From these four categories, 22 mechanisms are included in survey developed to investigate investors' perceptions of the corporate governance mechanisms that regulatory agencies enforce (See Table 1). The expectation is that a factor analysis of this data will reveal an underlying pattern related to these four categories.

Board of Director Characteristics

The first category includes corporate governance mechanisms related to the board of directors. The board of directors' purpose is to ensure that management's actions are consistent with investor interests (Cohen et al., 2002). Independent boards, or boards with a majority of independent members, are thought to monitor management without conflicts of interest. While studies such as Klein (2002) have found a positive relation between board independence and firm performance, other studies have not found a significant relation (Beasley, 1996; Brown and Caylor, 2006; Dalton et al., 1998; Dechow et al., 1996). However, Uzun, Szewczyk, and Varma (2004) find that boards accused of fraud have less independent boards. In the aftermath of fraud detection, Farber (2005) finds a positive correlation between increased board member independence and investor trust. This suggests that investors view board independence as an important characteristic.

Two additional board characteristics are the separation of the Board Chairman and CEO positions and the CEO's ability to select board members. Separating the CEO and Chairman positions may eliminate some potential conflicts of interest that could occur if the same person were to hold both positions (Jensen, 1993). Further, preventing the CEO from selecting other board members would limit the CEO's power to control the board (Jensen, 1993). However, prior literature finds inconsistent evidence regarding the relation between these corporate governance mechanisms and firm performance or market reactions (e.g., Brown and Caylor, 2006; Dalton et al., 1998; Dechow et al., 1996).

Another board of director corporate governance mechanism is to limit the number of boards on which directors may serve. Such limitations help to ensure that board members are able to devote adequate attention to the company. Core et al. (1999) included such a measure of "busy members" as an indicator of a lack of board member strength. However, membership of a director

on multiple boards could also be viewed as an indicator of that person's positive reputation as a good director.

A final mechanism in this category is board size. Larger boards offer increased monitoring capabilities but suffer from poor communication and group decision-making (Jensen 1993; Lipton and Lorsch, 1992). Several studies have found a negative relation between firm performance and board size (Brown and Caylor, 2006; Core et al., 1999; Yermack, 1996), and some studies suggest that the optimal board size is between six and fifteen members (Brown and Caylor, 2006).

Ownership and Compensation

The next category includes corporate governance mechanisms related to firm ownership and managerial compensation. The most direct way to align firm and investor incentives and ensure investor rights is through concentrated firm ownership. Therefore, the presence of a large block holder can be one effective method of monitoring management (Shleifer and Vishny, 1997).

However, large block holders may act in their own interest to the detriment of other investors. Institutional investors are perhaps the most important form of a large block holder. Institutional investors wield a great deal of power in the stock market because they are able to buy and sell significant blocks of stock in short periods of time. Therefore, the presence of an institutional investor may be important to an individual investor when making investment decisions. Whether institutional investors actually monitor and exert pressure on managers is questionable. However, studies such as Bushee (1998) and Chung et al. (2002) find evidence consistent with the assumption that institutional investors serve a monitoring role.

Similarly, studies have found that outside investors would be likely to act in a manner that coincides with the individual investor's best interests (Dechow et al., 1996). An outside investor is defined as a person who owns stock in a company, but is not an

employee of the company. Therefore, individual investors may perceive the presence of outside investors who own large blocks of stock or the majority of a company's stock as a desirable characteristic. On the other hand, one could argue that insiders make more informed decisions; if so, individual investors might view outside ownership as a less desirable characteristic.

A related and controversial board characteristic is board member and managerial stock ownership. Consistent with principal-agent models, some researchers argue that stock ownership provides directors with an incentive to improve firm performance (Jensen, 1993; Watts and Zimmerman, 1986). Thus, compensation contracts that directly link managers' compensation to the firm's market value should be desirable to investors (Jensen, 1993; Watts and Zimmerman, 1986). However, others argue that managers who own stock will act selfishly by manipulating firm earnings in order to maximize their wealth (Healy, 1985).

An additional compensation element is the presence of a compensation committee to handle compensation policies and issues. However, some studies indicate that the presence of a compensation committee is positively correlated with the presence of fraud, especially when compensation committees are less independent (Uzun et al., 2004). Therefore, whether a compensation committee exists and whether it is made up of independent outside directors may be important to investors.

Investor Rights and Limitations of Managerial Power

A third category of corporate governance mechanisms consists of items that protect investor rights and limit managerial power. Theoretically, strong corporate governance mechanisms limit the control managers have over the allocation of investors' funds. Some studies provide evidence that firm performance is positively related to shareholder rights (Gompers et al., 2003). However, shareholders may accept restrictions of their rights in the hope of maximizing their wealth. One of the primary ways to empower investors is through voting rights, such as the ability of

shareholders to act by written consent or to call a special meeting. In traditional archival studies, measures of shareholder rights rarely prove significant. Bebchuk et al. (2009) argue this may be due to the nature of the dependent variables being considered. However, the individual investor may view these as very important corporate governance factors.

Shareholder rights are commonly weak in regard to anti-takeover measures. Takeovers typically increase the value of the acquired firm. Therefore, some view takeovers as a corporate governance mechanism (Shleifer and Vishny, 1997). Often, managers oppose such takeovers to protect their jobs. One measure of shareholders' rights in regard to anti-takeover measures is whether management can act without shareholder approval in exercising anti-takeover tactics. There are many managerial protection measures related to takeovers. One of the most common is the poison pill. Poison pills are devices to make takeovers extremely costly if management does not approve. The presence of this provision could be viewed as a proxy for managerial protection.

Arrangements to protect management from removal may benefit shareholders to the extent that they induce management to make plans that will benefit the firm in the long-term (Bebchuk et al., 2009). However, a potential concern is the ability of management to retain their position even if they are no longer competent to run the firm (Shleifer and Vishny, 1997). Entrenchment occurs when arrangements to protect management from removal are harmful to shareholders. Arrangements that prevent the removal of managers may lead to managerial shirking, empire building, and extraction of private benefits (Bebchuk et al., 2009). Bylaws that establish required retirement ages or limits to the length of directors' terms are useful in preventing this form of entrenchment.

Audit

The fourth general category consists of corporate governance mechanisms related to the audit function. The presence of an audit committee serves as a monitoring device (Watts and Zimmerman, 1986). Independence allows the audit committee to act without fear of repercussions from management. Therefore, audit committee independence is thought to have a positive effect on firm performance (Klein, 2002). There have been mixed results on the significance of this factor.

While some studies find a negative relation between audit committee independence and proxies for negative factors such as abnormal accruals or fraud accusations (Frankel et al., 2002; Klein, 2002; Uzun et al., 2004), other studies find audit committee independence is unrelated to firm performance measures (Brown and Caylor, 2006). Audit committees that meet frequently and regularly are seen to be active in fulfilling their monitoring role (Cohen et al., 2002; Xie et al., 2003). Finally, in regard to the external audit function, research suggests that having a Big 4 auditor is better than having a smaller auditor (Dechow et al., 1996). Individual investors may view the presence of a Big 4 auditor as a sign of credibility.

METHODOLOGY

A survey instrument was developed using twenty-two corporate governance variables taken from the four categories discussed in the previous sections. The survey elicits active and potential individual investors' views on the importance of corporate governance mechanisms from an investment perspective. This instrument consists of forty-four questions that elicit responses on continuous nine point Likert-type scales (see Table 1). Two survey questions address each corporate governance mechanism to provide assurance of reliability. Question order was varied to prevent order effects.

To reduce misunderstanding, negative wording was avoided except where necessary (Converse and Presser, 1986) and

survey questions were kept as short as possible. To provide participants with a common frame of reference, definitions of words that might be unfamiliar to participants were provided (Converse and Presser, 1986).¹ Providing definitions helps to ensure that questions mean the same thing to all respondents, thereby increasing the reliability of the instrument (Fowler, 1993).

The survey was pilot tested to evaluate the clarity of the instrument. A focus group discussion was held with the pilot test participants to help ensure that the survey items had content validity. In addition, two accounting professionals carefully evaluated item wording. After revisions, the survey was subjected to a second pilot test. The final survey was administered to 438 upper-level undergraduate and graduate business students in the United States. Nine surveys were eliminated due to participant statements indicating they had not read the survey items, and eight additional surveys were eliminated because they were incomplete. This resulted in a final sample of 421 completed instruments.

Overall, respondents had a mean of 1.29 years of investment experience with a range of 0 to 20 years (Std. Deviation 2.32). One hundred and ninety-seven participants reported at least some investment experience. Of the participants with investment experience, the mean experience was 2.82 years and the range was from 0.25 to 20 years (Std. Deviation 2.73).²

¹ For example, definitions of phrases such as independent, outside shareholder, and institutional investor were provided to ensure that participants had a clear understanding of survey items using those phrases.

² To investigate the importance of investment experience in this participant pool, the 197 participants with investment experience were analyzed separately from the remaining participants in a sensitivity analysis. The results indicated that the factor structure for individuals with investment experience is the same as the factor structure for the entire participant pool.

TABLE 1
Survey Items by Corporate Governance Category

Board of Director Characteristics:

<u>Mechanism</u>	<u>Survey Items</u>
Majority of Board Members are Independent	(1A) Having a majority of independent board members makes a company a better investment. (1B) When I am making an investment decision, I think it is important for a company to have a majority of independent board members.
CEO/Chairman Separation	(2A) I prefer to invest in companies where the CEO is not the chairman of the board of directors. (2B) When I am deciding whether to invest in a company, I think it is important for the CEO and chairman of the board of directors to be two different people.
CEO's Ability to Select Board Members	(3A) I prefer to invest in companies where the CEO is not involved in the selection of new board members. (3B) A company is a better investment if the CEO does not select the members of the board of directors.

<u>Mechanism</u>	<u>Survey Items</u>
Limit on the Number of Boards a Director Can Serve On	(4A) I prefer to invest in companies that have a policy limiting the number of boards a director may serve on. (4B) A policy that limits the number of different boards a director may serve on makes a company a better investment.
Board Size	(5A) My decision to invest in a company would be affected by the size of the board of directors. (5B) The size of the board of directors is important to me when I am deciding whether to invest in a company's stock

Ownership and Compensation:

Institutional Investors	(6A) It is a sign that a company is a good investment when institutional investors choose to invest in it. (6B) I prefer to invest in the same companies institutional investors choose to invest in.
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Presence of Outside Blockholders	(7A) A company is a better investment if it has outside shareholders who own large blocks of stock. (7B) I prefer to invest in companies where outside shareholders own large blocks of stock.
Outsiders Own Majority of Stock	(8A) I prefer to invest in companies where outside shareholders own at least 50% of the stock. (8B) Having a majority of outside shareholders makes a company a better investment.
Board Member Stock Ownership	(9A) I prefer to invest in companies where the members of the board of directors own stock in the company. (9B) For companies that I invest in, it is important for the board members to own stock.
Managerial Stock Ownership	(10A) I prefer to invest in companies where managers own the company's stock. (10B) When I am deciding whether to invest in a company, I think it is a good sign if manager own stock in the company.
Mangers' Compensation Linked to Stock Price	(11A) I prefer to invest in companies that link managers' compensation to the company's stock price. (11B) I prefer to invest in companies where managers are compensated based on the company's performance.

TABLE 1 (continued)

<u>Mechanism</u>	<u>Survey Items</u>
Compensation Committee Exists	(12A) The presence of a compensation committee is important to me when I am deciding to invest in a company. (12B) I prefer to invest in companies that have a compensation committee.
Compensation Committee Independence	(13A) The independence of compensation committee members is important to me when I am deciding whether to invest in a company. (13B) I prefer to invest in companies that have independent compensation committee members.
Investor Rights and Limitations of Managerial Power:	
Shareholder Rights	(14A) I care about what my shareholder rights will be prior to investing in a company. (14B) My rights as a shareholder are an important consideration when I decide whether to invest in a company.
Voting Rights	(15A) When making an investment decision, I care about what my voting rights would be as a shareholder. (15B) Shareholder voting rights are important to take into account prior to investing in a company's stock.
Shareholder Approval for Takeover Prevention	(16A) I prefer to invest in companies where managers need shareholder's approval before taking action against a takeover. (16B) I feel that managers should have to ask shareholder before taking action to prevent takeovers.
Poison Pill Provision	(17A) The presence of a poison pill provision makes a company a less desirable investment. (17B) I prefer to invest in companies that do not have a poison pill provision.

Director Term Limits	(18A) A company is a better investment if it places a limit on how long a person can remain on the board of directors. (18B) I prefer to invest in companies where there is a limit on how long a person can stay on the board of directors.
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Audit:

<u>Mechanism</u>	<u>Survey Items</u>
Audit Committee	(19A) When I'm considering an investment in a company the presence of an audit committee is important to me. (19B) I prefer to invest in companies that have an audit committee.
Independent Audit Committee	(20A) I prefer to invest in companies that have independent audit committee members. (20B) An independent audit committee makes a company a better investment
Big Four Auditor	(21A) I prefer to invest in companies that use a Big Four auditor. (21B) Companies using one of the Big Four auditors are better investments than companies using a smaller auditing firm.
Frequency of Audit Committee Meetings	(22A) Frequent audit committee meetings are a sign that a company is a good investment. (22B) I prefer to invest in companies that have frequent audit committee meetings.

RESULTS

Participants indicated their agreement to statements about the importance of each corporate governance item from an investment perspective on a 9-point Likert scale where 1 = Strongly Disagree and 9 = Strongly Agree. Mean responses for each survey item are presented in Table 2. The mean responses indicate that, on average, participants perceived the least important mechanisms to be the absence of a poison pill provision (mean response 4.56 and 4.75 for the A and B wordings, respectively) and

board size (mean response 4.73 and 5.00 for the A and B wordings, respectively). The items that participants believed to be the most important were the presence of an audit committee (mean response 6.77 and 6.74 for the A and B wordings, respectively), the independence of the audit committee (mean response 6.63 and 6.35 for the A and B wordings, respectively), and board member stock ownership (mean response 6.76 and 6.52 for the A and B wordings, respectively).

TABLE 2
Mean Response to Survey Items^a

	<u>Item</u>	<u>Mean</u>	<u>s.d.</u>
Board of Director Characteristics:			
Majority of Board Members are Independent	1A	6.28	1.72
	1B	6.33	1.60
CEO/Chairman Separation	2A	6.07	1.72
	2B	6.55	1.59
CEO's Ability to Select Board Members	3A	6.06	1.71
	3B	5.88	1.62
Limit on the Number of Boards a Director Can Serve On	4A	6.11	1.45
	4B	5.95	1.42
Board Size	5A	4.73	1.69
	5B	5.00	1.47
Ownership and Compensation:			
Institutional Investors	6A	6.44	1.45
	6B	5.88	1.35
Presence of Outside Blockholders	7A	5.17	1.55
	7B	5.20	1.36
Outsiders Own Majority of Stock	8A	5.57	1.41
	8B	5.49	1.38
Board Member Stock Ownership	9A	6.76	1.58
	9B	6.52	1.60
Managerial Stock Ownership	10A	6.27	1.76
	10B	6.51	1.64
Managers' Compensation Linked to Stock Price	11A	5.56	1.89
	11B	6.49	1.74
Compensation Committee Exists	12A	5.61	1.43

	12B	5.80	1.35
Compensation Committee	13A	6.17	1.45
Independence	13B	6.15	1.45

	<u>Item</u>	<u>Mean</u>	<u>s.d.</u>
Investor Rights and Limitations of Managerial Power:			
Shareholder Rights	14A	6.48	1.66
	14B	6.45	1.62
Voting Rights	15A	6.28	1.91
	15B	6.34	1.57
Shareholder Approval for Takeover Prevention	16A	6.32	1.63
	16B	6.00	1.69
Poison Pill Provision	17A	4.56	1.70
	17B	4.75	1.64
Director Term Limits	18A	5.85	1.69
	18B	5.75	1.65
Audit:			
Audit Committee	19A	6.77	1.52
	19B	6.74	1.50
Independent Audit Committee	20A	6.63	1.67
	20B	6.35	1.59
Big Four Auditor	21A	6.23	1.51
	21B	5.16	1.71
Frequency of Audit Committee Meetings	22A	5.58	1.67
	22B	5.76	1.49

^aParticipants responded on to each item on a 9 point Likert scale where 1 = Strongly Disagree, and 9 = Strongly Agree. Specific wordings for each item are listed in Table 1.

Data Analysis

Factor analysis is used to identify the patterns underlying the survey responses. While the prediction is that the underlying patterns would be related to the four broad categories identified, there were no strong a priori hypotheses about how many factors are necessary to explain the interrelations between the corporate

governance items being tested. Thus, the Maximum Likelihood method of exploratory factor analysis was used.

To verify that factor analysis was appropriate, several characteristics of the data were considered. First, since factor analysis is based on the interrelations between the variables, the data matrix must have a sufficient number of significant correlations to justify the application of factor analysis (Hair et al., 1998). For the sample, the correlation matrix showed that 43.97% (416 of the 946 correlations) were significant at the 0.01 level. An additional 12.37% (117 of the 946 correlations) were significant at the 0.05 level. This substantial number of significant correlations justifies the use of factor analysis.

A second method of determining the appropriateness of factor analysis is to examine the partial correlations among the variables. If there are true factors that can explain the variables, then the partial correlations should be small (Hair et al., 1998). Of the total of 946 partial correlations, only one partial correlation was unreasonably high at 0.434.³ Therefore, the partial correlations provide strong evidence that factor analysis is an appropriate tool to analyze this data.

The overall significance of the correlation matrix can be assessed with Bartlett's Test of Sphericity. The overall correlations are significant (non-zero) at the 0.0001 level with a Bartlett's score of 9190.127. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) analyzes how well the variables are predicted by the other variables. For the sample, the overall KMO is 0.760, which is above the acceptable level of 0.5 for factor analysis (See Table 3). Examination of the KMO values for each item indicates that they all exceed the minimal acceptable KMO score of 0.50 (see Table 3). In conclusion, this preliminary examination of the

³ The partial correlations between the two alternative wordings of each variable are all higher than 0.30. This is a desirable result, because it means that even holding everything else constant, the correlation between the two items that are meant to measure the same variable are high. Therefore these 22 partial correlations are not included in the discussion of problematic partial correlations.

data provides strong evidence that factor analysis is an appropriate tool for analyzing the survey data.

TABLE 3
Appropriateness of Factor Analysis

<u>Item</u>	<u>KMO^a</u>	<u>Item</u>	<u>KMO^a</u>	<u>Item</u>	<u>KMO^a</u>
1A	0.729	9A	0.715	17A	0.540
1B	0.777	9B	0.754	17B	0.559
2A	0.819	10A	0.723	18A	0.705
2B	0.851	10B	0.711	18B	0.696
3A	0.769	11A	0.755	19A	0.785
3B	0.818	11B	0.735	19B	0.781
4A	0.819	12A	0.798	20A	0.806
4B	0.808	12B	0.788	20B	0.794
5A	0.700	13A	0.802	21A	0.759
5B	0.697	13B	0.788	21B	0.654
6A	0.655	14A	0.837	22A	0.712
6B	0.637	14B	0.809	22B	0.747
7A	0.599	15A	0.875		
7B	0.643	15B	0.833		
8A	0.736	16A	0.795		
8B	0.707	16B	0.768		
Bartlett's Test of Sphericity ^b					0.76
Approximate Chi-Square					9190.127
Degrees of Freedom					946
<u>p-value</u>					< 0.001
^a The Kaiser-Meyer-Olkin (KMO) Measure of Sample Adequacy indicates how well each variable is predicted by the other variables. The minimum acceptable score is 0.500.					
^b Bartlett's Test of Sphericity assesses the overall significance of the correlation matrix.					

Determining the Number of Factors

A 10-factor model was selected to represent the relations among the 44 items in the survey based on several considerations. First, since 13 eigen values greater than one appeared in the initial principal component analysis, Kaiser's rule suggested 13 factors.⁴ However, the scree plot suggested that there were between 8 and 13 factors. In addition, only the first 10 factors accounted for at least 3% of the common variance, and the total variance explained by these ten factors prior to rotation was 63.112%. This exceeds the common level of explained variance (60%) for factor analysis studies in the social sciences (Hair et al., 1998). A more objective method of determining the number of factors, parallel analysis (Horn, 1965; Keeling, 2000), employs the formula suggested by Keeling (2000). This formula indicates that 10 factors should be extracted. In addition, the 10-factor model explains over 51.6% of the total variance and reduces the number of large residuals to 9%. These considerations provide strong evidence that a 10-factor model would be the most appropriate solution.

Since it was anticipated that the factors obtained would be correlated, an oblique (Oblimin) rotation was used in the factor analysis. The solution reveals a simple structure, with no variable loading significantly on more than one factor, and this factor solution is easily explained and interpreted. As predicted, the underlying factor structure revealed by this analysis is related to the four broad categories of corporate governance factors identified. Table 4 illustrates the relation between the four broad categories, the 22 mechanisms, and the resulting factor structure. The factors are the following:

Board of Director Characteristics

Board and CEO Checks Factor (Eigen value = 1.73, 3.93 percent of variance explained) includes the following corporate

⁴ Studies have shown that use of Kaiser's rule can result in the selection of too many factors due to the way principal components analysis capitalizes on random chance (Horn, 1965; Keeling, 2000).

governance mechanisms: the importance of having the majority of the board members be independent (1A and 1B), the separation of the CEO and Chairman of the Board positions (2A and 2B), the ability of a CEO to select new board members (3A and 3B), and the limitation of the number of boards a director can serve on (4A and 4B).

Board Size Factor (Eigen value = 1.40, 3.18 percent of variance explained) includes one corporate governance mechanism: the importance of board size (5A and 5B).

Ownership and Compensation

Outsider Ownership Factor (Eigen value = 1.98, 4.51 percent of variance explained) includes the following corporate governance mechanisms: the presence of institutional investors (6A and 6B), the presence of outside blockholders (7A and 7B), and the importance of outsiders owning a majority of a potential investment firm's stock (8A and 8B).

Insider Ownership Factor (Eigen value = 2.57, 5.83 percent of variance explained) includes the following corporate governance mechanisms: board members' stock ownership (9A and 9B), managerial stock ownership (10A and 10B), and whether managers' compensation is tied to stock performance (11A and 11B).

Compensation Committee Strength Factor (Eigen value = 1.63, 3.70 percent of variance explained) includes the following corporate governance mechanisms: the presence of a compensation committee (12A and 12B) and the independence of the compensation committee members (13A and 13B).

Investor Rights and Limitations of Managerial Power

Shareholder Power Factor (Eigen value = 3.18, 7.22 percent of variance explained) includes the following corporate governance mechanisms: the importance shareholder rights (14A and 14B), the importance of shareholder voting rights (15A and

15B), and the presence of a provision requiring shareholder approval for management anti-takeover action (16A and 16B).

Anti-takeover Measures Factor (Eigen value = 1.34, 3.05 percent of variance explained) includes one corporate governance mechanism: the absence of a poison pill provision (17A and 17B).

Term Limitations Factor (Eigen value = 7.29, 16.48 percent of variance explained) includes one corporate governance mechanism: limitations for the length of a board member's term (18A and 18B).

Audit

Audit Strength Factor (Eigen value = 3.97, 9.03 percent of variance explained) includes the following corporate governance mechanisms: the presence of the audit committee (19A and 19B), the importance of audit committee independence (20A and 20B), and one survey question that measured the preference of investing in firms with a Big Four auditor (21A).

Audit Intensity Factor (Eigen value = 2.29, 5.21 percent of variance explained) includes the following corporate governance mechanisms: the survey item that stated that a Big Four auditor is better than a smaller auditor (21B) and audit committee meeting frequency (22A and 22B).

Factor Correlations

Table 5 presents the correlations between the 10 factors in the solution. The pattern of correlations is consistent with the all of the factors moving in the same direction with only a few exceptions. This pattern of factor correlations is logical and the degree of correlation between the factors is not excessively high. Thus, the factor correlations provide assurance that this factor solution is reasonable and logical.

Comparison with Prior Studies

Larcker et al. (2007) and Dey (2008) use principal component analyses to identify factor structures underlying

corporate governance characteristics of firms from archival data. The results from these studies are compared to the factor structure revealed in this study (see Table 6).

TABLE 4
Categories, Mechanisms, Factors, and Item Loadings^a

Board of Directors Characteristics:		
<i>Board and CEO Checks Factor</i>	Item Loadings	
Majority of Board Members are Independent	1A	0.41
		5
CEO/Chairman Separation	1B	0.55
		8
CEO's Ability to Select Board Members	2A	0.69
		5
Limit on the Number of Boards a Director Can Serve On	2B	0.62
		2
	3A	0.70
		4
	3B	0.68
		5
	4A	0.43
		4
	4B	0.41
		3
<i>Board Size Factor</i>	Item Loadings	
Board Size	5A	0.66
		5
	5B	0.81
		3
Ownership and Compensation:		
<i>Outsider Ownership Factor</i>	Item Loadings	
Institutional Investors	6A	0.72
		2
	6B	0.86
		5

		0.31
Presence of Outside Blockholders	7A	7
		0.25
	7B	9
		0.53
Outsiders Own Majority of Stock	8A	7
		0.55
	8B	4
<i>Insider Ownership Factor</i>	Item Loadings	
		-
		0.71
Board Member Stock Ownership	9A	8
		-
		0.67
	9B	1
		-
		0.86
Managerial Stock Ownership	10A	4
		-
		0.88
	10B	8
		-
		0.32
Managers' Compensation Linked to Stock Price	11A	7
		-
		0.37
	11B	2
<i>Compensation Committee Strength Factor</i>	Item Loadings	
		-
		0.64
Compensation Committee Exists	12A	4
		-
		0.69
	12B	5
		-
		0.68
Compensation Committee Independence	13A	0
	13B	-

0.75
6

Investor Rights and Limitations of Managerial Power:

<i>Shareholder Power Factor</i>	<u>Item Loadings</u>	
		-
		0.84
Shareholder Rights	14A	5
		-
		0.88
	14B	8
		-
		0.78
Voting Rights	15A	2
		-
		0.88
	15B	8
		-
		0.43
Shareholder Approval for Takeover Prevention	16A	9
		-
		0.33
	16B	6
<i>Anti-takeover Measures Factor</i>	<u>Item Loadings</u>	
		-
		0.49
Poison Pill Provision	17A	8
		-
		0.55
	17B	7
<i>Term Limitations Factor</i>	<u>Item Loadings</u>	
		0.82
Director Term Limits	18A	9
		1.02
	18B	7
Audit:		

<i>Audit Strength Factor</i>	<u>Item Loadings</u>	
Audit Committee	19A	0.76 5
	19B	0.90 2
Independent Audit Committee	20A	0.44 1
	20B	0.31 8
Big Four Auditor	21A	0.31 3
<i>Audit Intensity Factor</i>	<u>Item Loadings</u>	
Big Four Auditor	21B	- 0.21 9
	22A	- 0.92 4
Frequency of Audit Committee Meetings	22B	- 0.82 2

^a The item loadings are taken from the Pattern Matrix, which shows the coefficients defining the variables in terms of factors. The extraction method used was Maximum Likelihood with an Oblimin rotation. The strongest loading for each item was used to match each item with a factor.

TABLE 5		Factor Correlation Matrix^a										
(8)	(9)	(10)	Term Limitations	Audit Strength	Audit Intensity							
0.30	0.18	0.08										
0.24	0.10	0.18										
0.20	0.16	0.24										
0.10	0.10	0.17										
0.13	0.25	0.24										
0.33	0.11	0.15										
0.01	-0.08	-0.09										
1.00	0.16	0.27										
	1.00	0.36										
		1.00										

(negative) correlations can be viewed as positive (negative) relations between factors.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Board CEO Checks	1.00	0.02	0.08	-0.14	0.18	0.13	-0.09
Board Size		1.00	0.06	0.09	0.09	0.18	-0.02
Board Outsider Ownership			1.00	0.05	0.16	0.13	-0.03
Insider Ownership				1.00	0.13	0.12	-0.15
Compensation Committee Strength					1.00	0.20	-0.12
Shareholder Power						1.00	-0.04
Anti-Takeover Measures							1.00

There are several major reasons to expect differences between the results from this study and these prior factor analyses. First, Larcker et al. (2007) and Dey (2008) analyze characteristics of firms gathered from archival data, while this study analyzes individual investor perceptions of corporate governance mechanisms generated by a sample of nonprofessional investors. In addition, each of these studies analyzed a different set of corporate governance items and used differing criteria to determine the most appropriate number of factors. In Table 6, the factors from all

three studies are aligned based on the four broad categories of corporate governance mechanisms used in this study. Further, the factors are arranged so that similar corporate governance mechanisms are on the same row across studies.

There are several interesting similarities between the studies. First, all three studies find that multiple constructs underlie the board of director characteristics. While this study and Dey et al. (2008) identify two underlying factors, Larcker et al. (2007) identify six factors. Interestingly, the factor solutions in the current study and Larcker et al. (2007) indicate that Board Size represents a separate corporate governance construct. This suggests that board size may capture an element of corporate governance that is distinct from the many other corporate governance mechanisms.

Within the ownership and compensation mechanisms, Larcker et al. (2007) includes several items measuring outsider ownership, insider ownership, and compensation committee characteristics while Dey et al. (2008) only includes items related to insider ownership. As in the current study, Larcker et al. (2007) identifies separate factors for outsider ownership, insider ownership, and compensation committee characteristics. Interestingly, Larcker et al. (2007) find a separate factor called Affiliation that encompasses items measuring both audit and compensation committee member affiliation and independence measures. In the current study, participants grouped compensation and audit committee member independence with other items related to compensation and the audit function, respectively.

TABLE 6
Comparison of Corporate Governance Factor Structures
Across Studies^a

Board of Director Characteristics		
Current Study	Larcker et al. (2007)	Dey (2008)
Board and CEO Checks	Lead Director	Board II
Majority of Board Members are	Presence of a Lead Director	

Independent		
CEO/Chairman Separation	CEO/Chairman Separation	CEO/Chairman Separation
Insider Appointed		
CEO's Ability to Select Board Members	CEO's Ability to Select Board Members	
	Percent of Outsiders Appointed by Existing Insiders	
Busy Directors		
Limit on the Number of Boards a Director Can Serve On	Percent of Busy Inside Directors (Serve on 2 or More Other Boards)	
	Percent of Busy Affiliated Directors (Serve on 4 or More Other Boards)	
	Percent of Busy Outside Directors (Serve on 4 or More Other Boards)	
Meetings		
	Number of Board Meetings	Number of Board Meetings
	Number of Compensation Committee Meetings	
	Frequency of Audit Committee Meetings	

TABLE 6 (continued)

Current Study	Larcker et al. (2007)	Dey (2008)
Old Directors		
	% of Outside Directors Older than 70	Average Age of Directors
	% of Affiliated Directors Older than 70	% of Affiliated Directors Older than 70
	% of Inside Directors Older than 70	

Board Size	Board Size	Board I
Board Size	Board Size	Board Size
	Compensation Committee Size	CEO Membership on Nominating and/or Compensation Committee
	Audit Committee Size	Existence of Board Member Evaluations
		Independent Audit Committee
		Percent of Inside Directors or Board Members
Ownership and Compensation		
Outsider Ownership	Active	
Institutional Investors	Number of Activist Institutions	
	Percent of Shares Outsiders Own	
Outsiders Own Majority of Stock	Outsiders Own Majority of Stock	
	Block	
Presence of Outside Blockholders	Number of Outside Blockholders	
	% of Shares Owned by Blockholders	
	Shareholding of the Largest Institution	
TABLE 6 (continued)		
Current Study	Larcker et al. (2007)	Dey (2008)
Insider Ownership	Insider Power	Dir Comp
Board Member Stock Ownership	Board Member Stock Ownership	Board Member Stock Ownership
Managerial Stock Ownership	Shares Owned by Top Executives	Option Compensation for Directors
Managers' Compensation Linked to Stock Price	Percent of Inside Directors or Board Members	Exec Comp

	Voting Rights	Shares Owned by Top Executives
	Compensation Mix	Average Value of Executive Options
	% of CEO Compensation that is a Long-term Mix	Average Ratio of Executives' Bonus to Total Compensation
	% of CEO Compensations that is an Accounting Mix	
Compensation Committee Strength	Affiliated	
Compensation Committee Exists	Compensation Committee Independence	
Comp. Committee Independence	Compensation Committee Chair Affiliated	
	Independent Audit Committee	
	Audit Committee Chair Affiliated	
	Debt	
	Debt to Market	
	Preferred to Market	
Investor Rights and Limitations of Managerial Power		
Shareholder Power		
Shareholder Rights		
Voting Rights		
Shareholder Approval for Takeover Prevention		

TABLE 6 (continued)

Current Study	Larcker et al. (2007)	Dey (2008)
Anti-Takeover Measures	Anti-Takeover 1	
Poison Pill Provision	Poison Pill Provision	
	Percent of Shares Held by the Average Affiliated Director	
	Staggered Board	

Anti-Takeover 2	
Supermajority State	
State Incorporated	
Term Limitations	
Director Term Limits	
Audit	
Audit Strength	Auditor
Audit Committee	Percent of Fees that are for Non-Audit Services
Independent Audit Committee	Non-Audit Services Provided
Big Four Auditor	Big Four Auditor
	Audit Comm
Frequency of Audit Committee Meetings	Frequency of Audit Committee Meetings
	% Unaffiliated Outside Directors
	Independence of Audit Committee Directors
	Fin_Rep
	Financial Expert on Audit Committee
	Top Executive was Employed by Auditor and Participated in Audit 1 Year Before

^a The factors reported by each study are displayed in the columns. Each factor's title is shaded, and the specific corporate governance mechanisms loading on that factor are listed below the title.

The current study included several items related to shareholder rights that were not included in Larcker et al. (2007) or Dey (2008). This is probably due to the difficulty of obtaining archival data on these measures. Due to the necessity of keeping the instrument concise, this study included only one mechanism related to anti-takeover measures and found that it loaded on a separate factor. The validity of this result is bolstered by Larcker et al. (2007) who also identify a separate factor related to anti-

takeover measures based on several mechanisms related to anti-takeover measures.

The final broad category of corporate governance mechanisms identified in this study relates to the audit function. Both the current study and Dey (2008) find that multiple factors represent the constructs related to audit. It is interesting to note that Larcker et al. (2007) do not identify separate factors related to audit. Larcker et al. (2007) include archival measures of audit committee size, meeting frequency, and member independence and affiliation. However, they find that these items load on factors related to the size, meeting frequency, and affiliation of the board and compensation committee.

Thus, while these studies have several differences, they are similar in that they attempt to develop an overall picture of the components of corporate governance, albeit through different methodologies (survey vs. archival). The results are interesting and encouraging because they provide some indication of how a triangulation of methods can provide insight on the structure of the constructs underlying specific corporate governance mechanisms.

CONCLUSION

This study contributes to the accounting literature by providing a new measure of corporate governance from the perspective of nonprofessional investors. Nonprofessional investors answered survey questions about 22 specific corporate governance mechanisms taken from 4 broad categories of corporate governance mechanisms identified from prior literature. The results from a factor analysis reveal 10 factors underlying the 22 specific items included in this survey. As predicted, these ten factors are sub-sets of the four broad categories identified from the literature. These results allow us to better understand how nonprofessional investors perceive corporate governance.

The comparison of the corporate governance measure resulting from this analysis and the corporate governance measures from Larcker et al. (2007) and Dey (2008) leads to a more

comprehensive picture of the interrelations between numerous detailed corporate governance mechanisms. Despite differences in data sources and specific corporate governance mechanisms, a number of similarities exist among these three measures. These similarities provide strong evidence of the existence of certain important corporate governance constructs from both a behavioral and an archival perspective.

However, several important differences emerge from these two perspectives as well. For example, emphasis is placed on this study on mechanisms related to shareholder rights as these mechanisms are expected to be important from the investor perspective. Further, the comparison reveals investors perceive audit-related mechanisms to be among the most important corporate governance mechanisms included in this study. Investors view audit-related mechanisms as belonging to separate constructs from other mechanisms.

In contrast, Larcker et al. (2007) find that audit-related mechanisms measured through archival data merge with factors related to the board and compensation committees. Thus, these results provide important information about the similarities and differences between the way investors perceive corporate governance mechanisms and the measures obtained from analyses of archival data.

The results of this study will be useful in aiding the design of future experimental studies of nonprofessional investors' reactions to corporate governance information. Experimental studies regarding the effect of corporate governance on investor behavior will make it possible to obtain evidence on ethics-related measures, such as perceptions of management credibility, that are not directly observable in archival data (Almer et al., 2008).

The results of this paper provide guidance in regard to the mechanisms that may be most important to nonprofessional investors, and are therefore of primary interest for future investigations. Further, the results reduce the 22 mechanisms to 10 underlying factors, thus providing guidance as to the ways in which

the plethora of specific corporate governance items are related from a nonprofessional investor's perspective.

A limitation of this study is that the investment experience of the participants was limited and self-reported. Supplementary analyses investigating the effect of investment experience on the measure found no qualitative differences between the factor solution presented and one resulting from participants with investment experience. In addition, the factor solution identified from this study is logical and is consistent in many ways with the factor structures identified by prior studies in analyses of archival data. However, future research could investigate whether material differences occur if more experienced investors are surveyed.

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